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

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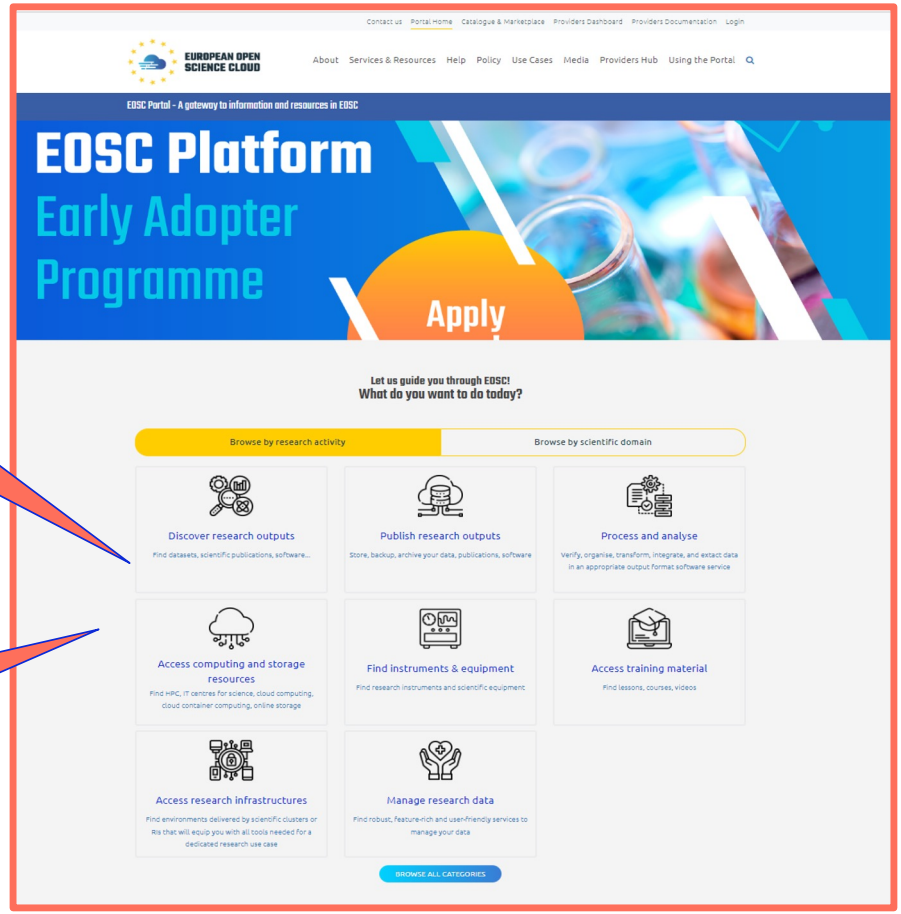
The EOSC Execution Framework - Why ?

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?



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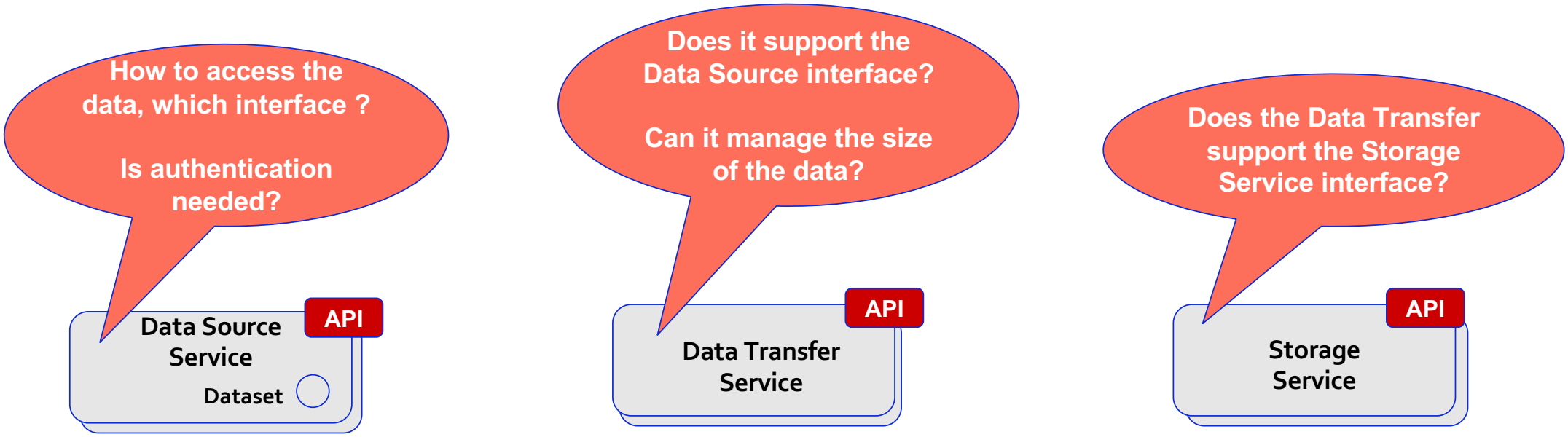
The EOSC Execution Framework - A simple use case

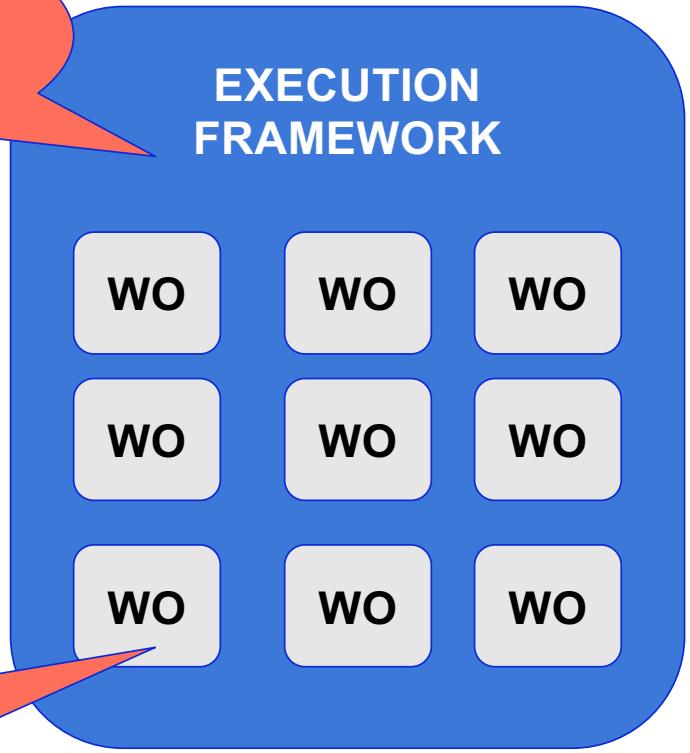
A user discovers a dataset of interest and wants to transfer and analyse it



Execution requires combination of 3 compatible EOSC 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)

EXECUTION FRAMEWORK

WO WO WO
WO WO WO
WO WO WO

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

The Execution Framework instantiates the WO selecting compliant EOSC Resources according to the user input

Researcher

Ask to instantiate a WO (input params)

EXECUTION FRAMEWORK

WO WO WO
WO WO WO
WO WO WO

CATALOGUE & MARKETPLACE

INTEROPERABILITY FRAMEWORK REGISTRY

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

A workflow orchestrator is an "executor of workflow templates"

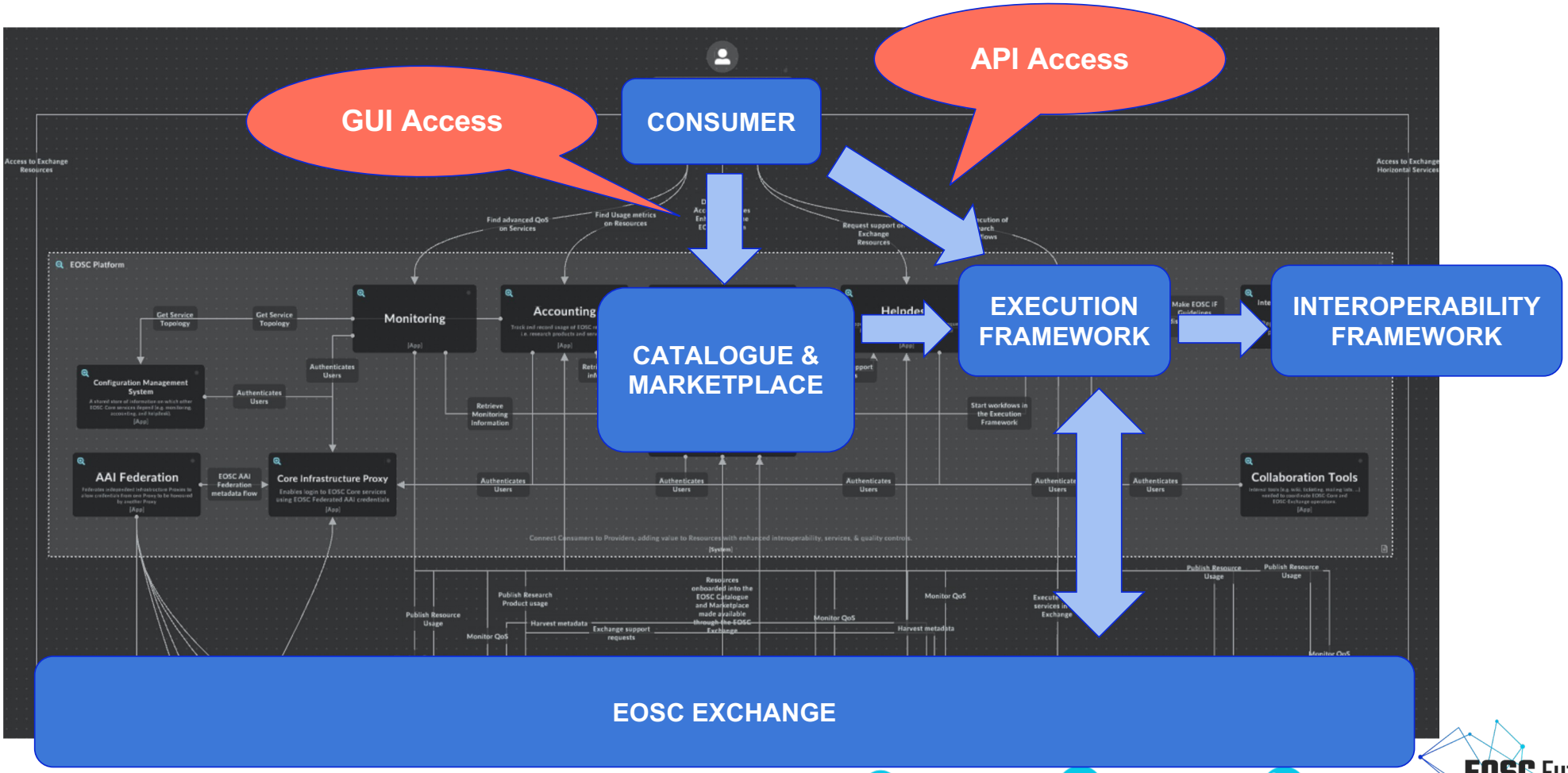
The EOSC Execution Framework

- 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



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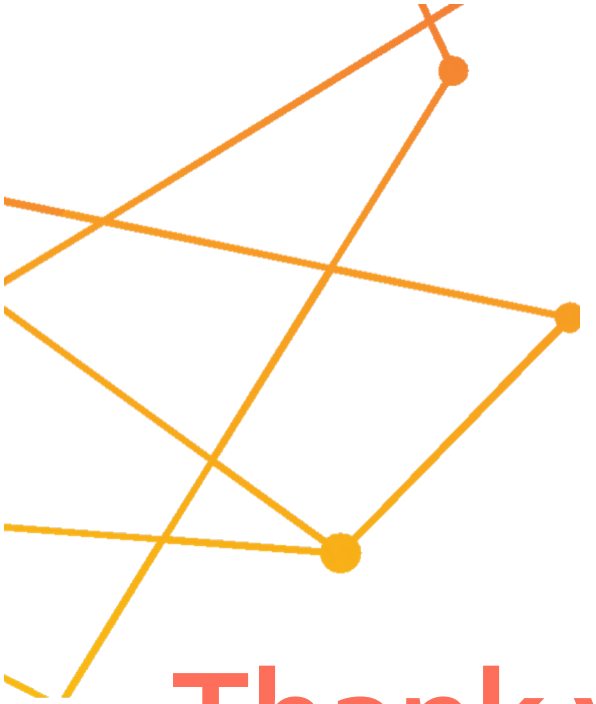
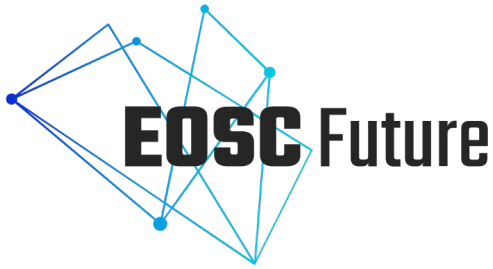
From discovery to execution: The execution framework of the EOSC platform

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





Thank you for your attention!

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