











in collaboration with





#### Digitalisation of an Organic Dairy Farm in Turkey

#### EMRE GÜRDAL

Veterinarian and Dairy Owner





## **Our Dairy**

- 70 years old
- Producing Organic Milk for 20 Years
- Milking 300 Cows 750 Cattle in Total
- Produce Our Own Crops for Our Own Animals
- Above 200 Hectares

## Why Do We Digitalise?

- Sustainability (Environmental and Economic)
- Improving Quality
- Improving Welfare
- Improving Health
- Eliminating Human Error

## Challenges?

- Higher Initial Cost
- Data Security
- Need of Skilled Workers
- Complexity

#### Our Digitalisation Journey

#### What have we done?

- Digital Milking Parlour
- Manure Scrapers and Seperation
- Automated Feed Pushing
- Air Ventilation
- Collars for Cows
- Infrastracture for Watering
- Solar Panels

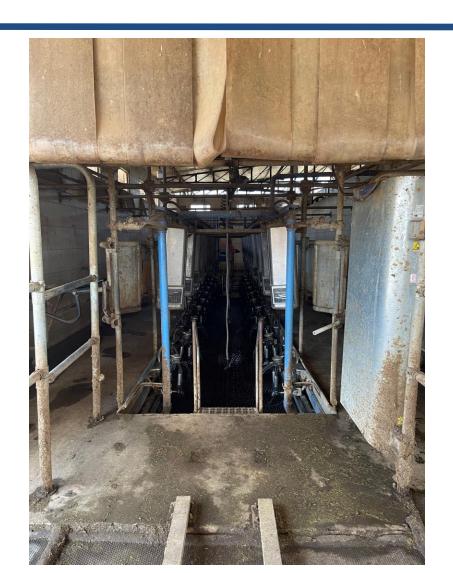
#### In process

- Robotic Milking
- Fully Autonomous Feed Preparing

#### Future plans

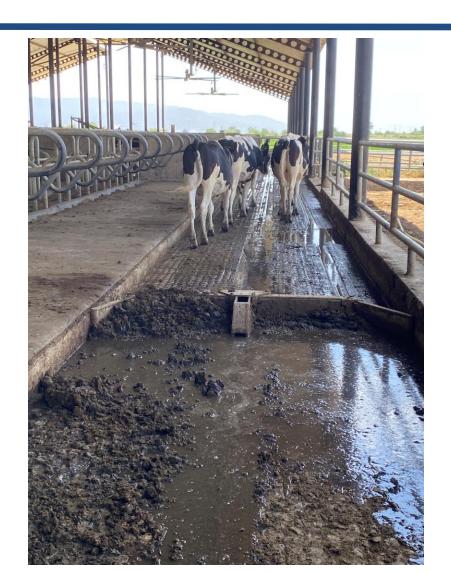
- Fully Autonomous Feed Delivery
- Al Controlled Watering
- Biogas Plant
- Plant Health Analysis with Drones
- Electric Tractors

## Digital Milking Parlour





## Manure Scrapers and Seperation



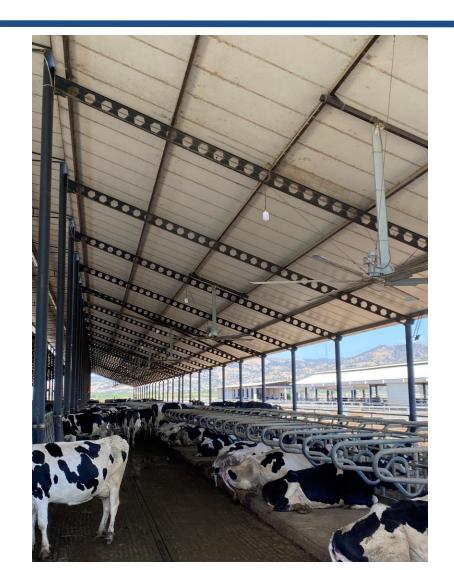


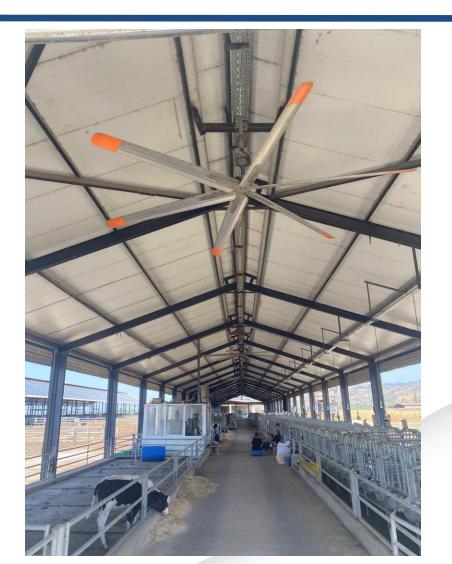
## **Automated Feed Pushing**



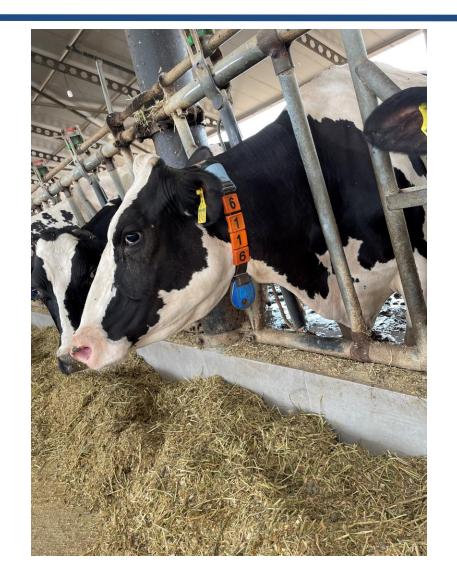


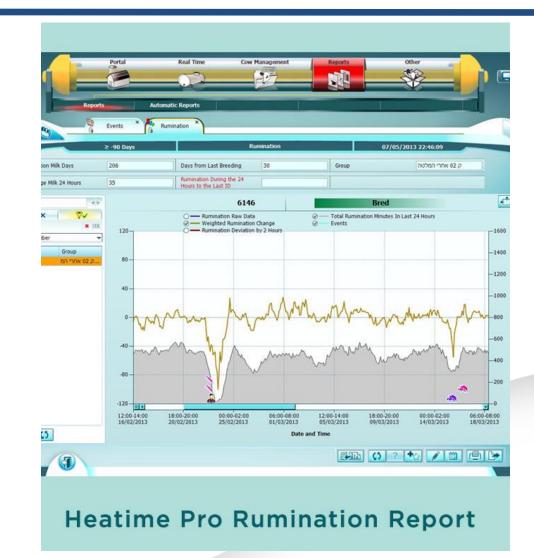
#### Air Ventilation





#### **Collars for Cows**





# Infrastracture for Watering

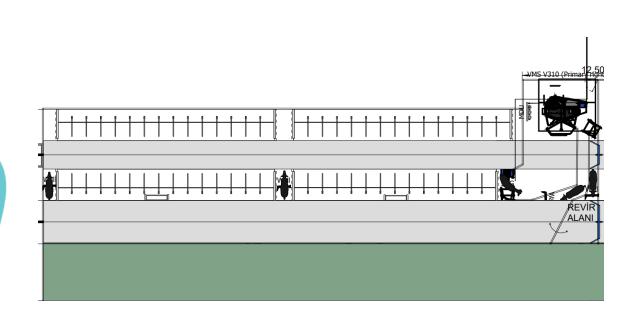


## Solar Panels



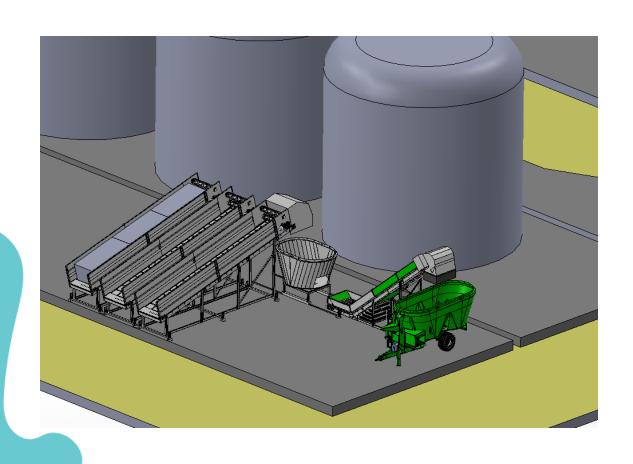


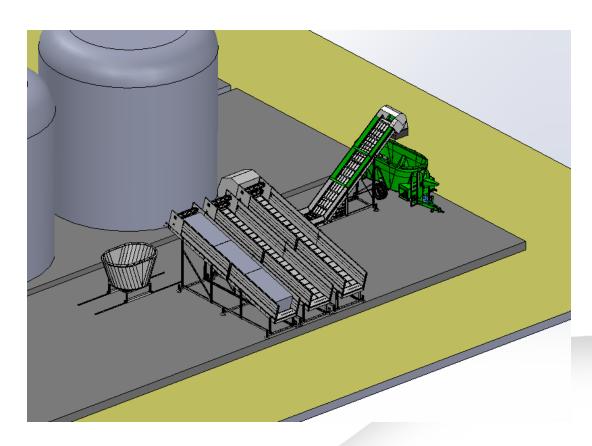
## Robotic Milking





## Fully Autonomous Feed Preparing



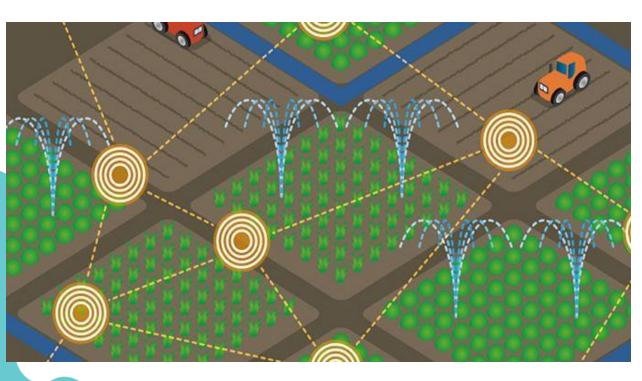


# Fully Autonomous Feed Delivery





## **AI Controlled Watering**



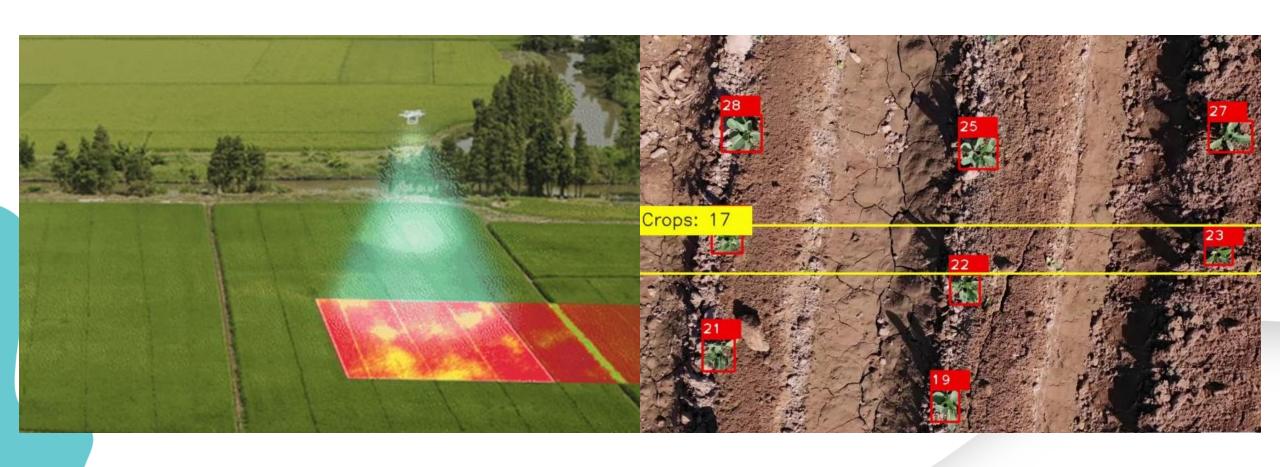


# Biogas Plant





## Plant Health Analysis with Drones



## **Electric Tractors**





## Role of Organic

- Early Detection of Diseases
- Sustainability
- Higher Quality
- Traceability and Transparency
- Documentation and Reporting Needs
- Reducing Waste

#### Conclusion

Digitalisation is not an option for dairy industry anymore. But how we do it and our aim to do it will make the difference.

In organic perspective, digitalisation may help us be environmentally and economically even more sustainable. Farmers need to think through step by step and if possible use local manufacturers if possible.





#### Thank You for Listening!

emregurdal@gmail.com

