ATLAS

AGRICULTURAL INTEROPERABILITY
AND ANALYSIS SYSTEM

Developing interoperable agricultural Software with ATLAS

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Agenda

o Introduction to ATLAS

o Usecases and templates by fodjan

o Livestock Monitoring/analysis of animal activity
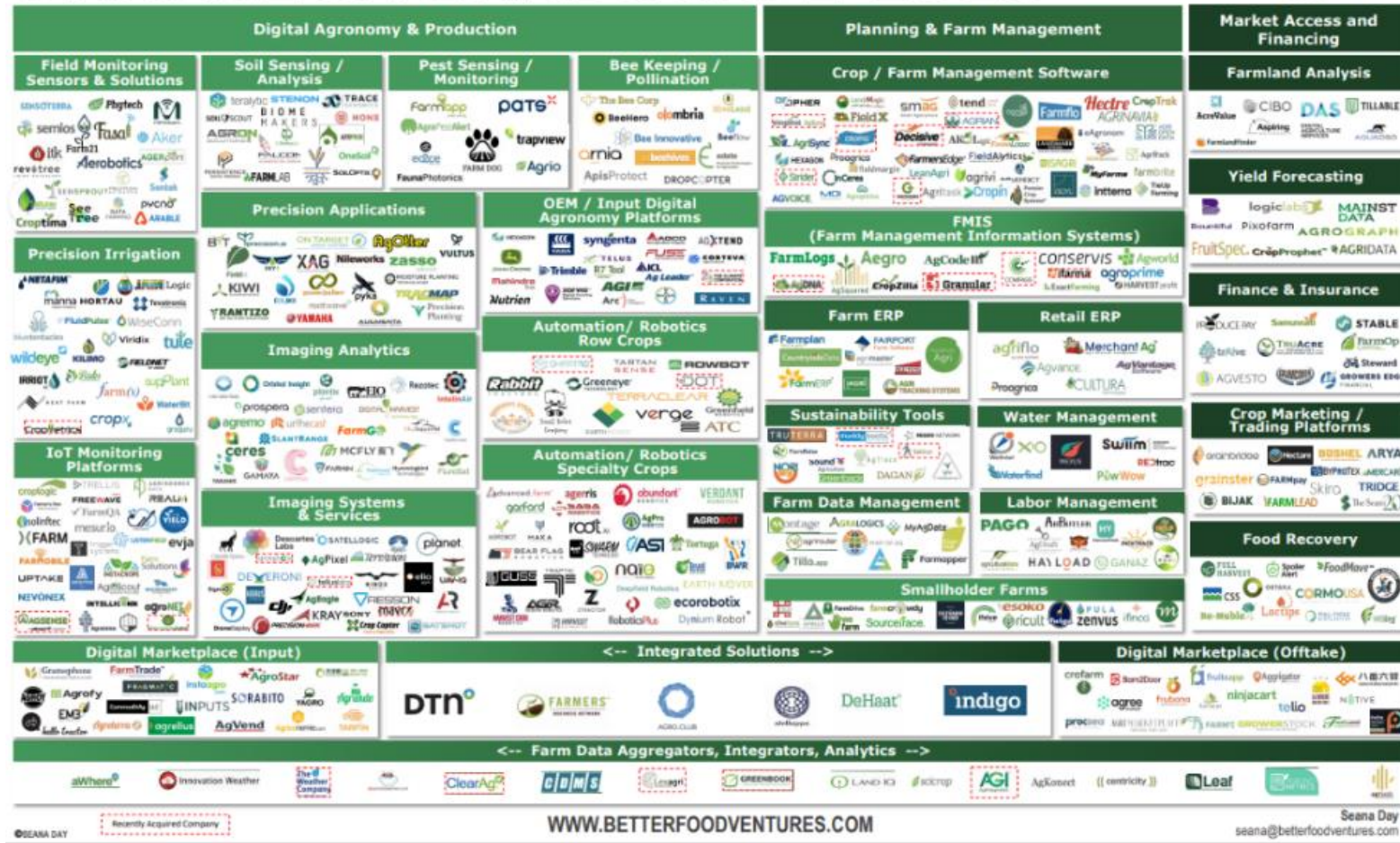
o Usecase DevHouse.

o Discussion

Farming is complex!

- Lots of things to manage
- Heterogeneous fleets
- Example: 1 Farm, 7 different Software Systems
  Probably to increase in the future

Dozens of Software Tools on the Market

FARMTECH LANDSCAPE 2020 — Better Food Ventures

ATLAS Interoperability Network

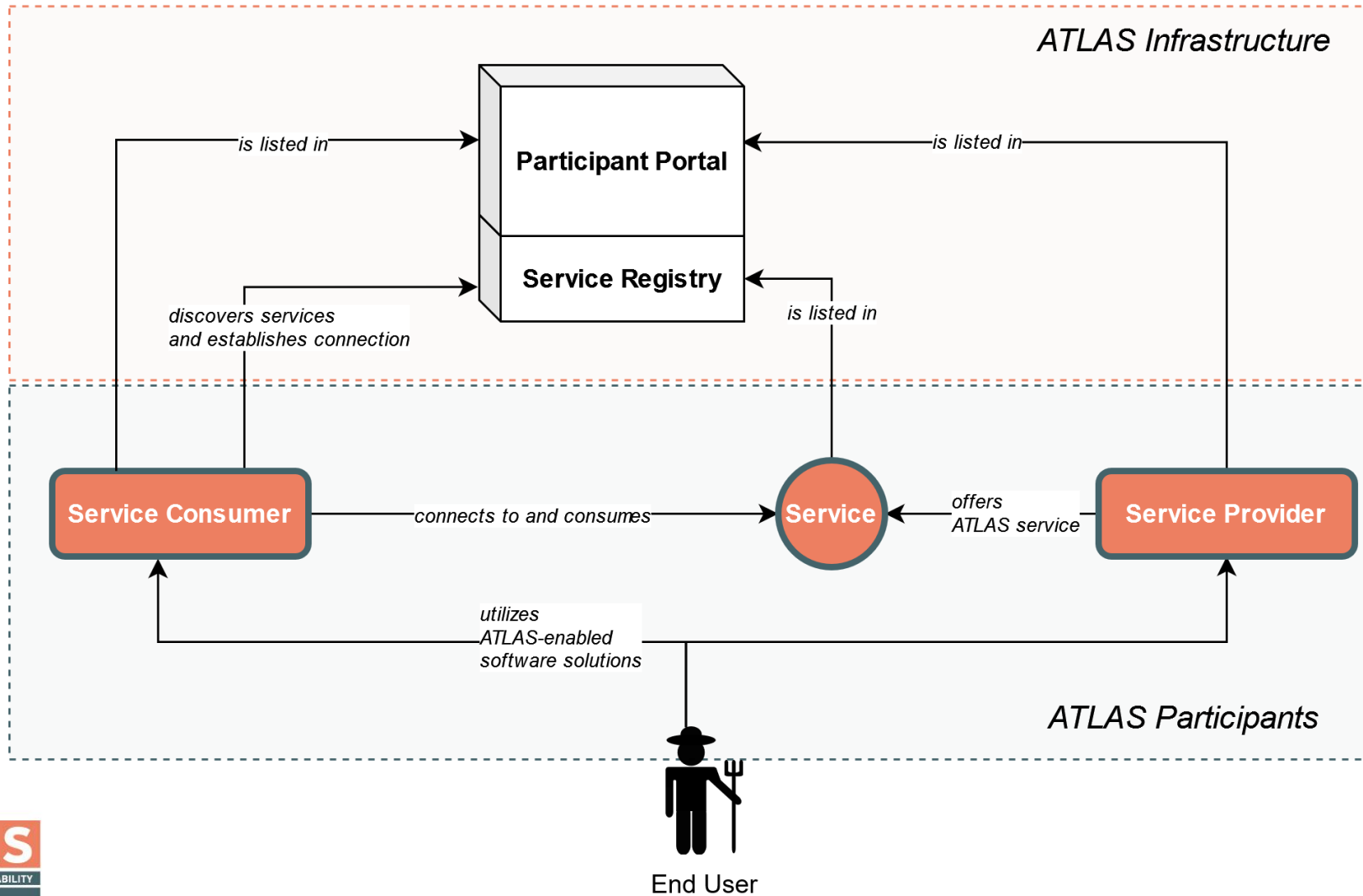🎯 Data Exchange through standardized **Services**

🎯 **Decentralised** Network
- No data silos, no central data hubs
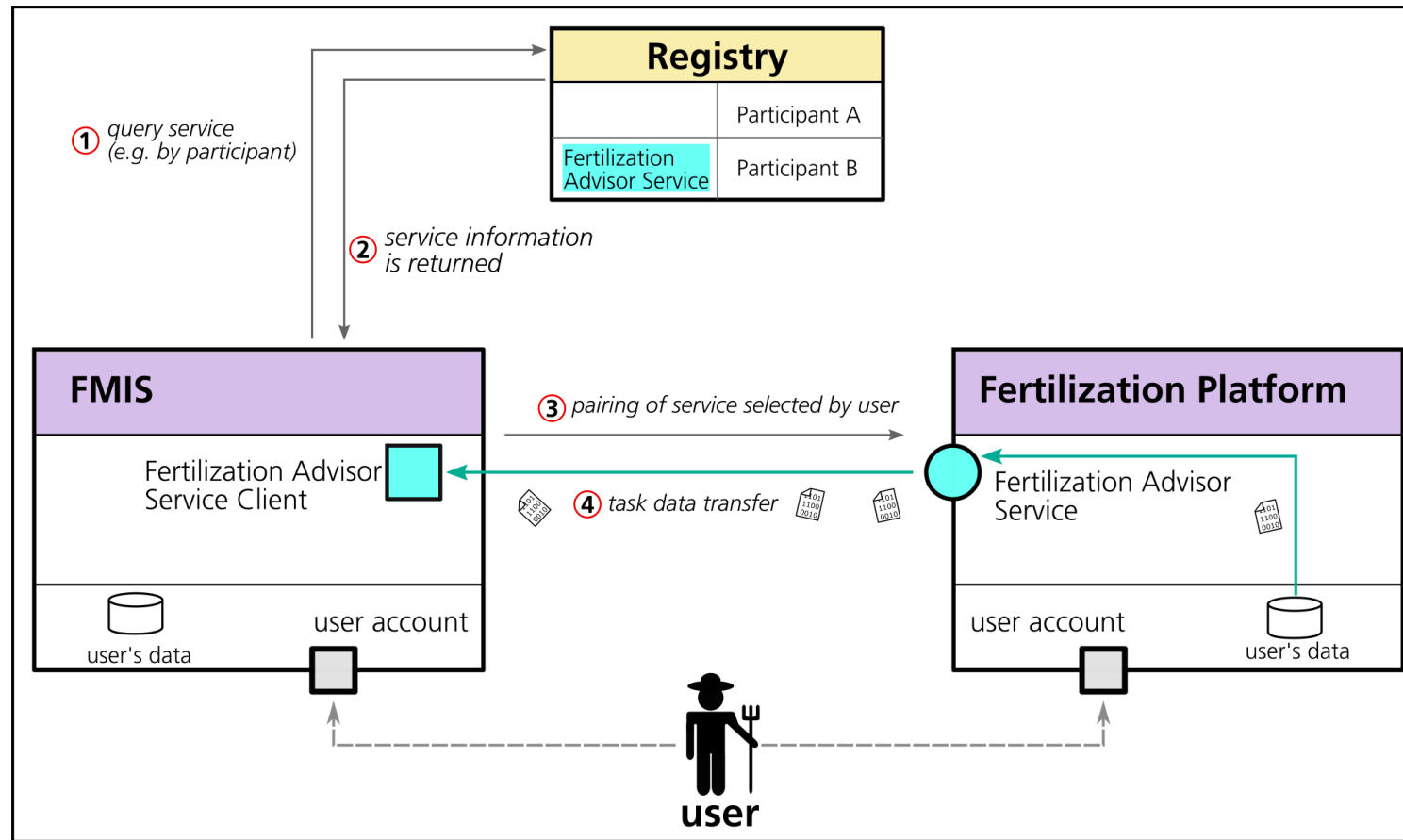- Minimum of centralized components

🎯 Trusted and autonomous **participants** providing **software systems**.
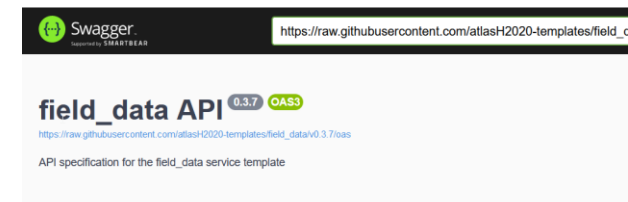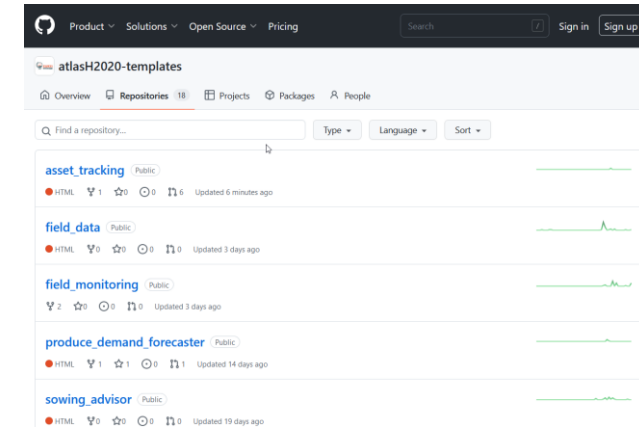
ATLAS Ecosystem

Service Pairing and Registry

Standardized Services through Service Templates

o **Model** elemental **agricultural processes**

o **Vendor** and **technology agnostic** formal specifications
   o API descriptions (OpenAPI)
   o Human-readable specification document

o Available on **public GitHub** repositories

Standardized Services through Service Templates
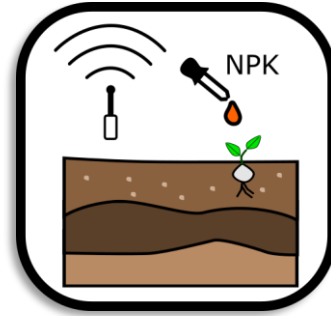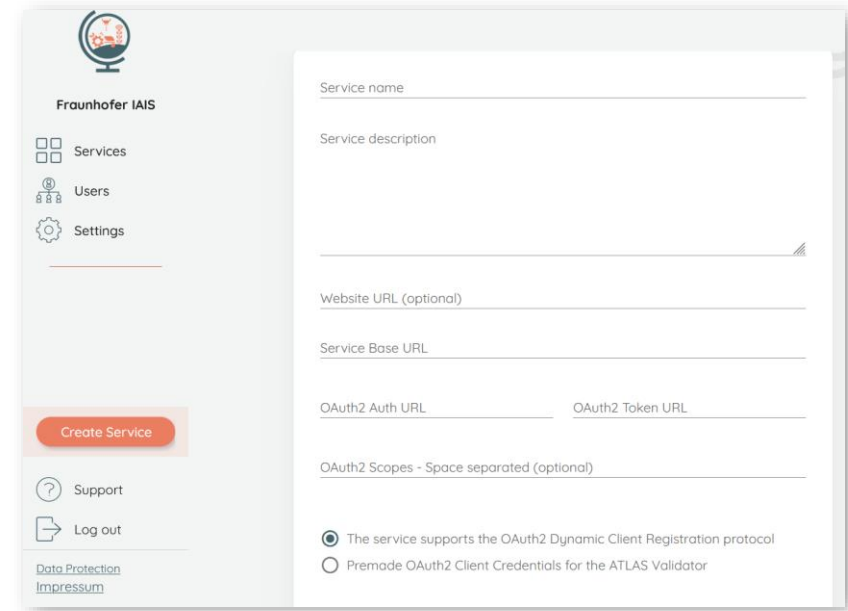

asset_tracking

machine_tracking

sensor_data

temperature_monitoring

field_data

field_monitoring

produce_demand_forecaster

sowing_advisor

harvesting_advisor

fertilisation_advisor

crop_protection_advisor

animal_data

feeding_data

video_storage

livestock_monitoring

irrigation_advisor

irrigation_planing

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ATLAS Participant Portal

https://participants-portal.iais.fraunhofer.de/
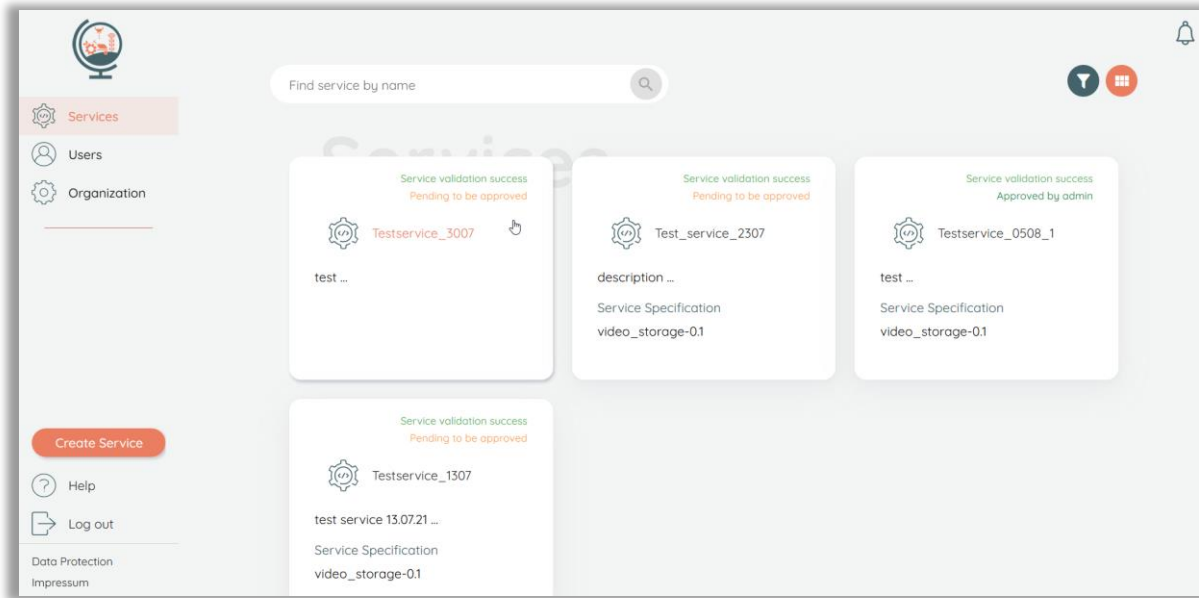
o The main "entry point" for ATLAS participants
  o Registering and management of Services
  o Management of Participant Data
  o Validation of Services

Opportunities through Interoperability

ATLAS enables the **interconnection** of existing systems

Leverages existing systems by "retro-fitting" ATLAS capabilities

ATLAS is an innovation catalyst that guarantees **flexibility** and **openness**

Enables small and innovative companies to focus on their USP

ATLAS adds **flexibility** for **farmers**

It enables farmers to avoid vendor lock-in and allows flexible choices and decisions

ATLAS builds **end-to-end data**- and operation flows

Dataflows are built based on the efficient combination of participating services

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Conclusion

NEW LEVEL OF INTEROPERABILITY

- ✓ Decentralized, service-oriented architecture
- ✓ Agricultural machines, sensors, data services
- ✓ Digitalize farm operations

ATLAS enables

Simplified processes from farm to fork

- **Simplified** communication
- **Digital** connection to the consumer
- Avoidance of multiple data collection processes
- Data **sovereignty** is at the farmer

New business models for and with the farmer

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Important URLs and Information Sources

https://github.com/atlasH2020

https://github.com/atlasH2020-templates/

https://participants-portal.iais.fraunhofer.de

Thank you!

https://www.atlas-h2020.eu

https://github.com/atlasH2020

https://github.com/atlasH2020-templates/

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