

### Exposing and facilitating the searching of fusion data using an Open API-based data acquisition system supporting multiple data-access methods

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### **Current situation when it comes to experimental data**

# Experimental data are scattered and it's hard to get it



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# **Accessing data**

- experimental data are scattered typically data are provided by the site and on site
- access to data might be complicated and how you get access varies from site to site
- researches may have to go through a dozen different procedures to get access
- often, researches have to travel to hosting site to renew their authorisation





### Fair4Fusion - making things simpler

### FAIR4Fusion project - making access to both metadata and data simpler







# **Accessing data**

- aims at making experimental data accessible to the community
- defines single, searchable interface, clear licensing, and AAI framework
- defines unified metadata for all the devices (based on Summary IDS)
- enables unified data access to data via IMAS based interface







Deliver tools and infrastructure that <u>is based</u> on already <u>existing</u> components







# Solution

By saying that we are using existing components I mean

- Integrated Modelling & Analysis Suite (IMAS)
- Interface Data Structures (IDS) Summary, in particular
- Unified Data Access (UDA) for accessing remote data
- MDSPlus based file format as data source (for local data source)





## **Solution**

Merging everything inside consistent and efficient design

### Catalogue QT 2





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# In addition to User Interface, Catalog QT 2 offers a way of integrating with external tools.

### This is done via **Open API**.



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### Jupyter Notebook















### To make things simpler we provide **Docker based** solution - a set of Docker images.

# The purpose is to serve all the components that are part of **Catalogue QT 2**

using one, unified, methodology.



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## Joint effort of multiple research institutes









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