Gesundheit Österreich GmbH

Bundesministerium
Arbeit, Soziales, Gesundheit,
Pflege und Konsumentenschutz

AGES

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# National Health Dataset Catalogue

## Current Status in Austria

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EHDS2 CoP, SG2, 2026-11-03

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# Intro

Authors – Project – Timeline

# Who we are

- Lorenz Dolanski-Aghamanoukjan
- Gabriel Schachinger
- Robin Rae
- Christina Fischer Echanove
- **Austrian National Public Health Institute, Gesundheit Österreich GmbH (GÖG)**
  - Department Digital Health and Data Infrastructures
  - goeg.at · healthdata.at

## HealthData@AT

**Towards an Austrian Health Data Platform and Access Body**

GÖG as competent authority for the EU4Health direct grant

December 2023 to November 2027

Builds the components of the future Austrian HDAB: data access application management, national health dataset catalogue, secure processing environment, cross-border exchange, data quality, Health Data Academy and community building

# Overview

Architecture, Processes and Design Choices

# Current state and chosen solution

## All three main components run as a connected pilot, built from open source components and own modules

### Metadata collector
HDH facing

HealthDCAT-AP R8 editor with completeness checks, plus a machine to machine API

### Metadata manager
HDAB internal

Odoo ERP workflow for validation, review, publication and cross-border dispatch

### Metadata explorer
Public and HDU facing

Search, filters and dataset view on the piveau stack

## Chosen solution

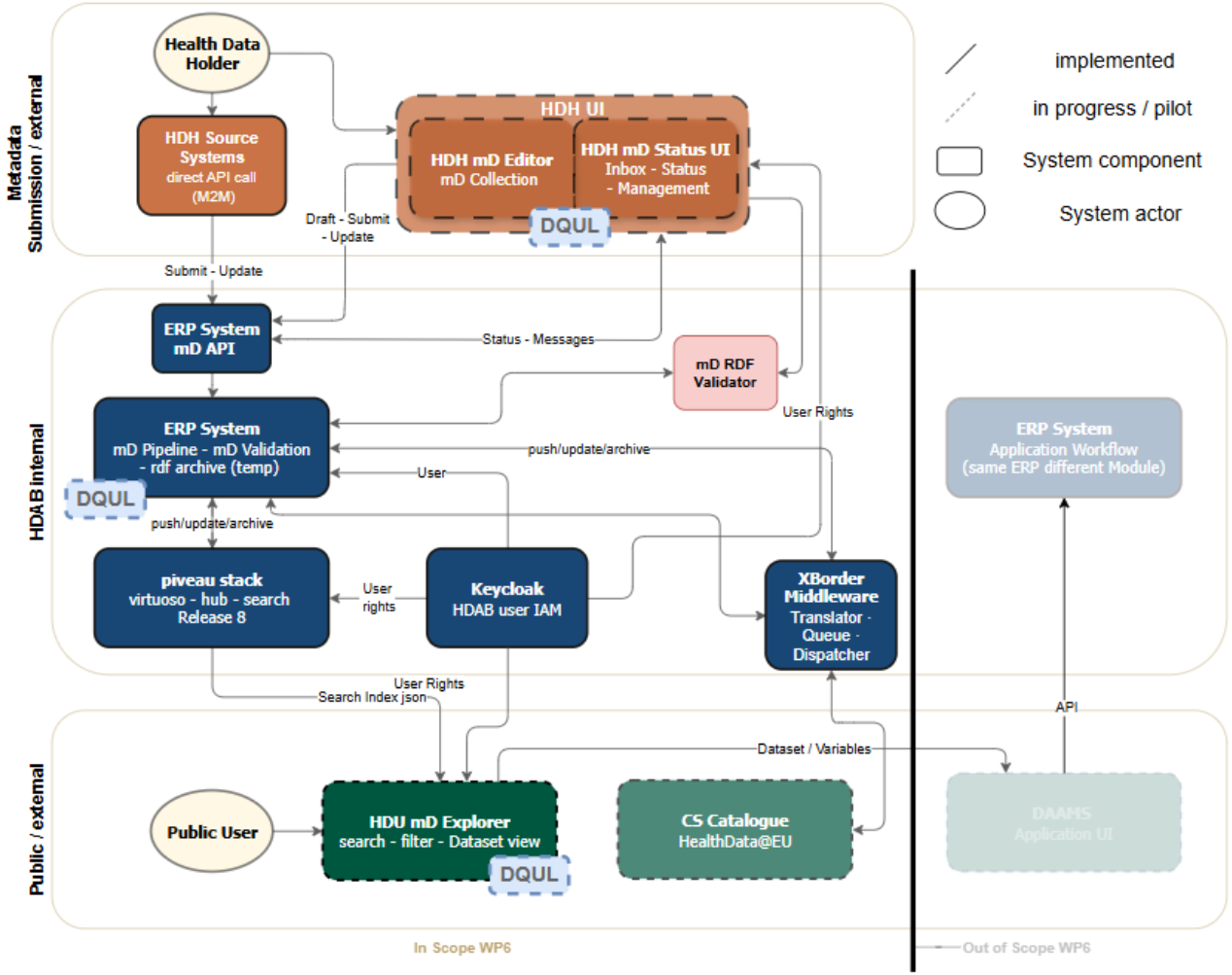
### Open source reuse
piveau stack (hub-repo, hub-search, Virtuoso) as used by HealthData@EU; Keycloak for identity and access

### Own development
Odoo metadata workflow module, Pilot editor and explorer frontends, XBorder middleware

### Standard
HealthDCAT-AP Release 8, checked by the Commission SHACL validator

### Design principles
API first, modular, every frontend replaceable

# Architecture overview




## Reading the picture

**Top:** data holders submit via editor or machine to machine API

**Middle:** HDAB internal processing in the ERP, piveau as store and search, Keycloak, XBorder middleware

**Bottom:** public explorer and the HealthData@EU central catalogue

**Right:** out of WP6 scope: DAAMS application side, same ERP

**DQUL** (QUANTUM)

Planned display in the HDH editor and the public explorer, plus an assessment view in the ERP. Work in progress.

# Metadata collection and external catalogues

## How metadata enter the catalogue

### Manual

Web editor with live completeness check per data access level, drafts, validation before submission

**implemented (pilot)**

### Machine to machine

Data holder source systems create and update records via the ERP metadata API and query their status

**implemented (pilot)**

### RDF upload

Existing HealthDCAT-AP metadata imported as Turtle

**implemented (pilot)**

### Harvesting

Pulling metadata from existing data holder catalogues: not implemented at this stage

**open**

## Connection to other catalogues

### HealthData@EU central catalogue

Create, update and delete via XBorder middleware

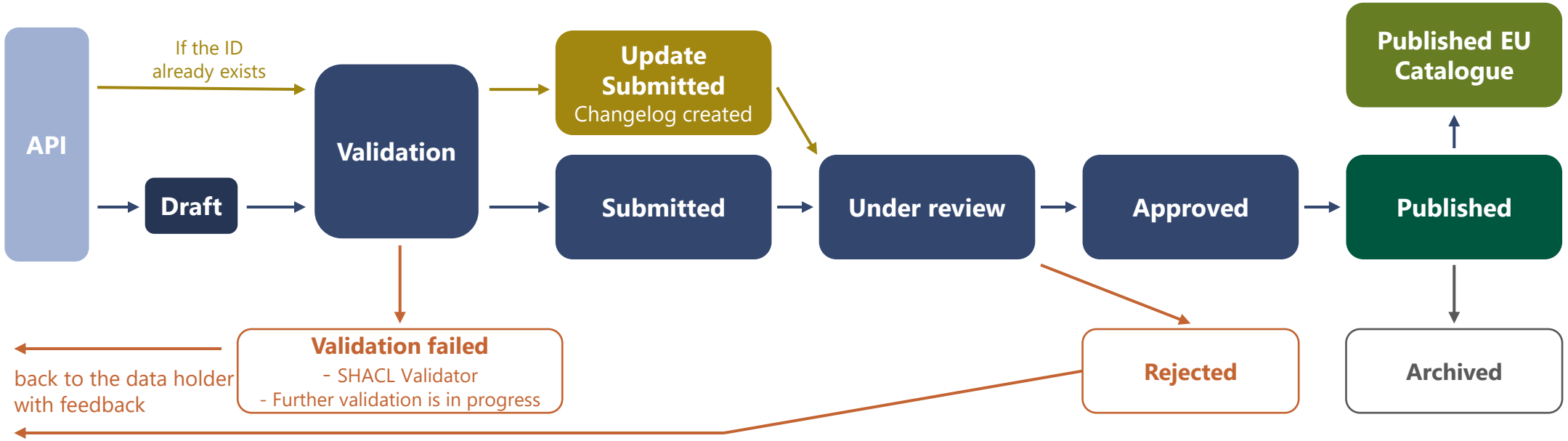
**implemented (pilot)**

### data.gv.at (national open data portal)

Foreseen as push of relevant metadata, not an integration of catalogues; same approach for the DGA role as competent body for the health sector

**open**

# HDAB review workflow (implemented ERP-Workflow)




### Data holder view

Every status change is visible in the status UI and via the API, including validation reports and HDAB feedback

### HDAB view

Each submission is a "task" in the ERP; reviewers approve or reject with a reason, updates of published records run through the same steps

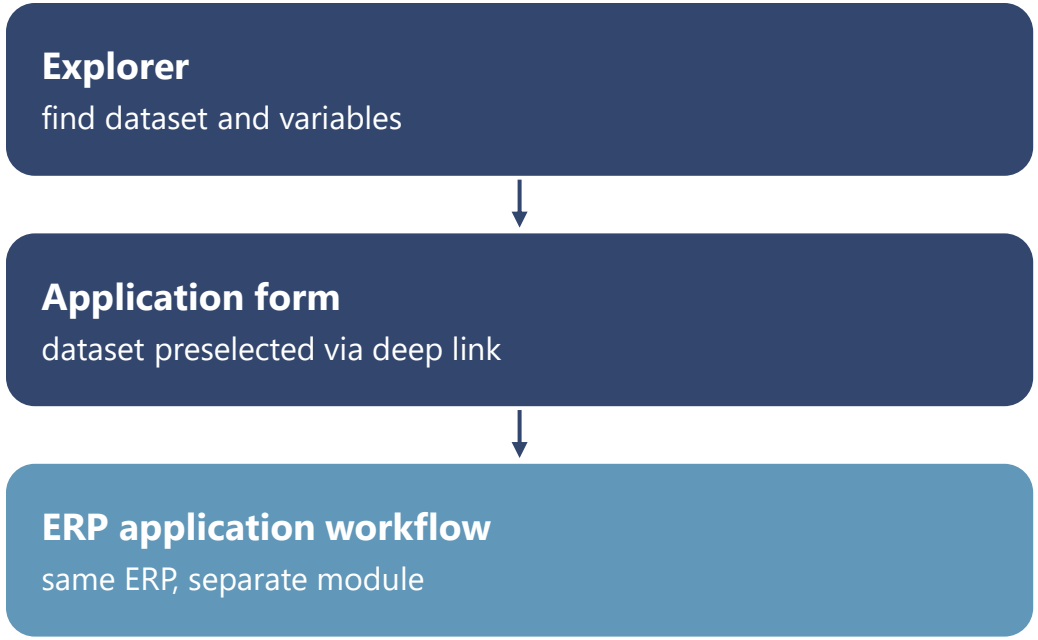
### Quality gates

Local completeness check, then the Commission SHACL validator; only valid records reach the review

# Cross-border exchange and access link

- **Cross-border exchange**
  - Only nationally published datasets are sent to HealthData@EU
  - Create, update and delete through the XBorder middleware (translator, queue, dispatcher)
  - Each operation is logged as a transaction and closed by a callback; the record is locked while a transaction is open
  - Fully implemented in the Release 7

## From catalogue to access application




DAAMS is outside WP6 scope; shown for context

# Showcase Video

Functioning, Workflow

Gesundheit Österreich GmbH

- Showcase Video Link: https://dory.goeg.at/s/SFi8yyX3BFgds2e

# Way forward

Currently, Gaps, Next Steps → And beyond the project ...

# Current work and biggest gap

- **Currently**
  - Integrating the modules into one HDAB system
  - DQUL integration following QUANTUM and the upcoming implementing act
  - Hardening for deployment: security, multi-user operation, hosting
  - HealthDCAT-AP Release 8 in the cross-border exchange
- **Further gaps, future developments**
  - Future operational and governance model of the HDAB
  - Validation beyond SHACL
    - Content consistency and plausibility
  - Duplicate detection; version history in the explorer
  - Enhanced UX in the metadata explorer
    - Metadata visualisation
    - Interactive exploration
    - Summaries and dashboards
  - Service point for health data holders

**Biggest current gap**

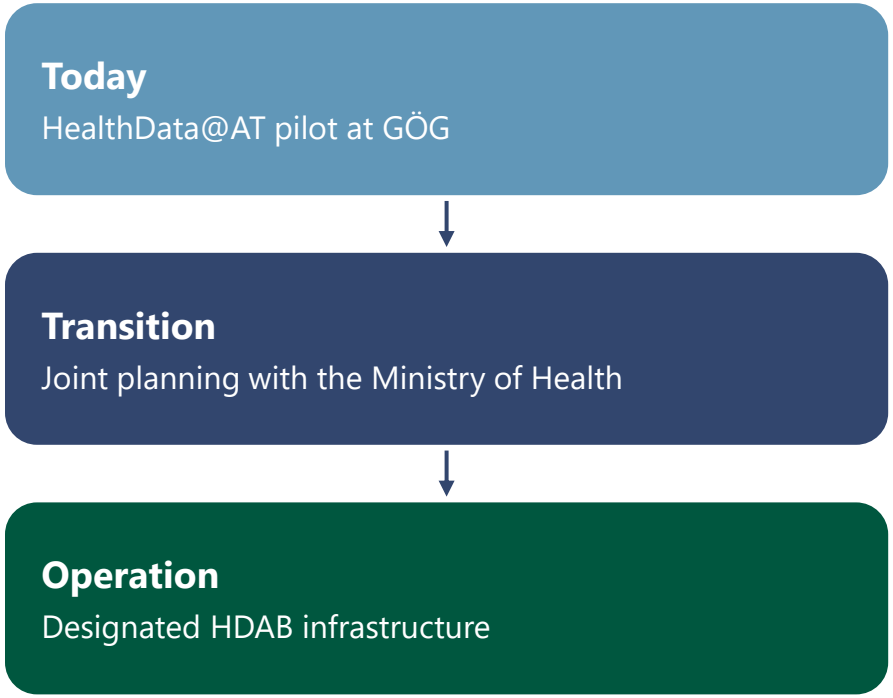
## Data holder engagement

The pipeline works end to end, but metadata do not yet come in from data holders due to voluntary submission. Current entries are described by the HDAB team.

HDH's knowledge on EHDS, HealthDCAT-AP, …

# Beyond the project

- **Pilot, not yet the operational system**
  - Probable migration of the technical solution to Ministry of Health infrastructure, depending on the final operational and governance model
- **Intended synergies**
  - With a national data use platform, based on the same metadata requirements
  - Open option: a fork of the ERP or one ERP extended to cover both jurisdictions
- **Involvement**
  - Very close cooperation with the Ministry of Health to enable a smooth transition



# Discussion

Any questions?

# Get in touch!

- NHDsC
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- HealthData@AT
  - Lorenz Dolanski-Aghamanoukjan (Coordination) lorenz.dolanski@goeg.at
  - HealthData@goeg.at
  - Website, Health Data Academy (launched and growing): healthdata.at