

“CH on the move”

Introducing the Prototype Digital Twin of the Swiss Mobility System

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The Digital Twin of the Swiss Mobility System “CH on the move”

1. “CH on the move”
2. Open Digital Twin Platform
3. Open Digital Twin Standard

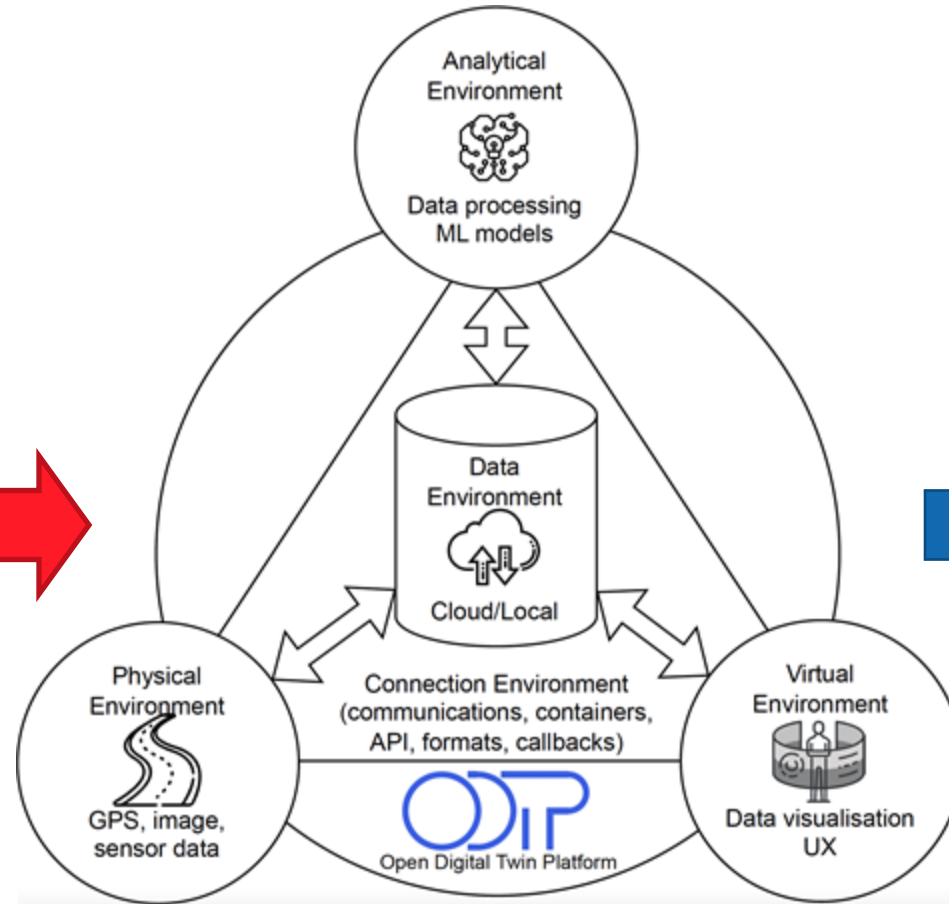


Outline Digital Twin “CH on the move”

Physical Twin



Switzerland



Digital Twin



CH on the move

- Part of the National Strategy and Action Plan for Open Research Data
 - FAIR principles
 - Data should be
 - as open as possible
 - respecting disciplinary diversity
 - internationally networked
 - sustainably financed
 - Strategic development of infrastructures and services
 - Coordinated governance while safeguarding autonomy
 - development of systemic, supportive framework conditions

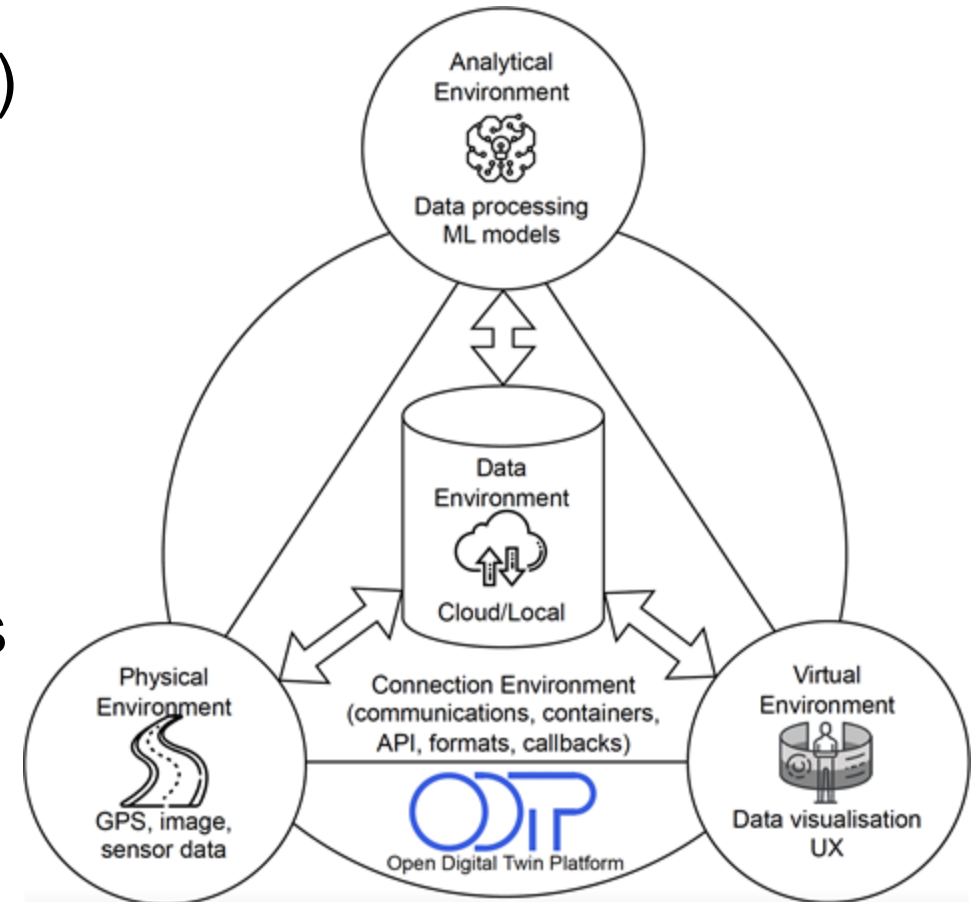
A closer look at Open Digital Twin Platform (ODTP)



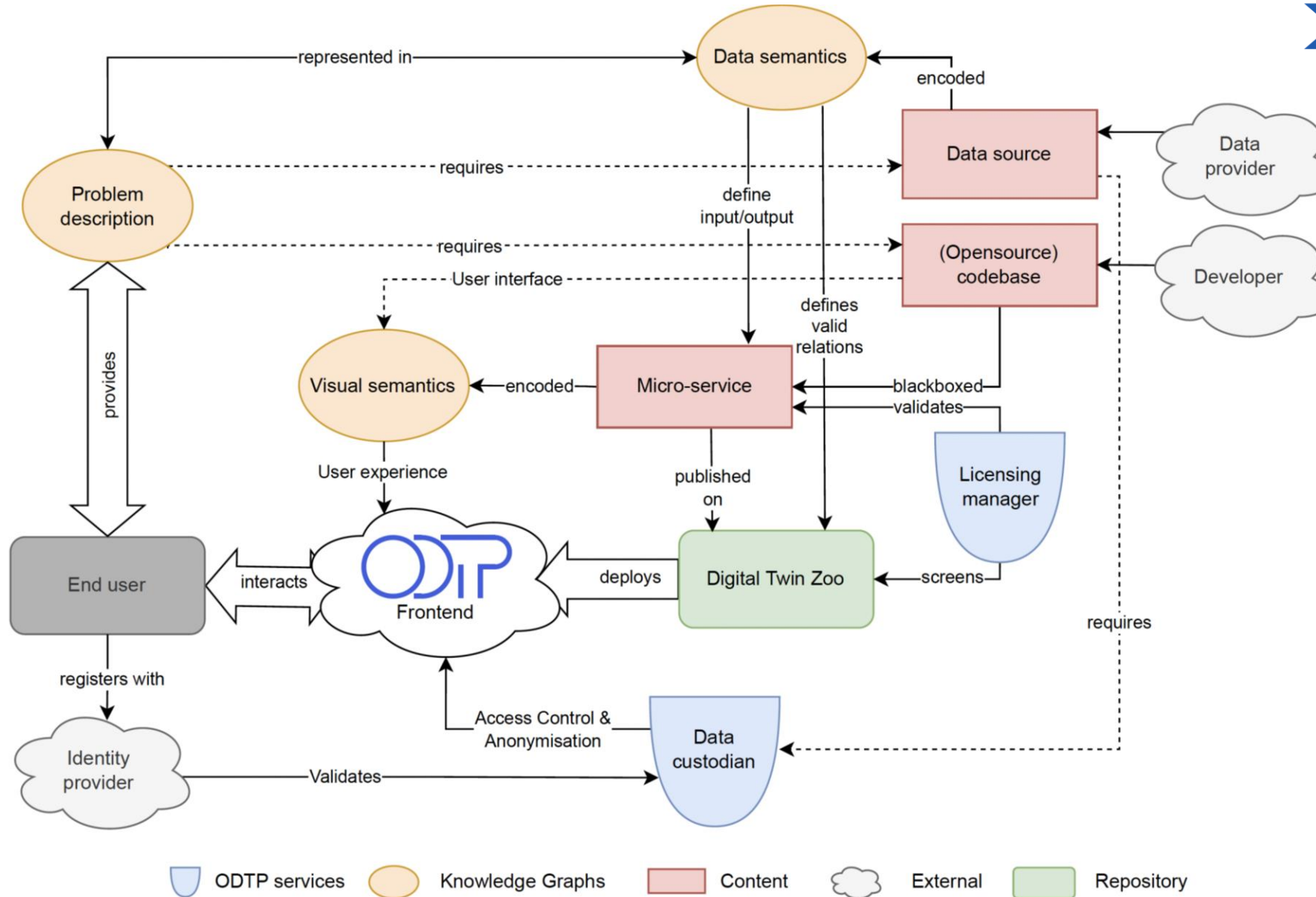


Digital Twin Zoo (Swiss ORD Grant, 2023)

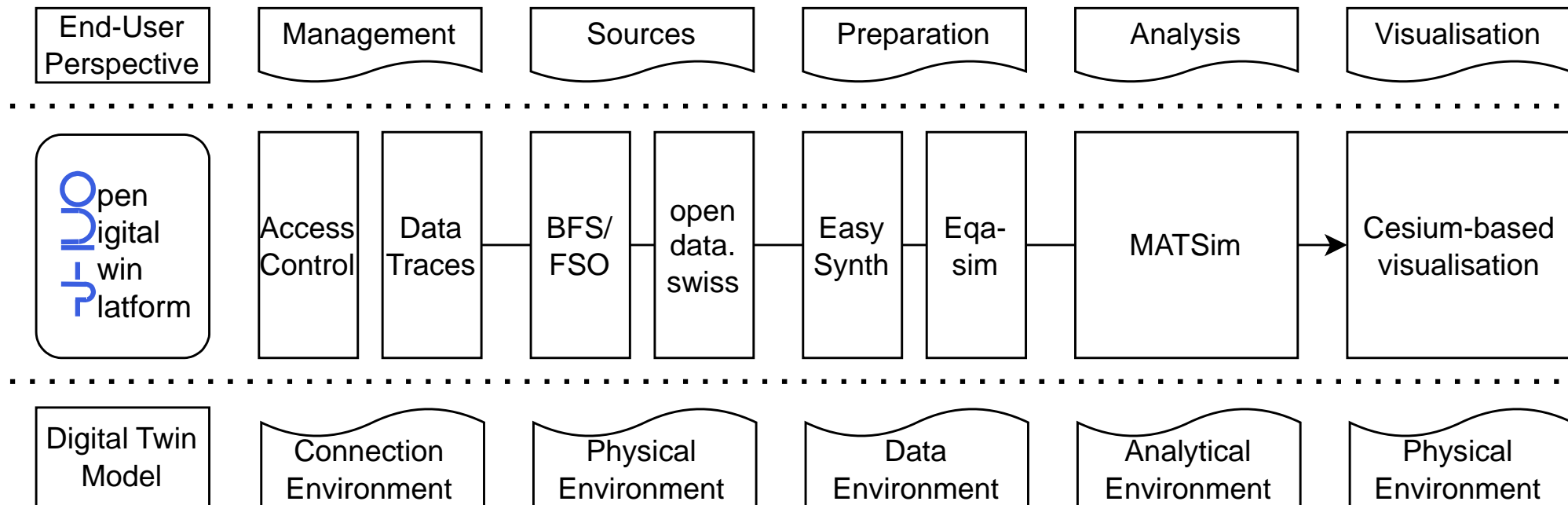
1. Containerise each component
2. Provide well-defined API
3. Web-service hosts zoo of components
4. Able to pick and choose



End user perspective on Open Digital Twin Platform (ODTP) **CSFM**

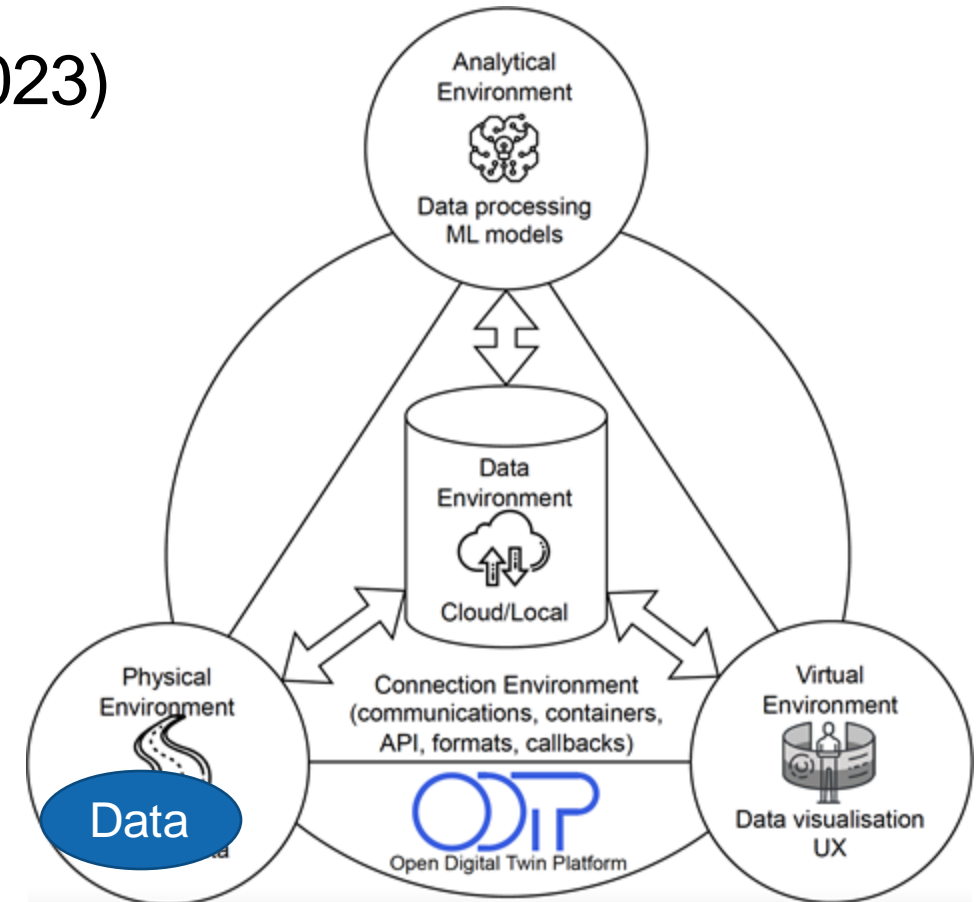


MATSim + eqasim example

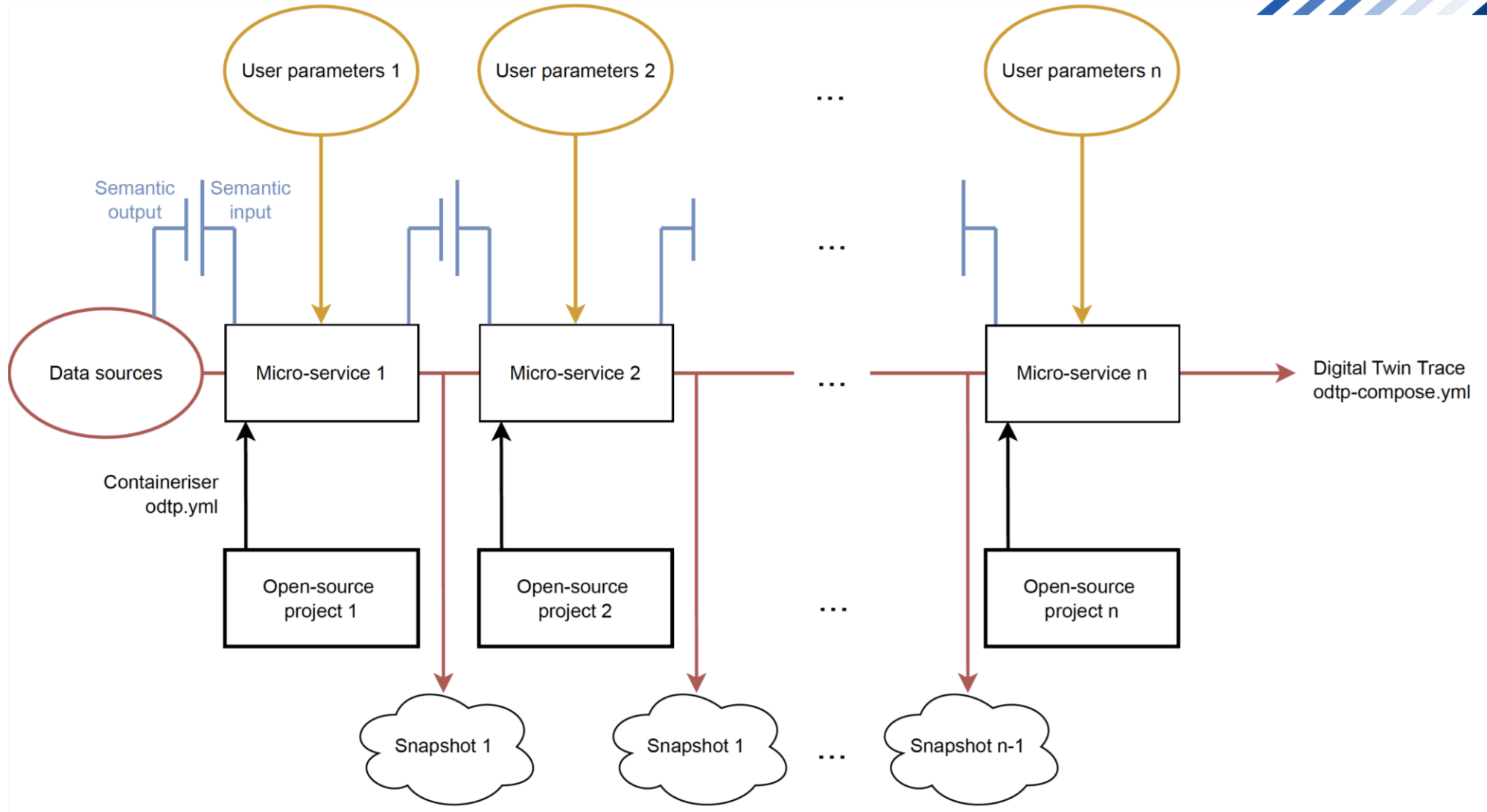


Digital Twin Traces (Swiss ORD Grant, 2023)

- Well-defined data flow with history
 - Used to “replicate” Digital Twin
- Manipulate parts of traces
 - Enables comparison of DTs
- Long-term: Assess data quality
 - Put uncertainty on data

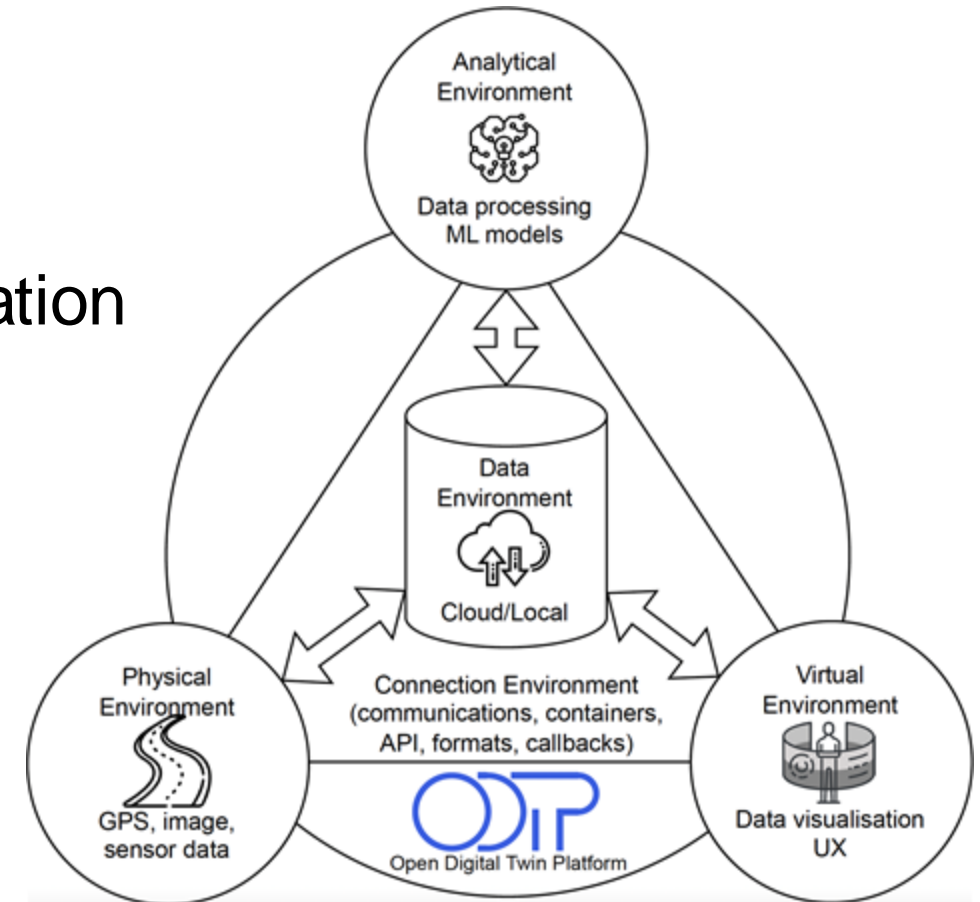


Open Digital Twin Platform - Traces



Develop Draft (Swiss ORD Grant, 2023)

- Definitions independent of implementation
 - Define Zoo
 - Define Traces
 - Define Components
 - Define APIs
 - Define services
 - Define Data Standards
 - Define Visualisations



Questions?

