

fodjan is much more smart feeding.



2014

The dairy farmers tool to calculate rations easier



contacts to fodjan

smart feeding.



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Usecase Herdmanagement & Beef Model

input variables

video analysis

- eating minutes
- laying minutes
- activity

feed monitoring

- quality
- quantity
- remaining feed

animal scale

- individual daily gain

weather

- temperature
- humidity

Animal data

- breed
- weight
- age

estimate calf's weight by images



invitation of further partners ...

data processing by



output suggestion

prediction of growth

suggestion of better ration

data sharing with service templates

creating a digital barn twin

sustainability dashboard

supportive feature for growing animals



Action Plan Review | +++
Online, September 1st 2021 | +++

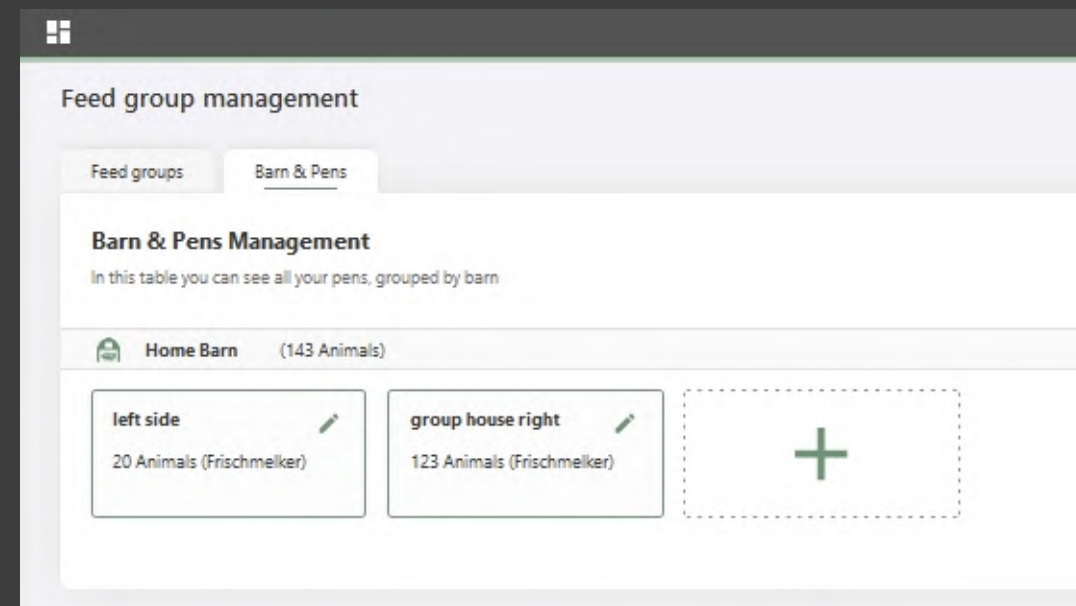
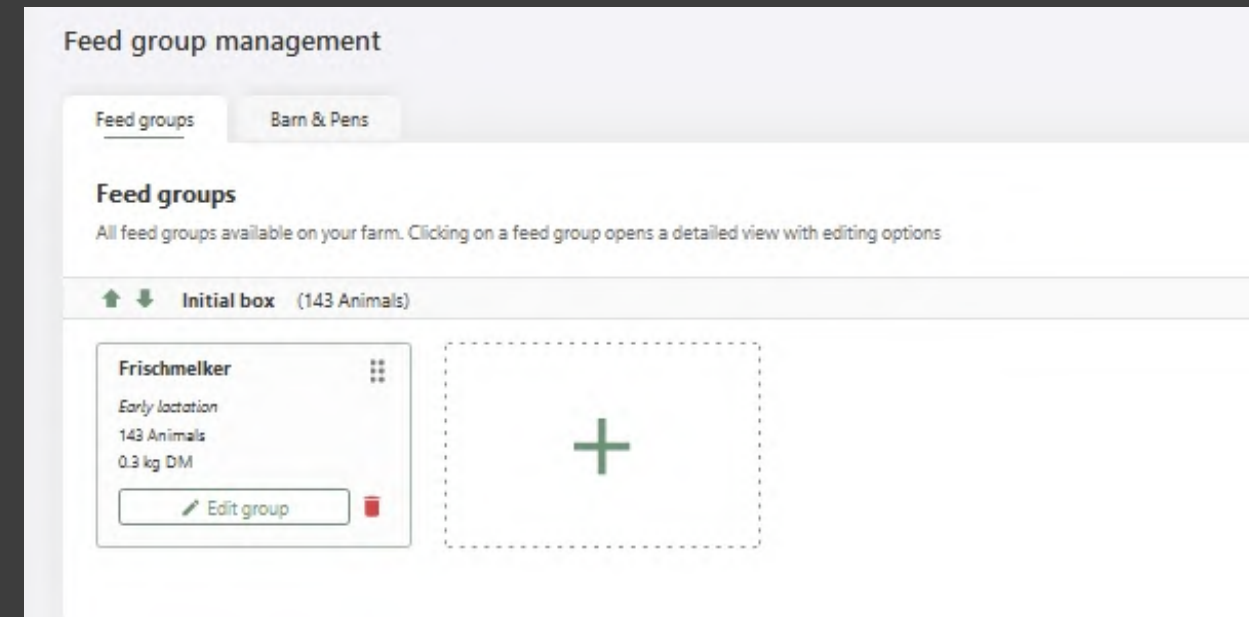
fodjan as an example for a digital barn twin

farmer can copy the structure of farm in a digital tool

bring it down from barn to animalgroup to pens

focus on easy usage and

integration of animal_data service template



fodjan optimizes co working of feed consultant and farmer

manage feedstuff on the platform

plan and optimize rations

The screenshot displays the 'Ration management' interface. At the top, there are navigation tabs: '+ Enter ration manually', 'Assistant', and 'Ration catalog'. Below this is a table with columns for 'Creation date', 'Costs', 'Description', 'kg', 'kg', and 'Start of feeding'. A single row is visible with the following data: 05.04.2023, € 4.34, 29.8 kg, 29.8 kg, 06.03.2023.

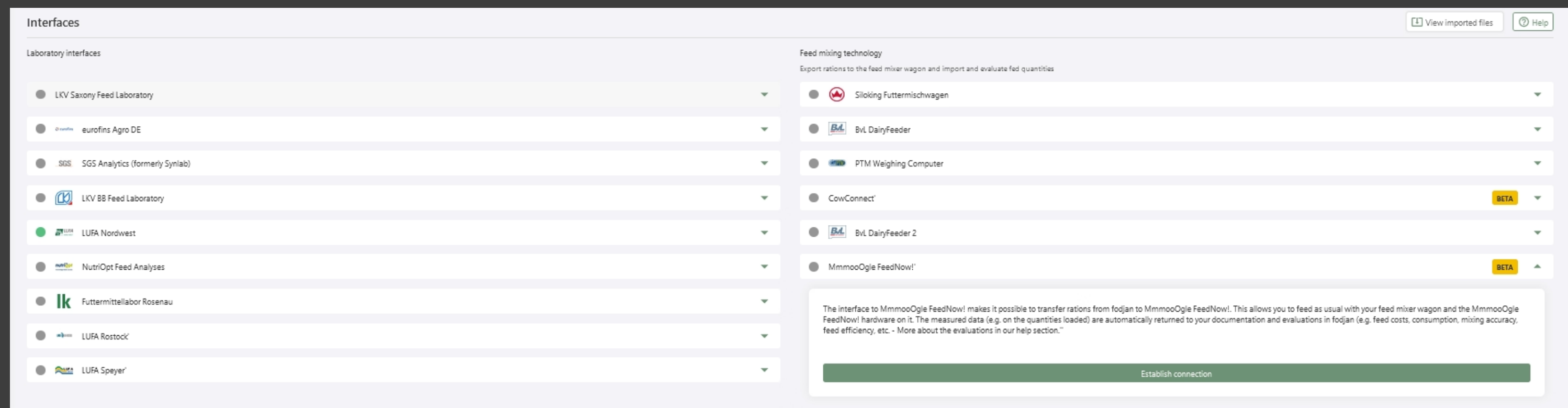
Below the table, there are tabs for 'Overview', 'Ration sheet', 'Feed health', 'Minerals', and 'Comments'. The 'Overview' tab is active, showing 'Overview: Frischmelker (143)'. It includes fields for 'Creator: Support Test Stakeholder, 05.04.2023', 'Calculated on: 05.04.2023', and 'Feeding from: 06.03.2023'. A 'Save' button is next to the date.

A section titled 'No pending approval. Request approval' is visible. Below it is a table with columns for '%', 'kg FM', and 'kg FM'. The table lists feed ingredients and their respective values:

	%	kg FM	kg FM
Kleegrassilage	86.8	43.20	6176.96
Sojaextr.schr. (44%)	8.7	4.33	618.49
Ackerbohnen	4.5	2.26	323.40
Total sub-ration	100.0	49.78	7118.86
Total		49.78	7118.86

At the bottom left, there are three summary cards: 'FEED HEALTH (1)', 'MILK YIELD PER RATION (1) 29.8 KG ENRG 29.8 PROT 37.7', and 'FEED FENCE 29.8 KG SURPLUS PROT +7.9'. At the bottom right, there are cost summary cards: 'DM content: 42.1 %', '€ 4.34 Costs per animal & day', 'Cent 14.57 Costs per kg milk', and '€ 10.56 IOFC per animal & day'.

ration data can be sended by standardized interfaces



MmmooOgle FeedNowBox as an on-Farm-feeding tool

fodjan wants to update all interfaces to standards

planned ration is exported with pen-information

feeding data is imported after feeding

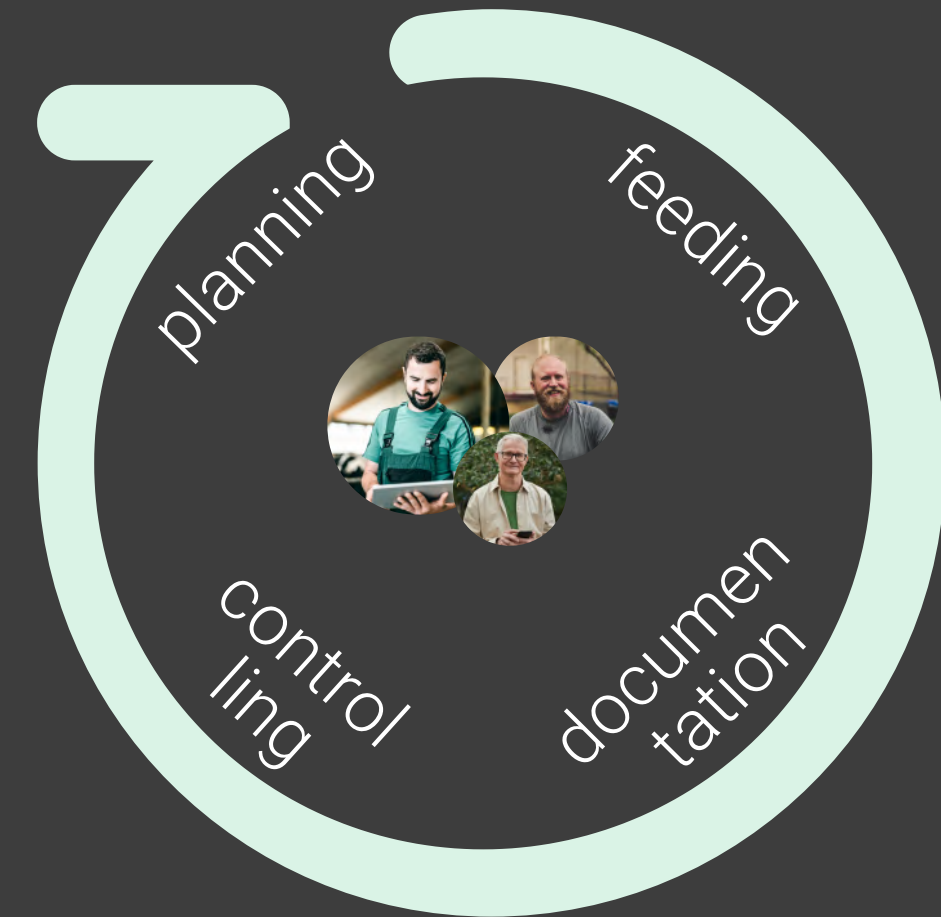
MmmooOgle FeedNowBox as an on-Farm-feeding tool (also ATLAS partner)

MmmooOgle FeedNowBox can be combined with nearly every feeding technology



integration of feeding_data template for closing the loop of feeding data

feeding report is imported with amounts and pen information



import from other templates

import of animal data throughtout other service templates p.e. Hencol , activity tracking

Tierverwaltung

In dieser Tabelle können Sie die Daten ihrer Tiere zu jedem Datum sehen.

Tiere suchen...

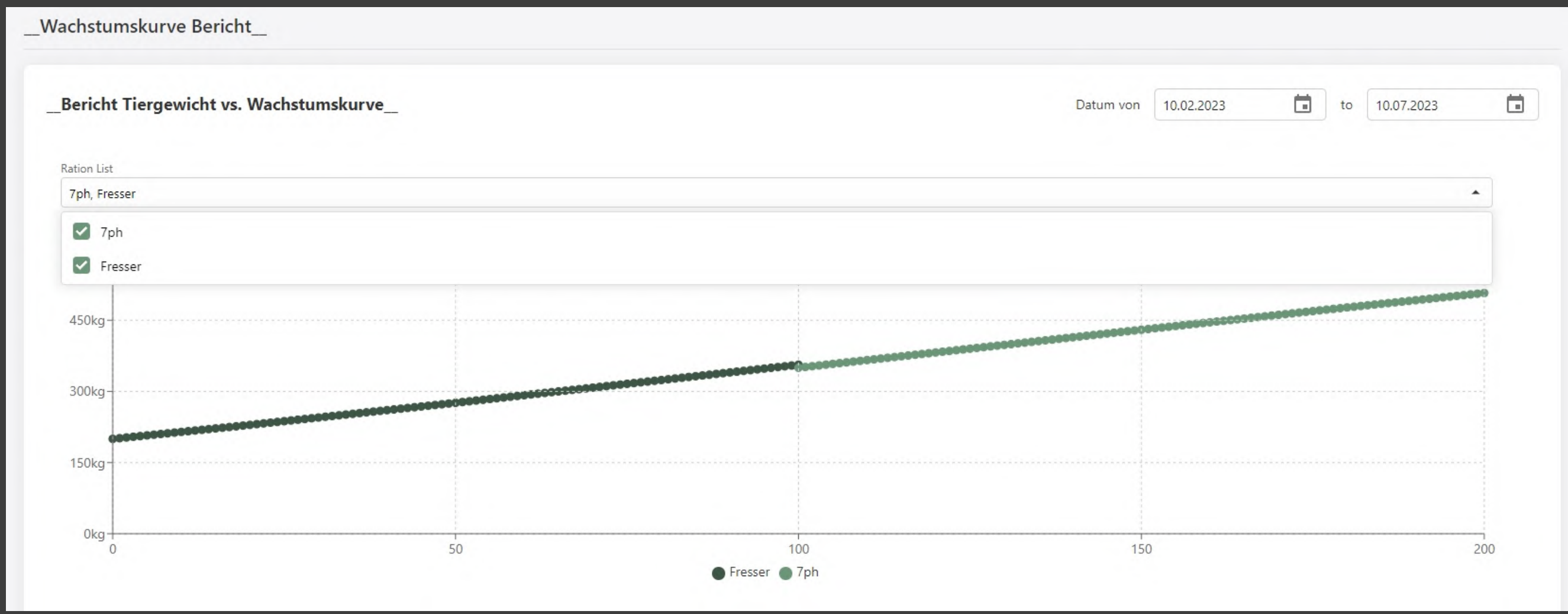
Datum: 10.07.2023

Name	Beschreibung	Ohrmarkennummer	Stall no.	Box	Tierart	Rasse	Geschlecht	Letzte Aktualisierung
DE0956548469		000000001622429	034590270136	Bullenstall WR3	Rinder	Fleckvieh	Männlich	11.05.2023
DE0956457809		000000001622430	034590270136	Bullenstall WR4	Rinder	Fleckvieh	Männlich	11.05.2023
DE0817627507		000000001622431	034590270136	Bullenstall WR3	Rinder	Fleckvieh	Männlich	11.05.2023
DE0956376470		000000001622432	034590270136	Bullenstall WR3	Rinder	Fleckvieh	Männlich	11.05.2023
DE0956111382		000000001622433	034590270136	Bullenstall WR3	Rinder	Fleckvieh	Männlich	11.05.2023
DE0956337323		000000001622434	034590270136	Bullenstall WR3	Rinder	Fleckvieh	Männlich	11.05.2023
DE0956292591		000000001622435	034590270136	Bullenstall WR3	Rinder	Fleckvieh	Männlich	11.05.2023
DE0893813762		000000001622436	034590270136	Bullenstall WR3	Rinder	Fleckvieh	Männlich	11.05.2023
DE0955609510		000000001622437	034590270136	Bullenstall WR3	Rinder	Fleckvieh	Männlich	11.05.2023
DE0955990506		000000001622438	034590270136	Bullenstall WR3	Rinder	Fleckvieh	Männlich	11.05.2023
DE0817833222		000000001622439	034590270136	Bullenstall WR3	Rinder	Fleckvieh	Männlich	11.05.2023
DE0955744470		000000001622440	034590270136	Bullenstall WR3	Rinder	Fleckvieh	Männlich	11.05.2023
DE0955388881		000000001622441	034590270136	Bullenstall WR3	Rinder	Fleckvieh	Männlich	11.05.2023
DE0955432866		000000001622442	034590270136	Bullenstall WR3	Rinder	Fleckvieh	Männlich	11.05.2023
DE0362491238		DE0362491238	034590270136	Bullenstall WR4	Rinder	Kreuzung Fleishcrind x Milchcrind	Männlich	21.09.2021

1 2 >

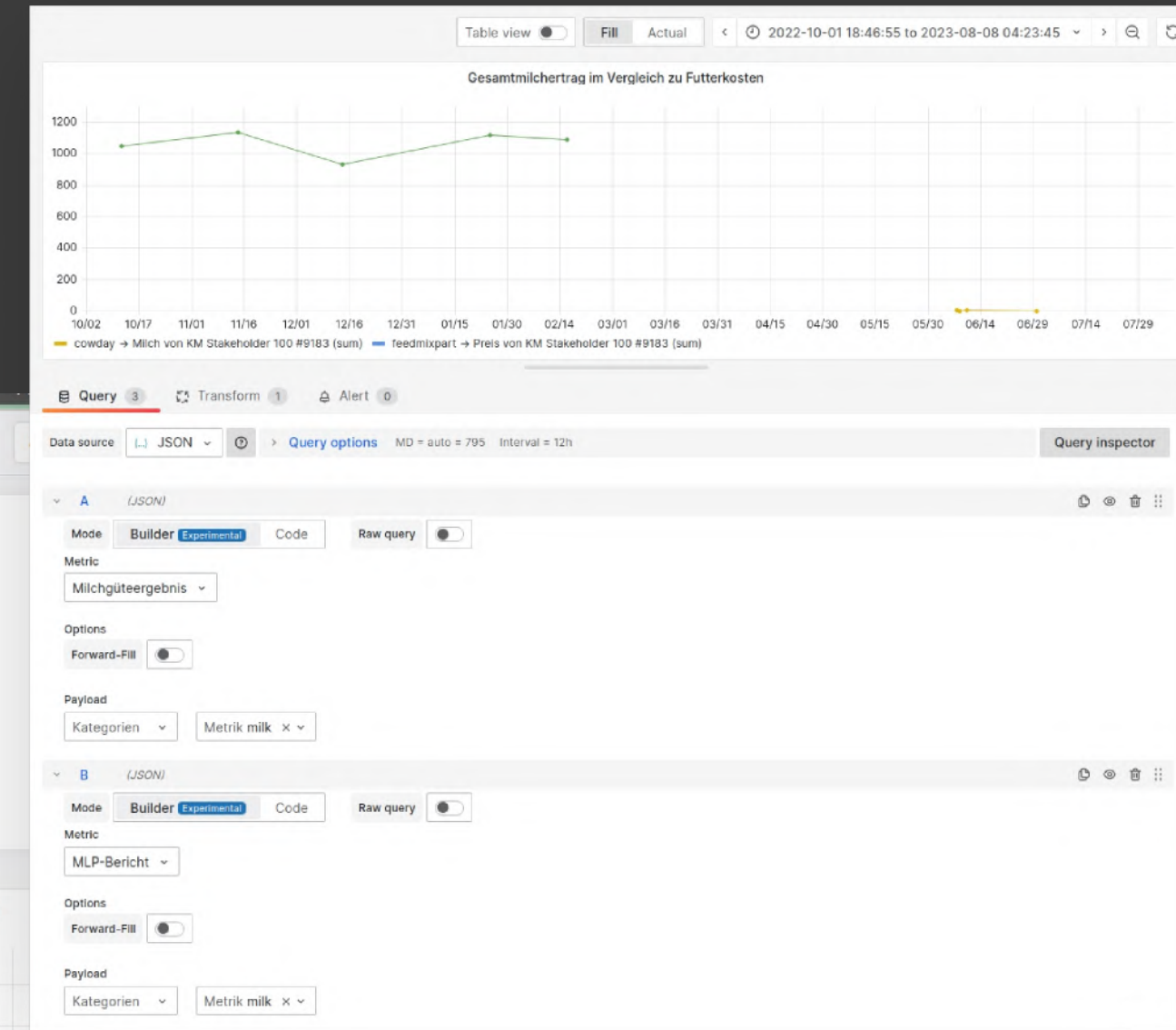
using data for growth curves

import of animal data througout other service templates p.e. Hencol , activity tracking



making data accessible

data access with Grafana for sustainability analysis and individual dashboards



Nachhaltigkeit BETA

Diese Seite gibt Ihnen einen Überblick über fodjans fortschrittliche Daten-Analyse Plattform.

Sie können jetzt mit Ihrem fodjan-Profil auf die Grafana Anwendung wechseln, die Ihnen die Möglichkeit bietet, individuelle Berichte über Ihre in fodjan gespeicherten Daten zu erstellen.

Funktionen:

- Historische Berichte über alle auf fodjan hochgeladenen Daten anzeigen
- Verknüpfen Sie Daten aus verschiedenen Quellen in einem Bericht
- Erstellen Sie eigene Dashboards, um einen Überblick über alle für Sie interessanten Zahlen zu erhalten
- Benutzerdefinierte Berechnungen und Transformationen auf den Daten durchführen (eingeschränkt)

[Zu Grafana wechseln](#) [Grafana Dokumentation](#)

Gesamtmilchertrag im Vergleich zu Futterkosten

Legend: cowday -> Milch von KM Stakeholder 100 #9183 (sum) (green), feedmixpart -> Preis von KM Stakeholder 100 #9183 (sum) (yellow)

Futtereffizienz (wie viel Trockenmasse geht rein - wie viel Milch kommt raus)

Legend: cowday -> Milch von KM Stakeholder 100 #9183 (sum) (green), feedmixpart -> mix_amount_group von KM Stakeholder 100 #9183 (sum) (yellow)

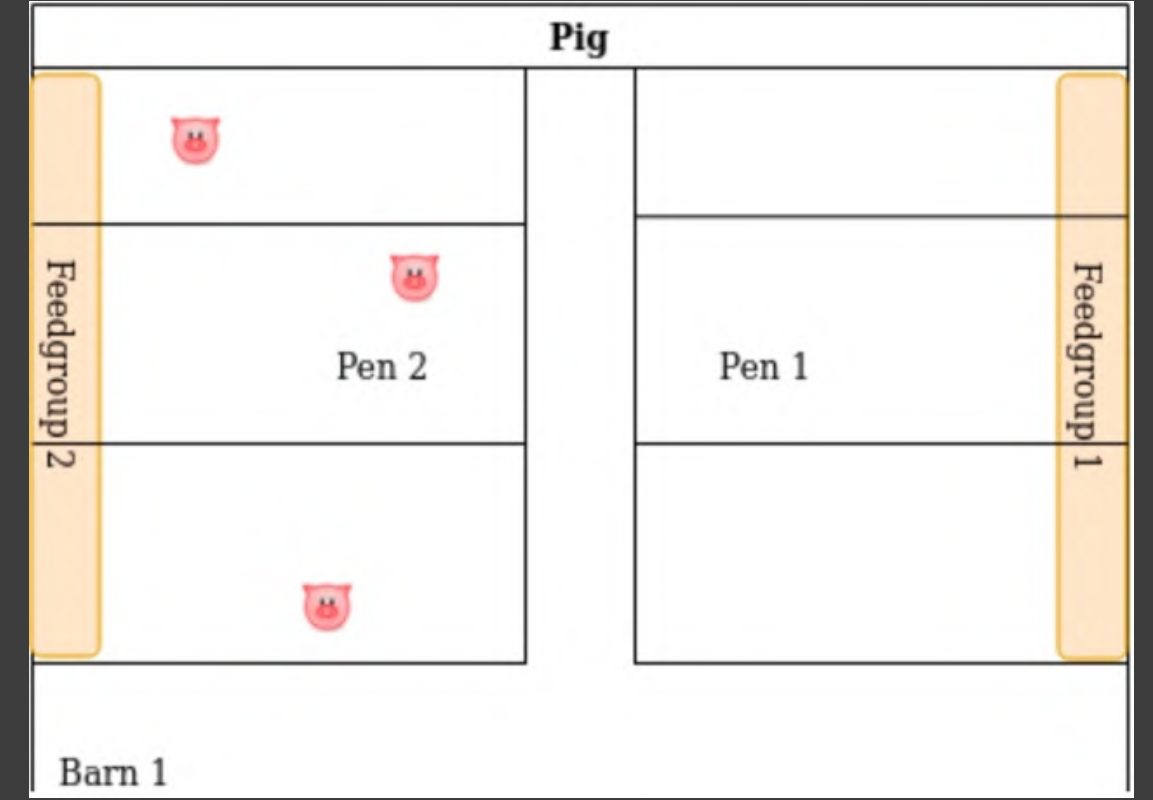
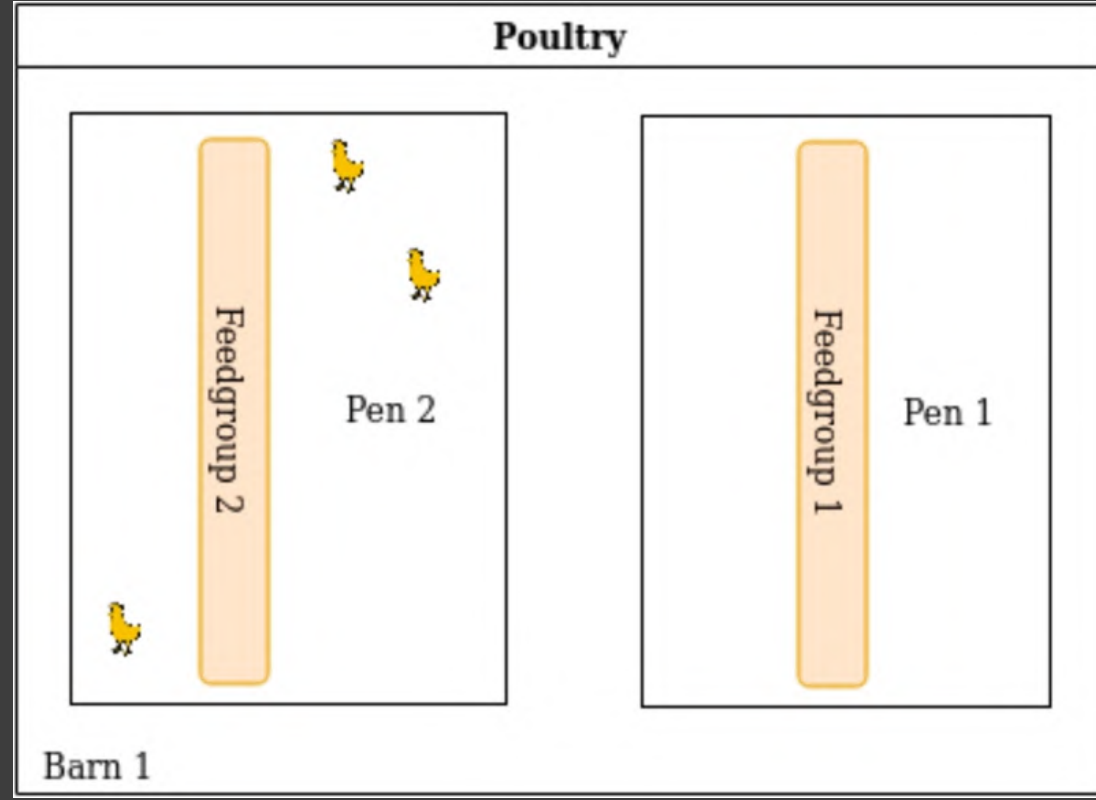
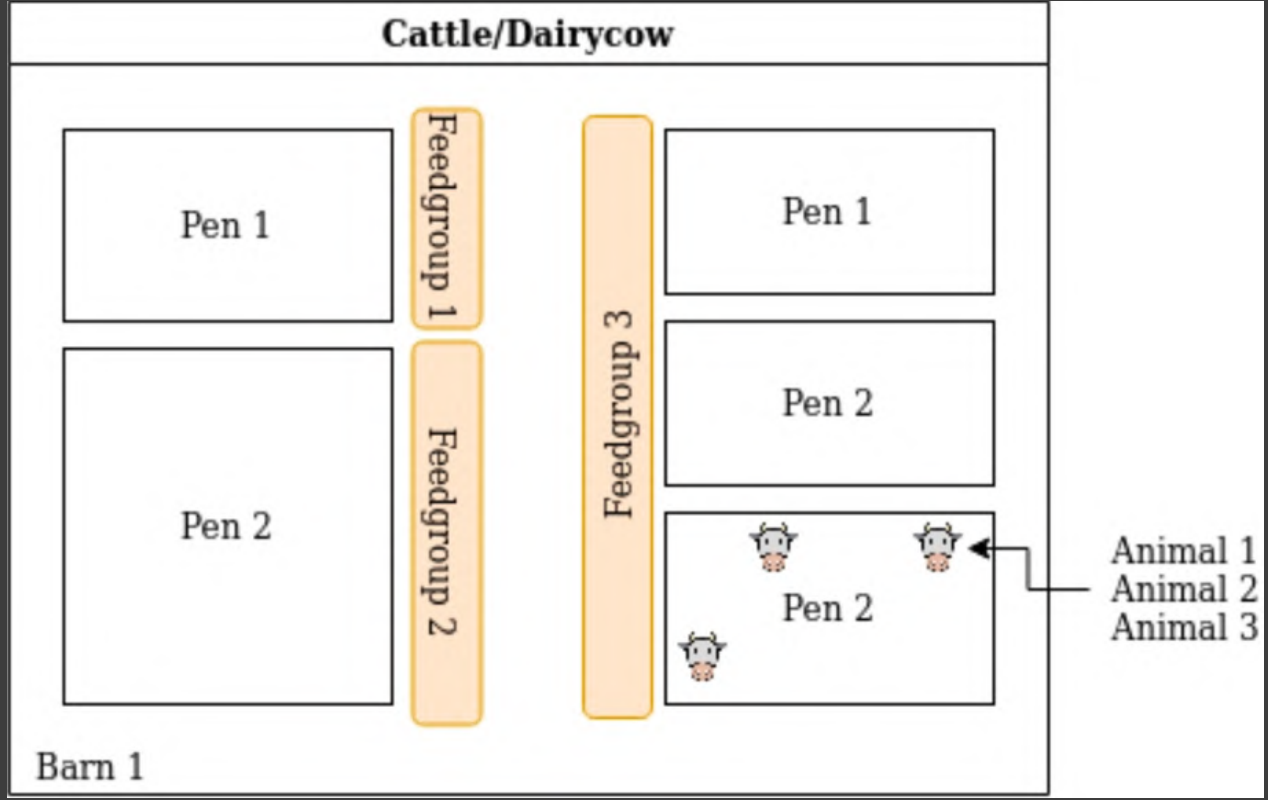
Manuell gepflegte Tankmilch (wenn vorhanden aus Milchgüte oder MLP) im Verhältnis zu Kosten aller aktiven Rationen

Legend: feedmixpart -> Preis von KM Stakeholder 100 #9183 (sum) (green), cowday -> Milch von KM Stakeholder 100 #9183 (sum) (yellow)



Animal Data - digital barn twin

Animal Data - digital barn twin



Animal Data - digital barn twin

Barn Information ^

- GET **/barns** List all barns v 🔒
- GET **/barns/{urn}** Get a single barn v 🔒
- GET **/pens** List all pens v 🔒
- GET **/pens/{urn}** Get a single pen v 🔒

Animal Information ^

- GET **/animals** List all animals v 🔒
- GET **/animals/{urn}** Get single animal v 🔒
- GET **/events** Get events for the animals v 🔒

Animal Data - digital barn twin

Server

Implemented by Hencol

farm-structure

animals

daily animal weights as events

Implemented by fodjan

farm-structure

animals

milking reports as events

Client

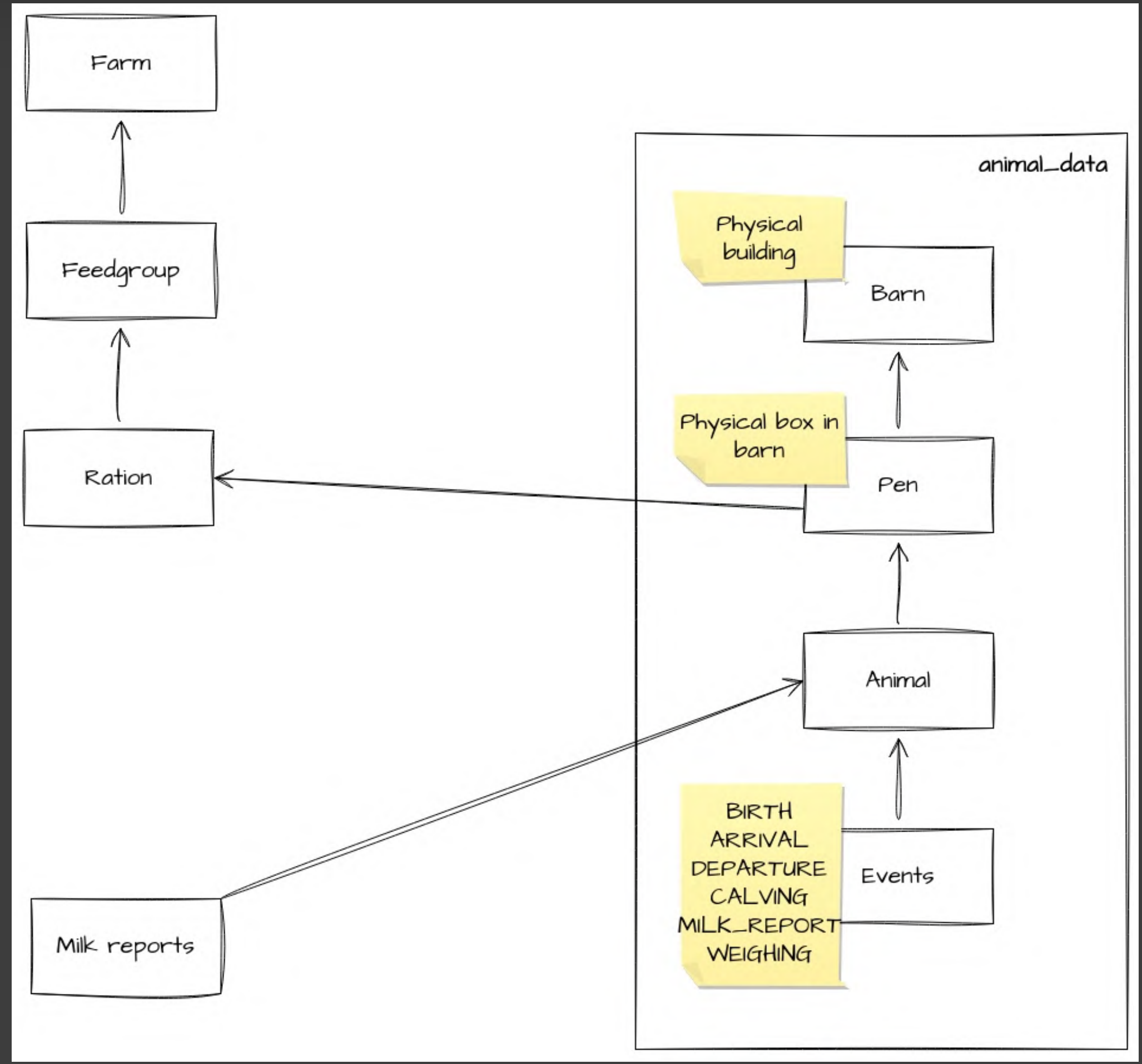
fodjan

structure + weighings from Hencol

Frauenhofer IAIS

use pens to assign video-streams to it

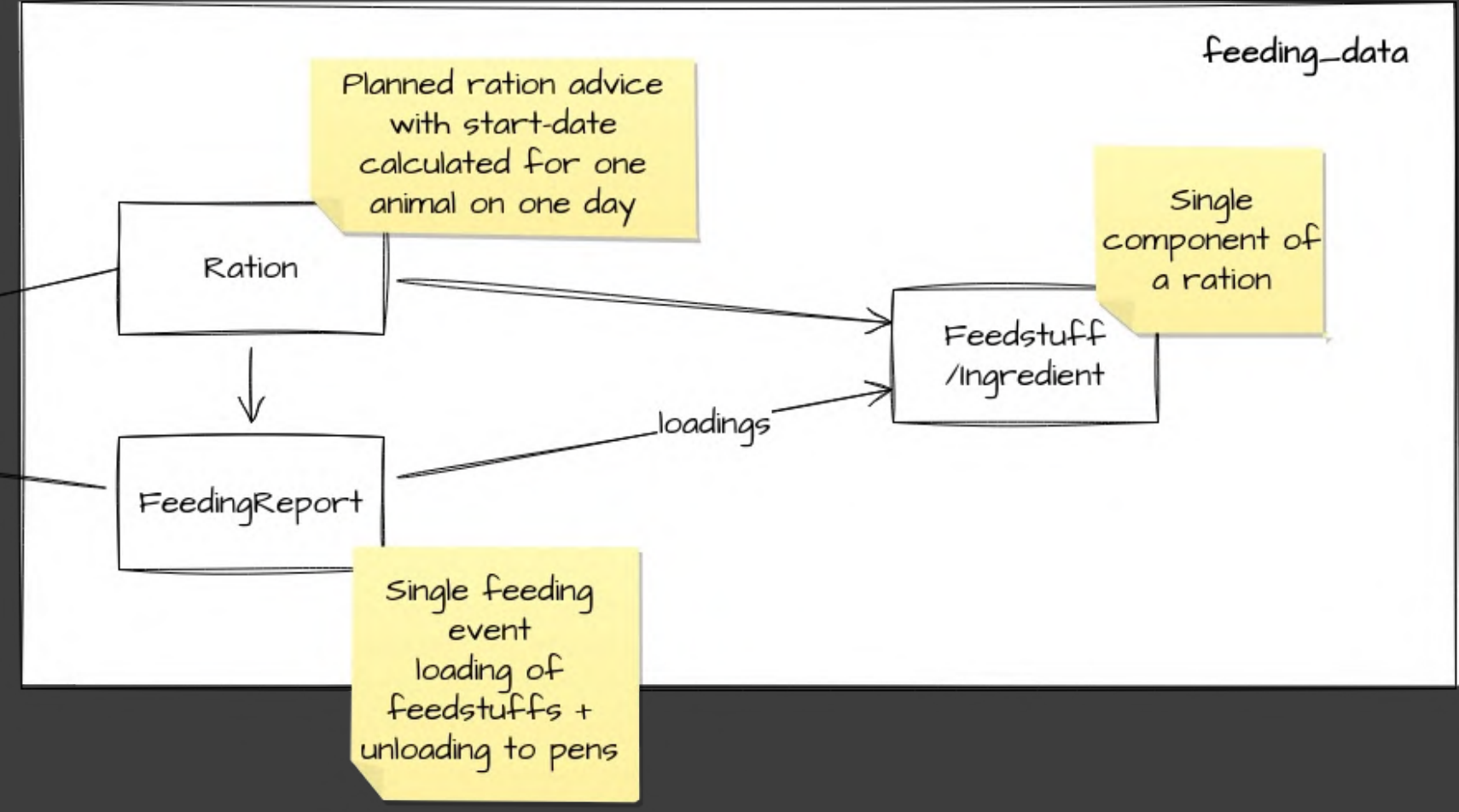
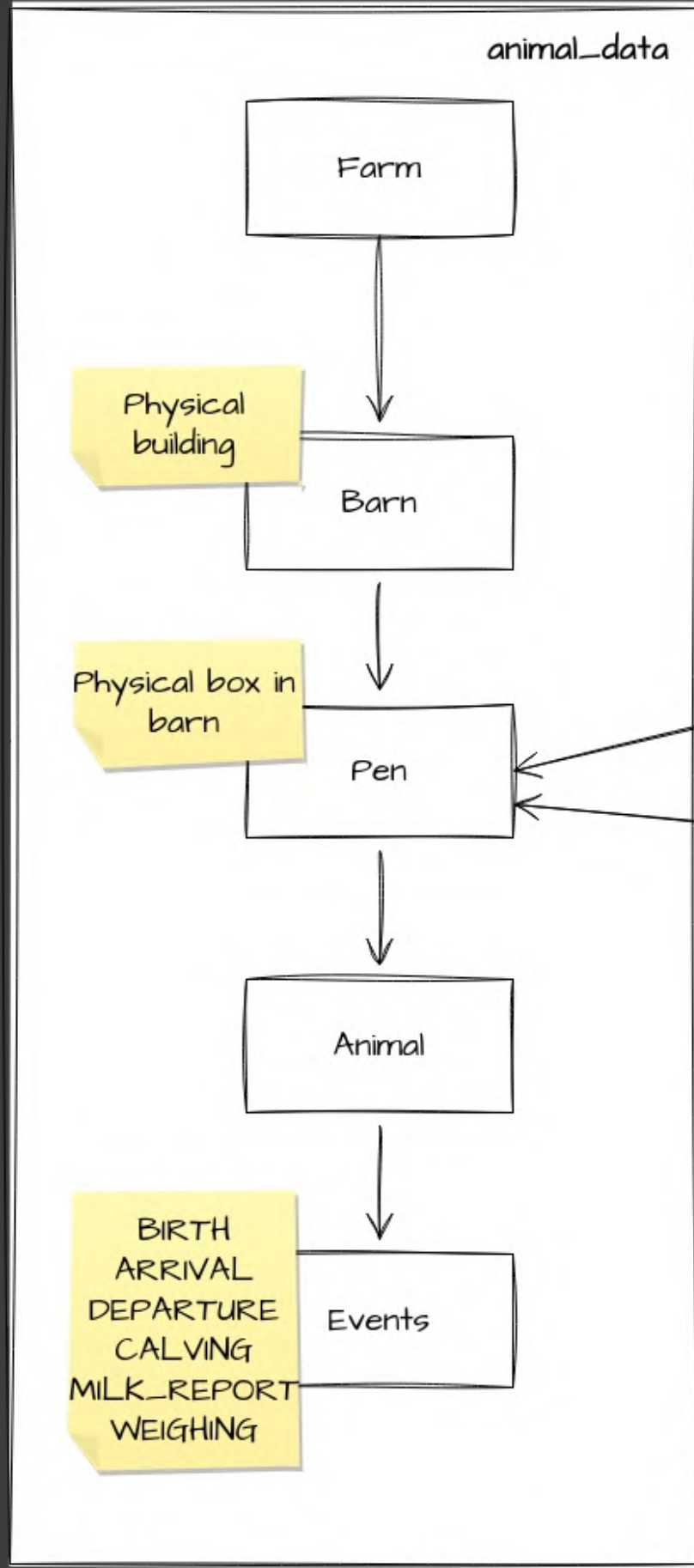
Animal Data



Feeding data



Feeding data



unloadings

Feeding data

ATLAS feeding_data 0.0.2 OAS3

https://raw.githubusercontent.com/MmmooOgle/feeding_data/mf_v0.0.2/open-api.yaml


Send planned rations and get actual feeding reports into the system.

Servers

http://localhost:8080 - Inferred Url ▾

Authorize 

default

GET /feedingreport Retrieve feeding report  

POST /ration importRation  

Feeding data - POST /ration

```
{
  "ration_ref": "62559890-acfb-11ed-afa1-0242ac120002",
  "feedstuffs": [
    {
      "amount_freshmatter": 12.5,
      "cost_kg_freshmatter": 0.4125,
      "drymatter_percentage": 87,
      "feedstuff_id": "49c78036-acfb-11ed-afa1-0242ac120002",
      "name": "Sojabohnen (gesch., Bioprofin)",
      "type": "dry_forage"
    }
  ],
  "pen_allocations": [
    {
      "feed_intake_per_animal": 31.5,
      "urn": "urn:de.fodjan.animal_data:69d4a4ec-e8a4-4768-a299-14a7a9acd1b1"
    }
  ],
  "name": "Ration Test 1",
  "start_date": "2023-07-11"
}
```

How to get it?

Feeding data

Server

Implemented by MmmooOgle

Programm scale with rations

Getting fed rations as feedingreport

Further vendors are interested...

Client

fodjan

Sending calculated rations to MmmooOgle

Build accuracy report out of feedingreport

Building Interfaces with ATLAS principles

- + Better discussions about data-flow
- + Significantly better documentation
- + Integration approach between services in their design avoids conflicting data-redundancy
- + Basic technologies OAuth2 + OpenAPI improves security and developer experience