SWISS U base

Store and share your research data

Benefit from Swiss quality service

In line with international standards

Content

PROJECT

Context

Many institutions in the Swiss academic and data landscape are confronted with the challenges of managing research data and ensuring long-term preservation and accessibility, but do not have the tools nor the knowledge needed to fulfil these requirements.

The development and implementation of a large number of isolated local solutions is cost-inefficient and can not ensure accessibility. The use of private and international solutions brings substantial risks with respect to control and sustainability.

Hence, a national, public, sustainable and cross-disciplinary solution is needed.

Objective

To offer a national, cross-disciplinary research data service by extending and scaling up the established domain-specific social science research data service FORSbase.

Outcome

SWISSUbase is a research data service that provides a technical solution and services for the management of research projects and the archiving, dissemination, and promotion of research data and metadata across scientific disciplines.

Partners

›   FORS
›   University of Zurich
›   University of Lausanne
›   SWITCH

Supported by: swissuniversities

Launch

Available from January 2021

BENEFITS

for partner institutions

- › trusted and **certified in-house solution** for researchers to archive their data for the long term
- › connectivity and **interoperability on the European level (ERICs, EOSC, etc.) and the national level (SNSF P3)**
- › **sharing of development costs**

- › **data protection** in a secure environment (storage on SWITCH servers in Switzerland, GDPR compliance, access control, backup policies)
- › **CoreTrustSeal**-certified research data infrastructure (services, platform and technical infrastructure)
- › personal and **tailored archiving expertise** and support from SWISSUbase
- › **quality control** by archiving experts from SWISSUbase ensure high quality of deposited data and metadata
- › expertise from SWISSUbase in international metadata standards (e.g. DDI for the social sciences), user management, and certification processes
- › improved visibility of the data and of the data producers
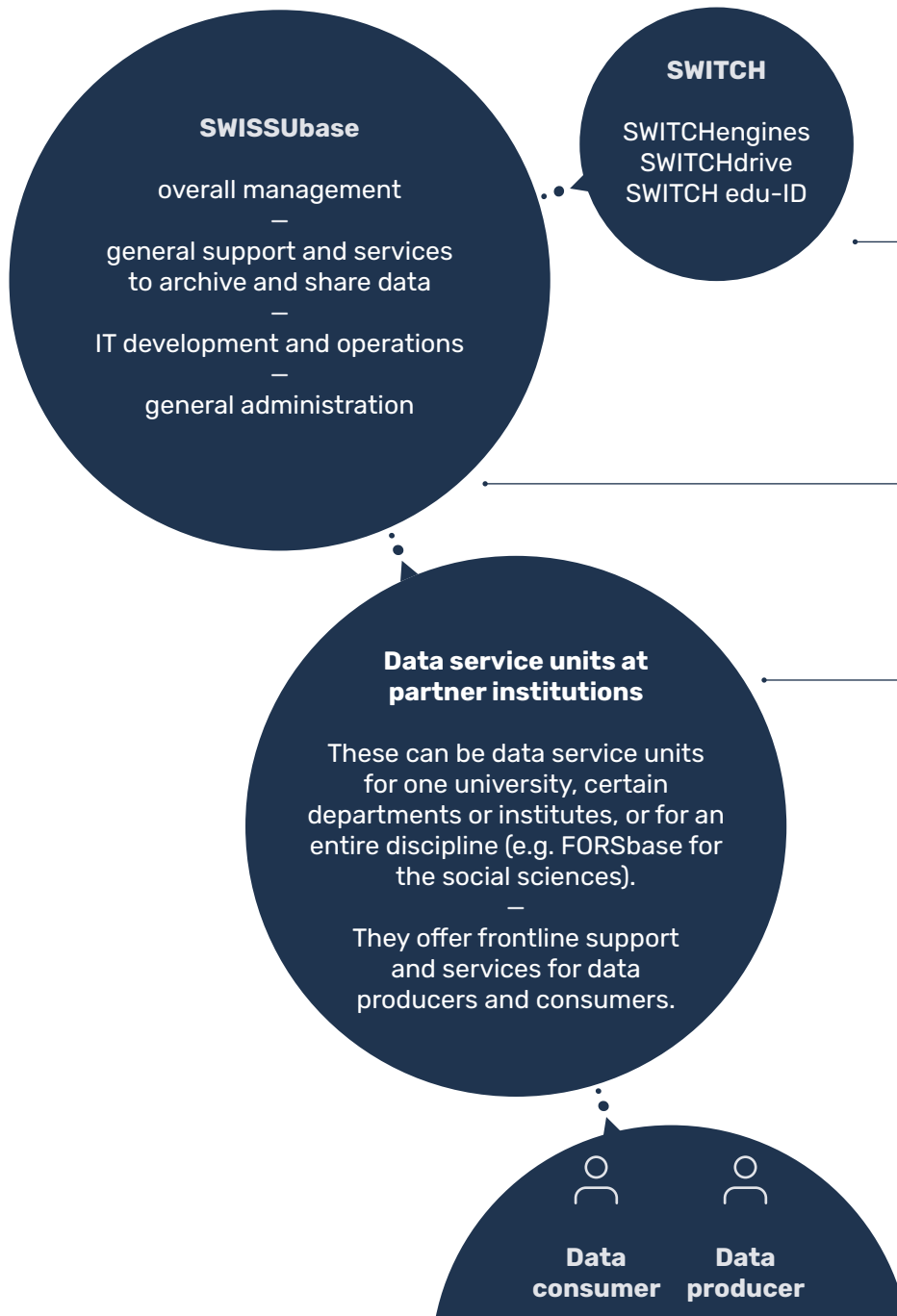
for data producers

- › **common workspace** for research project teams to manage research data and metadata, synchronised with SWITCHdrive
- › data published in a **FAIR, OAIS-compliant, and non-commercial** repository (requirement of the SNSF)
- › data producers **control the access to their data** by defining the conditions of access to their data, ranging from open to highly restricted

- › certified, **trustworthy environment for long-term preservation** of data
- › free persistent identifiers for data **(DOIs)** for all published datasets
- › standardised data citations for all datasets for use in journal publications
- › data producers receive **information about who has downloaded their data**, and for which purposes
- › data producers can **improve the visibility** of their data, making their work and data discoverable and reusable within the larger scientific community, at national and international levels
- › data producers gain in visibility as active players in their discipline in Switzerland

for data consumers

- › an **online public catalogue** with advanced search functionality for data and metadata discovery
- › data consumers can trust that **data, metadata, and documentation are quality-controlled**
- › users of data have access to **professional (human) service** for discovery and access

- › data for reuse or replication are accompanied by **adequate documentation**
- › users receive a notification when previously downloaded data have been updated

INSTITUTIONAL FRAMEWORK

SWISSUbase

overall management
—
general support and services
to archive and share data
—
IT development and operations
—
general administration

SWITCH

SWITCHengines
SWITCHdrive
SWITCH edu-ID

Data service units at partner institutions

These can be data service units for one university, certain departments or institutes, or for an entire discipline (e.g. FORSbase for the social sciences).
—
They offer frontline support and services for data producers and consumers.

Data consumer

Data producer

SWITCH
›　setup and support of the SWITCHengines environment
›　support for SWITCH edu-ID authentication and SWITCHdrive
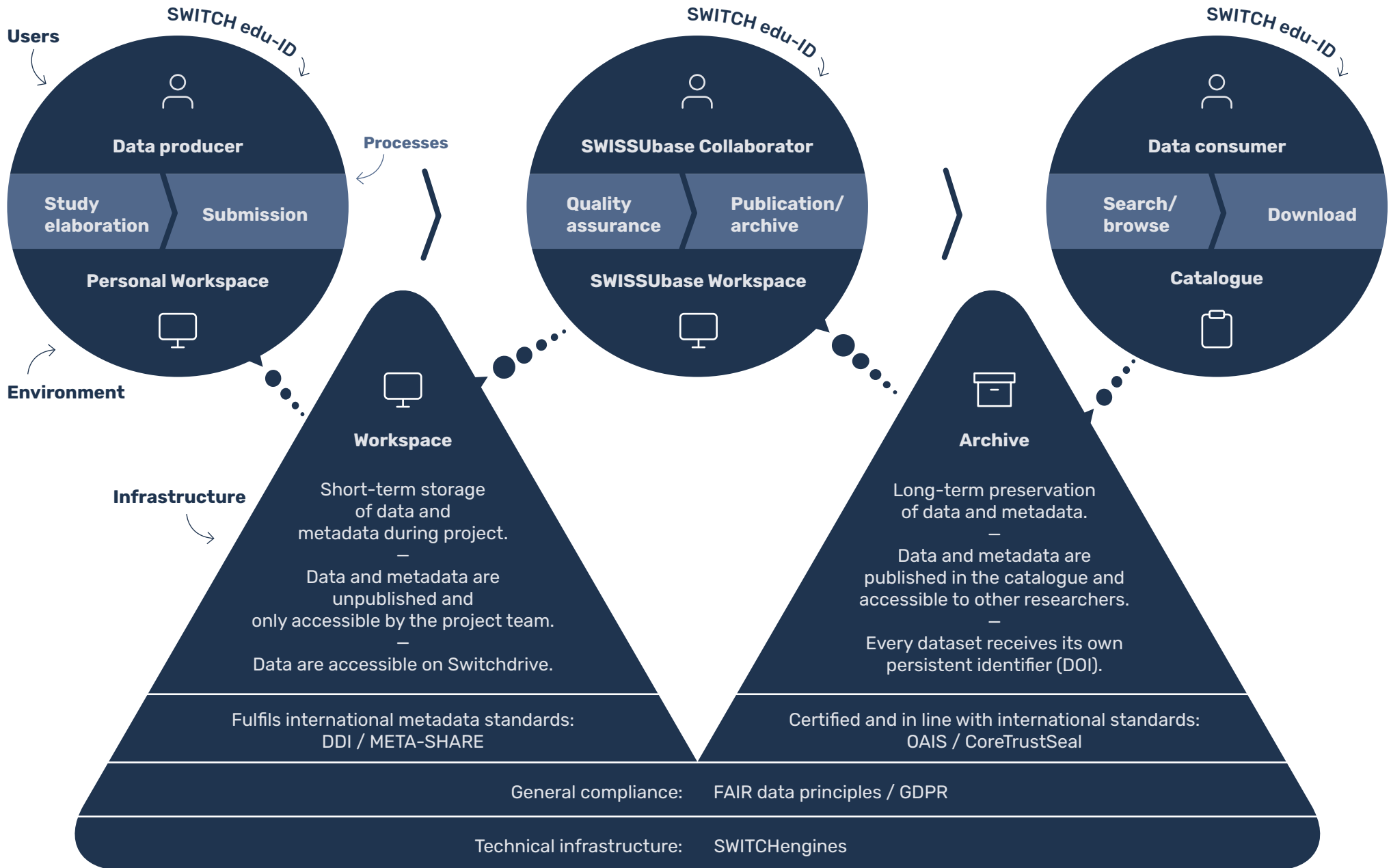›　support for short-term and long-term storage solutions

SWISSUbase
›　The Management Board is responsible for the overall direction of SWISSUbase and overseeing operational matters.
›　The support and services team provides services and training to data service units at partner institutions, a helpdesk on the use of SWISSUbase, and cross-disciplinary expertise (legal advice, handling of sensitive data etc.).
›　The IT unit assures ongoing operations, maintenance, and further development.
›　The administration unit handles the general administration, billing, and reporting processes.

Data service units at partner institutions
›　review, validate and publish project descriptions submitted by researchers
›　perform quality assurance on deposited data and metadata
›　archive the datasets deposited by researchers
›　manage SWISSUbase users from their institution
›　publish studies and datasets to the institutional catalogue
›　provide training to data producers on SWISSUbase and research data management
›　consult and assist individual researchers with data deposit and access
›　offer IT helpdesk for researchers

SYSTEM AND WORKFLOW

Users

SWITCH edu-ID

Data producer

| Study elaboration | Submission |

Personal Workspace

Processes

SWITCH edu-ID

SWISSUbase Collaborator

| Quality assurance | Publication/ archive |

SWISSUbase Workspace

SWITCH edu-ID

Data consumer

| Search/ browse | Download |

Catalogue

Environment

Infrastructure

Workspace

Short-term storage of data and metadata during project.
—
Data and metadata are unpublished and only accessible by the project team.
—
Data are accessible on Switchdrive.

Fulfils international metadata standards: DDI / META-SHARE

Archive

Long-term preservation of data and metadata.
—
Data and metadata are published in the catalogue and accessible to other researchers.
—
Every dataset receives its own persistent identifier (DOI).

Certified and in line with international standards: OAIS / CoreTrustSeal

General compliance: FAIR data principles / GDPR

Technical infrastructure: SWITCHengines

FEATURES

Existing features in FORSbase implemented and scaled up in SWISSUbase

> - a FAIR, OAIS-compliant, and non-commercial repository (requirement of the SNSF)
> - certified, trustworthy environment for long-term preservation
> - free persistent identifiers (DOIs) for all published datasets
> - standardised citations for datasets for use in journal publications
> - data producers control the access to their data by defining the conditions of access, ranging from open to highly restricted
> - customisable contract templates for data producers
> - producers receive information about who has downloaded their data, and for which purposes

> - an embedded institutional project registry and catalogue allows partner institutions to have an overview of all the current and completed projects of the researchers affiliated with their institution

See FORSbase (forsbase.unil.ch) to learn more about these features.

New features available in SWISSUbase

> - discipline-specific metadata schemas for rich metadata
> - SWITCH edu-ID authentication
> - common workspace for research teams, synchronized with SWITCHdrive
> - statistics on new projects, published datasets, and dataset downloads

SERVICES

Expertise
We provide expertise and user support in archiving, data management and digital preservation.

Research infrastructures
We support and accompany the implementation of the data service unit at your institution.

Capacity building
We produce and provide guidelines, policies and training resources for the data service units at partner institutions and researchers.

Digital curation and data publishing
We support and contribute to defining standards for long-term access to managed digital resources.

Data protection and access
We provide guidance on data protection policies and access control.

Metadata and data discovery
We promote the use of rich metadata standards for data and metadata discoverability.

Data management
We provide guidance and best practices regarding data management for research data producers.

WHAT MAKES SWISSUbase UNIQUE?

Rich metadata

FAIR data needs high-quality metadata. The more these metadata are discipline-specific, the better they suit the different scientific communities in terms of findability and reuseability of research data. That is why SWISSUbase provides a general metadata schema as well as discipline-specific metadata modules.

Services and expertise

Technical solutions for long-term storage of research data have been around for a while but are only a small part of a proper data archiving solution. SWISSUbase's broad range of services and expertise in the management and preservation of data provide crucial added value for institutions and researchers.

COMPLIANCE
with international standards

OAIS - Open Archival Information System

FAIR data principles

CoreTrustSeal

DDI - Metadata schema for social sciences

META-SHARE - Metadataschema for language resources

CMM - CESSDA Metadata Model

GDPR - General data protection regulation

TECH STACK

Presentation

Data

Application

Infrastructure

Metadata

ABOUT US

FORS is the Swiss centre of expertise in the social sciences and responsible for the development of SWISSUbase.

FORS⊕
explore.understand.share.

> We have nearly **30 years of experience** in long-term preservation of research data.

> We offer already a **certified trusted repository** and a broad range of services, including data archiving, data management training and individual consultations.

> We work **closely with researchers** who produce and use data.

> We **developed FORSbase in-house** – a technical solution since 2013 for social science research data.

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