From Sheds to Pastures

The PoultryFI and GRAZEful Projects

algolysis

algorithmic solutions

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About Algolysis Ltd

- Deep tech SME operating since 2017, founded by:

Dr. Efstathios Stavrakis

Dr. Nicolas Nicolaou

Activity Pillars

- Research & Development
- Software Development
- Consulting Services

Vision:

A world in total harmony with technology.

Mission:

Identify and **implement** important ***research outcomes*** with the aim to make them available to the end users through ***cutting-edge and innovative real-world applications***.

Areas of Research

- Distributed Systems and Applications
- Computer Graphics / Vision
- Data Collection / Analysis / Visualisation
- Internet of Things
- Machine Learning / Artificial Intelligence

Poultry Farm Intelligence (PoultryFI)

- Funded by the Research & Innovation Foundation

- RESTART 2016 – 2020
  - CODEVELOP-ICT-HEALTH/0322/0061

- Consortium

PoultryFI - External Collaborators

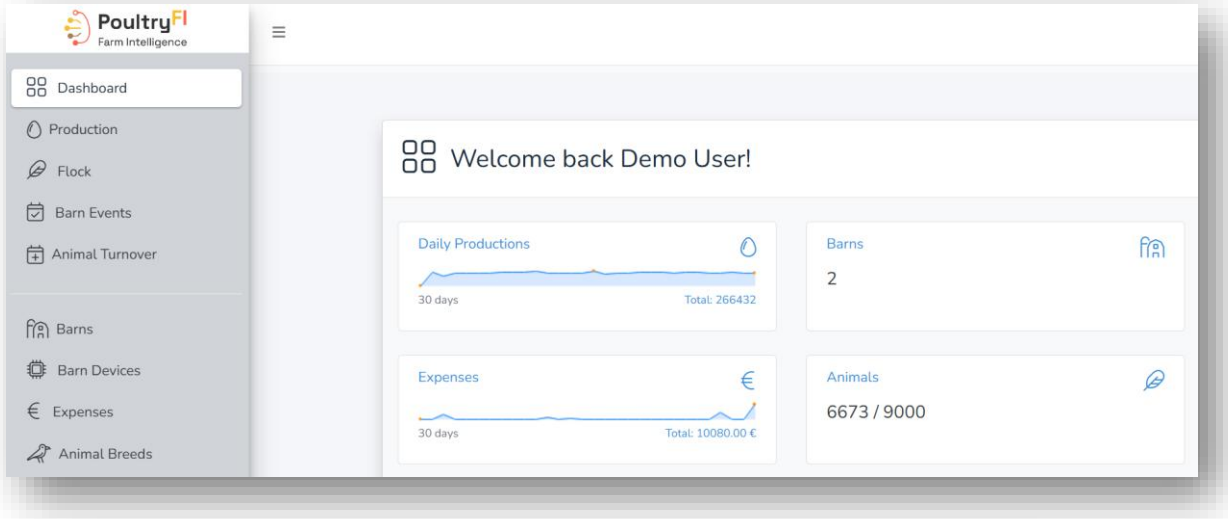
- Vilanides Farms (Pano Deftera / Nicosia)

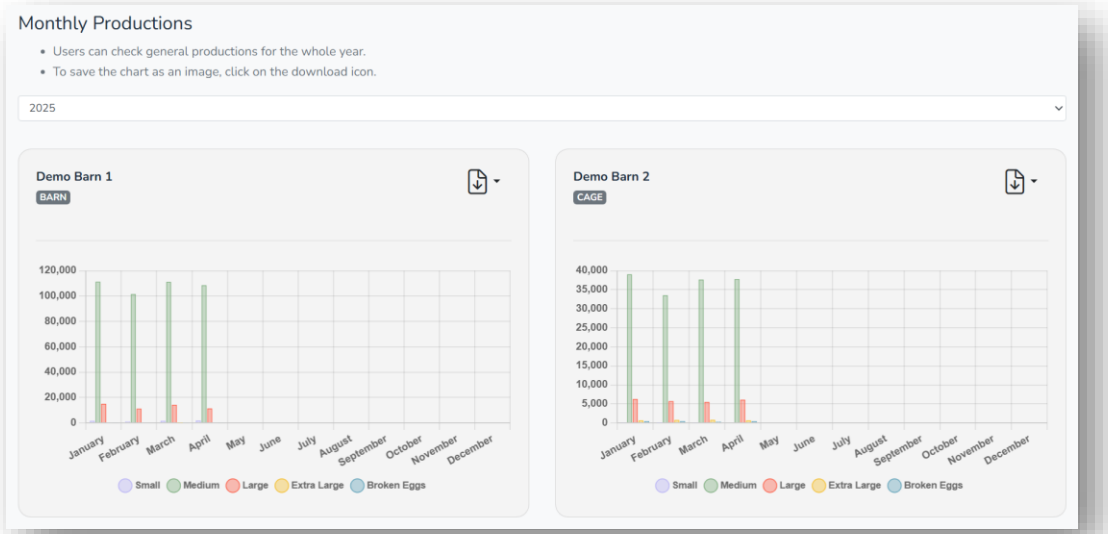
Vilanides Farms

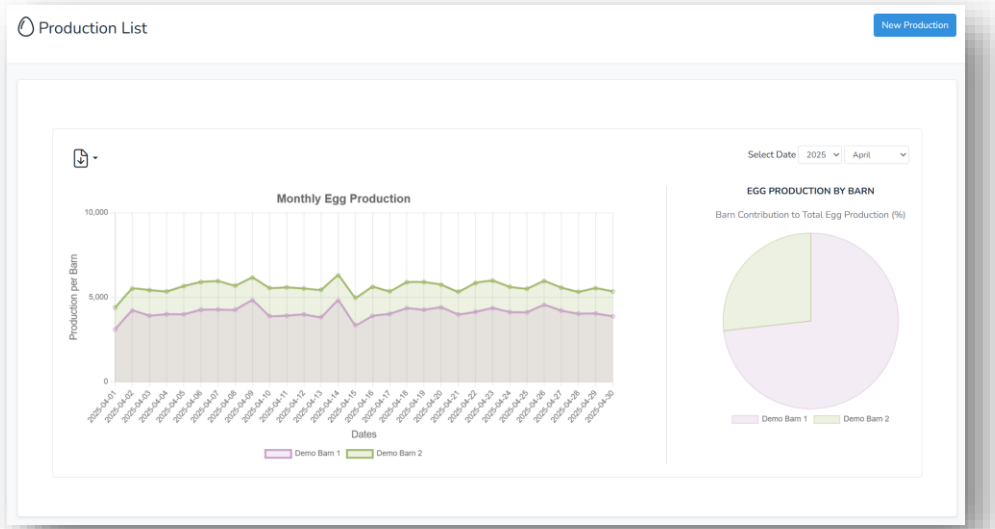
PoultryFI Deployment

PoultryFI - Web Portal

- Farm Management System
- Production tracking
- Flock tracking

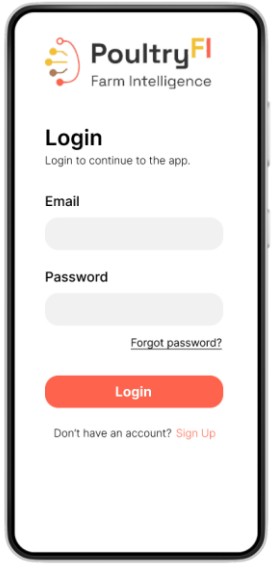


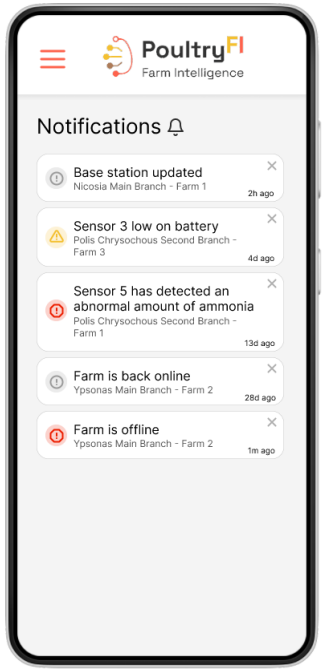


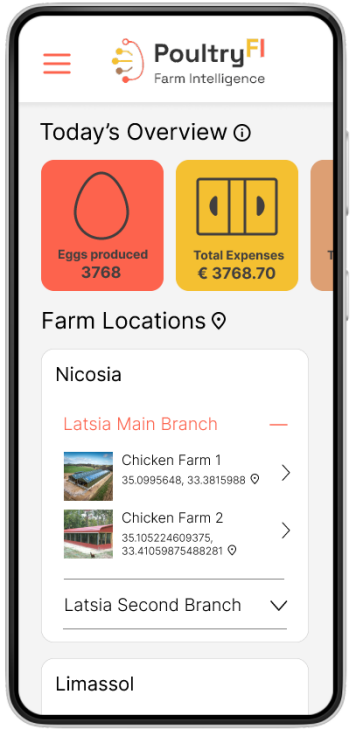


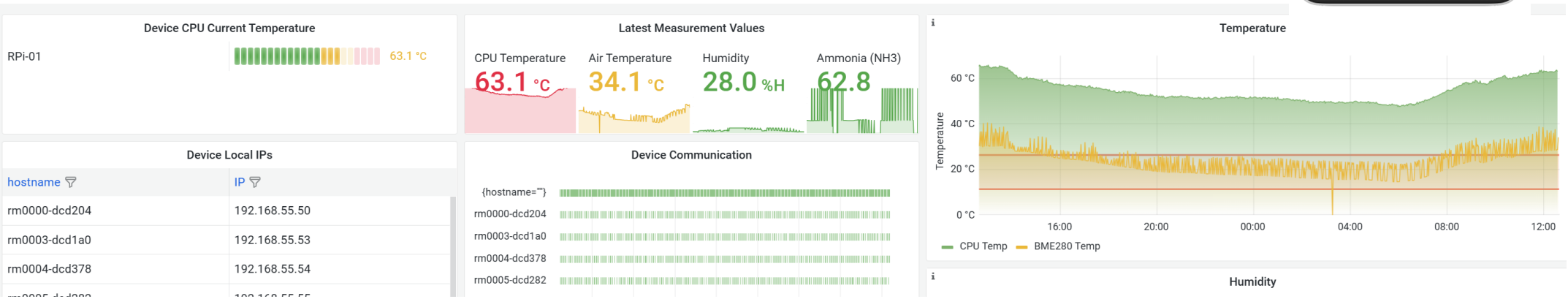
PoultryFI – Metrics and Mobile App

- Farm Management System
- Production tracking
- Flock tracking
- **Sensor Metrics**



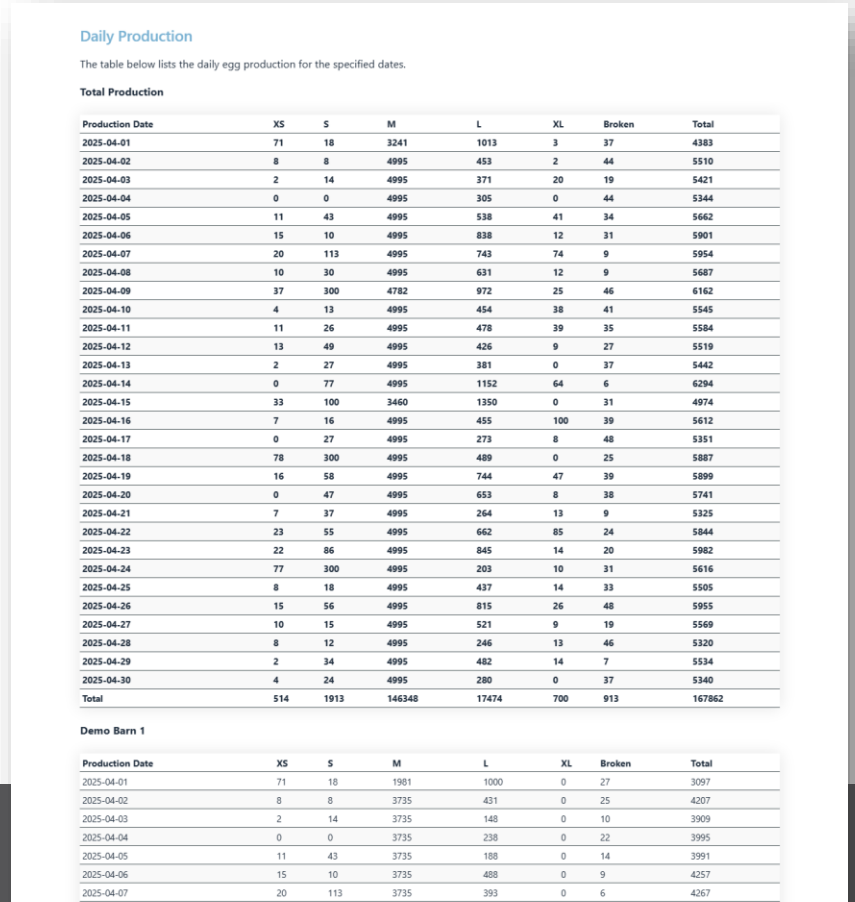






PoultryFI - Reports

- Farm Management System
- Production tracking
- Flock tracking
- Sensor Metrics
- **Reports!**



Daily Production

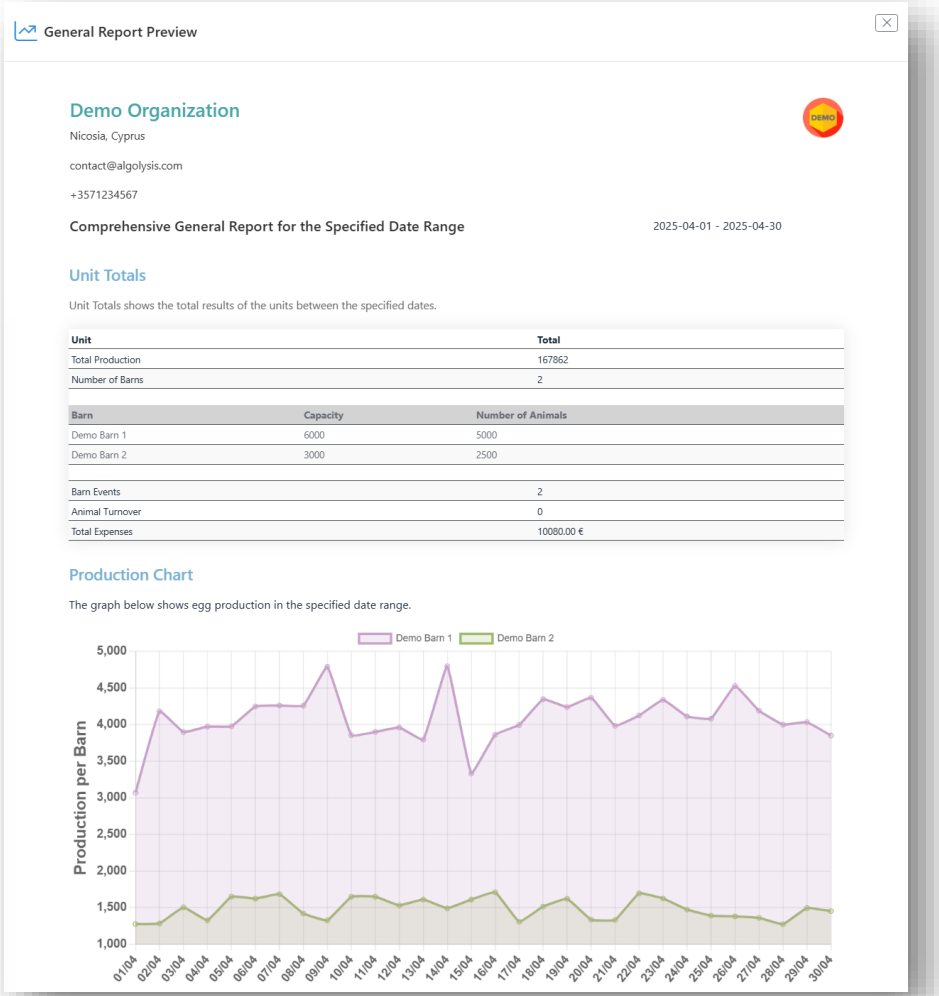
The table below lists the daily egg production for the specified dates.

Total Production

Production Date	XS	S	M	L	XL	Broken	Total
2025-04-01	71	18	3241	1013	3	37	4383
2025-04-02	8	8	4995	453	2	44	5510
2025-04-03	2	14	4995	371	20	19	5421
2025-04-04	0	0	4995	305	0	44	5344
2025-04-05	11	43	4995	538	41	34	5662
2025-04-06	15	10	4995	838	12	31	5901
2025-04-07	20	113	4995	743	74	9	5954
2025-04-08	10	30	4995	631	12	9	5687
2025-04-09	37	300	4782	972	25	46	6162
2025-04-10	4	13	4995	454	38	41	5545
2025-04-11	11	26	4995	478	39	35	5584
2025-04-12	13	49	4995	426	9	27	5519
2025-04-13	2	27	4995	381	0	37	5442
2025-04-14	0	77	4995	1152	64	6	6294
2025-04-15	33	100	3460	1350	0	31	4974
2025-04-16	7	16	4995	455	100	39	5612
2025-04-17	0	27	4995	273	8	48	5351
2025-04-18	78	300	4995	489	0	25	5887
2025-04-19	16	58	4995	744	47	39	5899
2025-04-20	0	47	4995	653	8	38	5741
2025-04-21	7	37	4995	264	13	9	5325
2025-04-22	23	55	4995	662	85	24	5844
2025-04-23	22	86	4995	845	14	20	5982
2025-04-24	77	300	4995	203	10	31	5616
2025-04-25	8	18	4995	437	14	33	5505
2025-04-26	15	56	4995	815	26	48	5955
2025-04-27	10	15	4995	521	9	19	5569
2025-04-28	8	12	4995	246	13	46	5320
2025-04-29	2	34	4995	482	14	7	5534
2025-04-30	4	24	4995	280	0	37	5340
Total	514	1913	146348	17474	700	913	167862

Demo Barn 1

Production Date	XS	S	M	L	XL	Broken	Total
2025-04-01	71	18	1981	1000	0	27	3097
2025-04-02	8	8	3735	431	0	25	4207
2025-04-03	2	14	3735	148	0	10	3909
2025-04-04	0	0	3735	238	0	22	3995
2025-04-05	11	43	3735	188	0	14	3991
2025-04-06	15	10	3735	488	0	9	4257
2025-04-07	20	113	3735	393	0	6	4267



General Report Preview

Demo Organization

Nicosia, Cyprus

contact@algolysis.com

+3571234567

Comprehensive General Report for the Specified Date Range 2025-04-01 - 2025-04-30

Unit Totals

Unit Totals shows the total results of the units between the specified dates.

Unit	Total
Total Production	167862
Number of Barns	2

Barn	Capacity	Number of Animals
Demo Barn 1	6000	5000
Demo Barn 2	3000	2500

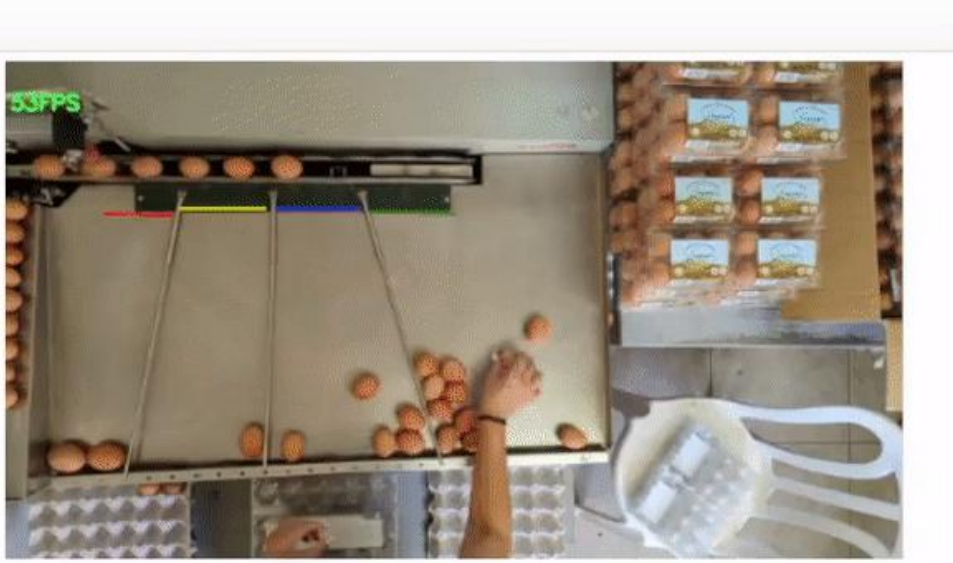
Barn Events	2
Animal Turnover	0
Total Expenses	10080.00 €

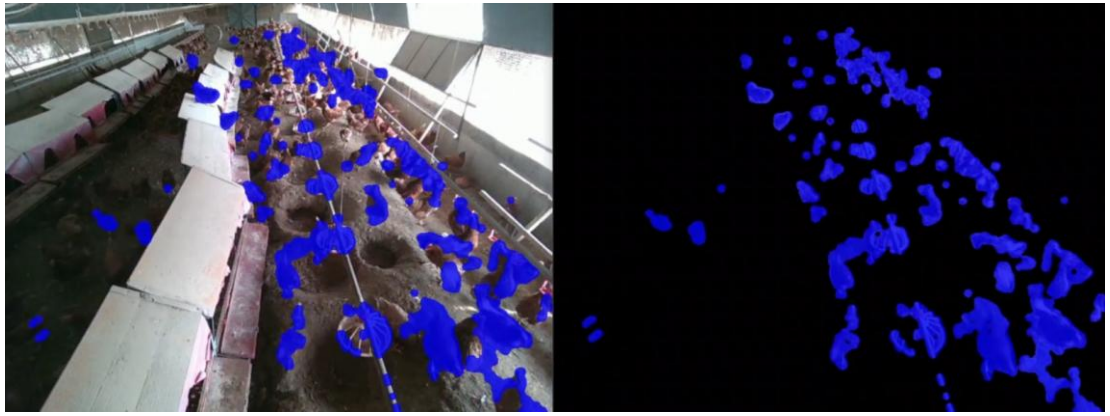
Production Chart

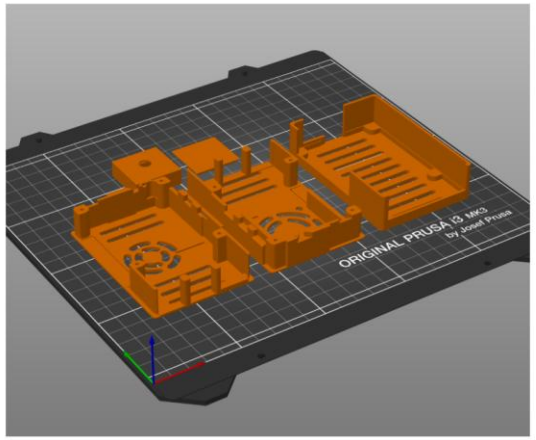
The graph below shows egg production in the specified date range.

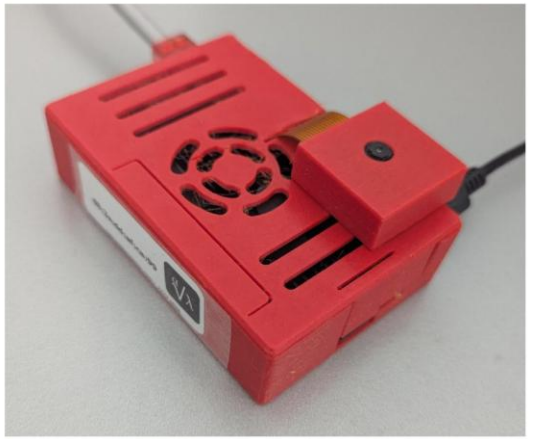
PoultryFI Artificial Intelligence

- AI-assisted real-time egg-counting
- Production and Profitability Forecasting
- Camera Placement Optimizer
- Analytics and Alerting System
- Recommendations System
- Audio/Visual Monitoring system









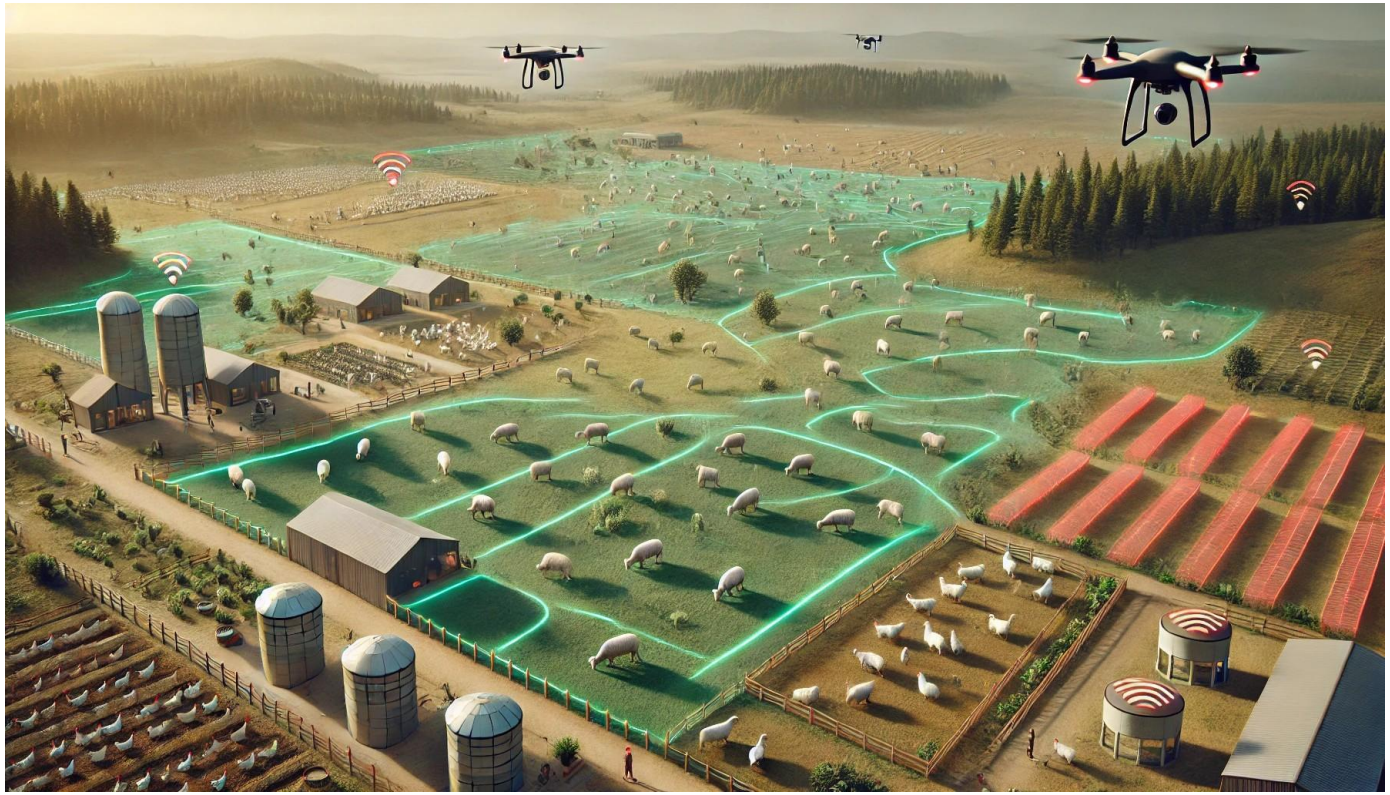
GRAZEful - Smart Virtual Fencing for Precision Livestock Grazing

- Funded by the SPADE Horizon Europe Project
  - G.A. No. 101060778
  - 1 of 9 selected projects in an Open Call

- Just Started - WIP!

GRAZEful - Smart Virtual Fencing for Precision Livestock Grazing

- Virtual fencing system for targeted grazing management
  - Improved pasture and land management
  - Animal tracking & monitoring
  - Real-world farm deployment



Operational Concept

- Define and manage virtual fences, around grazing areas
- Animal collars track location and movement
- Virtual fence thresholds are enforced digitally
- Trespassing events are detected automatically
- Alerts are sent to farm operators in real time
- UAVs survey fence boundaries on-demand

From Sheds to Pastures

Thank you for your attention!

Q?