

# Building and Operating a service based on EOEPKA (EOEPKA Operator)

*An example of utilising EOEPKA architecture and software,  
integrating building blocks and web portal into an operational platform*



ESA Phi-Week Session “EOEPKA: Your Interoperable Exploitation Platform out-of-the-Box”

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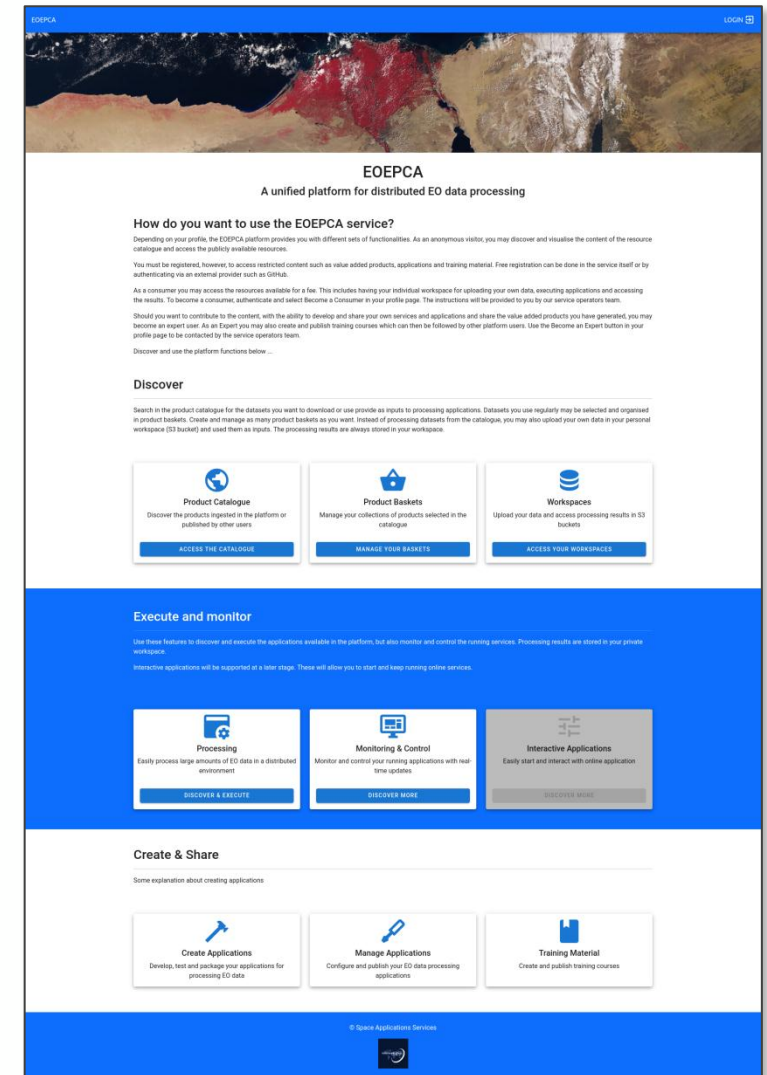
- Main Objectives
- Service Infrastructure
- First Glance at the Service Web Portal
- Applications on-boarding
- Next Steps

## We are going to

- build an EOEPKA-based service named **CROUD** to allow collaborative, **crowd** supported, **cloud** based development of EO applications
  - New service developed from scratch, gives access to features implemented in the building blocks, but not only
  - Particular focus on the creation of an advanced delivery mechanism, including via customisable dashboards
  - Evolve at the pace new releases of the EOEPKA building blocks are provided
  - Through this service we want to lower barriers to get going and support using other services in the federated ecosystem of platforms.
- evaluate how EOEPKA can be used to create the next generation federated platforms
- provide feedback to the EOEPKA building blocks developers on their (re)usability

- Three environments
  1. Development and test environment using resources in SpaceApps' infrastructure
  2. Staging environment
  3. Production environment
- Staging and Production located in CreoDIAS (obtained through the NoR), to increase the chances of a smooth deployment of the EOEPKA building blocks
- Building blocks hard-dependencies require effort for adapting them to other environments (local infra, other DIAS, other clouds, ...):
  - Kubernetes
  - OpenStack
  - CreoDIAS S3

- Web-based centralised access to all platform features
- Users register for free
- Different user roles
  - *Visitors* discover the existing resources (data products, applications, training courses) and access the publicly available ones
  - *Consumers* discover, access and use available resources, possibly for a fee (pay-per-use model)
  - *Contributors* are experts who provide to the platform new applications, value added products and training material
- Data delivery via dedicated and customisable dashboards



## Online Documentation

EOEPKA Service User Manual

Search docs

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EOEPKA Service User Manual

### EOEPKA Service User Manual

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  - Registration and Authentication
    - Registration and First Access
    - Authentication
    - User Profile
- Resource Catalogue
- Application Development

## Product Catalogue

Specific time  Time interval

Select date and time

BBOX

55.050647 -12.568359

48.504138 9.140625

Limit parameter

10

Keywords

Output format

JSON

Enter

Collection

Title	Description	Record updated	Actions
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<input checked="" type="checkbox"/> S2B_MSIL2A_20200902T090559_N0214_R050_T355LB_20200902T113910.SAFE	S2B_MSIL2A_20200902T090559_N0214_R050_T355LB_20200902T113910.SAFE	2021-07-12T18:18:30Z	⋮

## Storage

DATA-RO > TEST

Files

data-ro

user-spaceapps-iva

Site Map v02.png

process\_wrapper.py

Picture1.png

prec\_01.tif

Site Map v02.png 70.73 KB February 19th 2021, 3:12:07 pm

process\_wrapper.py 1 KB February 19th 2021, 3:15:11 pm

Filter

## Processing

Filter

Text

Providers  Commercial

Processing services

Name	Description	Terms & Conditions	User Manual	Execute
Pass me the salt	no not the pepper	Terms & Conditions	📄	→
Set the table	idc i cooked	Terms & Conditions	📄	→
Walk the dog	y did u put a leach on ur brother	Terms & Conditions	📄	→
Brush your teeth	use the other end of your toothbrush	Terms & Conditions	📄	→

## Workspace / S3 buckets Web client

## Applications Monitoring

- Initial focus will be on on-boarding applications supporting the analysis of the *impact on health resulting from climate change and urbanisation in coastal regions*, the most populated regions of the world.
- We will populate the platform with relevant data sources, available applications and references.
- As part of the Community Management activities we will present the service platform and ask user communities to propose ideas, experts to develop and share their applications.
- An open library of tools and applications will be available to facilitate the development of new applications.
- Contributed applications and value added products can be proposed for free or according to a pay-per-use model.
- Contributors will be rewarded with platform credits when their contributions are used.

- Integrate EOEPKA building blocks v1.0 and release v1.0 of the service
- Continue the implementation of the portal and the features not present in the building blocks
- Contact domain experts and user communities
- Support the implementation, testing and publication of applications and value added products



*Please contact us should you want to know more or like to be involved ...*

# Thank you

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