



Creating an open-source data platform for Swiss Government

OSA CON 2024

Agenda

- Introduction
- HelloDATA Overview
- Live Demo
- Developing HelloDATA
- Utilizing HelloDATA and our learnings

Introduction

Speakers



Michael Disteli
Business-Lead Data



Micha Eichmann
Team-Lead Data Projects

Bedag in a nutshell

Our customers

- Canton of Berne
- Administrations of all other cantons
- Federal administration and private sector

Our key figures

- CHF 103 million turnover (as at 31.12.23)
- 470 employees (including 49 apprentices)
- Ownership: 100% Canton of Berne

Our services

Solutions
Software solutions and
products for digital
administration

Workplace Services
Modern working instruments
for your employees

Data Center Services
Secure operation for your
applications and data

HelloDATA Overview

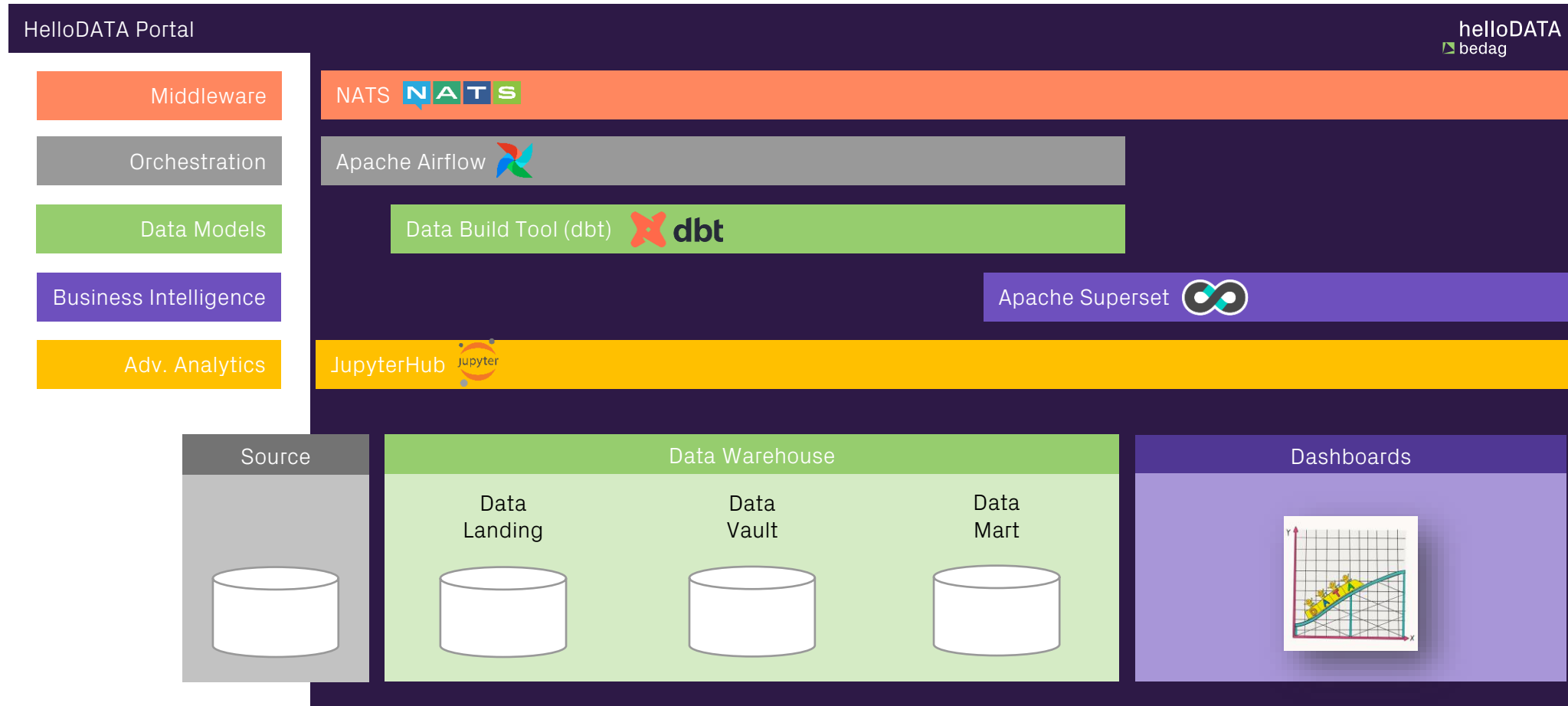
State-of-the-art data tools
combined into an integrated,
open-source data platform

Platform-Features

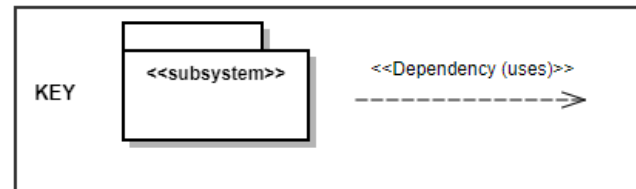
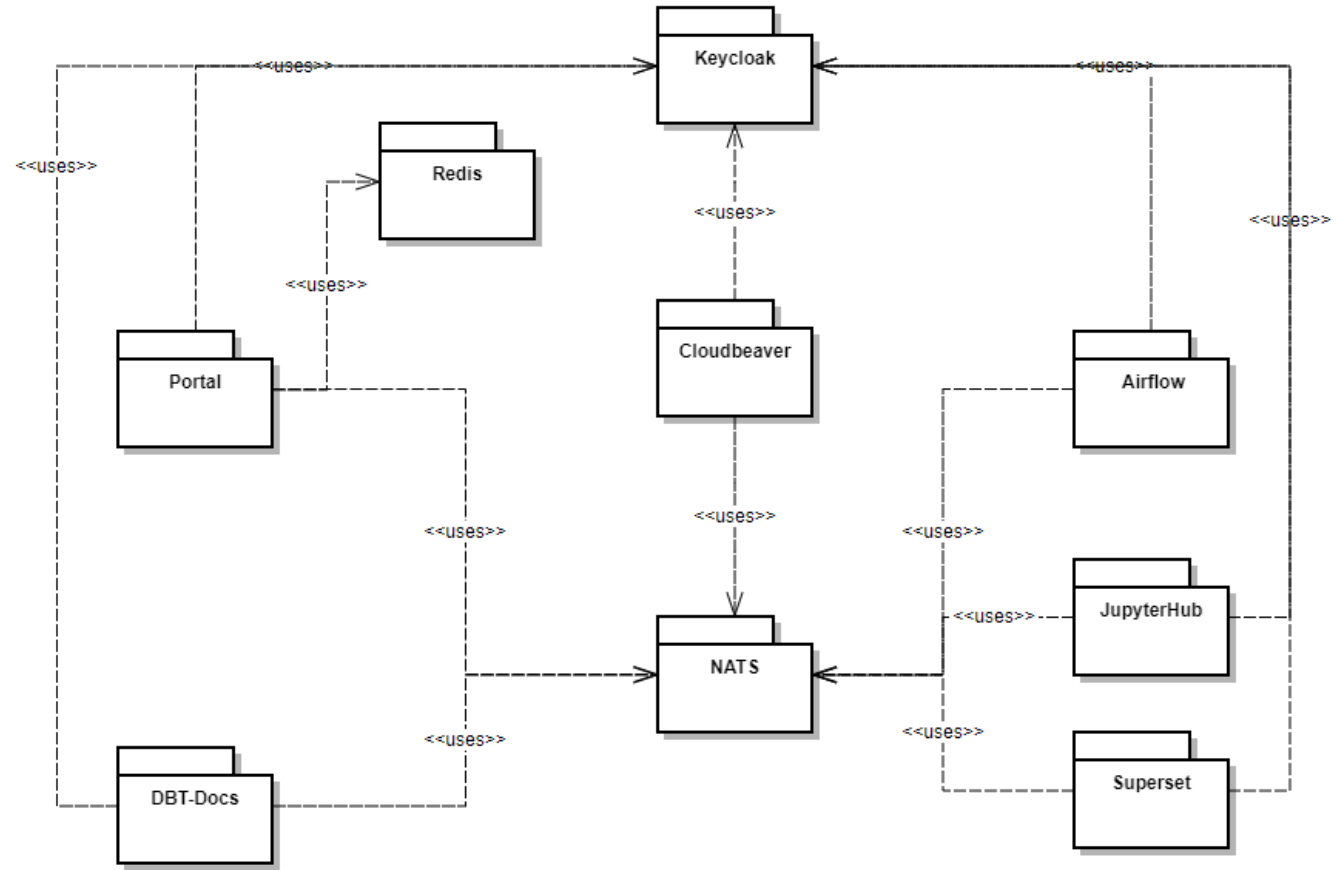
Keep it simple!

- **Retrieve** data from different business applications
- Automated data **preparation**
- **Visualize** data in a user-centric manner

Platform-Tools



Subsystem communication



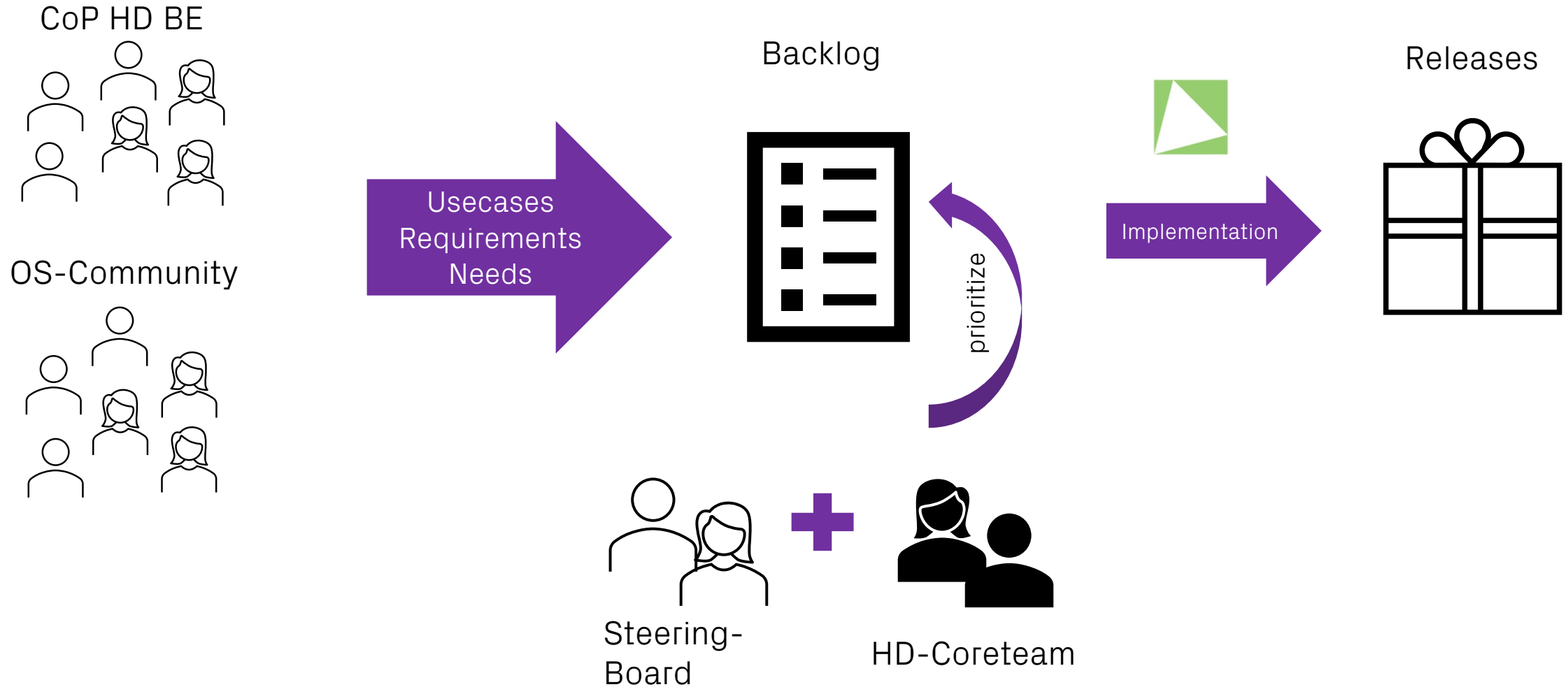
Advantages HelloDATA

- Central usermanagement
- Single webbased touchpoint
- Integration between implemented tools
- Serves all degrees of data literacy and empowers users (from viewer to editor/admin)

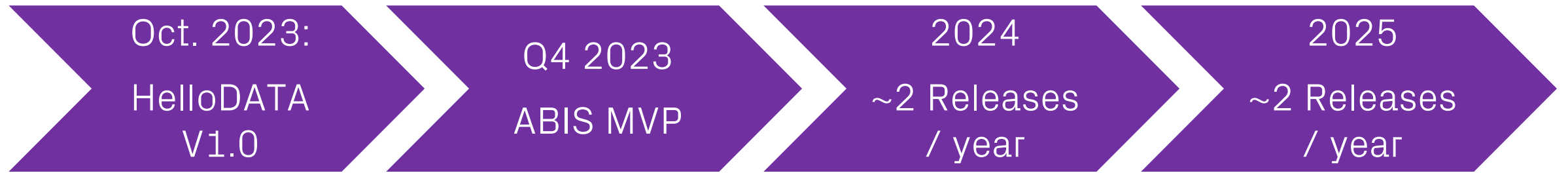
Live Demo

Developing HelloDATA

Development proces



Feature Roadmap HelloDATA



HD V1.0

- HD-Portal
- Integration Airflow / DBT / Superset
- Integration Keycloak
- User and Permission-management
- Monitoring and Alerting
- Data-Lineage
- Documentation

HD V1.1

- **Conception V1.1**
- **Data Engineering Self-Service Extension**
- **Conception V1.2**
- Architecture requirements check according to Datadomain-concept

Release Sep24

- **Advanced Analytics v1 – Integration of JupyterHub**
- Data Publisher Extension
- Conception Object-Storage integration

Release Mai25

- Implementation of languages English & French
- Integration of Object-Storage
- Integration of data ingestion tool
- Improving self-service possibilities

Utilizing HelloDATA and our learnings

Empowering our customers step by step

Customer Empowerment Success Story

Project 1

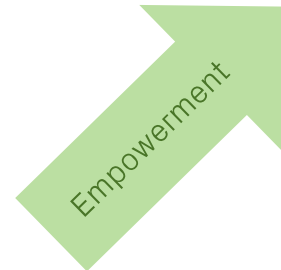
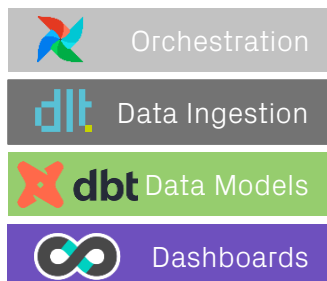
Project 2

Project 3

Customer tasks

- Requirements
- Review
- User management

HelloDATA tasks

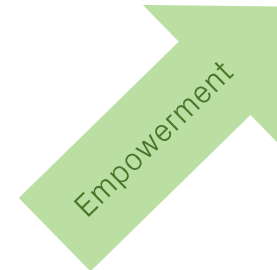
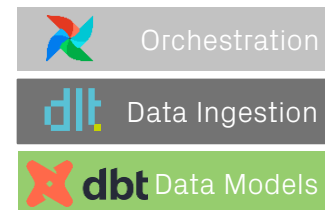


Customer tasks

- Requirements
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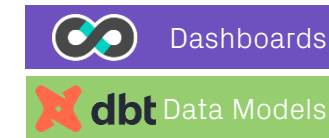


HelloDATA tasks



Customer tasks

- Requirements
- Review
- User management



HelloDATA tasks



Full transparency in product & in projects

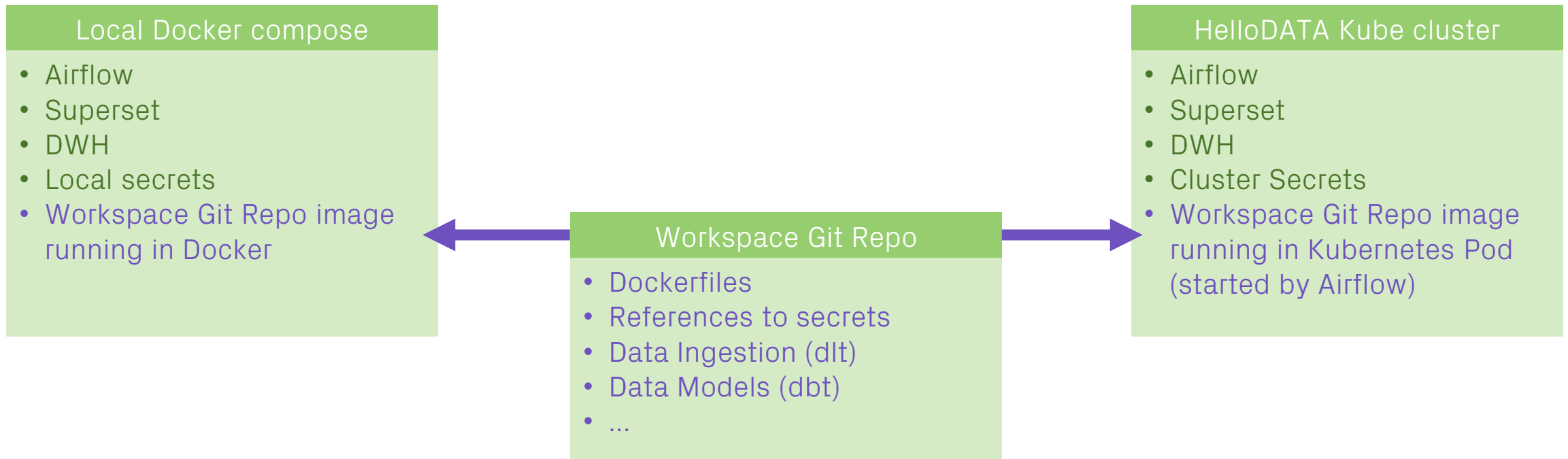
Data Lineage & Data Model Documentation (dbt)

The screenshot displays the dbt Lineage Graph interface. At the top, it shows the environment 'Prod' for 'JUS' with a dropdown for 'Alle Datendomänen'. The user 'micha.eichmann@bedag.ch' is logged in. The breadcrumb navigation is 'Home > Docs > Tribuna > Doc'. On the left, there is a sidebar with navigation icons for Dashboards, Lineage, Data Marts, Data Eng., Administration, Monitoring, and DevTools. The main area is titled 'Lineage Graph' and shows a complex network of nodes. Nodes are color-coded: green for source tables (e.g., 'lzn.tribunav4_apm_person_mandata'), blue for intermediate tables (e.g., 'rdv_apm_person_mandata'), and pink for the target table ('rep_sds04'). The graph illustrates the flow of data from various source tables through intermediate tables to the final target table. At the bottom, there is a filter bar with sections for 'resources' (All selected), 'packages' (tribuna), 'tags' (untagged), and a query filter ('--select +rep_sds04+'). An 'Update Graph' button is visible in the bottom right corner.

“Workspaces”

Run the same HelloDATA project
locally and on cluster

Workspaces – How we collaborate in multi-company teams



If you can build it, you can run it.

HelloDATA on GitHub

Visit us on GitHub:

github.com/kanton-bern/hellodata-be
The Open-Source Enterprise Data Platform
in a single Portal





Thank you for your attention