>>> NEWSLETTER <<<

dairy 4.0

Advanced, trustworthy AI and data solutions for individualised automated milking & feeding of dairy cows

Co-funded by the European Union

Project funded by

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs, Education and Research EAER
State Secretariat for Education, Research and Innovation SERI

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or HADEA. Neither the European Union nor the granting authority can be held responsible for them.
This work has received funding from the Swiss State Secretariat for Education, Research and Innovation (SERI)

24M progress

Over the past months, the dAIry 4.0 project has achieved several important milestones, bringing us closer to delivering advanced, AI and data-driven solutions for dairy farming.

>>> Animal Status Classifier

The first version of the Animal Status Classifier has been completed, integrating multiple vision submodules. Early experiments have shown highly promising accuracy. The Animal Status Classifier can now classify cows into different classifications.

>>> Milk quality analysis module

A new homogenisation and filtration system has been installed and tested. Early results suggest that the goal of achieving milk quality analysis in just 3 minutes is feasible.

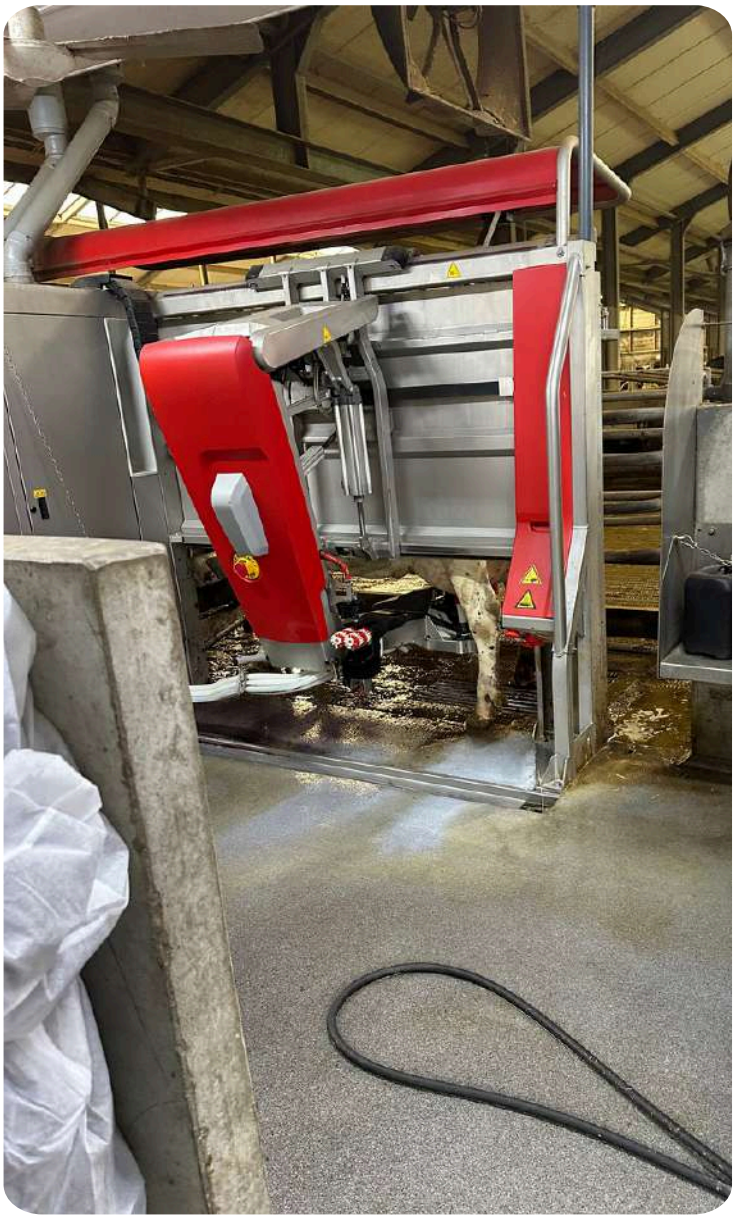
Co-funded by the European Union

Project funded by
Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
Swiss Confederation

Federal Department of Economic Affairs, Education and Research EAER
State Secretariat for Education, Research and Innovation SERI

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or HADEA. Neither the European Union nor the granting authority can be held responsible for them.
This work has received funding from the Swiss State Secretariat for Education, Research and Innovation (SERI)

24M progress



Robotic integration & Actuation modules

The first versions of the individualised milking, feeding, gating control, and milk partitioning modules have been delivered and tested. The milking robot has already been connected with the Animal Status Classifier and vision modules, while customised pulsation settings have been optimised to improve efficiency.

Data infrastructure & DSS

The cloud-based data platform is now live, supporting real-time data flow between the milking robot, sensors, simulator, and DSS. The first version of the DSS and simulation tools has been delivered, providing real-time alerts and management recommendations validated with synthetic datasets.

TECHNICAL UPDATES COMING NEXT

- **First results of the integrated robot**
- **Demonstration of the integrated robot**

Co-funded by the European Union

Project funded by
Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
Swiss Confederation
Federal Department of Economic Affairs, Education and Research EAER
State Secretariat for Education, Research and Innovation SERI

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or HADEA. Neither the European Union nor the granting authority can be held responsible for them.
This work has received funding from the Swiss State Secretariat for Education, Research and Innovation (SERI)

18M Consortium Meeting

A successful M18 dAIry 4.0 project meeting was held on 12th-13th March in Athens, Greece and was hosted by our partner ICCS-NTUA. This two-day meeting provided an important opportunity for all dAIry 4.0 Consortium partners to meet in person and review the current project progress, deliver updates on all Work Packages, and engage in-depth discussions on technical aspects, challenges, and solutions. Specific action items and tasks were established for the project's next six months and before our first integration of all the components, developed within the project, into the milking robot.

Co-funded by the European Union

Project funded by
Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
Swiss Confederation
Federal Department of Economic Affairs, Education and Research EAER
State Secretariat for Education, Research and Innovation SERI

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or HADEA. Neither the European Union nor the granting authority can be held responsible for them.
This work has received funding from the Swiss State Secretariat for Education, Research and Innovation (SERI)

SPIE Photonics West 2025

SPIE photonics West is the world's largest photonics technologies events, covering fields like biomedical optics, lasers and quantum technologies. The 2025 edition featured technical conferences, exhibitions, and industry-focused sessions showcasing the latest advancements in optics and photonics. Our partner, ALPES, attended the conference, engaging with stakeholders to share the latest project updates, future milestones, and the potential for a more sustainable agriculture sector through dAIry 4.0. ALPES also highlighted its primary role in the project by providing novel External Cavity Quantum Cascade Lasers (EC-QCLs) for milk quality analysis.

Co-funded by the European Union

Project funded by

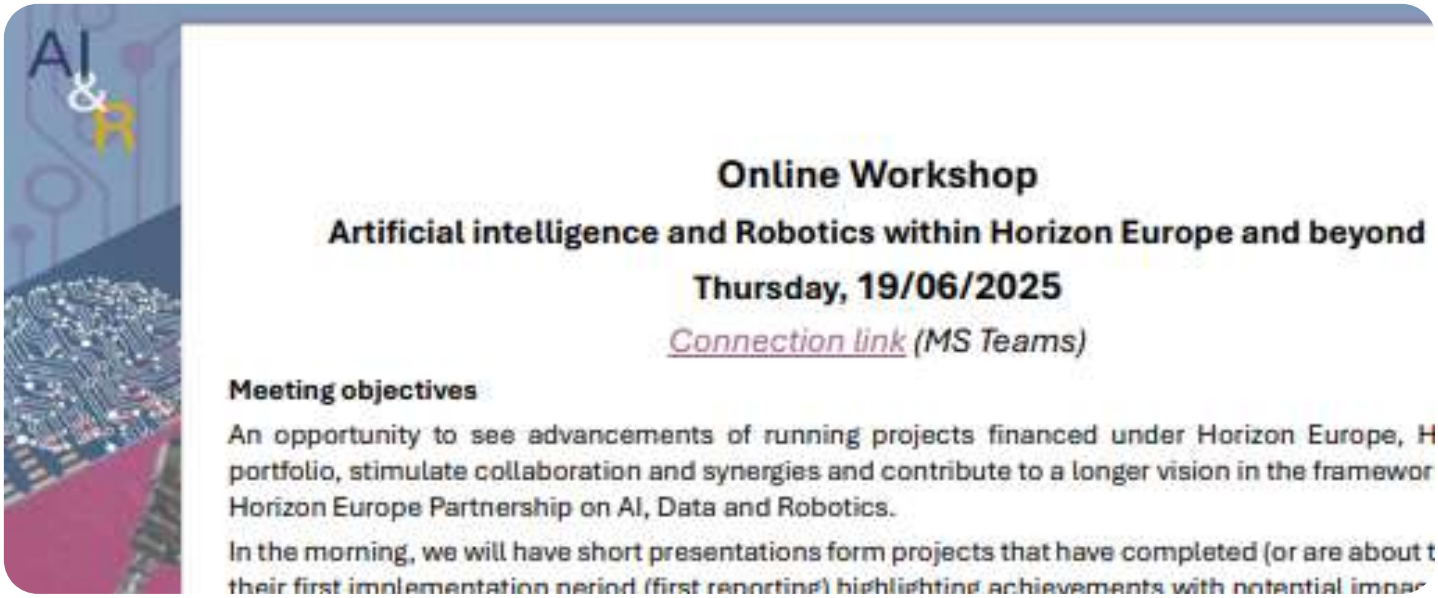
Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs, Education and Research EAER
State Secretariat for Education, Research and Innovation SERI

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or HADEA. Neither the European Union nor the granting authority can be held responsible for them.
This work has received funding from the Swiss State Secretariat for Education, Research and Innovation (SERI)

HaDEA Workshop " Artificial Intelligence and Robotics within Horizon Europe and Beyond"



dAIry 4.0 project also participated in the virtual workshop "Artificial Intelligence and Robotics within Horizon Europe and Beyond" organised in collaboration with HaDEA and DG CONNECT, is designed to facilitate a comprehensive dialogue among active projects in the AI and robotics domains. This event aimed to bring together projects among Horizon Europe programme started late on 2023 or early 2024, to discuss significant advancements, challenges, and opportunities in these field. Representatives from DG CONNECT and the ADRA (AI, Data and Robotics Association) were also in attendance, contributing their insights and fostering collaborative discussions. The project was presented by CyRIC with a 4-slide presentation highlighting the summary, key achievements up to date, and project contribution to SRIDA and Horizon Europe goals

Co-funded by the European Union
Project funded by
Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
Swiss Confederation
Federal Department of Economic Affairs, Education and Research EAER
State Secretariat for Education, Research and Innovation SERI
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or HADEA. Neither the European Union nor the granting authority can be held responsible for them.
This work has received funding from the Swiss State Secretariat for Education, Research and Innovation (SERI)

Contact

Wrapping up our second newsletter edition, we're thrilled by the progress within our **dAIry 4.0** project.
Our vision for sustainable agriculture propels us forward.

With gratitude to our partners, we stride into the future, eager to pioneer advancements in dairy farming.

Stay tuned for updates as we revolutionize the field though technology and commitment.

dAIry 4.0

www.dairy40.eu

info@dairy40.eu

Follow us!

@dAIry40

MEET THE CONSORTIUM

CYRIC

LELY

UAB Universitat Autònoma de Barcelona

ICCS

TU WIEN TECHNISCHE UNIVERSITÄT WIEN

ALPES LASERS

Co-funded by the European Union

Project funded by

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs, Education and Research EAER
State Secretariat for Education, Research and Innovation SERI

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or HADEA. Neither the European Union nor the granting authority can be held responsible for them.
This work has received funding from the Swiss State Secretariat for Education, Research and Innovation (SERI)