



# AUSTRIAN DATALAB AND SERVICES

The project Austrian DataLAB and Services was kicked off in Juli 2020 and involves eight universities across Austria. The partners work jointly on establishing a federated Austrian-wide platform enabling collaborative data-intensive research and teaching. To foster adoption across a wide range of scientific disciplines, this platform is aimed to abstract the infrastructure and security concerns from the academic end-user.

Thus, the ADLS project is subdivided into 3 categories:

## **Platform Services:**

- Access to compute power, data shares, HPC clusters, deployment blueprints, standard tooling for orchestration and scheduling, methods and tools for transparent governance and security (e.g. ISO27001)
- Support and contributions driven by an open community

## **Research Services:**

- A catalogue of applications to use or contribute
- Enabling compute driven research on any tier 2 and/or tier 1 compute systems (e.g VSC, LEO)

## **Teaching Services:**

- Toolkit for building and hosting custom digital teaching tools based on ADLS-platform building blocks

## **Methods used:**

- Open cloud standards are applied to establish blueprints for an Austrian cloud architecture, into which any academic institution may volunteer to join and contribute.
- Individual cloud pools are realized using the GAIA-X standard, thus allowing unified and efficient operations, exchangeability of cloud modules and extensibility of cloud components.
- The DevOps methodology is utilized to encourage rapid discovery and continuous learning as well as early accountability and ownership across a non-hierarchical open community of contributors.

**Term:** July 2020 - June 2024

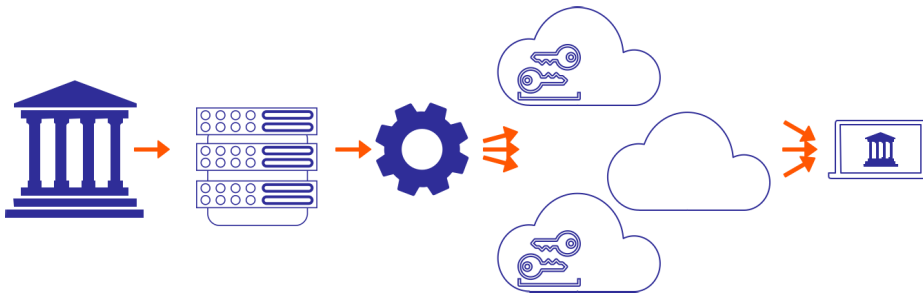
## **Goals:**

- ▷ Inter-university collaboration on cloud infrastructure
- ▷ Lowering the learning curve for compute tasks in research and teaching
- ▷ Secure exchange and collaboration on data, applications and results
- ▷ Interactive access to HPC clusters
- ▷ Collaborative application development and sharing across Austrian academic institutions
- ▷ Toolkit for building and hosting interactive teaching materials
- ▷ Establish an open community for users and maintainers to contribute and support each other

# Contribute & Consume: Federation at Scale

Our model is based on voluntary sharing:

- Institutions contribute hardware
- ADLS frameworks configure these hardware for sharing as a cloud-pool with most products & services readily available
- Institutions control the access to their pools
- Individuals consume services from these pools, depending on their access



Anyone from the community may contribute services, apps and data back to the ADLS platform and share them for others to consume.



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Discover

Develop

Deploy

Monitor

Teams



## Product Discovery via Mockup

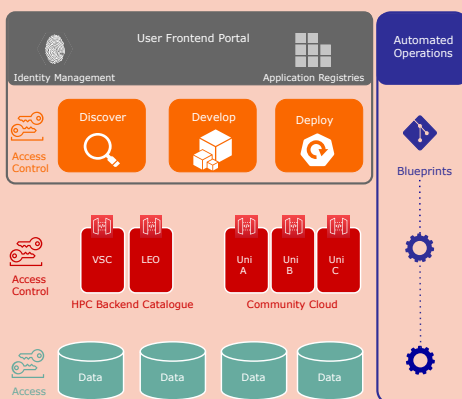
In order to understand and prioritize the various services and features, the ADLS team has composed a product mockup which enables the capture of comments and click statistics.

Want to see it? [mockup.adls-sbx.org](https://mockup.adls-sbx.org)

## Roadmap 2021

Q1/2022: Continuous feedback will drive the content, all core infrastructure components will exist in at least one shared cloud deployment. The first sample applications serve as test, documentation and showcases. Training “Hackathons” are planned to evaluate user acceptance.

Q3/2021: A shared inter-university cloud for engineers and users to experience the first prototypes



## Product Vision: An Austrian community cloud

Can we provide an Austrian wide platform to securely share data, applications and compute resources?

For efficiency and usability, we believe in establishing secure standard interfaces between the various individual universities. Our goal is to engineer a platform, where a user consumes services such as “running research applications” or “hosting a teaching service” without having to care about the underlying infrastructure.

