wiCOOL

Smart ventilation,
Measurable comfort.

AI supported adaptive climate control for healthier farms.

- Wireless Setup
- Adaptive Fan Control
- Real Time Monitoring
- Cloud Access



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PRECISION INSIDE
COMFORT OUTSIDE

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What is wiCool ?

wiCool is an advanced wireless cooling and climate management system designed to improve cow comfort, reduce heat stress and optimize energy and water consumption in dairy farms.
Powered by wireless communication technology, wiCool seamlessly connects smart sensors, fans and radar-based automatic sprinkling systems through a centralized management platform. Its wireless architecture minimizes complex cabling, simplifies installation and enables flexible expansion across different barn layouts.
By continuously monitoring temperature, humidity, air quality and the body core temperature of cows, wiCool automatically adjusts fan speeds and coordinates cooling operations according to real-ti-me environmental conditions. The result is a smarter, more efficient and fully integrated approach to dairy barn cooling.

Cloud Visibility

Environmental Monitoring

Animal Based Data

Adaptive Fan Control

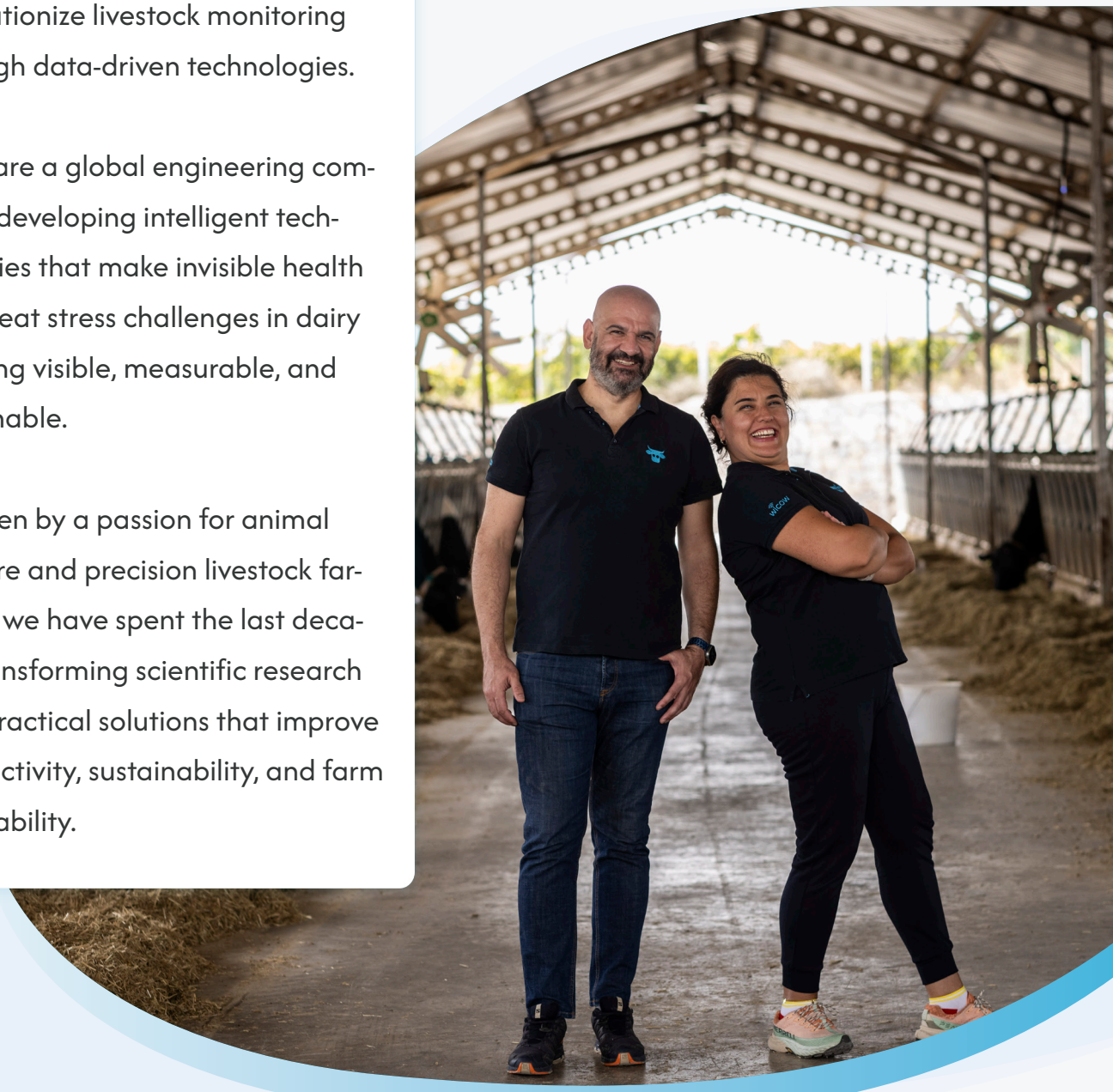
About Us

Build with passion. Driven by purpose.

muTech GmbH was founded in 2019 in Hannover with the vision to revolutionize livestock monitoring through data-driven technologies.

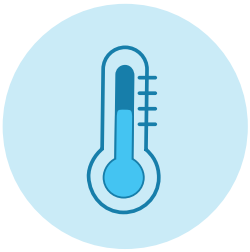
We are a global engineering company developing intelligent technologies that make invisible health and heat stress challenges in dairy farming visible, measurable, and actionable.

Driven by a passion for animal welfare and precision livestock farming, we have spent the last decade transforming scientific research into practical solutions that improve productivity, sustainability, and farm profitability.



Smart Monitoring

- **Wireless Control –** Less cabling. Faster installation. Easy expansion.
- **Smart Fan Control –** Automatically adjust fan speeds across cooling zones.
- **Radar-Activated Sprinkling –** Cool cows on demand. Reduce water waste.
- **Real-Time Monitoring –** Track temperature, humidity, THI and more.
- **Zone-Based Cooling –** Adapt cooling to the needs of each barn area.
- **Resource Efficiency –** Optimize energy and water use without compromising cooling performance.



Heat Stress Visibility

Monitor temperature, humidity, air quality and THI in real time.



Smart Farm Management

Live dashboards, zone-based overview, faster response and better decision-making.



Practical & Scalable Technology

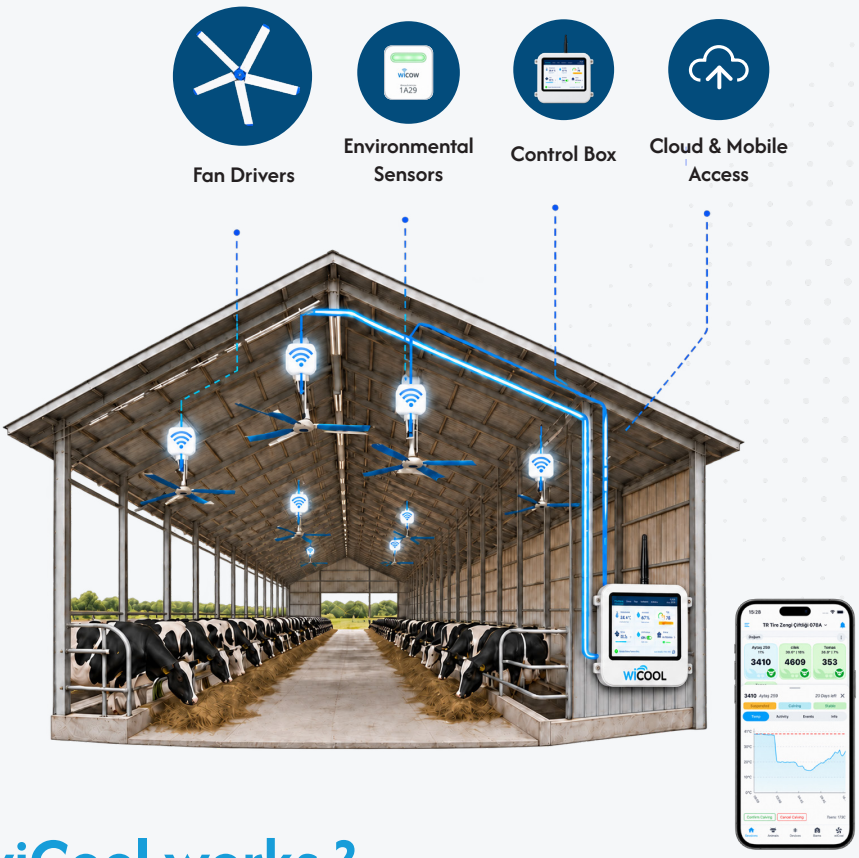
Wireless architecture, easy expansion, and simple deployment without complex extra wiring.



wiCool turns environmental data into actionable ventilation decisions.

wiCool
System Setup

wiCool uses a Control Box, wireless FanDrivers, environmental sensors, and cloud/mobile access to create an adaptive ventilation system that responds to real-time barn conditions.



How wiCool works ?

1 Barn Sensors



Temperature, humidity, air quality and THI are monitored continuously.

2 Fan Drivers



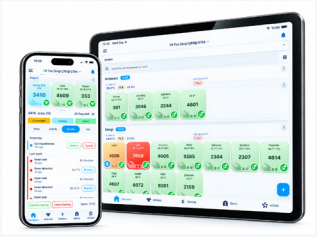
One wireless FanDriver per fan, no extra cabling needed.

3 Control Box



Processes all inputs and coordinates adaptive ventilation decisions.

4 wiCool App



Farmers access live data, alerts and system visibility anytime, anywhere.

Reliable monitoring
Continuous, accurate tracking of barn conditions for smarter decisions and healthier cows.

Easy Deployment
Wireless devices and simple setup reduce installation time and cost—no extra cabling.

Efficient Performance
Adaptive ventilation improves animal comfort, lowers heat stress, and enhances productivity.

Heat Stress Management

wiCool provides a detailed view of heat stress conditions across the farm, enhances existing mechanical ventilation by adding an intelligent responsive control layer, and helps improve barn comfort through data driven cooling decisions.



Before Cooling

High THI, cows stressed, lower performance.

During Cooling

wiCool adapts ventilation in real time.

Alerting

Real-time alerts and insights to act fast.

Better Results

Improved comfort, health & productivity.

Potential Result

More consistent performance

Results vary by farm and system configuration.

Intelligent
Data Fusion



wiCool fuses barn climate data and real-time animal response data from Tsens to understand the **true cooling needs of the herd**, enabling smarter ventilation decisions, reduced stress, and improved productivity.

1. Entrance & Exit Temperature / Humidity

Track temperatures and humidity at barn entrances and exits to measure ventilation effectiveness in real time.

2. Air Quality Monitoring

Monitor ammonia, CO_2, and other key parameters to ensure cleaner air and healthier respiratory conditions.

3. Body Core Temperature from Tsens

Capture real-time core body temperature from cows to detect heat stress early and accurately.

4. THI Tracking

Continuously calculate and track THI to understand heat stress levels and their impact on animal performance.

5. Continuous Monitoring

24/7 real-time monitoring ensures no critical change is missed—keeping your herd safe around the clock.

6. Actionable Insights

Smart alerts and data-driven insights help you respond faster, optimize ventilation, and improve outcomes.

Environment + Animal = True Understanding

Better decisions. Healthier cows. Stronger farms.



From Data to Action

Adaptive climate control that works in real time.

wiCool automatically adjusts fan performance in each barn zone using real-time data fusion to deliver the best possible environment for your cows.

1) Current barn conditions

Real-time temperature, humidity and THI in every zone.

2) Air quality

Monitors ammonia, dust and CO_2.

3) Heat stress risk

Predicts heat stress using advanced algorithms and trend analysis.

4) Actual animal response

Uses real-time health and activity data from Tsens to validate results.

The result:
wiCool transforms traditional ventilation into an intelligent, animal-centered climate control system.

wiCool Advantage

Smart insights. Healthier herd.

Real-time visibility. Instant alerts. Smarter decisions.
Better results for your farm, every day.



1 Access to wiCool Gateway

Live dashboards
Monitor every barn in real time.

Heat stress map report
Visualize risk zones and act proactively.

Trends and reports
Track performance and drive continuous improvement.

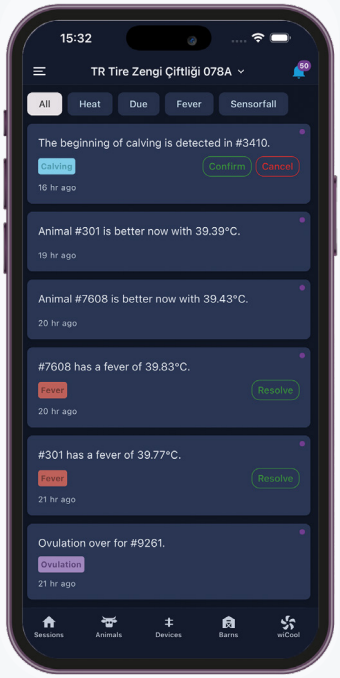


2 Instant Alerts

Critical heat stress alerts
Get notified the moment it matters.

Malfunction warnings
Detect issues early, avoid downtime.

Visibility for decision making
Make confident decisions, faster.





3 Economical Benefits

Reduced installation costs
Simple wiring, fewer components.

Lower hardware investment
High performance, better ROI.

Flexible deployment
Fits any barn size or configuration.

Faster setup & scalability
Expand as your farm grows.

Fan Drivers | Environmental Sensors | Control Box | Cloud & Mobile Access



4 Expert Support

Technical support
Get help from experts who understand your farm.

Onboarding & training
Easy start, confident use.

Quick response
Fast solutions when you need them most.

Regular updates
Always improving, always ahead.

Reliable partnership
We're with you for the long run.



We don't just deliver technology,
we deliver peace of mind and results.

wiCOOL

With wiCool, healthier barns, smarter farms

We combine intelligent climate control and real-time insights to help you reduce heat stress, improve animal comfort, optimize ventilation, and build a more efficient and sustainable future for your farm.

Thank you for being part of the future of smart farming.



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