

UNLOCKING THE VALUE OF DATA IN THE FATTENING PIG SECTOR

VIA INTERNET OF THINGS

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August 28 2019



STARTING POINT

I have different monitoring machines that generate data. How can I combine them?

I have a lot of data, but don't use it.

I only know when a problem has occurred when it is already too late.

I want an easy overview of my farm in one tool.



I want to combine on-farm data with slaughterhouse results.

PROJECT OBJECTIVES

On-farm data

- System independent
- Real-time



Slaughterhouse data



Climate



Feed intake



Water intake



Weight



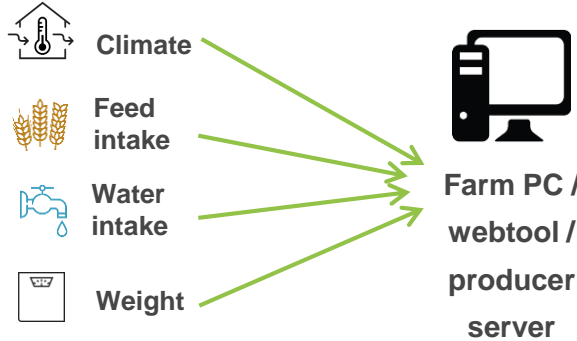
Slaughterhouse results



Dashboard & early-warning system

PRODUCT IOT STRUCTURE

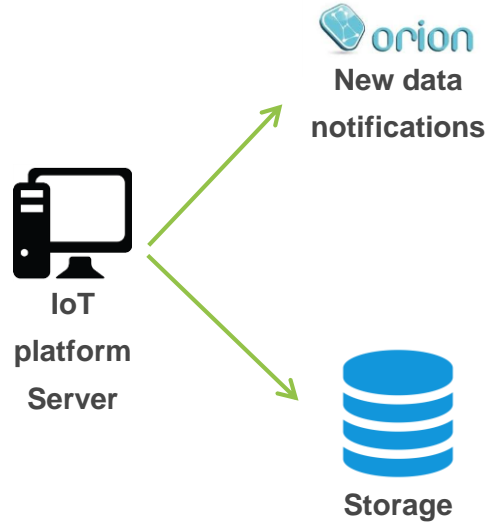
Farm



Slaughterhouse



IOT infrastructure



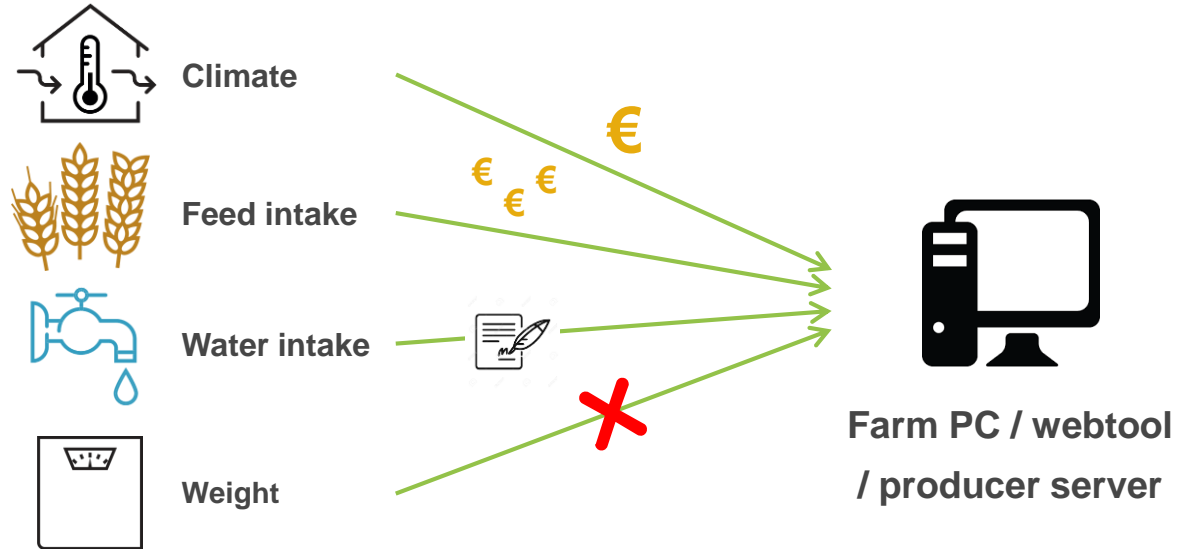
Dashboard



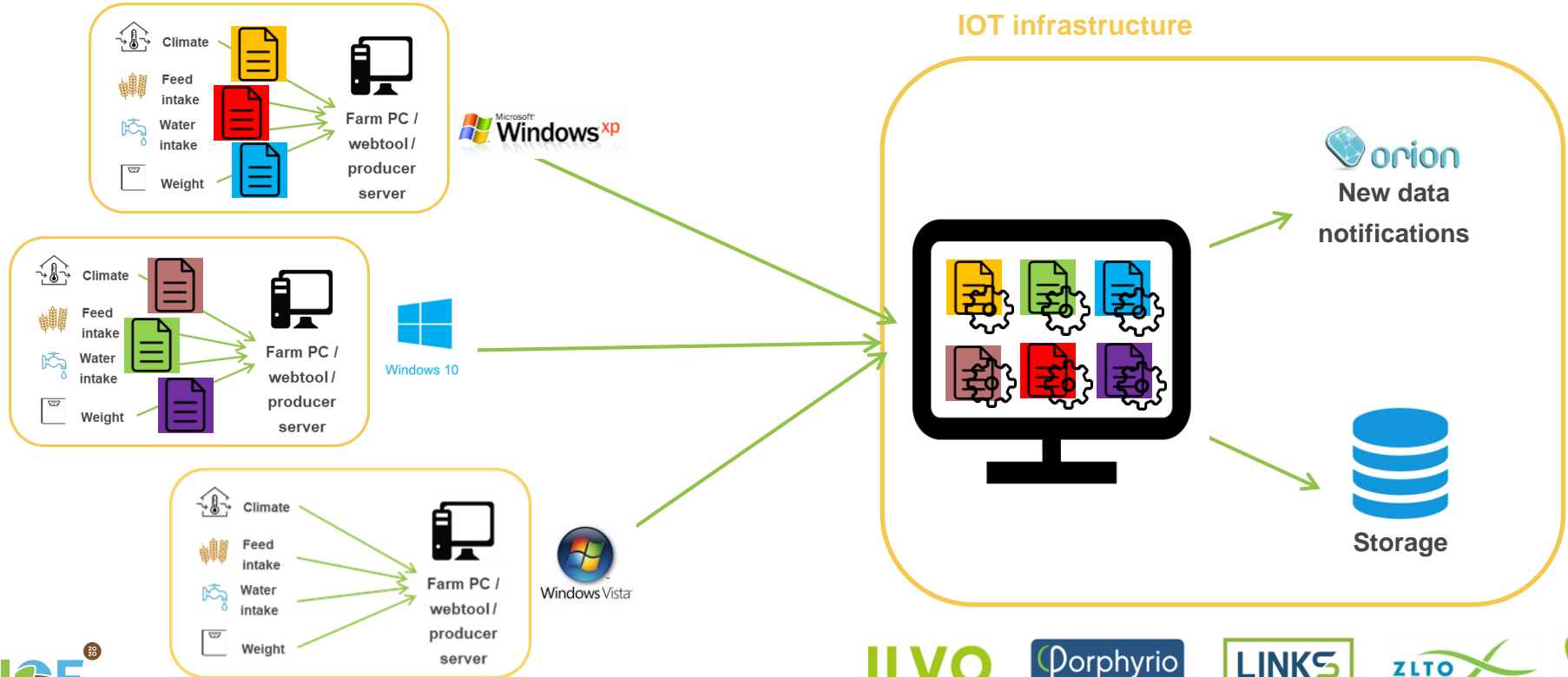
- Real-time charts
- Historical data
- Warning system
- ...

PROBLEMS ENCOUNTERED

DATA OWNERSHIP

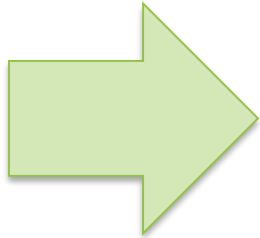
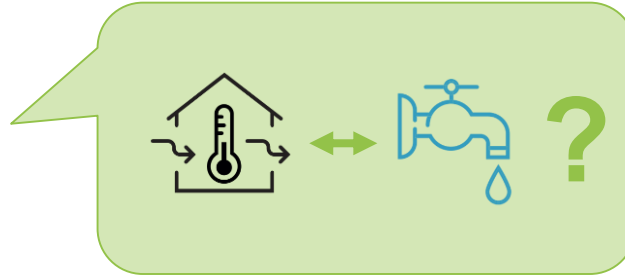


PROBLEMS ENCOUNTERED *HETEROGENEOUS DATA & SYSTEMS*



PROBLEMS ENCOUNTERED

DETERMINING IMPORTANT INFORMATION



- ✓ Water usage
- ✓ Temperature



- ✓ Number of animals
- ✓ Feed intake
- ✓ Feed composition
- ✓ Age of animals
- ✓ ...

PRODUCT

DEMO VERSION

SMART FARM ASSISTANT

Charl Vandenbussche

Dashboard

Department 1

Department 2

Department 2 Pen 1

Department 2 Pen 2

Department 2 Pen 3

Department 2 Pen 4

Data Ingave

Vergelijk

Financieel

Gezondheid

Planning

POWERED BY Porphyrio

DEPARTMENT 2 PEN 1 LANDRACE | 36 D.

BEKIJK GRAFIEKEN

16 kg Droge voeding gebruik...

1,1 kg Droge voeding gebruik...

7,7 kg Gemiddeld gewicht

0,1 kg Dagelijkse gewichtstoe...

1 Totale uitval

22,3 / 23,4 °C Klimaat

DEPARTMENT 2 PEN 2 LANDRACE | 35 D.

BEKIJK GRAFIEKEN

6 kg Droge voeding gebruik...

0,4 kg Droge voeding gebruik...

9,4 kg Gemiddeld gewicht

0,5 kg Dagelijkse gewichtstoe...

0 Totale uitval

22,3 / 23,4 °C Klimaat

DEPARTMENT 2 PEN 3 LANDRACE | 56 D.

BEKIJK GRAFIEKEN

10 kg Droge voeding gebruik...

0,8 kg Droge voeding gebruik...

17,8 kg Gemiddeld gewicht

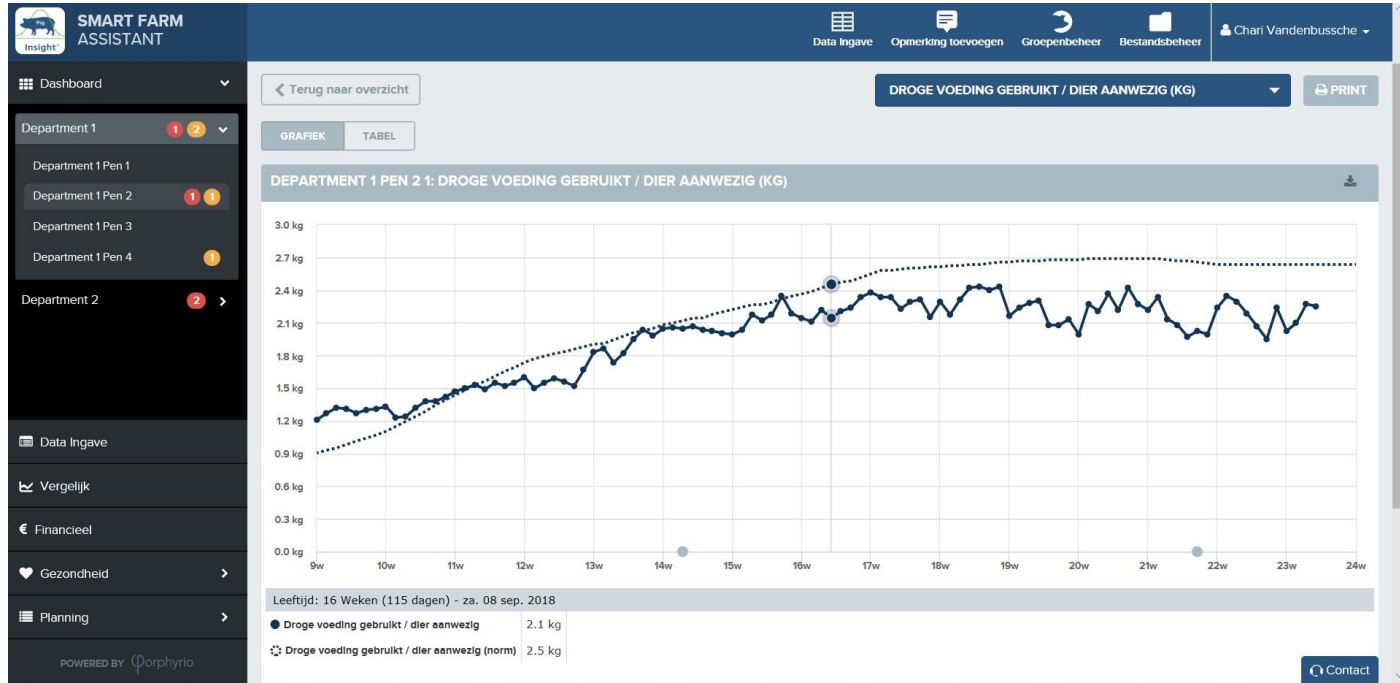
0,1 kg Dagelijkse gewichtstoe...

2 Totale uitval

Contact

PRODUCT

DEMO VERSION



PRODUCT

DEMO VERSION

The screenshot displays the SMART FARM ASSISTANT dashboard. The top navigation bar includes the 'Insight' logo, the title 'SMART FARM ASSISTANT', and user information 'Chari Vandenbussche'. The main navigation menu on the left lists 'Dashboard', 'Department 1', 'Department 2', 'Data Ingave', 'Vergelijk', 'Financieel', 'Gezondheid', and 'Planning'. The main content area features a header with 'OVERZICHT', 'ALARMEN', and 'TECHNISCH' tabs. Below this, there are three sections: 'NIEUWE ALARMEN' with three cards for department 1 pen 2 (daily yield), department 2 pen 3 (total yield), and department 2 pen 4 (total yield); 'BEVESTIGDE ALARMEN' showing 'Geen bevestigde alarmen'; and 'ATTENTIES' with two climate cards for department 1 pen 2 and department 1 pen 4. A 'Contact' button is located in the bottom right corner. The footer indicates the system is 'POWERED BY Porphyrio'.

PRODUCT

USER FEEDBACK

1. Need for aggregated data to keep overview
2. Automatic start-up of fattening rounds based on acquired data



PRODUCT

CURRENT STATUS & FUTURE WORK



Version 1

September – November 2019

- Release of version 2, including:
 - Early-warning system
 - Department level data
 - Automatic start-up of rounds

CONCLUSIONS

1. Need for standardized procedures to get data
 - Uniform data availability
 - Clarity about data ownership
2. Need clear overview and ease-of-use of product
 - Top-down data overview ↔ bottom-up data availability
 - Fully automatic

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IoF
INTERNET OF FOOD & FARM
2020

IoF2020 is funded by the Horizon 2020 Framework Programme of the European Union.
Grant Agreement no. 731884. Visit iof2020.eu for more information about the project.

