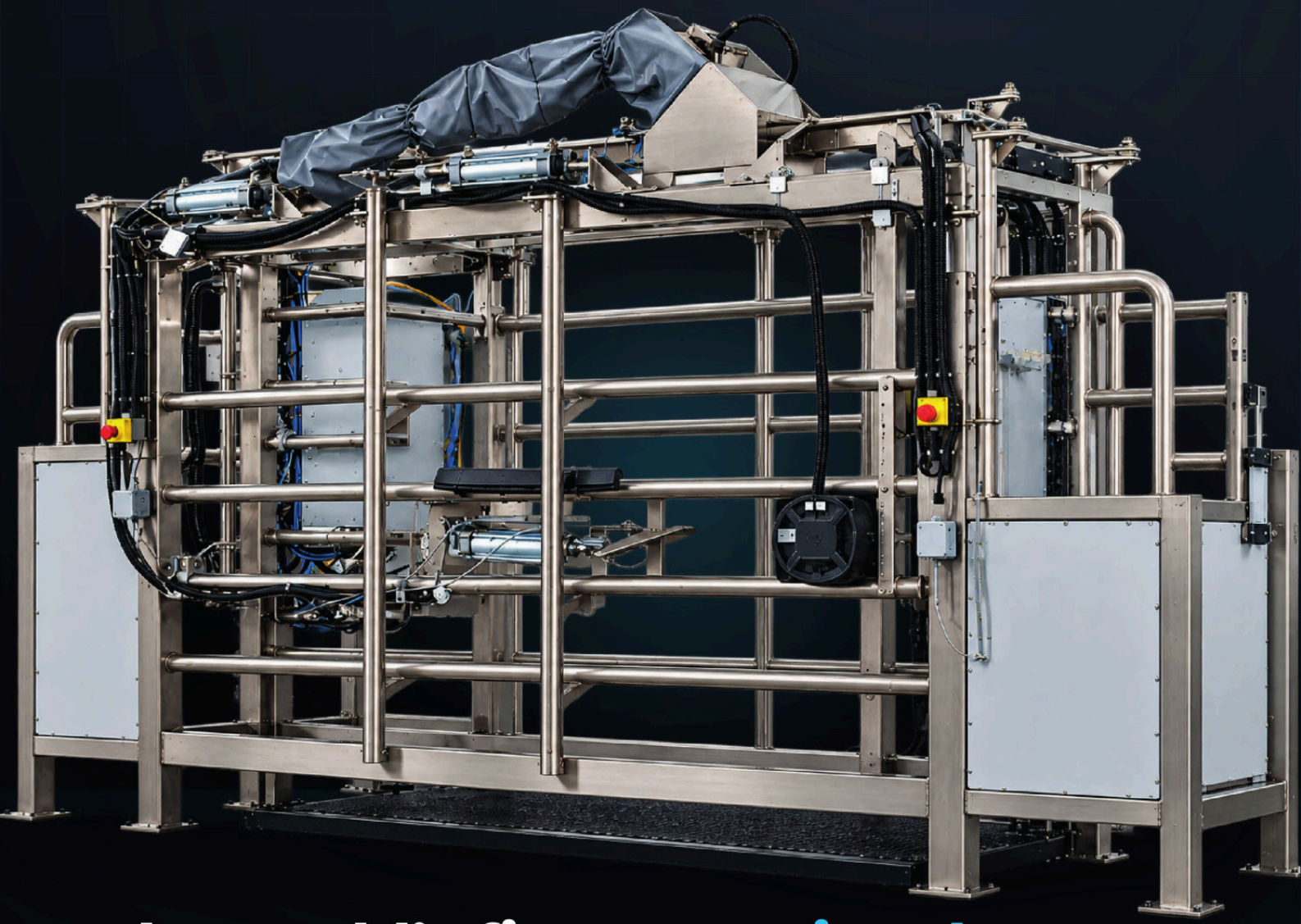
ROBOOVAXX®

THE FUTURE OF CATTLE VACCINATION

ENERGYDECENTRAL 2026
INNOVATION AWARD · SILVER



The world's first AI-assisted robotic needle-free vaccination system

NEEDLE-FREE | AI-GUIDED | ANIMAL-FRIENDLY

WHY ROBOOVAXX®

Vaccination. Reimagined.

ROBOOVAXX® brings robotics, artificial intelligence and needle-free delivery together in one automated cattle handling system — so that routine treatments become faster, more consistent and kinder to the animal.

THE CONVENTIONAL WAY

- Manual restraint and hand-held injection
- Needles: changing, disposal and needle-stick risk for staff
- Outcome depends on the operator and the moment
- Paper-based or delayed treatment records

THE ROBOOVAXX® WAY

- ✓ Automated positioning with robotic precision
- ✓ Needle-free delivery — no needles to handle at all
- ✓ Controlled, repeatable application, cow after cow
- ✓ Every treatment linked to the individual animal

Less handling. No needles. Calmer cows, safer people.



THE PLATFORM

The system that thinks ahead.

More than a cattle crush: an intelligent technology platform built for the next generation of livestock care.

Robotic precision

Automated positioning and controlled delivery at the target site.

Needle-free technology

Compressed-air delivery replaces the conventional needle.

AI-assisted operation

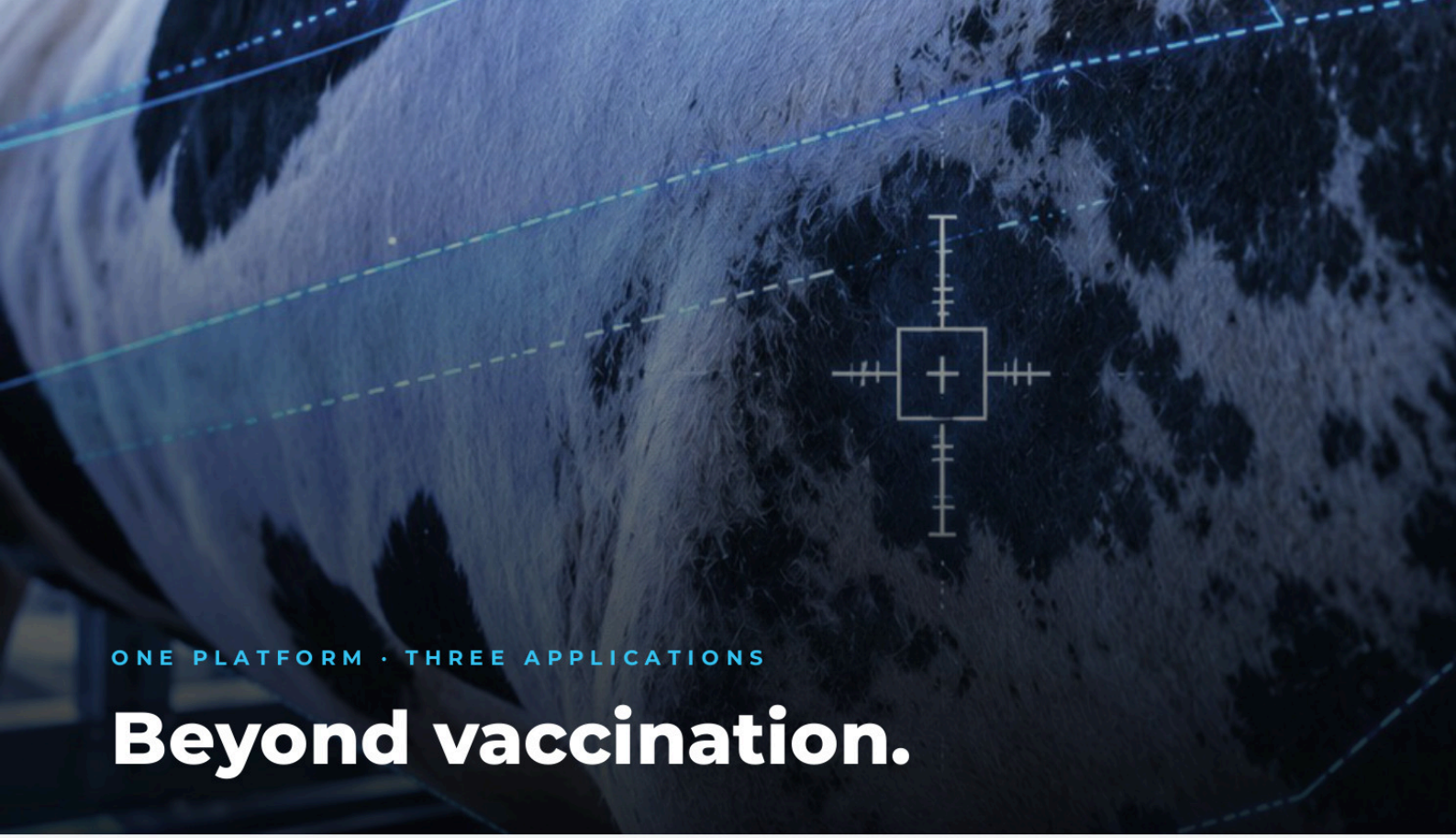
Real-time detection and intelligent control for consistent processes.



INTEGRATED DESIGN

From animal handling to treatment — designed as one integrated process.

ROBOOVAXX® combines a purpose-built handling unit with robotics and AI-based control. By automating the critical steps, it reduces repetitive manual work and turns every treatment into reliable digital data.



ONE PLATFORM · THREE APPLICATIONS

Beyond vaccination.

01

Vaccination

Robot-guided vaccine delivery for the whole group — fast and uniform from the first cow to the last.

02

Hormone treatments

Precise, documented administration of reproductive hormone protocols.

03

Estrus induction

Reliable timing for estrus induction and synchronization programs.

For the animal

Designed around the cow: less restraint and handling, no needle penetration.

For the team

Fewer repetitive manual tasks and no needle-stick risk.

For the farm

Consistent treatments, traceable records and a sound basis for decisions.

Routine treatments, done right — the same way, every time.

HOW IT WORKS

Four steps. Zero needles.



1 Enter & identify

The cow walks into the handling unit and is identified individually.



2 Sense & locate

Integrated sensors and AI detect the animal's position in real time to find the target site.



3 Deliver needle-free

The robotic arm brings the applicator to the target site and delivers the dose with compressed air.



4 Record automatically

The completed treatment is saved instantly to the animal's digital record.

RECOGNIZED INNOVATION

INNOVATION AWARD

EnergyDecentral 2026

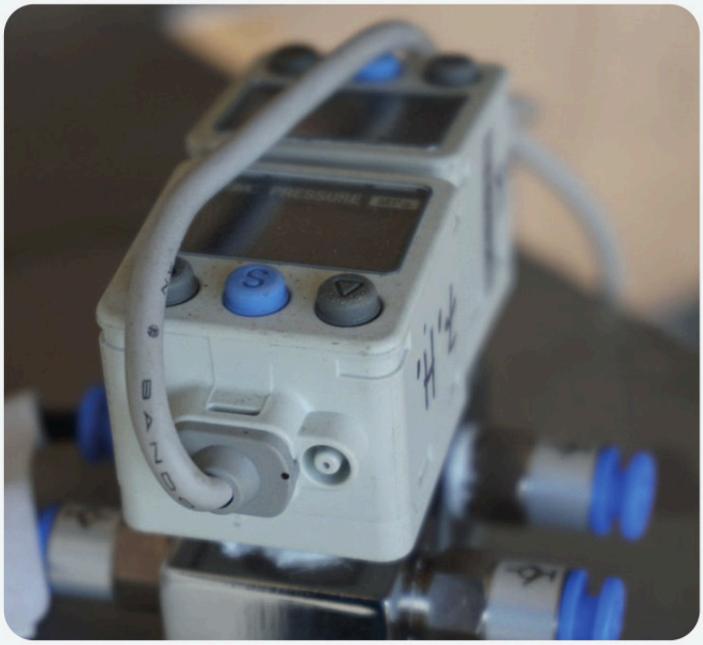
SILVER MEDAL

A recognition of the animal-friendly approach behind ROBOOVAXX®: routine treatments in cattle without needles and with less handling.

NOW IN TEST OPERATION

Tested in Hungary — with very promising results.

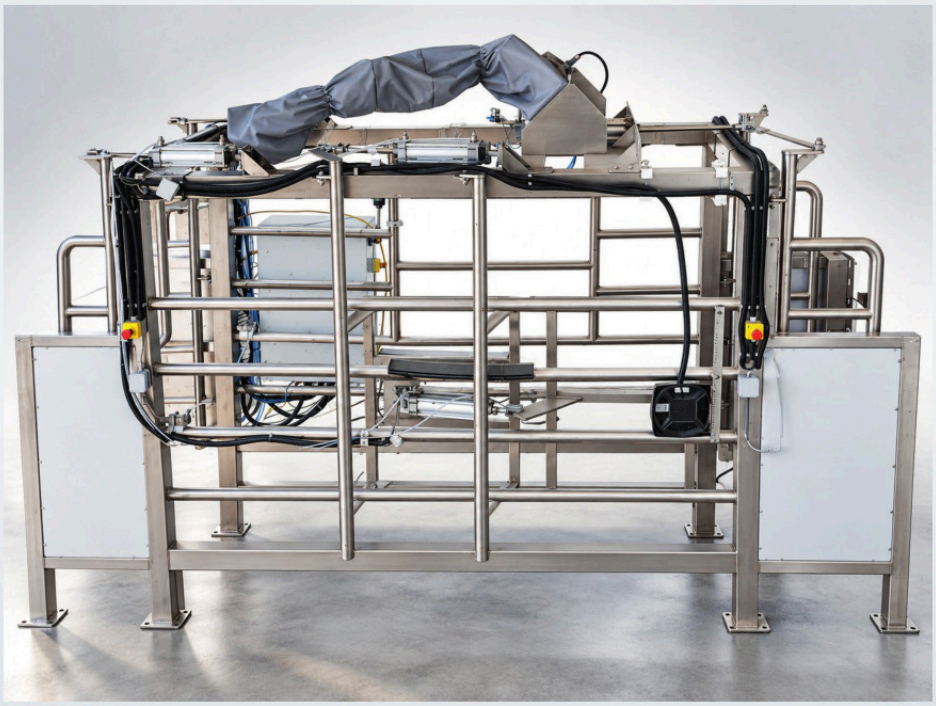
Field testing under everyday farm conditions is under way. The next step is international: we invite research institutions and dairy operations abroad to evaluate the system in their own environment.





INTELLIGENT TREATMENT MANAGEMENT

Every dose.
Every cow. On record.



Animal identification

Each cow is recognized on entry, so every record belongs to the right animal.

Treatment records

Applications are logged as they happen — no manual data entry once the work is done.

Data-driven management

A digital foundation for smarter workflows and future integration with herd management systems.

DEVELOPED IN HUNGARY BY

Óbuda University

Belvárdgyulai Mg. Zrt.

Agrometal Klaster Zrt.

WATCH THE VIDEO

SEE ROBOOVAXX® AT WORK

Scan the QR code to watch the system in operation.

Research trials
Joint studies on animal welfare, treatment accuracy and handling stress.

On-farm deployment
Pilot installations on commercial dairy and beef operations.

Technology partners
Integrators and distributors ready to bring the system to new markets.



CONTACT
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VISIT OUR WEBSITE

We are looking for partners to shape the future of automated, animal-friendly livestock treatment.