

MOZART

Poultry Processing Meets Science

AVEC General Assembly 2026 - Sorrento

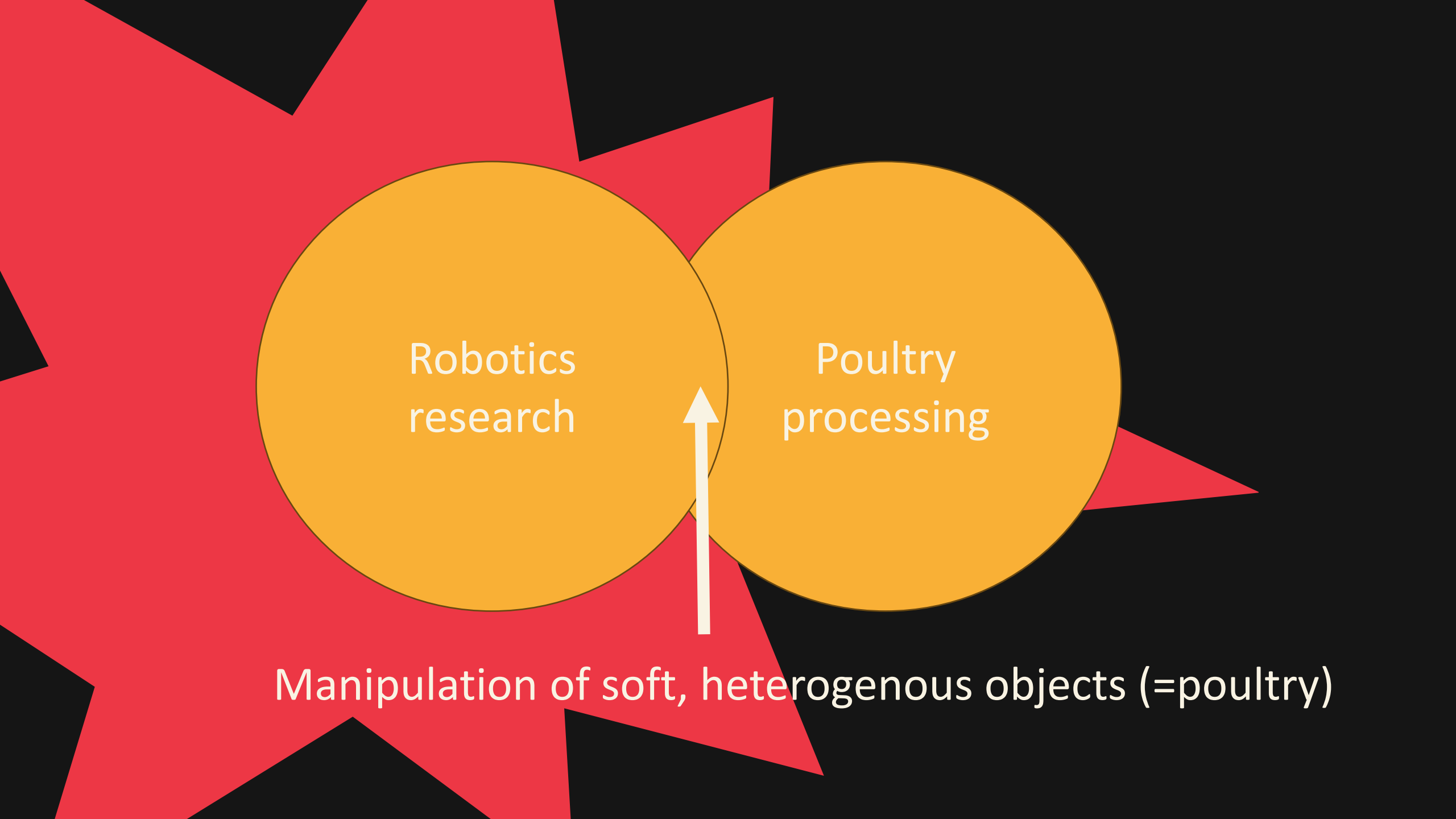
Kasper Støy

Scientific Coordinator, MOZART

Professor, IT University of Copenhagen



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 the European Commission-EU. Neither the European Union nor the granting authority can be held responsible for them.

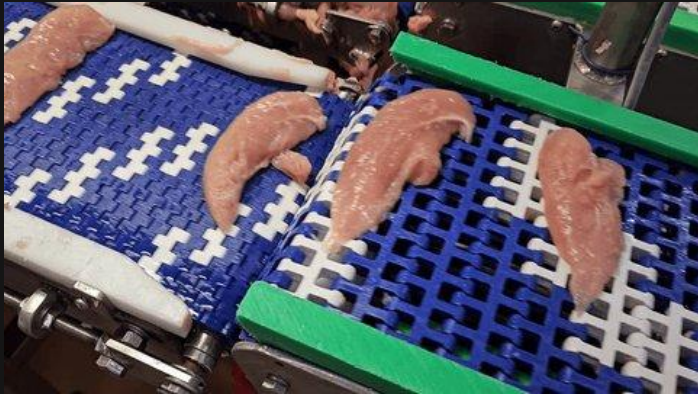


Robotics
research

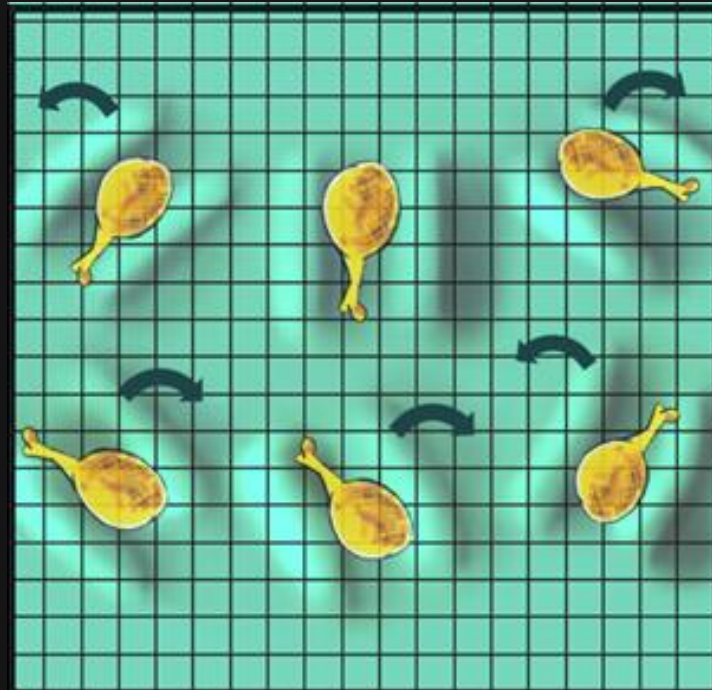
Poultry
processing

Manipulation of soft, heterogenous objects (=poultry)

Surface Manipulation Concept



Grasp-free
transportation



Grasp-free
manipulation



Grasp-based
manipulation

Rutland IV, H.G., Walker, I. (2025). Soft Robot Palmar Gripper for Raw Chicken Part Handling. In: Arai, K. (eds) Intelligent Computing. CompCom 2025. Lecture Notes in Networks and Systems, vol 1423. Springer, Cham. https://doi.org/10.1007/978-3-031-92602-0_34

MOZART

MOZART

A basic research project - born with a long-term vision to end up in your processing plants

IN THE ROOM SINCE 2022



Cabinplant®

IT UNIVERSITY OF COPENHAGEN



Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin

EPFL



ISTITUTO ITALIANO
DI TECNOLOGIA



VYSOKÉ UČENÍ
TECHNICKÉ
V BRNĚ

ICONS



SDU

- **Funding:** Horizon Europe, Research and Innovation Action - EUR 4.8 million
- **Duration:** 48 months, 1 October 2022 - 30 September 2026 (concluding this month)
- **Full name:** MOZART - Morphing Computerized mats with Embodied Sensing and Artificial Intelligence

MOZART

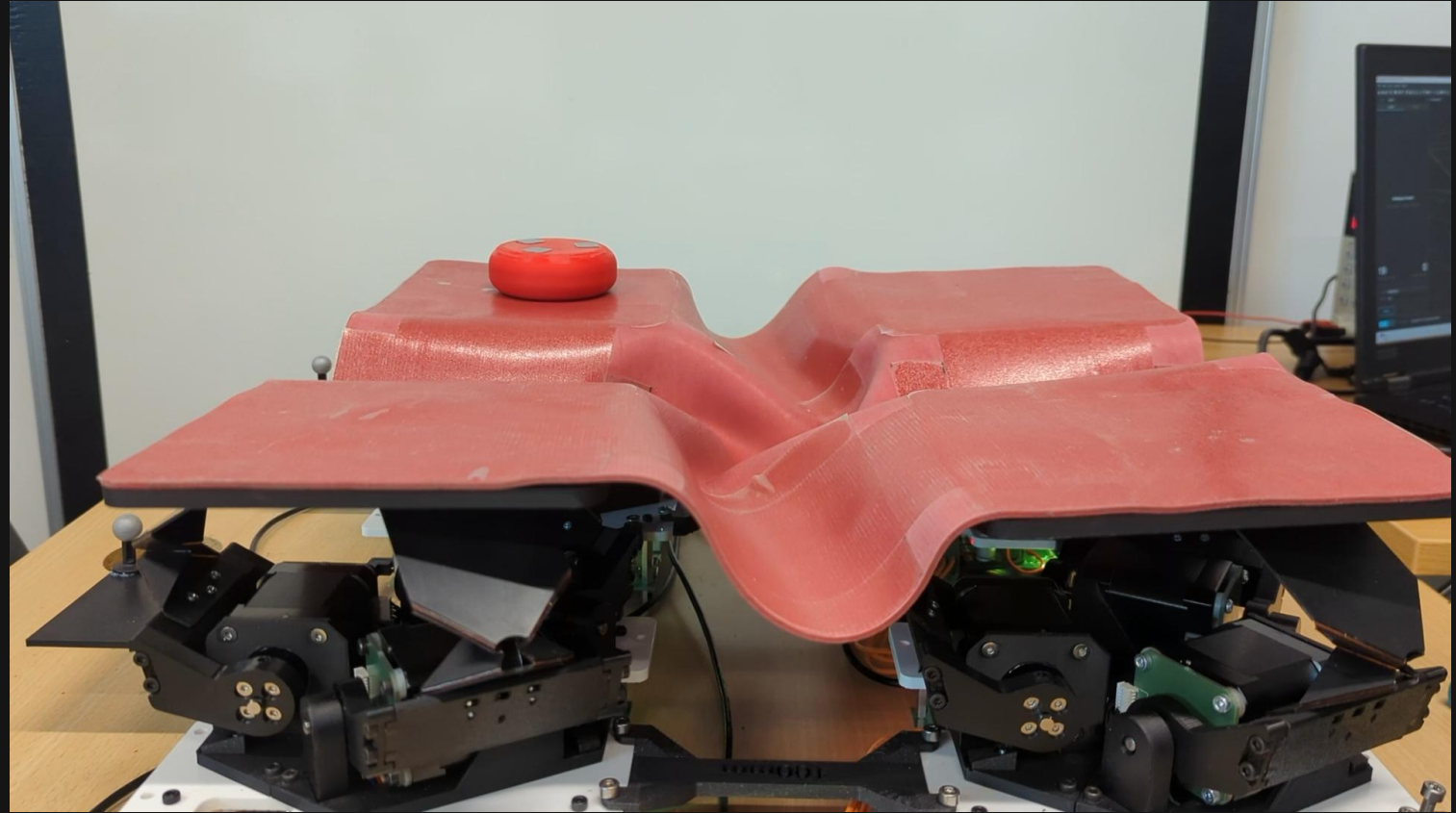
A MANIPULATION SURFACE MADE OF TILES

Modular tiles

Top: a soft, sensorised skin (COPESS) that feels pressure, contact and shape

Middle: origami-inspired actuators (ORA) that reshape the surface

Bottom: electronics that power and coordinate every tile

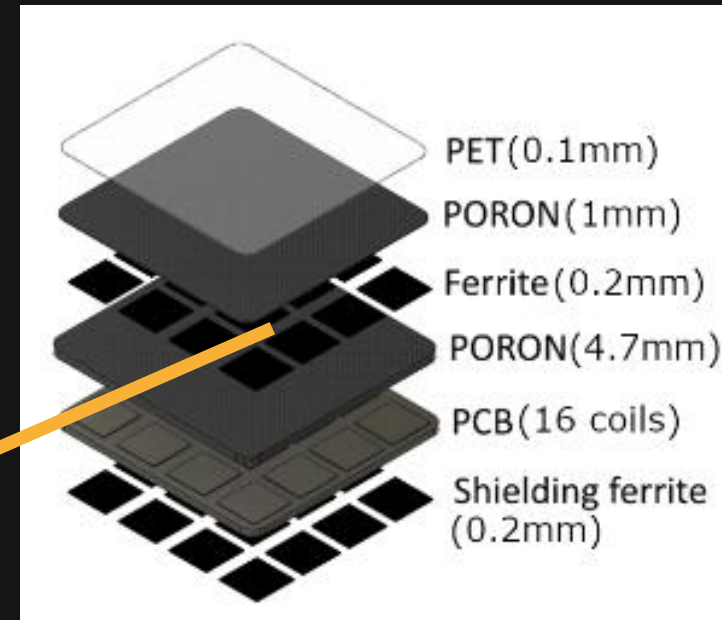
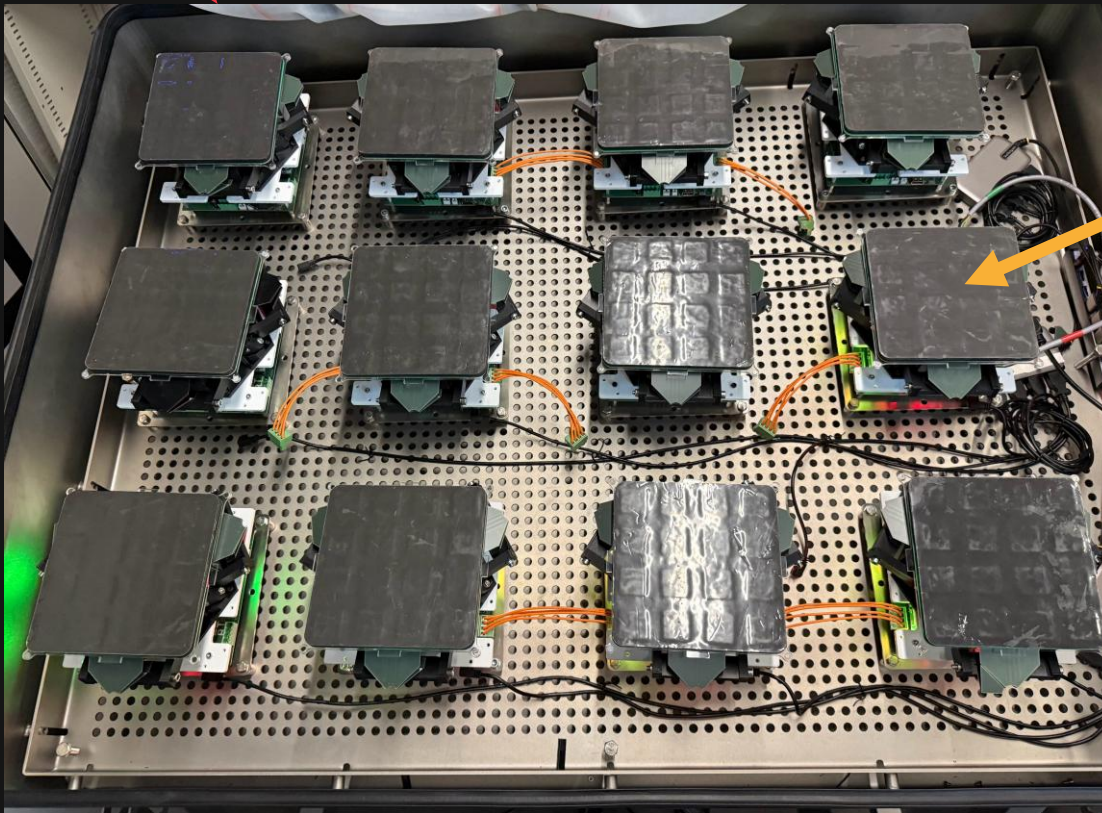


Early concept

MOZART

B. Dacre et al. (2026) - "Flexible and Foldable: Workspace Analysis and Object Manipulation Using a Soft, Interconnected, Origami-Inspired Actuator Array" – International Conference on Robotics and Automation.

Sensing in the tiles



MOZART

B. Dacre *et al.*, "Neural Cellular Automata for Decentralized Sensing Using a Soft Inductive Sensor Array for Distributed Manipulator Systems," *2025 11th International Conference on Control, Automation and Robotics (ICCAR)*, Kyoto, Japan, 2025, pp. 314-321, doi: 10.1109/ICCAR64901.2025.11073064.

GRADING FILLETS BY WEIGHT



A surface that sorts chicken fillets (=bean bags) by weight - no gripper, no product-specific tooling.

MOZART



AN HONEST ACCOUNT

- **What is proven:**

- Surface-based manipulation concept implemented.
- A CEN standard - CWA 18409:2026 - defining the vocabulary and performance criteria for grasp-free robotic manipulation.

- **What is not proven:**

- Line speed.
- Hygiene certification.
- Reliability.

MOZART



Collaboration

- **Be a partner in the next project.**
 - End-user partners involvement - and being a partner is how you steer what gets researched, years before there is anything to buy.
- **Give time.**
 - A day on an advisory board. An hour with an operator. A visit to a line. Scientists guess badly about your industry unless you tell them.
- Unfortunately, the return is not next year's cost saving. It is that the technology arriving on your line in next decade was shaped by people who understood poultry and was made for the poultry sector.

MOZART

KEEP UP WITH MOZART UPDATES



Visit MOZART website: <https://mozart-robotics.eu/>



Subscribe to MOZART newsletter: <https://mozart-robotics.eu/subscribe/>

Follow MOZART on social media:



Thank you

info@mozart_robotics.eu



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 the European Commission-EU. Neither the European Union nor the granting authority can be held responsible for them.