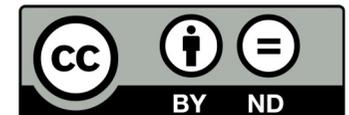


# From discovery to execution: The execution framework of the EOSC platform

Diego Scardaci (EGI Foundation)  
Mark Dietrich (EGI Foundation)

The EOSC Future project is co-funded by the  
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INFRAEOSC-03-2020, Grant Agreement 101017536





# The EOSC Execution Framework - Why ?

EOSC Platform allows researchers to discover, access services, datasets and other research products

How will the EOSC Platform help researchers use and combine services and research products once they have been found?

Contact us | Portal home | Catalogue & Marketplace | Providers Dashboard | Providers Documentation | Login

EUROPEAN OPEN SCIENCE CLOUD

About | Services & Resources | Help | Policy | Use Cases | Media | Providers Hub | Using the Portal

EOSC Portal - A gateway to information and resources in EOSC

## EOSC Platform

### Early Adopter Programme

Apply

Let us guide you through EOSC!  
What do you want to do today?

Browse by research activity | Browse by scientific domain

- Discover research outputs**  
Find datasets, scientific publications, software...
- Publish research outputs**  
Store, backup, archive your data, publications, software
- Process and analyse**  
Verify, organise, transform, integrate, and extract data in an appropriate output format software service
- Access computing and storage resources**  
Find HPC, IT centres for science, cloud computing, cloud container computing, online storage
- Find instruments & equipment**  
Find research instruments and scientific equipment
- Access training material**  
Find lessons, courses, videos
- Access research infrastructures**  
Find environments delivered by scientific clusters or IAs that will equip you with all tools needed for a dedicated research use case
- Manage research data**  
Find robust, feature-rich and user-friendly services to manage your data

BROWSE ALL CATEGORIES

<https://eosc-portal.eu/>



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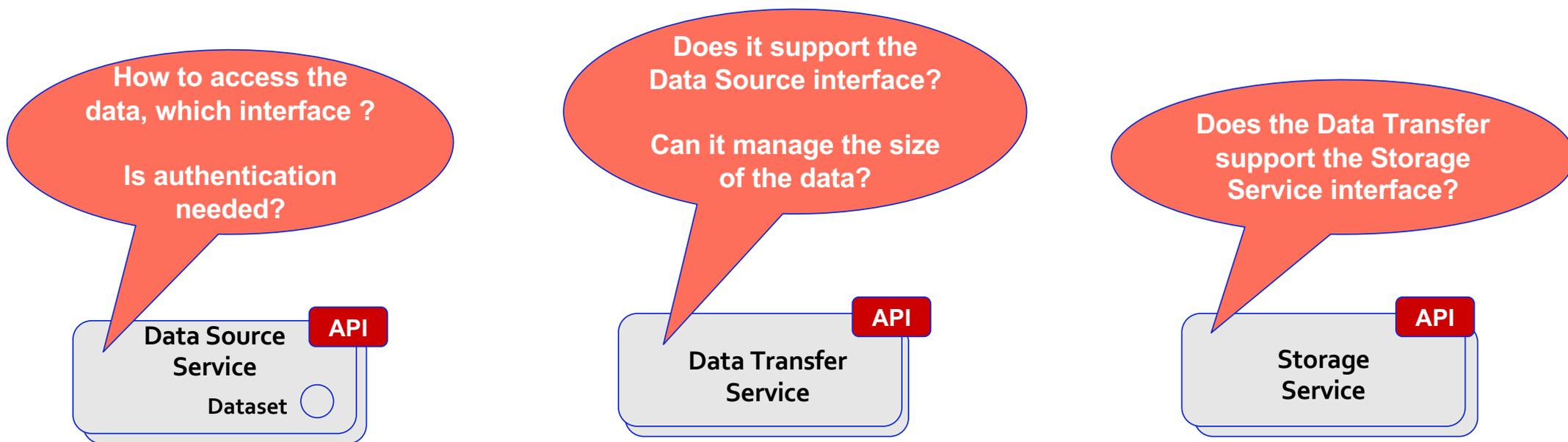
EOSCfuture



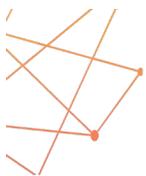


# The EOOSC Execution Framework - A simple use case

A user discovers a dataset of interest and wants to transfer and analyse it

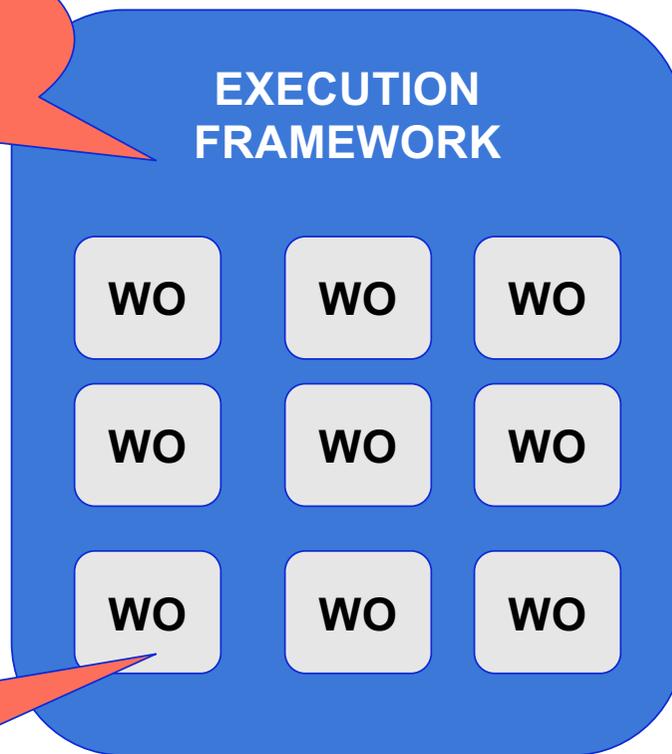


Execution requires combination of 3 compatible EOOSC Resources into a series of actions → Workflow



# The EOSC Execution Framework - The Idea

The Execution Framework is a set of workflow orchestrators to solve common researchers' problems



Move datasets, access compute and storage resources, publish data in a repository, etc.

A workflow orchestrator is an "executor of workflow templates"



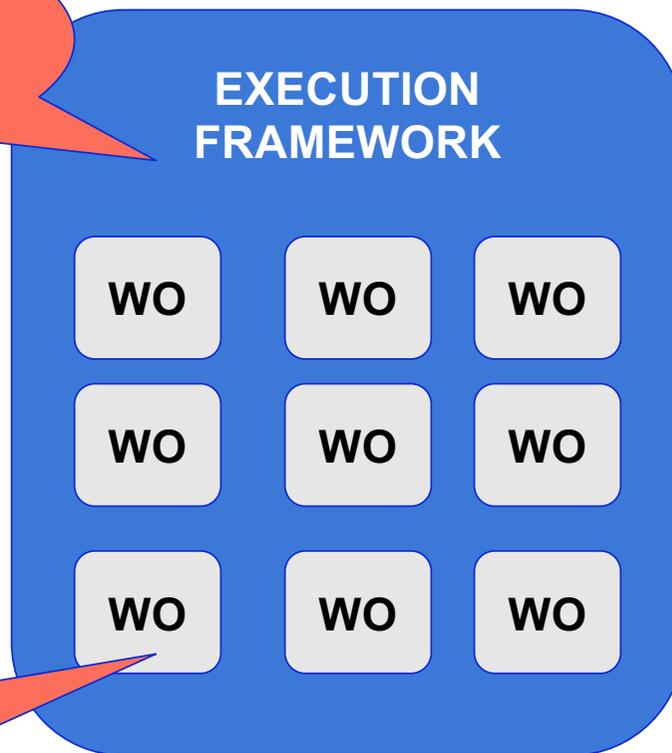
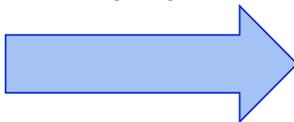
# The EOSC Execution Framework - The Idea

The Execution Framework is a set of workflow orchestrators to solve common researchers' problems



Researcher

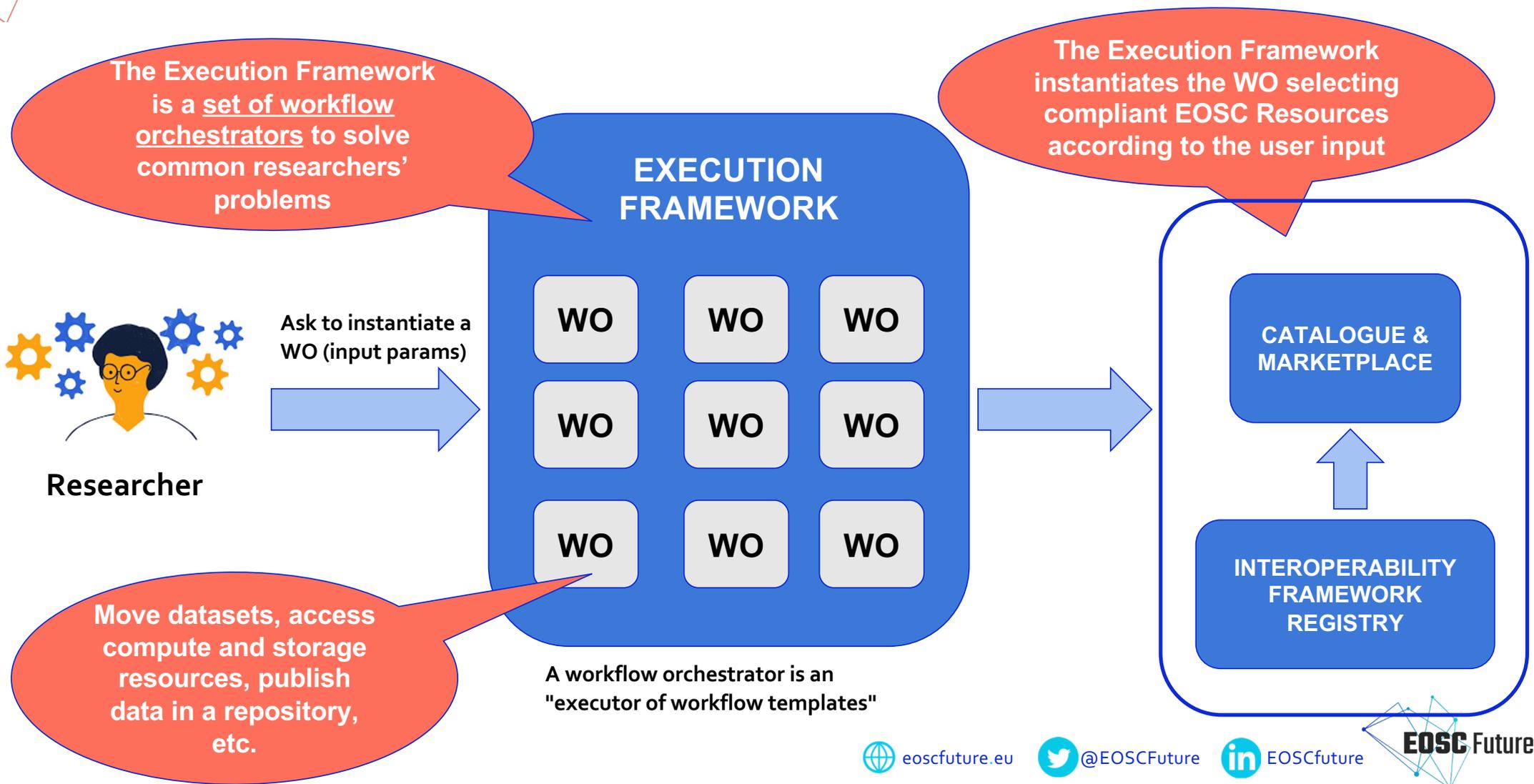
Ask to instantiate a WO (input params)



Move datasets, access compute and storage resources, publish data in a repository, etc.

A workflow orchestrator is an "executor of workflow templates"

# The EOSC Execution Framework - The Idea

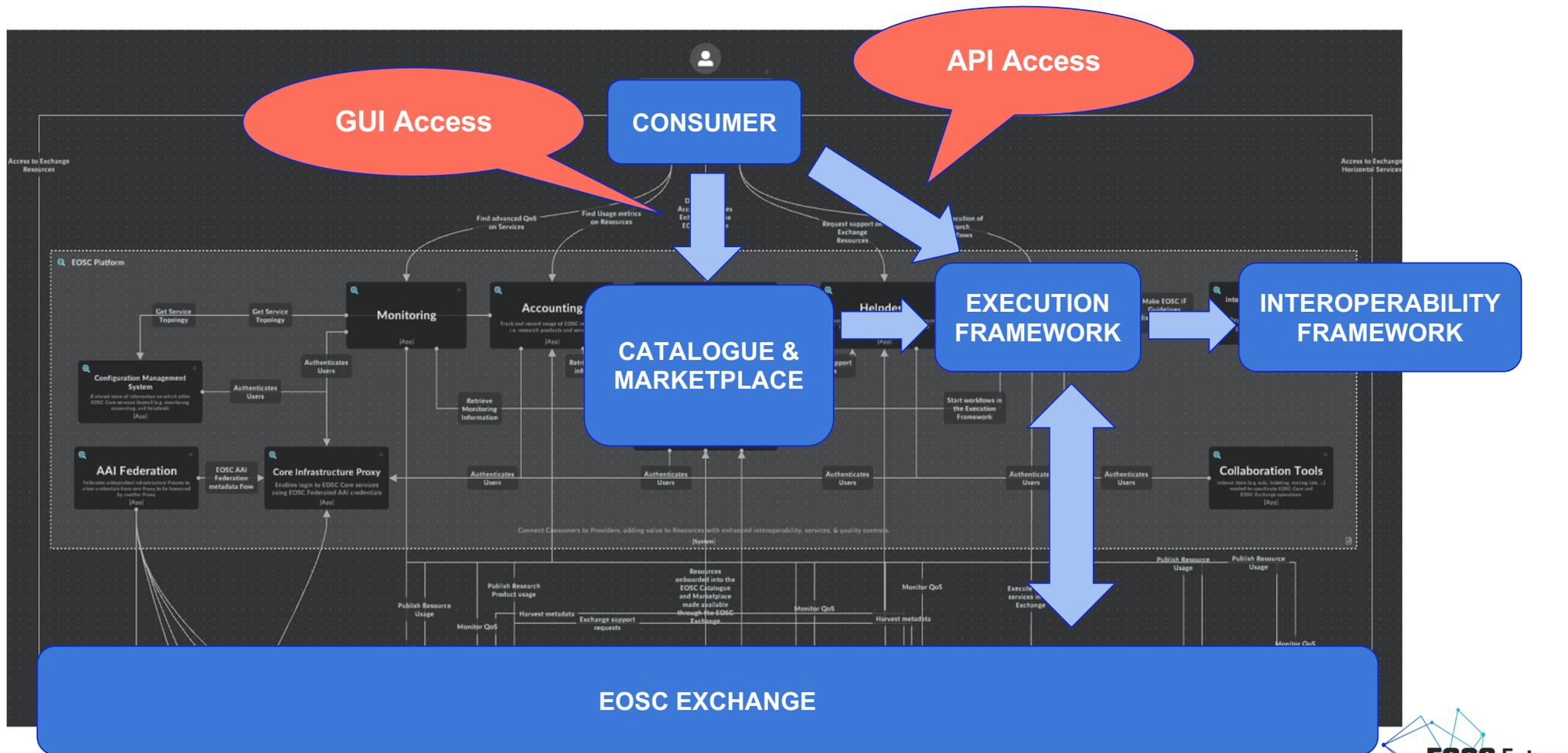




# The EOSC Execution Framework

- Set of **orchestration services** (Workflow Orchestrators) that make resources dynamically composable.
- Overlay to **facilitate/automate the access to and composition of EOSC Exchange** services and research products to achieve given tasks
- **Enables Machine Composability** of Research Products and Services leveraging the EOSC IF

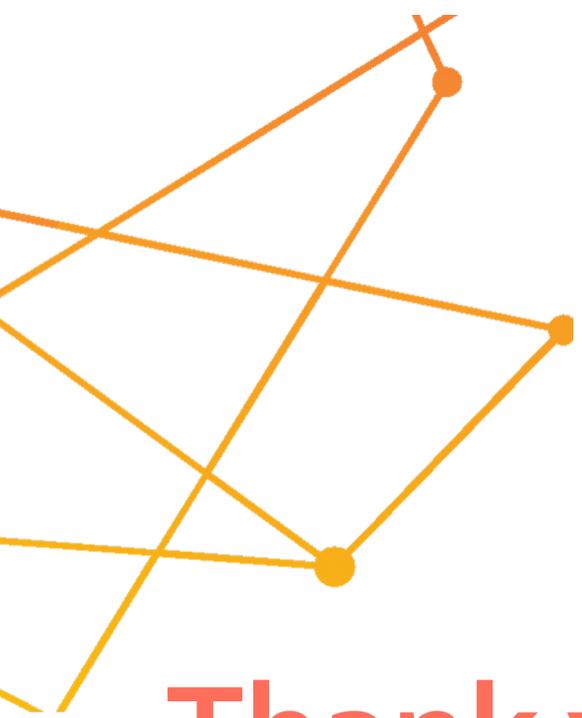
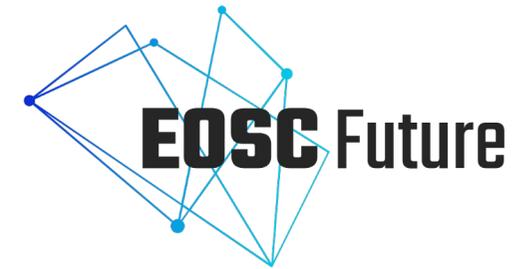
# The Execution Framework in the EOSC Platform Architecture





Powered by EOOSC Future  
**From discovery to execution:  
The execution framework of the EOOSC platform**

- EOOSC Data Transfer (Mark Dietrich - EGI Foundation)
- Consumable Resources in EOOSC (Paolo Manghi - OpenAIRE)
- Bundles and Workflow support in the EOOSC Platform (Roksana Wilk - CYFRONET)
- Panel: what are the main capabilities the EOOSC Execution Framework should offer (Speakers and Cluster Representatives)

A large, orange geometric network of lines and nodes, partially visible on the left side of the slide.

# Thank you for your attention!

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Mark Dietrich (EGI Foundation) <[mark.dietrich@egi.eu](mailto:mark.dietrich@egi.eu)>