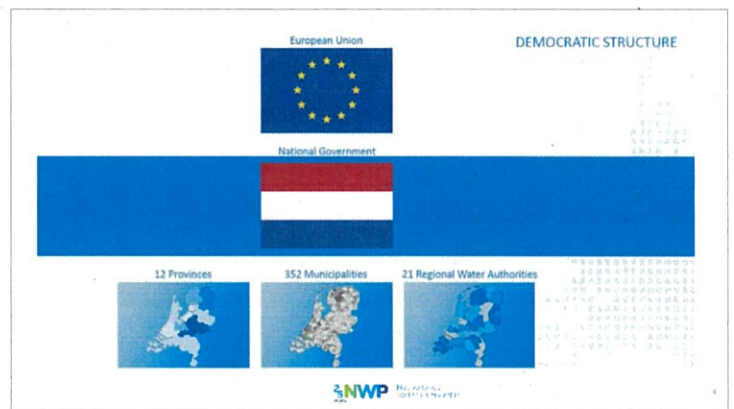
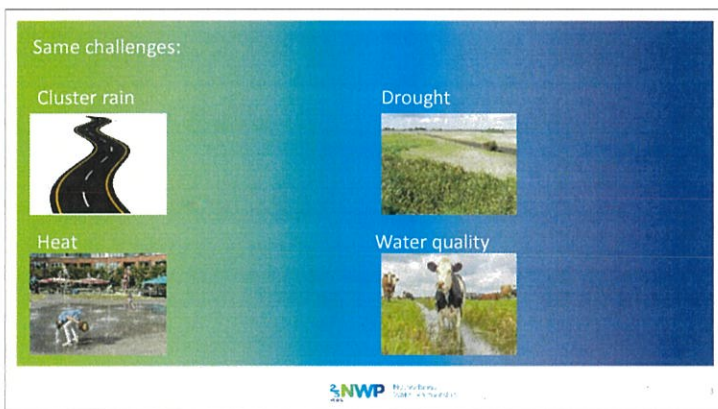
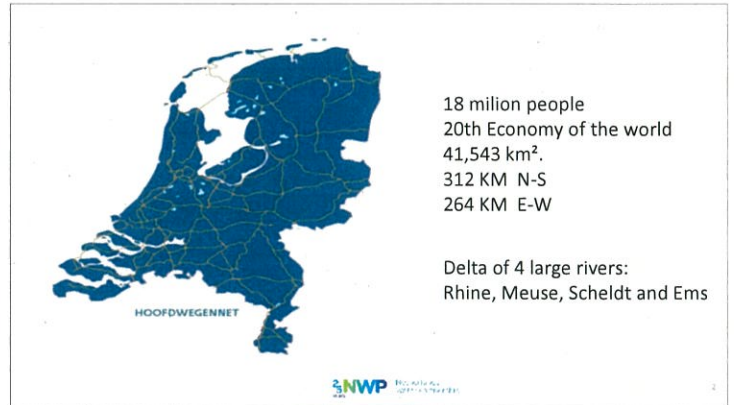


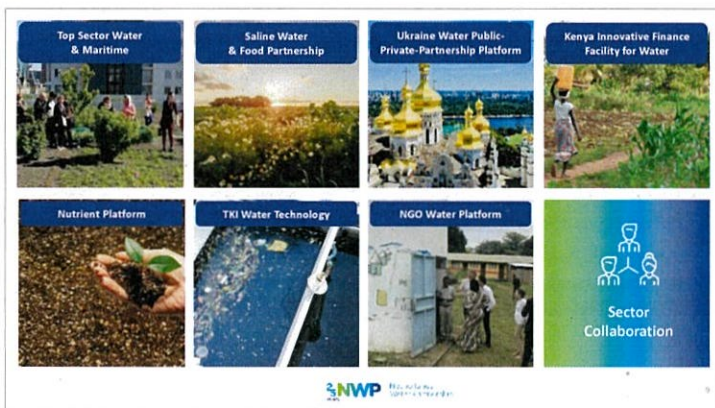
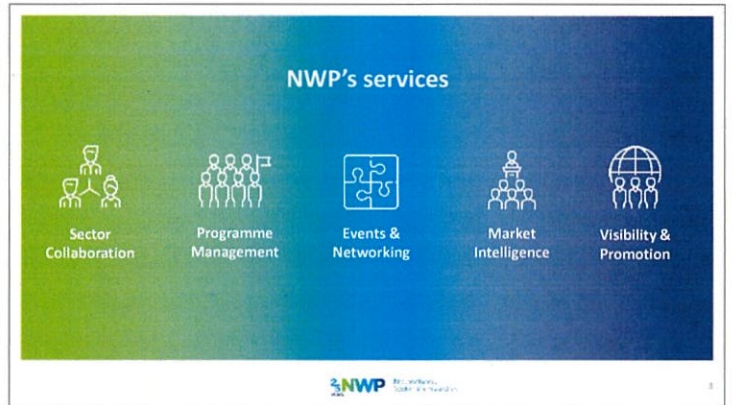
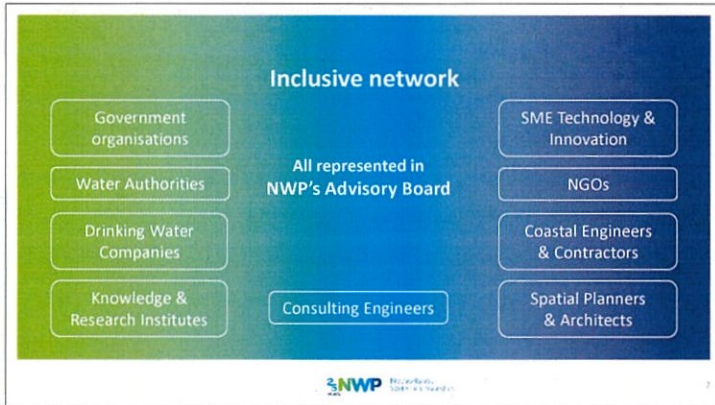
Part 10. Netherlands Water Partnership (2025.9.18)



Dutch Water Management: Roles & Responsibilities		
Institution	Role	Key Responsibilities
Ministry of Infrastructure and Water Management (Ministerie van Infrastructuur en Waterstaat)	Policy and strategy maker at the national level	- Sets national water policy - Climate adaptation strategy - Oversees major infrastructure investments
Rijkswaterstaat	Executive agency of the Ministry	- Manages national infrastructure (highways, rivers, sea defenses) - Executes large water projects (e.g. Delta Works) - Flood prevention and crisis management
Regional Water Authorities (Waterschappen)	Local water managers (democratically elected)	- Maintain dikes and canals - Regulate regional water levels - Operate wastewater treatment plants - Monitor water quality and ecology

NWP





Saline Water & Food Partnership

Saline Water & Food Systems (SW&FS) is a multi-stakeholder partnership that stimulates collaboration between the Dutch water and agrifood sectors to address the challenge of salinity in low and middle-income countries (LMICs).

The partnership consists of knowledge institutes, diverse members of the business community such as innovative SMEs, and experts operating on the ground.

NWP Netherlands Water Partnership

Nutrient Platform

NWP hosts the Nutrient Platform, a cross-sectoral network of Dutch organisations that believe in a pragmatic approach towards nutrient recycling.

Frontrunners from the water, agriculture, waste sectors and chemical industry have joined forces to close nutrient cycles. Together with the Dutch Government, knowledge institutes and NGOs, the platform accelerates the transition towards sustainable nutrient management by creating a market for recycled nutrients.

Above all, the Nutrient Platform aims to turn the surplus of phosphorus in the Netherlands into an opportunity.

NWP Netherlands Water Partnership

NGO Platform

Under the NWP Platform, NWP brings together Dutch NGOs working on different aspects of water management ranging from access to safe drinking water, sanitation and hygiene, and enhancing sustainable water use, to ecosystems management.

The platform acts as a forum for NGOs to discuss issues specific to their sector and creates the opportunity for a common voice to be heard in raising awareness about these issues in policy, research, business and other environments.

NWP Netherlands Water Partnership

Water for Food Programme

The goal of the Water for Food Programme is to develop both sustainable and bankable business cases in which agriculture meets water.

The programme aims at replication and scale-up, drawing on Dutch expertise to enhance international food security. This is done by supporting the development of high potential business cases with seed money.

The programme is initiated, developed and implemented by NWP, with support of the Dutch Ministry of Agriculture, Nature, and Food Quality.



Young Expert Programmes

Young Expert Programmes, also known as YEP Programmes, aims to build expertise and create a young, refreshing, and inspiring international network. It focuses on:

- Water
- Agrofood
- Renewable Energy
- Tailor made options

Whereas Dutch Young Experts are given the opportunity to gain relevant international experience through Dutch organisations operating in developing countries and emerging markets, non-Dutch Young Experts can acquire relevant work experience in an international environment.

To achieve this, YEP Programmes offers financial support to Dutch organisations employing Young Experts for the realisation of international development aid and trade projects.



Events & Networking

NWP connects the international water sector with Dutch peers at conferences and exhibitions, coordinates the joint participation of the Dutch water sector at fairs, and uses its network to seek the right participants and speakers at events.

Netherlands Pavilions and Lounges

The Netherlands water pavilions and lounges are set-up at events and fairs to showcase Dutch water expertise. Visit the pavilion at your next water event to meet Dutch experts and innovators.

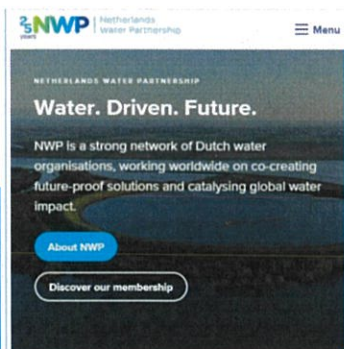


www.netherlandswaterpartnership.com

NWP's corporate website provides information on the work of NWP and its membership. The website illustrates areas of expertise and territories where NWP's network could create impact.

In 2023, the website had almost 50,000 active users, nearly 70 percent of whom came from abroad.

Updates from the website get disseminated through its dedicated social media channels (LinkedIn & X) and biweekly newsletter.



www.dutchwatersector.com

This website provides information on the Dutch water sector's international activities. It sustains and strengthens the international branding of the Dutch water sector, promoting the Netherlands as Centre of Excellence in the field of water.

In 2023, the website had almost 100,000 active users, nearly 90 percent of whom came from abroad.

Updates from the website get disseminated through its dedicated social media channels (Facebook & X) and quarterly newsletter.



NWP Partners

With 25 years of experience, NWP keeps on catalysing successful local, national and global collaborations to help solve water issues.

Throughout our work, we create opportunities for partnerships to advance water security worldwide.

MOU's with NFP, DGD, SAFTA, SALTA and others

Opportunities leading to:

- Knowledge sharing
- Young talent development
- Policy influence
- Market growth



Pitch presentations by:

Desolenator
eLEAF
FutureWater
Hydrosat
LGSonic
The Salt Doctors
Technimex
Nutrient Platform

Pitch presentation by:

DESOLENATOR®

Pitch presentation by:

eleaf
FACTS FROM SPACE

Pitch presentation by:

FutureWater

Introduction to FutureWater

Innovating for a Sustainable Future
of Our Water Resources

Evelyn Aparicio Medrano, PhD

18 September 2025, APO Delegation, NWP, Den Haag

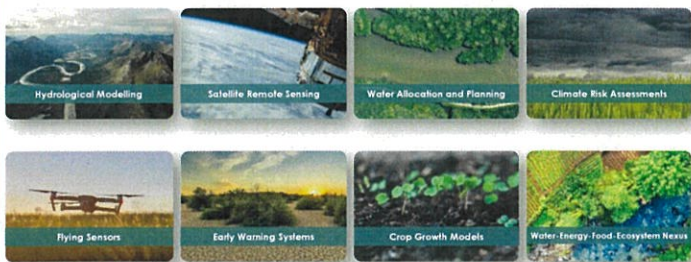
FutureWater

About FutureWater

- **Our Mission:** Driving innovation in water management through research, consultancy, and training
- **Expertise:** Since 2002 our MSc and PhD professionals are specializing in climate adaptation, water for food, river basin management, and nature-based solutions
- **Innovative Solutions:** Applying cutting-edge models, GIS and satellite data to deliver technical reports, policy insights, scientific publications, training, datasets, models, and operational services
- **Global Reach:** Collaborating worldwide with financial institutions, governments, universities, and (local) organizations, from our offices in Wageningen (The Netherlands) and Cartagena (Spain)



Solutions, Tools & Services



NWP

FutureWater

Highlighted Clients and Partners

International Financial Institutions and Intergovernmental Entities



Governmental Institutions and Research Entities



Private Companies, NGOs and Partnerships



Worldwide Experience



NWP

FutureWater

Tools developed by FutureWater

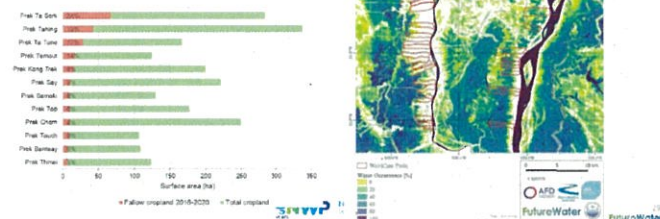


NWP

FutureWater

Example: understanding hydrological systems

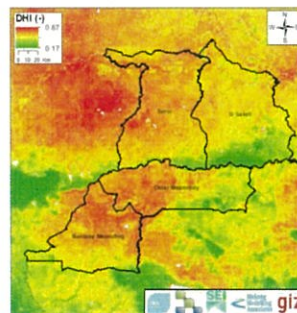
- Pinpointing system failures / deficiencies
- Example:** supporting rehabilitation of irrigation canals ("preks") in Cambodia (WAT4CAM - AFD)



NWP

FutureWater

Example: Integrated Drought Hazard Index Thailand / Cambodia



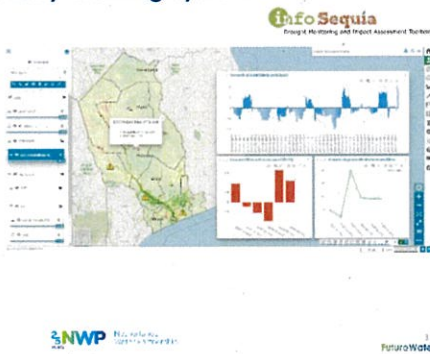
- Fully EO-based:
 - Average rainfall (P_{mean})
 - Coefficient of variation of rainfall (P_{CV})
 - Average NDVI ($NDVI_{mean}$)
 - Coefficient of variation of ($NDVI_{CV}$)
 - Mean Land Surface Temperature (LST_{mean})
- Supports risk hotspot identification, to inform water resources management plans
- Transboundary water management between Thailand and Cambodia (GIZ, 2019-2020)

NWP

FutureWater

InfoSequia: Drought Early Warning System

- Operational climate service with enhanced drought monitoring and forecasting capabilities
- Provides seasonal outlooks of crop yield and/or water supply failures
- Integrates EO and the most powerful techniques of cloud geoprocessing and machine learning
- Currently active in Colombia (Water Authorities), Somalia (WFP), Pakistan (NDMC)



Monitoring of salinity intrusion, Mekong Delta

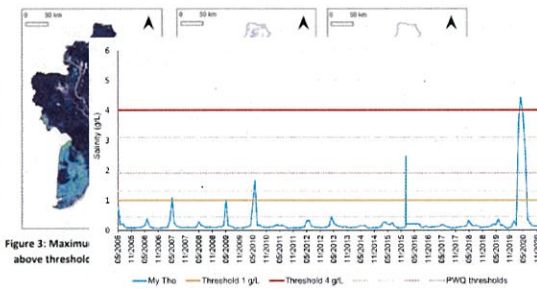


Figure 3: Maximum salinity intrusion in the Mekong Delta. The graph shows salinity (g/L) over time from 11/2005 to 11/2020. A red line indicates the threshold at 4 g/L. The blue line shows the maximum salinity intrusion, which frequently exceeds the threshold.

Thank you!

FutureWater.eu Follow us



Pitch presentation by:



Hydrosat

FutureWater.eu Follow us

Hydrosat

Help Earth manage its most precious resource: Water

Melias Zandstra
Customer Success Specialist
+31 6 29837821
mzandstra@hydrosat.com

<https://hydrosat.com>

LinkedIn: hydrosat

FutureWater.eu Follow us

We look beyond the visible
We see temperature

Thermal Infrared Space Technology
combined with 30+ years of field testing

- Measure plant water stress and health
- Timely detection, long before NDVI
- Global coverage, always-on



What makes IrriWatch unique?

- Our models are based on crop temperature, because, crop-photosynthesis depends on canopy temperature.
- Satellites measure canopy temperature daily.
- Crop temperature allows us to detect plant stress at least 7-10 days early to take the right actions.
- Plant stress can affect production, and waiting until impact is obvious in visible or near infrared images would be too late to recover.



IrrTracker Regional

- Historical
- Monthly results
- Available from 1984
- 30m spatial resolution
- Raw data delivered in shapefile and Excel
- Ca. 20 data parameters
- Evapotranspiration, applied water, water productivity, precipitation, dry matter production, field irrigation efficiency, etc.

IrriWatch Local

- Real-time & historical
- Daily results
- Available from 2018
- 10m spatial resolution
- Delivered on web portal, API and mobile application
- +50 data parameters
- Soil temperature, soil moisture, dry matter production, leaf nitrogen, 7-day irrigation planner, applied water, etc.

What do we provide?

7-DAY IRRIGATION PLANNER

SEP 13	SEP 14	SEP 15	SEP 16	SEP 17	SEP 18	SEP 19	SEP 20
0.0	0.3	0.0	11.7	0.0	0.0	7.8	0.0

Case Study | Bayer - India

Up to 40% Water Savings and 45% Methane Emissions Reduction in rice production

Challenge

Solution

Benefit

Case Study | Geobox - Kazakhstan

Water Productivity

Challenge

Solution

Benefit

Case Study | SCADA - India

Pitch presentation by:

LGSONIC

INWP

LGSONIC

Creating Safe and Sustainable Surface Water



LGSONIC

- HQ in the Netherlands
- Other offices in the US, Brazil & UAE
- Specializing in ultrasonic algae control & water quality monitoring solutions

Working with leading researchers



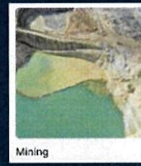
Trusted by 100+ water & energy utilities



3NWP

43

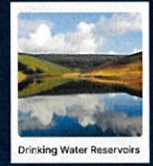
Applications



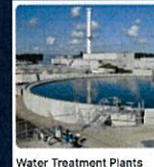
Mining



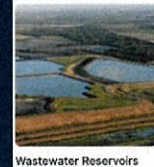
Irrigation Reservoirs



Drinking Water Reservoirs



Water Treatment Plants



Wastewater Reservoirs

LGSONIC

WHICH PROBLEMS ARE WE SOLVING



Address Algal Blooms with the All-in-One Solution: MPC-Buoy

- 1. Monitor**
Real-time monitoring of the water quality
- 2. Predict**
The collected data is delivered to a server
- 3. Control**
Specific ultrasonic programs to target algae growth



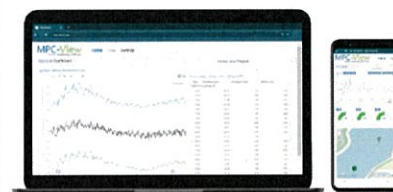
3NWP

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With LG Sonic Treatment



Without Treatment



3NWP

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LG

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Thank you!



Pitch presentation by:



Growing More on Saline Soils

Turning saline challenges into opportunities for farmers



Dr. Bas Bruning

Who we are

The Salt Doctors is a Netherlands-based social enterprise with over 20 years of experience in crop cultivation under saline conditions

We make saline farming possible and profitable, restoring yields, incomes and food security worldwide



21+ countries



66 projects



1000+ hectares improved



1500+ people trained



Our approach

We combine research, field trials, and farmer training to deliver practical, scalable solutions – from salt tolerant crops to hydroponics –

assessment → solution → training → implementation → scale-up



from science to the field

Why Saline Agriculture matters in (Southeast) Asia:

- saline intrusion in coastal areas
- poor quality water for irrigation
- reduced yields, lower farmer incomes, migration
- climate change and rising sea levels



Our track-record in Asia

- Projects in Bangladesh, Vietnam, Myanmar
- Partners: ADB, governments, NGO's, private sector, universities
 - Yield increases from +34% up to 227%
 - Food security improved from 15% to 65%
 - Farmer incomes increased from +34% up to 88%
 - Up to 90% water savings with hydroponics



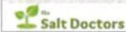
Let's make saline farming work - together

We invite you to partner with us to secure food production and farmer livelihoods in saline-affected regions

- Introduce and test salt-tolerant crops in your region
- Set up demonstration fields and train farmers and extension workers
- Support governments with salinity assessments and policy advice
- Partner with regional stakeholders, like ADB, to scale proven solutions



www.thesaltdoctors.com
info@thesaltdoctors.com



opportunities for Asia

Pitch presentation by:



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Pitch presentation by:



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Closing the Nutrient Cycle
 Learnings in the Low-countries

18 September, 2025
 Den Haag
 Jorn Baan Hofman



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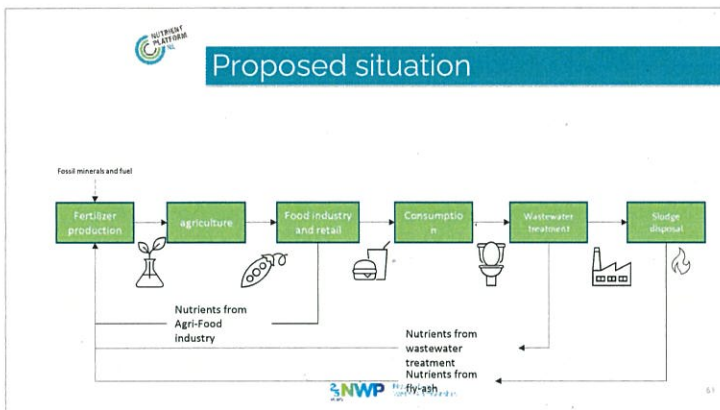
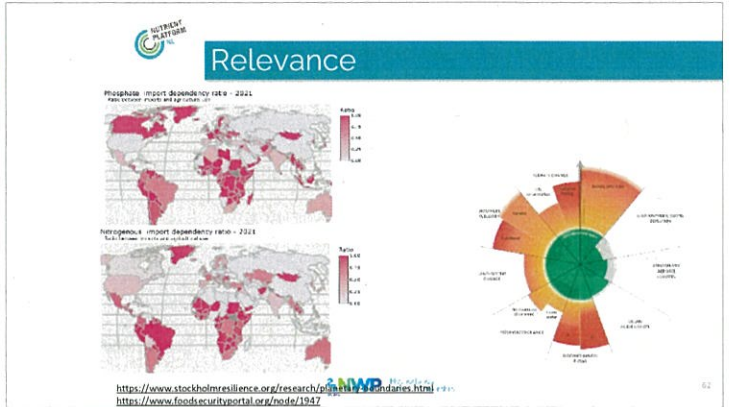
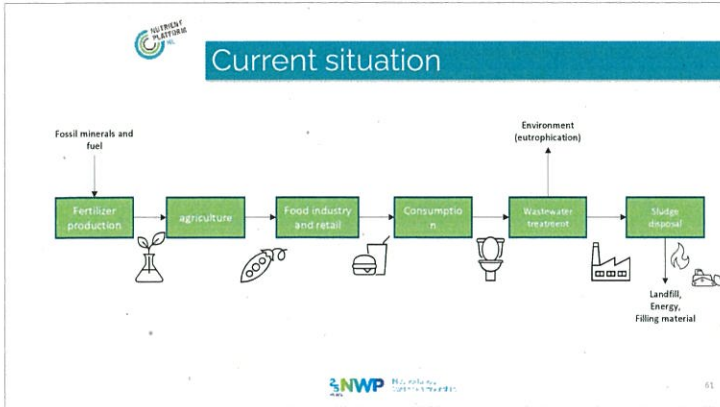
Introducing Nutrient Platform

Mission
 Create the conditions for the necessary transition to sustainable and economical nutrient use.

Necessary
 Sustainable
 Economical
 Create conditions



60



Nutrient recovery municipal wastewater treatment

UPHOS® for P recovery

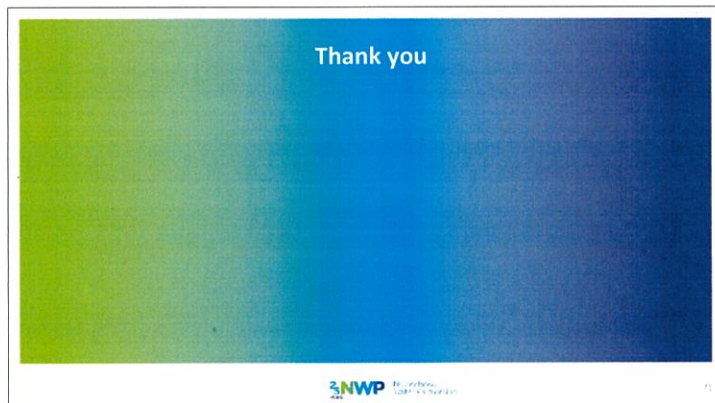
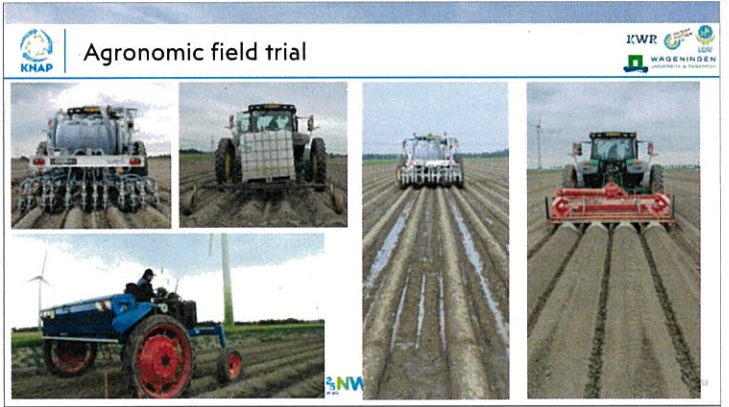
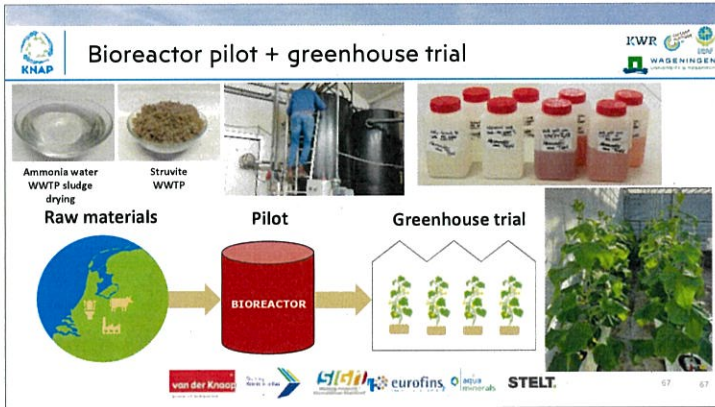
AMFER® for N recovery

Pilot trials in cooperation with

water energy & environment

Robin Jordaens

E-mail: r.jordaens@colson.nl
 Tel.: +31 (0)116 - 311 548
 Kruisbos 3 - 4561GX - Hulst
 The Netherlands
www.colson.nl



附件 11. Lely.

(2025.9.19)



1

Agenda

- **Who are we**
- **The role of digital solutions and AI in the global dairy sector**
 - The potential of digital/AI in the dairy sector
 - Creating value for dairy farmers through digital solutions
 - Examples of AI powered digital Lely solutions currently available for dairy farmers
- **Take aways**



2

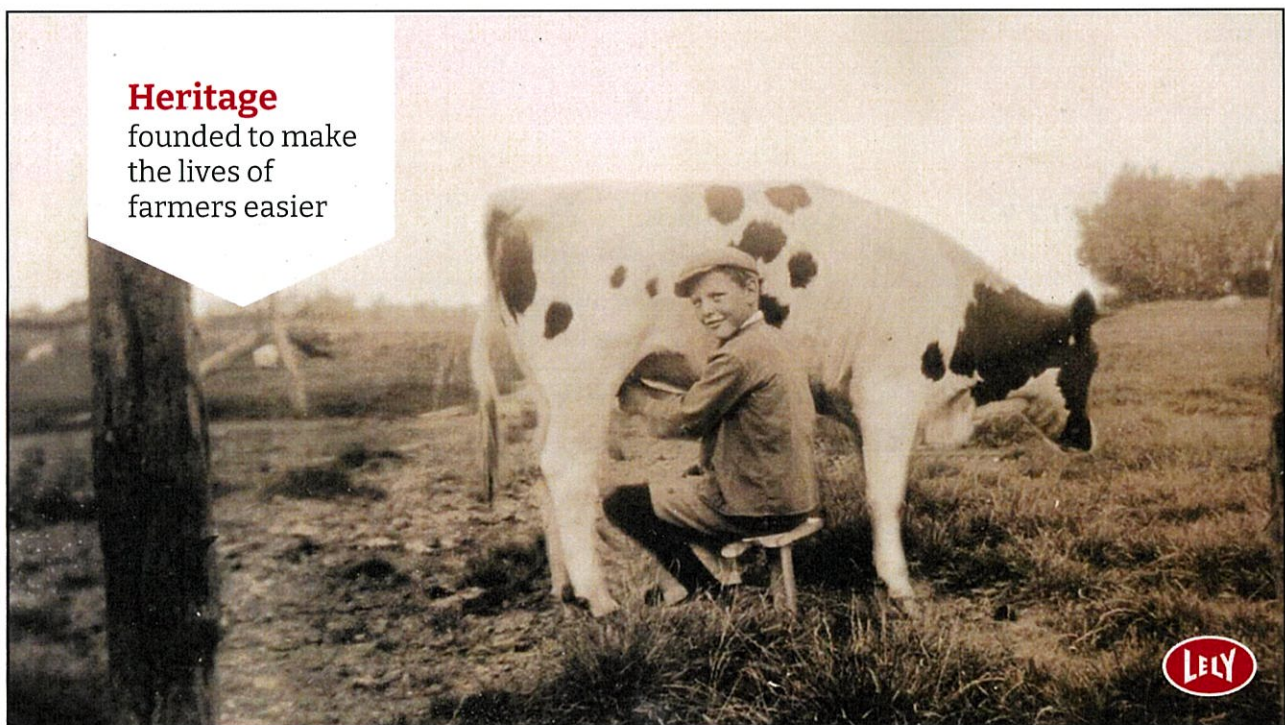
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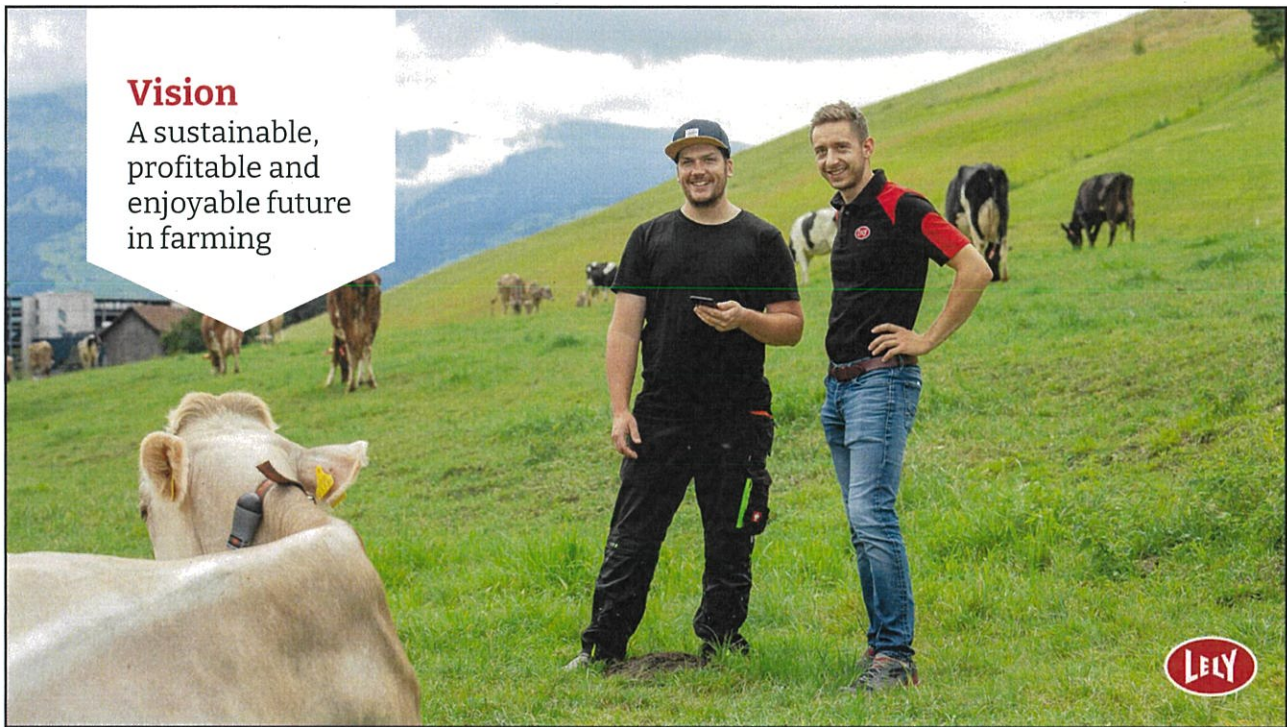
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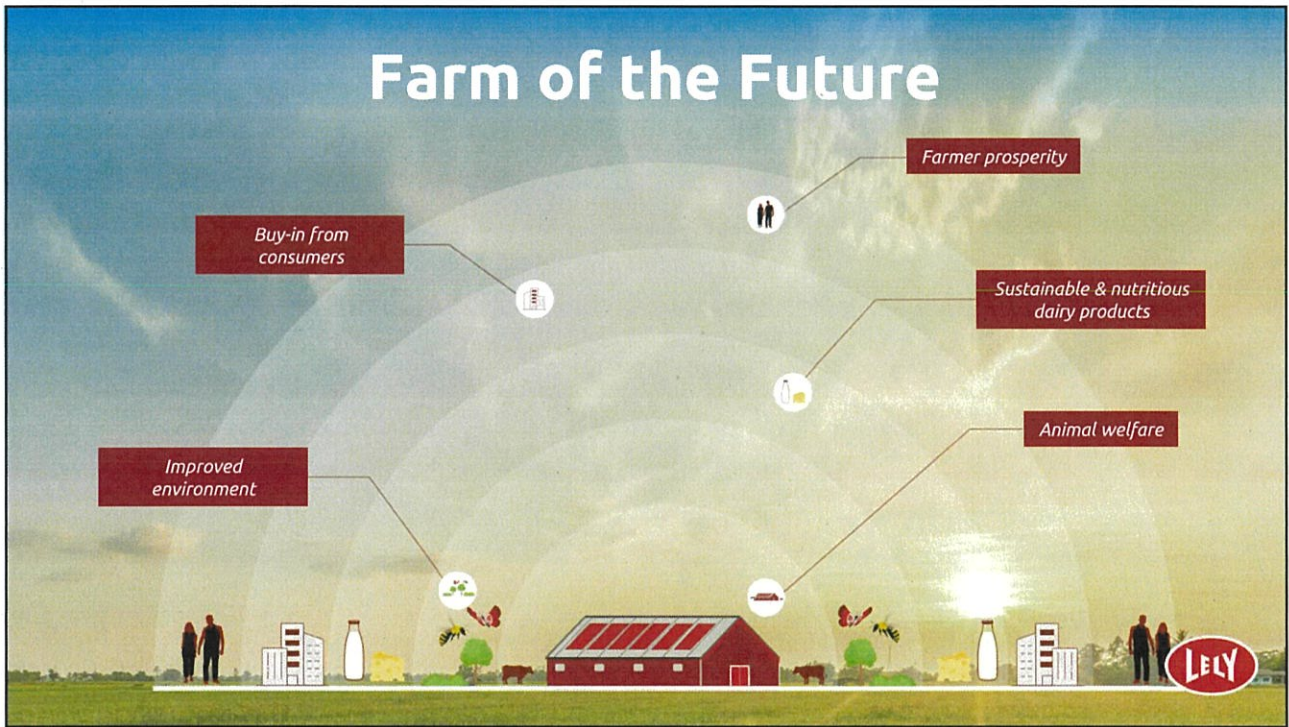


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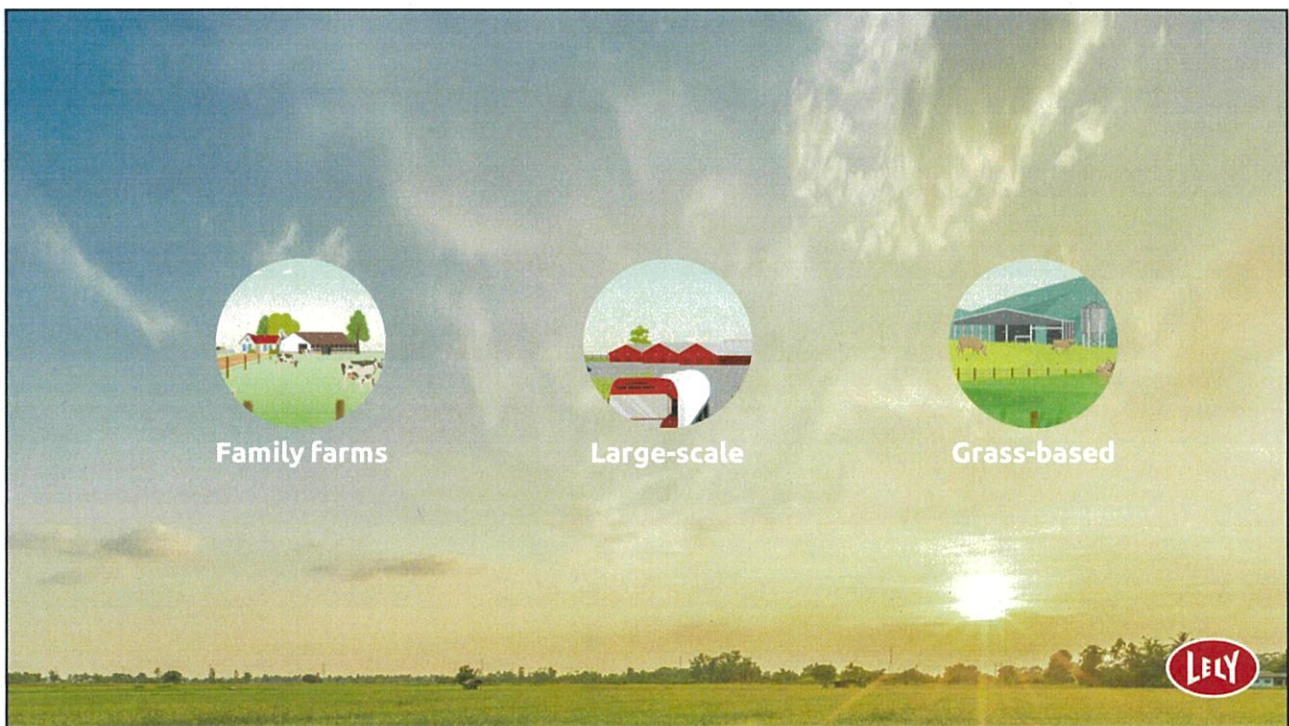


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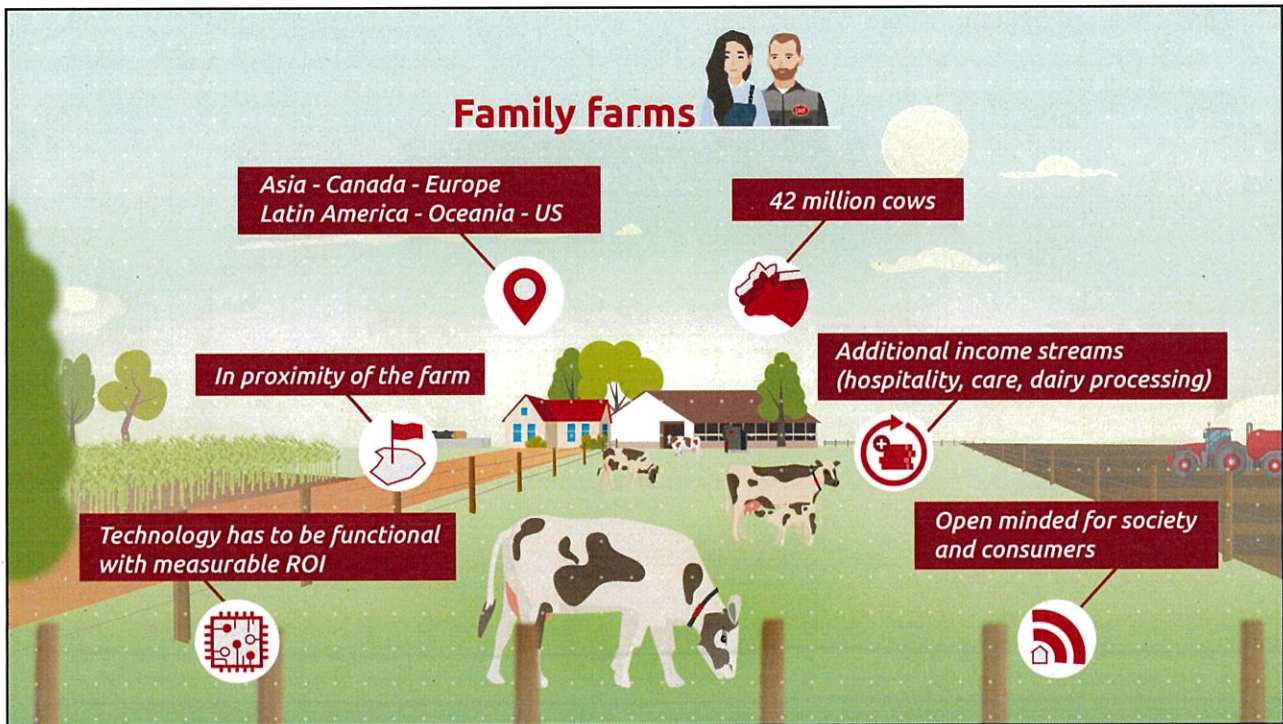


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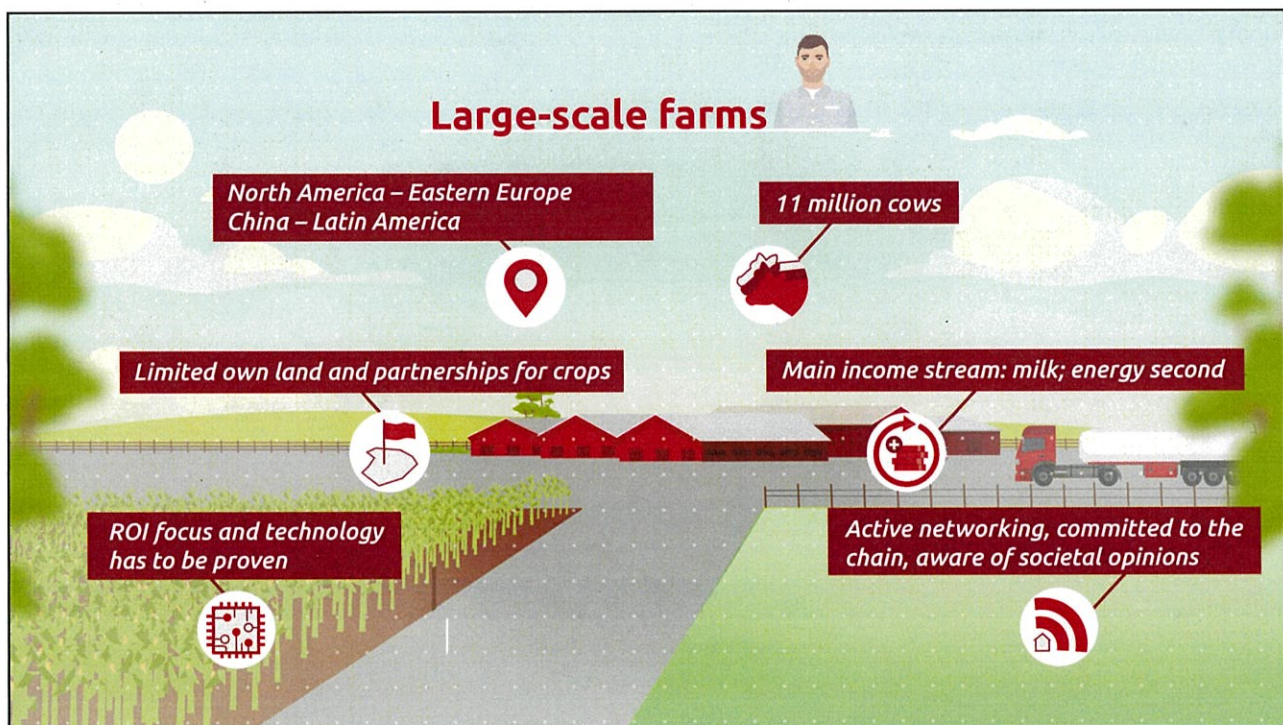


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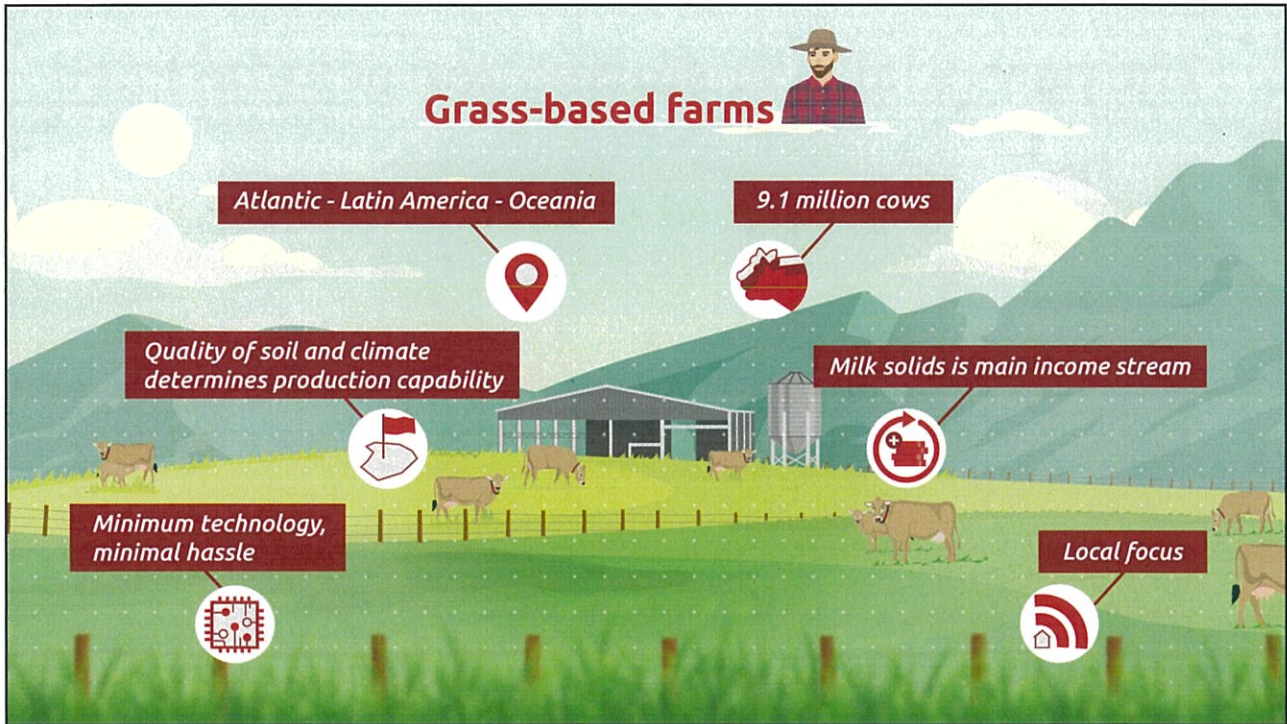


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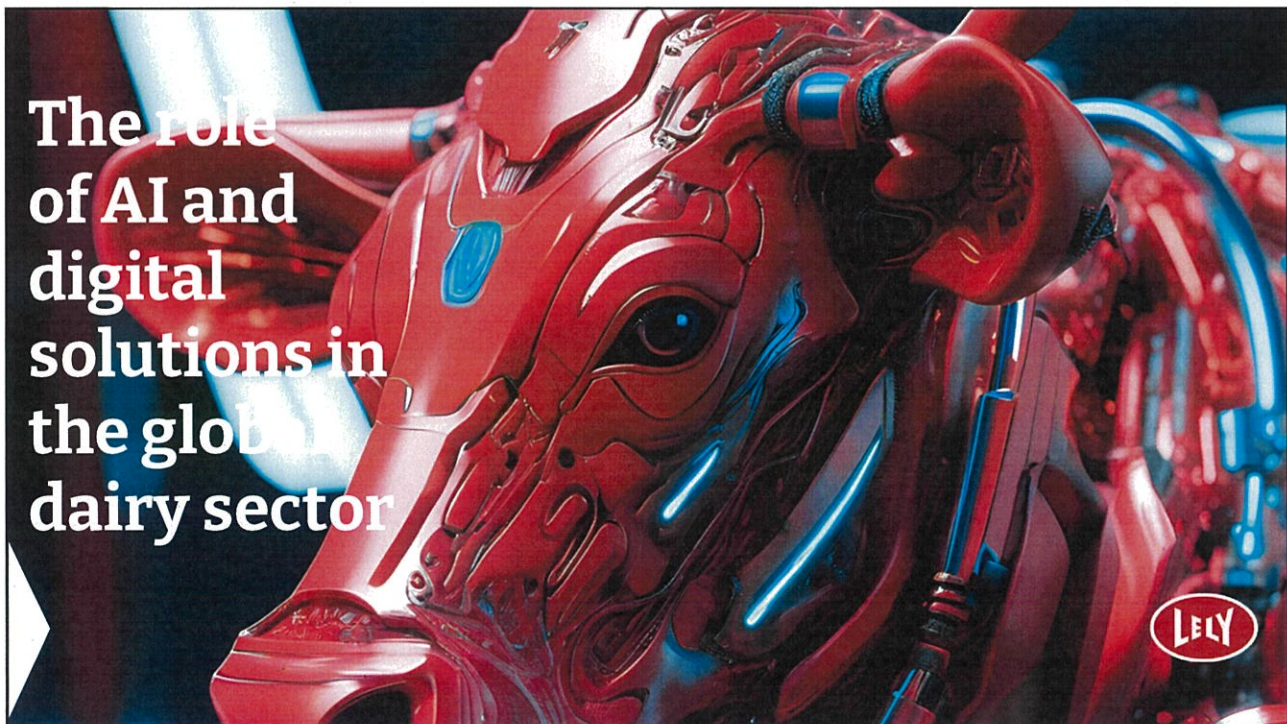


12





13



14



The potential: transformation of industries



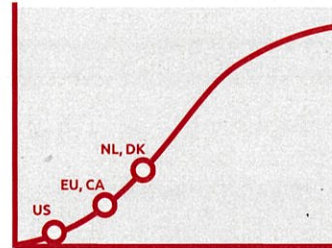
Digitalization



Automation



Mechanization



Adoption of AMS



15

What can AI bring?

- Insights using developed models
- Automate repetitive single-cow settings with better sensors & models
- Access to knowledge
 - E.g. carbon, minerals, gases, laws, regulations
- Can it replace the farmer?
 - Farming is a skill, difficult to put into AI. Decisions are not documented



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Creating value through digital solutions



Smart Robots

Farmers don't want to be technicians. Robot self-configuration and diagnostics?

Enhancing Decision Support

How can we support farmers making the best decisions on cow, herd and farm level?



Decrease Service effort

Growth is limited by the shortage of robot technicians

Boosting Productivity

AI supported analysis and (software) development



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Smart Robots: Revolutionizing Dairy Farming

- Smart robots enhance efficiency.
- They perform tasks such as milking, feeding, cleaning and monitoring cow health.
- Automation reduces labour costs and increases productivity on farms.



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Enhancing Decision Support with AI

- AI tools provide data-driven insights for better decision-making.
- Real-time analytics help farmers monitor herd performance more effectively.
- AI assists in optimizing resources, leading to improved farm efficiency and profitability.



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Minimizing Service Effort

- AI technology reduces the need for manual service interventions.
- Automated diagnostics identify issues before they escalate.
- AI streamlines maintenance schedules, enhancing productivity.
- Self-learning systems adapt to improve service efficiency.
- Reduction in technician workload allows focus on critical tasks.
- AI makes the life of a service technician easier!!

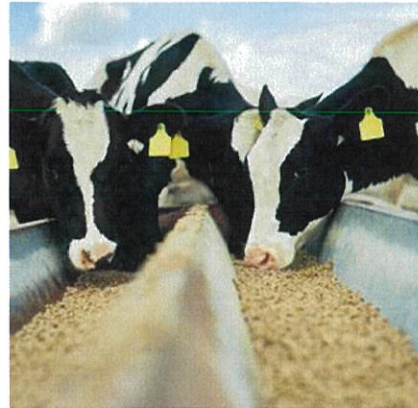


20



Boosting Productivity

- AI enhances decision-making processes for dairy management.
- Automation reduces labor dependency, increasing operational efficiency.
- Data analytics provides insights for optimizing farm performance.
- AI-powered robots streamline milking, feeding and cleaning processes.
- Continuous learning algorithms adapt to improve productivity over time.



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Examples
digital
solutions
for the dairy
sector



22



11

Lely Horizon: decision support



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Lely Horizon



Connecting all data
in our farm management
application

Natural language interface to
simplify the interaction
between farmers
and their data.
(Experimental, not live)

2021

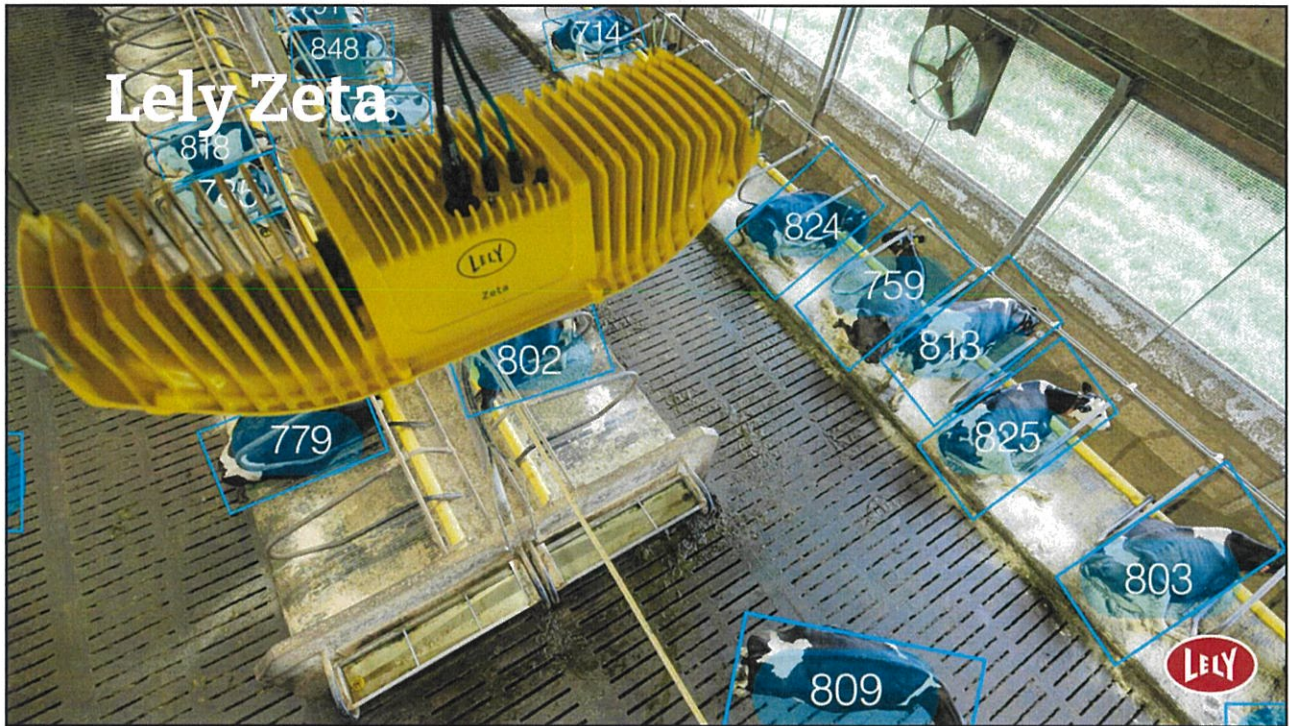
AI chat

202?

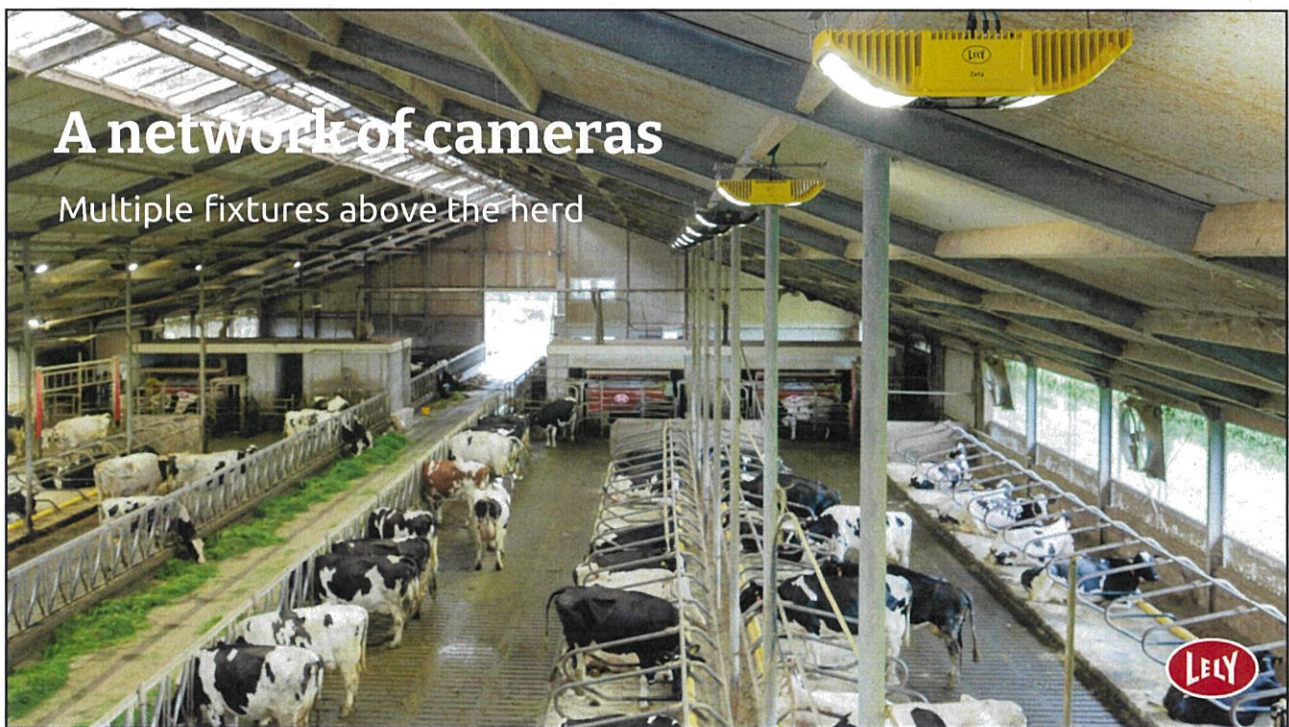


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27



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Lely Zeta technology

Hardware

- Camera
- Computer
- Light



Object detection

- Cow
- AGV



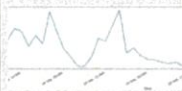
Object tracking

- In multiple cameras

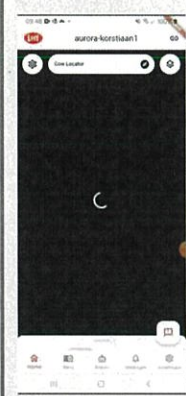


24/7 position data analysis

- Heat
- Health
- Calving detection
- AGV assistance

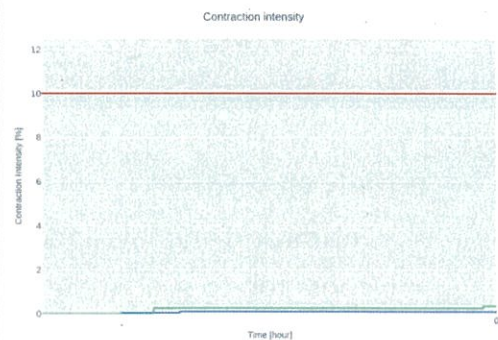


User interaction



29

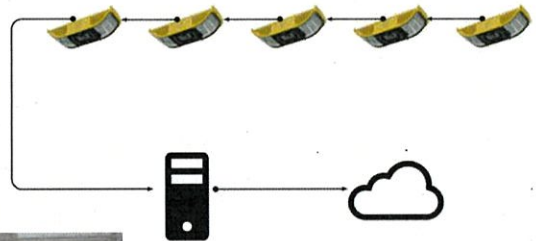
Lely Zeta AI Calving



30



Lely Zeta AI Barn



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Takeaways

AI can bring essential benefits for

- Animal performance
- Labor shortage
- Collaboration

Data is vital for

- Optimizing animals and farm
- Transition to sustainability
- Data remains farmer owned!



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farm  *innovators*



