AI4 WASTE

FOSTERING AWARENESS AND INNOVATION IN ADULT EDUCATION

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TOOLKIT

Case study: Gambooza (Spain): AI for the detection and correction of food waste in the Mass Catering sector

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Case study: Gambooza (Spain): AI for the detection and correction of food waste in the Mass Catering sector

Gambooza is a technology company that applies artificial intelligence in HORECA (Hotels, Restaurants and Catering) environments to reduce food waste. Its solution enables the capture and analysis of operational data that was previously invisible or very costly to obtain, providing businesses with critical information to identify and act on inefficiencies in their food preparation, service and display processes.

How Gambooza uses AI to prevent food waste

- **Visual food recognition :** Gambooza installs smart cameras in key areas such as aisles, display areas or plating passes. Using AI vision algorithms, images are analysed to identify the ingredients of a prepared dish and their weight, record which products are displayed (and when), and assess the utilisation of ingredients during preparation.
- **Automatic calculation of the weight of the food :** The technology itself automatically estimates the weight of the food detected, without the need for scales or manual intervention. This makes it possible to know precisely the quantities served or wasted in real time.
- **Dashboard with actionable data:** The data collected is integrated into a web dashboard that transforms the information into key performance indicators. This dashboard allows to visualise waste patterns, compare behaviour between shifts or services, and receive alerts on deviations that can be corrected.
- **Prediction and planning with AI :** With the history generated, Gambooza can anticipate situations of over-production or under-utilisation, proposing corrective or preventive measures that optimise operations and reduce environmental impact.

Benefits of Gambooza solutions

- Unprecedented visibility on operations: Gambooza allows access to previously inaccessible data, with precision and without friction for kitchen staff.
- Active waste prevention: Inefficiencies can be quickly detected and resolved by reducing the volume of organic waste generated.

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- Evidence-based decision making: Automated analysis provides actionable information that improves management and facilitates sustainable decision-making.
- Economic savings and regulatory compliance: Reducing waste leads to direct savings and helps to comply with new regulatory requirements.
- Scalability and replicability: The system is applicable to different types of food centres, from community centres to commercial catering, and adaptable to the needs of each territory.

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