



Hungary

Hungast Group

Innovative solutions for consumer safety in foodservice

Challenge

On 1 September 2015, the 37/2014 (IV.30), the Ministry of Human Resources' (EMMI) regulation, took effect in Hungary that outlines catering, nutrition and health principles for implementation by mass catering companies and mass caterers when providing food to schools and other institutions. Between 2015 and 2020, the number of dietary consumers increased sevenfold, and within this, the number of gluten-sensitive consumers increased tenfold. In response, Hungast Group increased the capacity of its dietary kitchens. Also, in order to comply with healthcare and consumer safety criteria, a traceability system needed to be put in place to guarantee 100% accuracy of product data. During implementation, apart from zero failure rate, Hungast had to consider the financial and environmental aspects as well as what tools would be used.

Solution

To comply with regulatory and consumer demands, Hungast Group turned to GS1 Hungary to build a traceability system based on GS1 global standards. Now, on every reusable box, there is a unique GS1 product identifier encoded in a GS1 DataMatrix barcode that globally identifies the specific food in the box, the institute and the type of consumer it will be delivered to. By scanning the GS1 DataMatrix barcode, Hungast Group has access to real-time information and can increase efficiencies in its preparation, cooking and logistics processes.



“This is an incredibly innovative project that involved the development of processes and packaging material, including the development of supportive IT systems. With sustainability in mind, four companies collaborated with the ultimate goal of improved consumer safety.”

Krisztina Vatai,
Business Development Manager, GS1 Hungary

Results

According to Zsolt Páger, Business Development Manager at Hungast Group, the traceability system and improved processes provide the company with multiple advantages:

- Food security has improved since the traceability system has been implemented.
- Hungast Group can provide individual-specific diets so that all consumer demands are fulfilled, resulting in 100% accuracy in dietetic foods.
- The new, two-step verification system has helped the commissioning staff, so the risk of multiple errors and the amount of time spent has decreased. With this, working has become easier for colleagues, improving productivity.
- Before the traceability system, one third of boxes had to be removed from the catering system and replaced every 6 months due to the lack of traceability. Hungast's new solution has eliminated the need to do this and provides full transparency.

Introducing the dietbox

Prior to the traceability system, boxes used for the storing and delivery of prepared food were inadequate. While priced favourably, the boxes did not retain needed heat levels and, at the same time, the shocking process also became cumbersome, leading to food safety issues. Because of their cylindrical shape, volume utilisation was not efficient, causing noticeable disadvantage in logistics processes.

Disposable, single-use plastic boxes had also emerged as an alternative with appropriate sizes and shapes, but considering the quantity of boxes used each day, these would be environmentally harmful—an issue that Hungast would not approve.

In 2018, Hungast Group collaborated with a Hungarian plastic company to develop a diverse box that had preferred features, with a long lifespan. As a result, “dietbox” was created in two sizes and in three shapes. Since then, 30,000 pieces have been produced.



The innovative dietbox

The box is sponsored by Hungast and European registrations are initiated by the producer and distributor. Because of the relatively small quantities produced and the box’s high quality, the production costs are approximately three times the costs associated with a traditional box. In order to prevent the disappearance of these high-value boxes, a comprehensive traceability system was deemed essential to identify the exact location of the boxes.



“The innovation had a huge impact on the planning and execution of the overlapping steps in the whole process. As a result, Hungast Group, our client, always has precise information on the location of the product that is being traced and who is managing it.”

“The whole process is executed during extreme circumstances (e.g., cooking environment, high humidity, extreme high or low (-20 °C) - temperature, greasy surfaces, using industrial dishwasher), that led to another challenge in choosing the right tools and setup.”

“Although the applied assets differ in the design and operating systems, the solution provided by IBCS Hungary gives users a unified and easy-to-manage interface with maximum transparency.”

László Sinka,
Operation Director,
IBCS Hungary Kft.

The prepared multi-packed consignments for each transport are assigned to drivers, representing various transportation companies, using a manual data logger. The system sends an error message if a driver receives a multipack that does not belong to his line or to him.

From this point, the drivers use a paper-based process to manage the route of the dietboxes. Once all multipacks for a line are handed out, the food is delivered to the designated drop points. At the drop points, delivery is automated by scanning the barcode; however, from the drop point, the food and its packaging is tracked, using paper-based delivery documents. While the decision was made to keep the manual parts of the process for financial reasons, Hungast plans to invest in the digitalisation of the whole process in the future.



Preparing food for institutional delivery, the worker reads the GS1 DataMatrix barcode on the label for transportation in the heat storage to the institution.

After dietboxes are returned to and cleaned by the company's kitchens, the barcodes are scanned again. With this scan, the record linking the dietbox to the consumer is deleted. At the same time, quality checks of the dietbox are also performed.



“The reusable dish container system was a common idea with Hungast Group Zrt. and was designed and produced by Salaplast Kft. Creating a product line that addresses every aspect in the idea for replacing the widely applied, single-use, non-reusable containers was a big challenge. During the designing process, fast and simple assembly, easy to clean and high durability in industrial context were essential factors.”

“Each container can replace hundreds of single-use packages a year. So, the containers we produce can save our environment from several kilograms of waste each year.”

Ferenc Szalay,
Managing Director, Salaplast Kft.

About the organisations



Hungast Group entered the mass catering market in 1996. As the result of the owners' and managers' quality-oriented, thoughtful and fair business thinking, Hungast has around 3,000 employees serving 200,000 consumers throughout Hungary and is responsible for mass catering and canteen services. The group was founded as a private company by individuals who continue to take an active part in the operation of the company. Hungast's customers include governmental institutes; its consumers are mainly from the education industry (nursery, kindergarten, primary and high school) along with private business clients. <https://www.hungast.hu/>



Salaplast Kft. is a family-owned Hungarian enterprise in the plastic industry that has taken part in various innovative projects in various industries with other Hungarian market operators in the past few years. Besides being part of a two-generation family business, workers of the company are connected by a love for the business. <http://salaplast.com/>



IBCS Hungary Kft.

As the Hungarian representative of the IBCS Group, the Budapest-based IBCS Hungary is a key figure in the technological sector that provides solutions for systems and product traceability for mobile companies since 1992. The successful Hungarian company is the vanguard in the market of application integration, barcode-communication and other innovations for product identification and robotics. <https://ibcs.hu/>

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