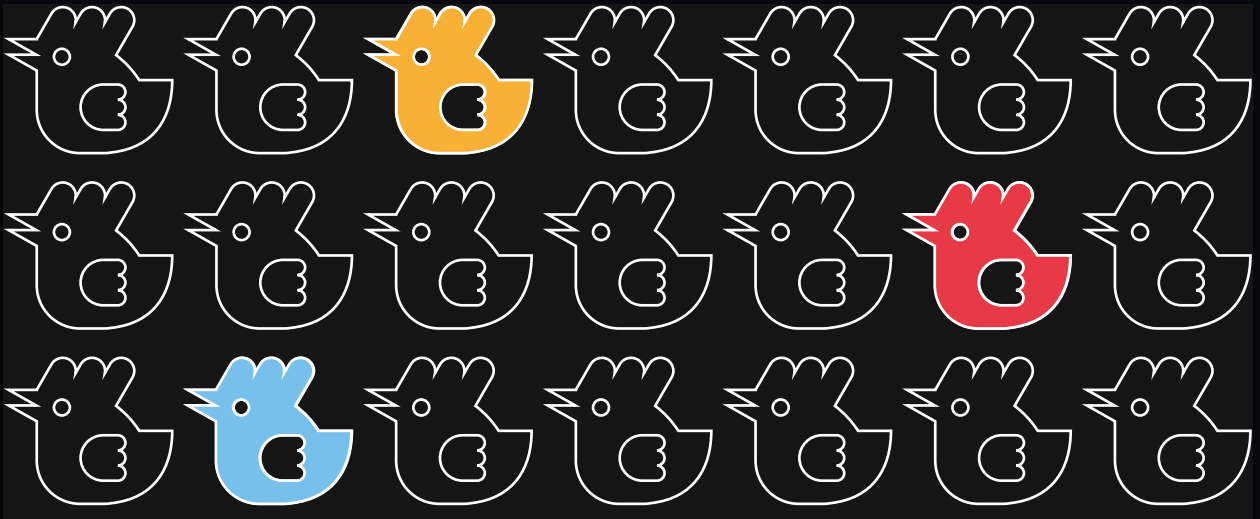


MOZART



RISING DEMAND, RISING STANDARDS

The European poultry sector is growing, with annual per capita poultry meat consumption set to rise from 24.2 kg to 25.8 kg by 2035. This growth is driven by affordability and sustainability, but the European poultry sector faces pressure from global competition and must comply with rising welfare and safety standards. To stay competitive, **producers adopt advanced technologies**, ensuring efficiency, quality, and compliance.

EU POULTRY FORECAST 2022-2035

DOMESTIC USE (Mt)



PER CAPITA CONSUMPTION (kg)



MOZART: INTELLIGENT AUTOMATION FOR POULTRY PROCESSING

Focused on processing and packaging, **MOZART is developing a new class of collaborative robots** designed to handle soft, irregular objects with precision and care. One of the first applications is poultry processing, where tasks like sorting and packaging require the robot's unique capabilities. Central to the system is the **AUTOMAT: a modular surface that conforms to each item's shape and weight**. Equipped with tactile sensors and AI, it adjusts its movement in real time for consistent, gentle handling. The result is a reliable, more efficient process that enhances productivity while promoting workplace safety, hygiene and raising standards in food automation.

ENSURING SAFETY AND HYGIENE THROUGH STANDARDISATION

The MOZART project considers machinery safety a fundamental requirement for access to the EU market. This is based on a thorough review of the EU legal framework, particularly **Directive 2006/42/EC**, which sets key health and safety requirements, and **Regulation [EU] 2023/1230**, updating the Directive to address emerging technologies, cybersecurity, and human-machine interaction. In this context, **standardisation is a strategic enabler in developing the AUTOMAT modular surface prototype**. Integrating relevant standards early ensures technical robustness, interoperability, and compliance with EU safety and hygiene regulations. This approach supports efficient development, scalability, and fosters confidence in the safe deployment of the prototype within the food industry. Also, MOZART draws on more than 22,000 international (ISO), European (EN), and national standards to guide its technical development. This accelerates innovation and establishes new benchmarks for food handling and workplace safety.



MAKING AUTOMATION WORK FOR WORKERS

Incorporating the perspective of poultry processing operators is essential to ensure the effectiveness, safety, and real-world usability of automation technologies. Research from the **MOZART project highlights how technological design must respond to the practical realities of industrial labour**. Drawing from ergonomics, human factors, and social sciences, the project identified key features of poultry processing work and the importance of intuitive, adaptable tools. To better anticipate how automation might reshape certain aspects, such as repetitive strain, **the project developed a structured analysis combining findings from academic literature and insights from engineering partners**. This approach made it possible to map desired and undesired attributes of work against the expected functionalities of the MOZART system. The system is being designed to address these priorities; for example, through an adaptive, sensor-rich interface that supports more ergonomic and flexible task execution. Furthermore, soft robotics uses flexible materials that reduce the risk of injury, making them ideal for close collaboration with humans in industrial settings. Throughout, **the project embraces a human-centred approach**, not just as a design principle, but as a condition for real human-robot collaboration.

Sources:

EC (2024), EU agricultural outlook, 2024-2035. European Commission, DG Agriculture and Rural Development, Brussels

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