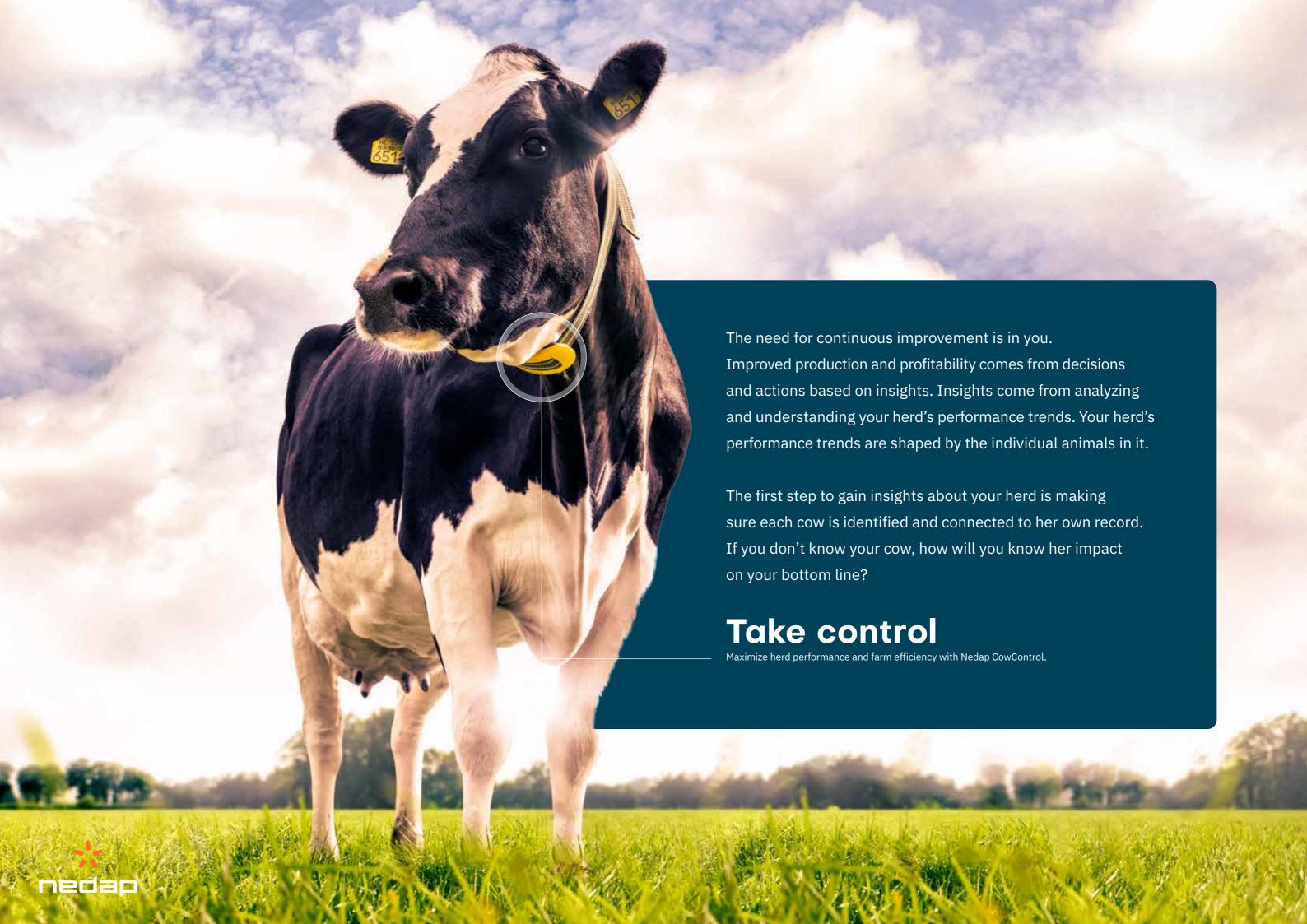
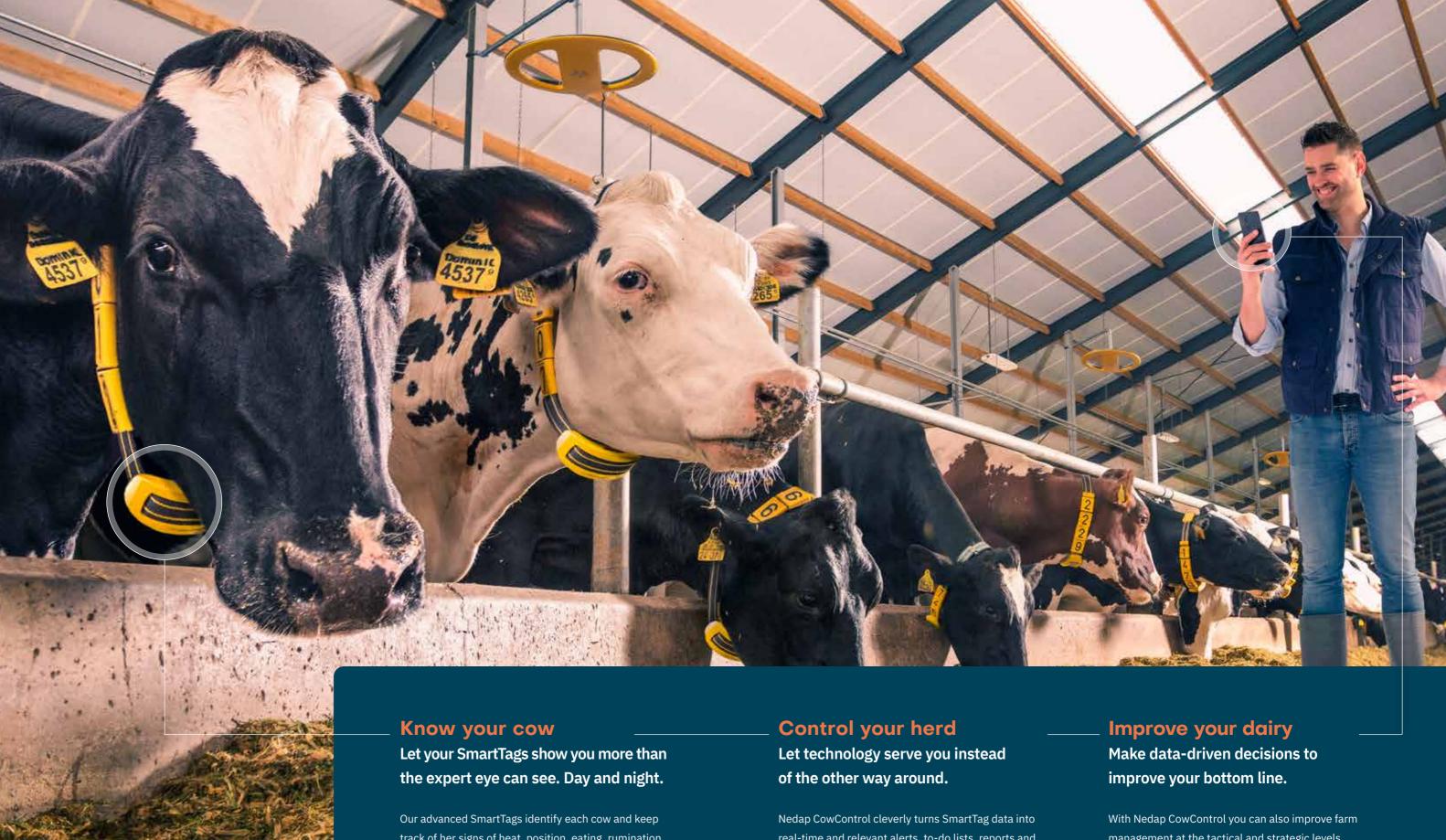


# Nedap CowControl

Knowing everyting about every cow







Our advanced SmartTags identify each cow and keep track of her signs of heat, position, eating, rumination, standing, lying, walking and inactive behavior 24/7. This provides the most precise and complete information about the fertility, health, well-being and nutritional status of individual cows and groups. Supplemented by their exact location in the barn.

nedap

Nedap CowControl cleverly turns SmartTag data into real-time and relevant alerts, to-do lists, reports and barn maps to help manage and control your herd.

These actionable insights are easy to understand and presented on PC, tablet and smartphone. Nedap CowControl also integrates with your farm automation systems and dairy management programs. As a result, you and your team automatically focus on the right cows, at the right time, with the right treatment.

With Nedap CowControl you can also improve farm management at the tactical and strategic levels, using behavior insights of your groups and entire herd. They show you how external factors and management decisions influence the herd's performance. A tool for you and advisors to evaluate the impact of (changed) feeding strategies, housing conditions and milking procedures. So you can make confident choices to continuously improve your bottom line.

24/7 cow management

All-in-one

Nedap CowControl combines an unmatched range of monitoring features and management tools in a highly advanced, yet easy to use system.



#### **Cow Locating**

Locate cows needing attention or treatment quickly and easily. See and follow their real-time position on your barn map.



#### Identification

Proven electronic ISO compliant cow identification in all your automated systems such as milking, feeding and sorting & routing equipment.



#### **Health Monitoring**

Individual health management for early detection of health issues and intensive monitoring of transition cows and post-treatment recovery.



#### **Herd Performance Trends**

Chart the behavior patterns of your groups and entire herd. Get group alerts when possible risks affect a group's performance. Evaluate the impact of management decisions on herd performance to make improvements.



#### **Heat Detection**

Highly accurate heat detection with advice for the optimal insemination moment, as well as reproduction insights.



#### **Integration & Connection**

Easily connect Nedap CowControl to your farmautomation systems and dairy management programs thanks to advanced integration applications.



#### Flexibility in SmartTags and features

Choose the SmartTag with the features fitting your dairy farm management style.



#### Real-time information on all devices for multiple users

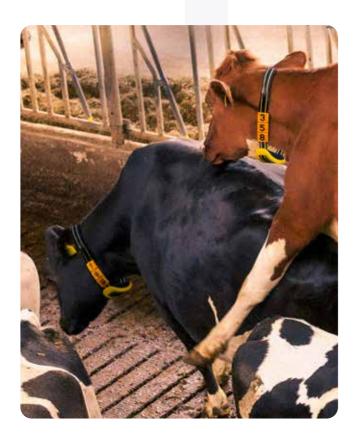
All team members have access to real-time and relevant insights fitting everyone's needs.

At any time and from anywhere with a PC, tablet or smartphone.





# Increase profitability with precision



#### **Heat Detection**

### Improve reproduction results. Increase labor efficiency.

Nedap CowControl detects the heats of millions of cows with outstanding accuracy, helping dairy farmers worldwide improve reproduction results and labor efficiency. It automatically tracks signs of heat - such as increased activity, sniffing, chin resting and mounting behavior - of all your cows 24 hours a day. The system shows a clear list of all cows in heat with their optimal insemination moment for effective insemination with the highest chance of conception. It also provides additional reproduction insights, helping you to find cows with irregular heats, non-cycling cows and non-pregnant cows.

# Herd Performance Trends Evaluate group and herd behavior. Improve farm management.

Nedap CowControl charts the behavior patterns of your groups and entire herd. They show you how external factors and management decisions influence the herd's performance. The system sends a group alert when it detects abnormalities among a percentage of the cows in a group, allowing you to respond to external factors posing a risk to their health, milk production and reproduction. At strategic level, group behavior reports and herd performance insights offer a valuable tool to measure and evaluate the impact of (changed) feeding strategies, housing conditions and milking procedures. So you have fact-based information to continuously optimize your management and improve your bottom line.



Put the power of precision farming on your side. Improve your bottom line with the solutions to maximize dairy herd performance and save time, labor and costs.



#### **Health Monitoring**

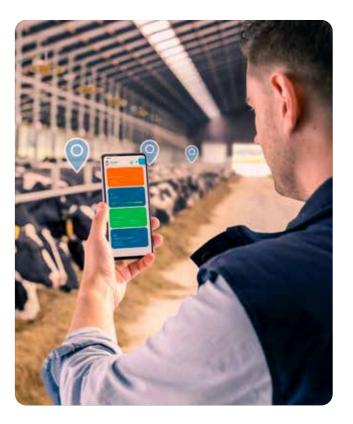
### Keep cows healthy, fertile and productive.

Nedap Health Monitoring is an essential tool to keep your cows healthy, fertile and productive. The SmartTag will register a combination of three behavioral aspects, giving the most precise and complete insight into the health status of each cow.

The system compares all behavior with standards for optimum condition, the previous behavior of the cow and the behavior of the group she is in and detects changes or abnormalities. It provides the earliest and most reliable health alerts for cows that need urgent attention and shows a list of cows that need to be checked today, allowing you to treat health issues before they become problems. It also enables you to intensively monitor transition cows and post-treatment recovery.

# Cow Locating Stop searching. Start finding.

Finding cows needing to be checked, inseminated, treated or fetched was never as easy and timesaving as it is with Nedap Cow Locating. The system automatically locates the cows you need to find. It accurately shows and follows the real-time position of individual or multiple cows on your barn map with one click on your PC, tablet or smartphone. Nedap Cow Locating is fully integrated with Heat Detection, Health Monitoring and Herd Performance Trends. As a result, responding to cows that need attention is easier and quicker than ever. This saves you and your team a lot of time and aggravation every day and at the same time ensures a better follow-up of alerts.



#### Where do you want to

# Improve?

Nedap CowControl supports you in getting the most out of your cows, your farm and your farm life. From the day it is installed long into the future. Where do you want to make improvements?



### Improve reproduction results?

- ✓ Increase heat detection rates
- ✓ Increase submission rates (reduced missed heats)
- ✓ Increase conception rates (better timing of AI)
- ✓ Increase pregnancy rates
- ✓ Optimize calving intervals
- ✓ Find non-cycling and irregular cycling cows
- ✓ Detect non-pregnant cows earlier
- Add value to synchronization programs
   with automated cherry picking



### Better cow health and condition?

- ✓ Detect health issues 2-3 days earlier
- Closely monitor individual cow behavior and health in the transition period
- ✓ Treat more effective
- ✓ Measure post-treatment recovery
- ✓ Improve fertility through better condition
- Reduce mortality rate



### Improve farm management?

- Use actionable cow insights for targeted,
   pro-active and efficient daily management
- ✓ Use group and herd insights to chart the herd's patterns, evaluate performance and implement long-term management improvements
- Have a tool to let AI-technicians, veterinarians and nutritionists have access to your individual cow, group and herd behavior insights
- Management by exception: only focus on cows that need attention



### Get a more productive and sustainable herd?

- ✓ Achieve more peak productive days per cow
- ✓ Achieve more milk per cow
- ✓ Prevent production loss
- Extend your cow's life span and number of lactations
- Reduce forced culling due to fertility and health problems
- Get cow performance insights to improve selection



### Increase labor efficiency and effectiveness?

- Automatically identify cows, detect heats,
   monitor health and locate cows 24/7
- ✓ Integrate cow data with farm automation systems and dairy management programs to get more out of automation
- Focus your resources on the right cow, at the right time with the right treatment
- Let your team make confident decisions with fact-based herd information



#### Save costs?

- ✓ Save on labor
- ✓ Reduce fertility / insemination costs
- ✓ Minimize veterinary treatment and medication
- ✓ Reduce death loss
- Reduce costs of synchronization programs:
   save on labor and hormone use



### Improve welfare and sustainable production?

- ✓ Give cows the individual attention they need
- ✓ Keep a close eye on the health, comfort and well-being of your cows
- Have a tool to increase production while using the same or less resources
- Minimize disruption of cow routines: reduce pregnancy checks, lock-up times, number of 'touches' per lactation and cow-employee interactions



### More enjoyable work?

- ✓ Gain peace of mind with control over your herd 24/7
- Have real-time cow and herd insights available anytime, anywhere on any device
- ✓ Stop searching for cows start finding them
- ✓ Save time for other tasks and activities

# **SmartTags**

Choose the SmartTag with the features that fit best to your preference and farm situation.



#### Basic (I)FE

- ✓ Identification (ISO)\*
- √ Heat Detection
- ✓ Health Monitoring:

  Eating behavior

#### Standard (I)FER

- ✓ Identification (ISO)\*
- √ Heat Detection
- ✓ Health Monitoring:
   Eating, Rumination and
   Inactive behavior
- √ Herd Performance Trends

#### Premium (I)FERP

- √ Identification (ISO)\*
- √ Heat Detection
- ✓ Health Monitoring:
   Eating, Rumination and
   Inactive behavior
- ✓ Herd Performance Trends
- ✓ Cow Locating

#### **Smart and durable**

- ✓ Real-time and long range data transfer.
- ✓ 24-hour in-tag data memory.
- Passive ISO compliant identification technology
   Independent of battery function, indefinite lifetime.
- Robust materials and construction, engineered for farm environment.
  - A single all-in-one device: convenient for the cow, easy to attach, stays in place.
- ✓ System alerts if SmartTag is incorrectly attached.
- ✓ Expected service life of 8-10 years.

#### Proven

Measurements and algorithms are validated by universities and research institutes around the world under various circumstances.

Learn more at nedap.com/validations.

System overview

**Advanced Simplicity** 

Use proven and advanced technology that is easy to use, install, integrate and scale.



The beacons, which are only needed for Cow Locating, continuously send signals to the SmartTag. The SmartTag sends the signals to the antenna. The processing unit calculates the exact position of each cow.

#### **Antenna**

The data from all the individual cows is continuously collected by the antenna. The antenna has a range of at least 75 meters around in the barn and 250 meters around when placed outside for grazing cows.



#### Processing unit

The processing unit processes the data received by the antenna, analyses the individual data for each cow and turns it into relevant and actionable insights that can be viewed on PC, tablet and smartphone.



Cloud

A continuously expanding range of services such as online backup, remote access, remote support, Business Insight, API connections and more are available through the cloud.

NEDAP NOW

#### **SmartTag**

The SmartTag records all behavior and the location of the individual cows real-time and 24-7.
Accelerometer data is intelligently preprocessed and converted into cow behavior by the SmartTag.



### Fits your farm and grows with it

- Highly flexible and designed to fit any farm type and size.
- ✓ Simple to install and setup.
- Easily scalable and flexible to expand with other automation solutions.
- System operates locally on the farm and cloud-based, with or without internet connection. Essential processes are not internet dependent and always continue.
- Web-based user interface only using a browser. No need to install software or applications. Remotely updatable.



#### Actionable herd insights

### Real-time

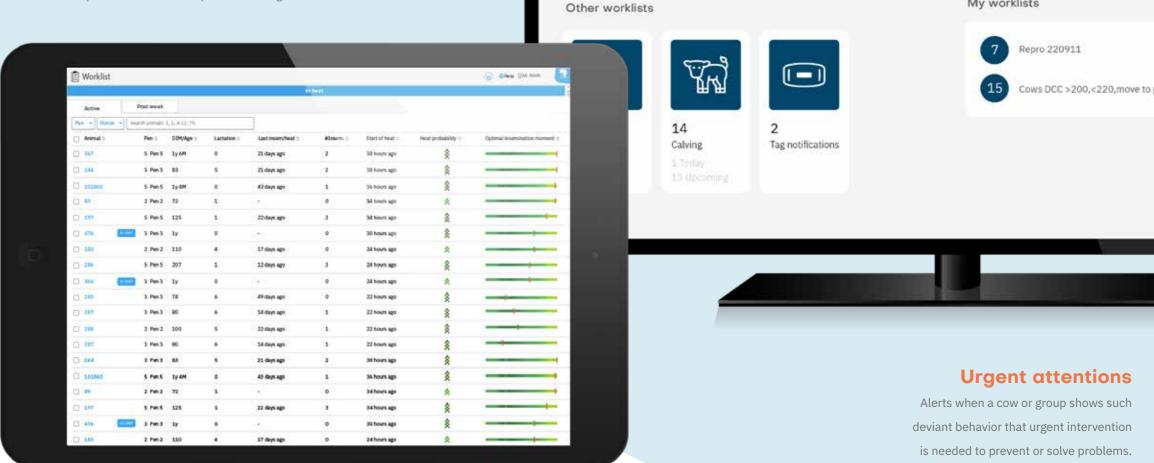
#### **Dashboard**

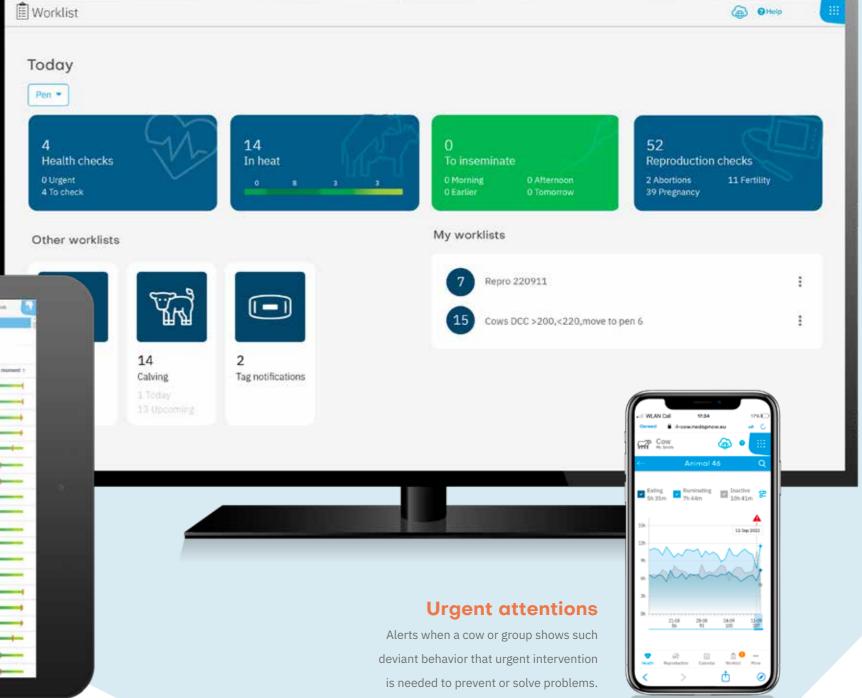
Widget-based overview of the most important alerts, to-do lists and reports.

The right information at the right time for the right person. Anytime and anywhere.

#### **Heat Detection**

Worklist of cows in heat, including advice on their optimal insemination moment for effectiveinsemination with the highest chance of conception and additional reproduction insights.





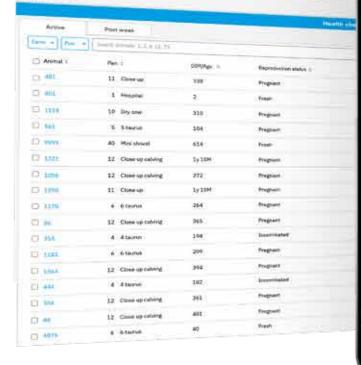


### Real-time

#### **Animals to check**

Worklist of animals to check including report of their deviant behavior that provides insight into possible health issues of each cow on the list.

#### Worklist



#### **Health Monitoring**

- 48-hour report showing complete time spent of a cow across all activities.
- 60 day reports showing her day totals per activity including group benchmark.

#### **Herd Performance Trends**

- Group Eating Pattern: 48-hour report showing the percentage of all cows in a group eating simultaneously.
- 60 day group reports showing day totals per activity including herd benchmark.

#### **Cow Locating**

The real-time location of single or multiple cows needing to be inseminated, checked, treated or fetched accurately shown on the barn map.



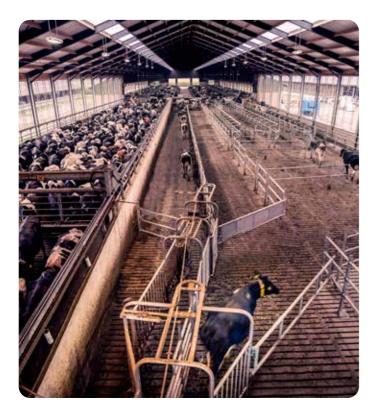
All interfaces automatically adapt to any device.



Watch demo videos of these interfaces on our Youtube channel: youtube.com/nedaplivestockmanagement

O Gremp Feet

### Connect

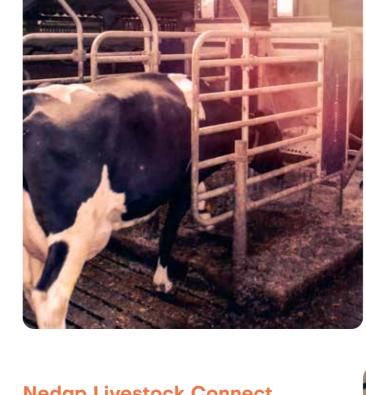


#### **Sorting and Routing**

Control your cow flow. Save time and labor.

Nedap Sorting and Routing controls the entire cow flow on the farm. The processes of separating cows for treatment and routing cows to any specific location in the barn or to pasture are fully automated. This saves time and labor and facilitates controlled growth.

Integration with Nedap CowControl makes it possible to automatically separate cows needing to be inseminated or treated according to heat and health alerts, without having to touch them a single time. This pushes farm efficiency to the next level.



#### **Electronic Concentrate Feeding**

Feeding for optimal production while saving costs.

Connect your cows to your farm systems and dairy management

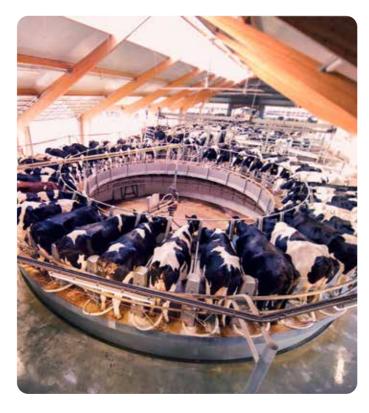
programs with Nedap CowControl. Integrate with these additional Nedap solutions to add even more value.

Automatically feeding each cow the right concentrate at the right time in the right portion size allows you to achieve optimal production results, while saving on feed and labor costs. A win-win situation that puts you even more in control over the performance of each cow. Our feeding station follows a tailor-made feed curve per cow which supports peak condition and can be easily set up based on her milk production, lactation days, production group or as a fixed ration. It optimally spreads out her portions throughout the day and offers a comfortable, protected eating environment.



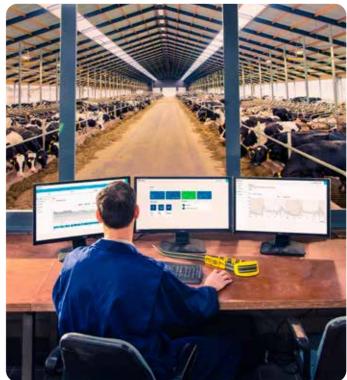
Production monitoring for targeted management.

Accurate milk yield data from each cow is key to understand the performance of your farm and make the right management decisions to maintain or achieve peak performance from each animal. Our ICAR-certified Milk Yield Recording system delivers exact yield, process and conductivity data for every milking. It alerts when the productivity of a cow drops or when the conductivity indicates mastitis, enabling you to detect problems at an early stage. Insights support you in identifying management areas that work well or need improvement. A golden combination with Nedap CowControl.



## Nedap Livestock Connect Integrate with management programs. Increase efficiency.

Nedap CowControl easily integrates with all common dairy management programs. Thanks to advanced API connections and cloud integrations, cow data and calendar data can automatically be synchronized between systems. This prevents double entry, saving time and annoyance. The system also offers cuttingedge data exchange possibilities to integrate Nedap CowControl data into third party systems and vice versa, which only applies when the farmer gives permission. This adds value to the systems involved and ensures that various parties can optimally support the farmer.





### Global knowledge base with local service and support

Combined forces to drive innovation

Nedap partners with universities, research institutes,

veterinary organizations, distributors, end-users and

other knowledge leaders in the livestock industry.

of today and tomorrow. We constantly keep

technology and knowledge available.

#### Distribution and support network

Leading international genetics and milking equipment suppliers partner with Nedap to include our technology in their solutions. Our distribution and support network ensures a global knowledge base with local service

Find your Nedap distributor at

**♦** nedap.com/livestockmanagement

At Nedap we develop Technology for life: products that heart of our Technology for life philosophy is our drive to truly understand what people need to excel in their unlocking the power of purpose in people and changing the way they live their professional lives.

As a global leader in farming automation using individual animal identification Nedap Livestock Management helps thousands of farmers around the globe to become the best performing farmers in the world. Our systems help farmers manage millions of cows and pigs in more than 100 countries 24 hours a day.

h nedap.com/livestockmanagement



Nedap

Founded



**Exchange-listed** 



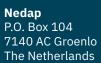
7 business units











**Discover more:** nedap.com/cowcontrol

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