



MIESTO
LABORATORIJA

MONITORING AND PREVENTION OF FOOD WASTE PRESENTATION OF ORGANISATIONAL SOLUTIONS

2023



In January 2023, the “Miesto Laboratorija”, which is active in the field of catering and environmental education, started the measurement of food waste in project „Food waste prevention and awareness raising“ No. 101111865, implementing food waste prevention in the cafeteria by introducing innovative technological, technical, and organizational solutions. Zero waste ideology and sustainable development of gastronomic activities are the main priorities of the cafeteria which accounts for 80-90% of the total income of the educational community centre. The subject of the evaluation is food waste (the terms used in the presentation are: customers’ leftover food on plates (CFLP) and kitchen waste (WL)). It is measured to assess and determine the financial and environmental value of the discards.

The process consisted of two stages:

- ✓ preparation;
- ✓ measuring, analysing and making decisions on how to develop further activities.

Phase I: PREPARATION

1. Initial “manual” food waste audits.

For 1 month, we manually collected data on the waste generated in the cafeteria to:

- a) count the amount of waste generated during food preparation,
- b) assess the food leftovers returned from customers’ plates.

2. Choosing and acquiring innovative technical solutions.

We analysed the solutions available on the market and purchased a food residue accounting application with smart scales suitable for a small kitchen. This activity, including the delivery of the equipment, took about 2 months.

3. Getting the equipment ready for use.

Within 1 month, we adapted the hardware and software to our needs:

- a) We selected a location for the smart scales in the customer lounge,
- b) Identified the cross-sections we wanted to monitor the data,
- c) we entered the criteria needed for the measurement (weighing containers, raw materials used, possible causes of food residues, etc.) into the system.

4. Staff training.

We trained and coached kitchen staff (cooks, waiters, and support staff) on how to use the smart scales and the food residue accounting software. Although the equipment is easy to use, it takes time to develop new skills and daily habits. This process took almost 2 months.

5. Interesting and engaging customers.

Throughout the month, we monitored the behaviour of our customers, designed a clear system for them to use the smart scales, developed instructions for the smart scales and the tables, and created an information bulletin board that will provide weekly updates on food waste statistics.

Phase II: MEASUREMENT, ANALYSIS AND DECISION MAKING

1. Daily activities.

Every day, kitchen staff collects food waste from the kitchen in dedicated containers, weigh it at the end of the day using a smart scale, and records key information about food waste in 6 standardized steps on a computer program. The balance of customers' plates (the total amount) is weighed by the customers themselves, if they want to do it themselves, or by the service staff.

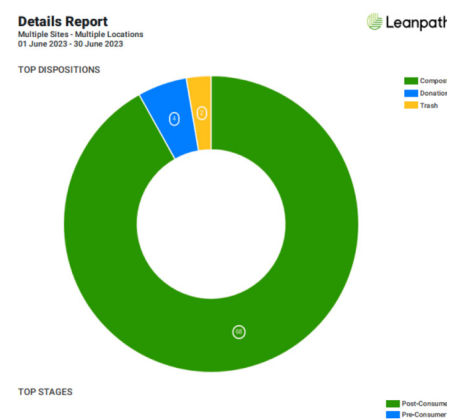
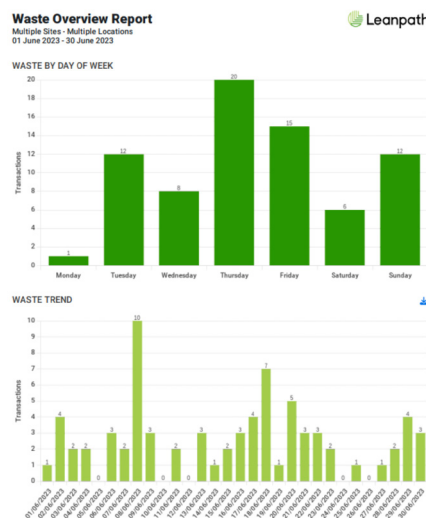
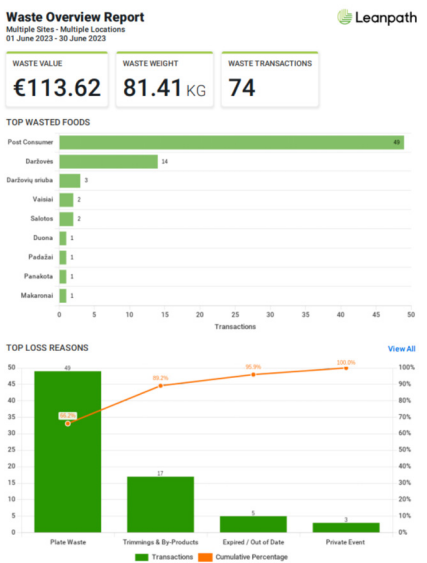
2. Every week.

Every week, we organize and publicize food waste statistics (quantity, financial and environmental value) on a bulletin board in the customer lounge.



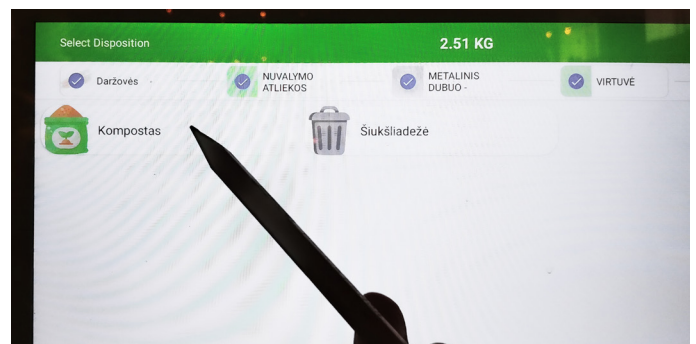
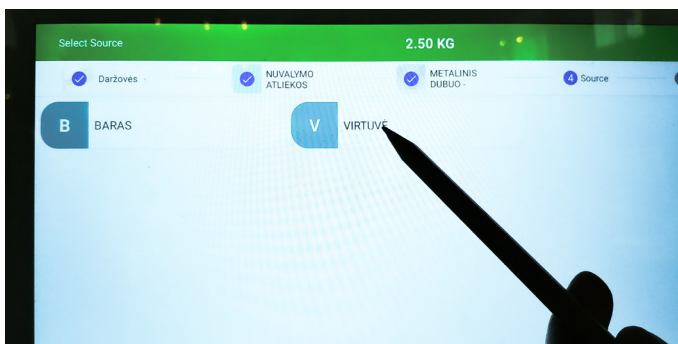
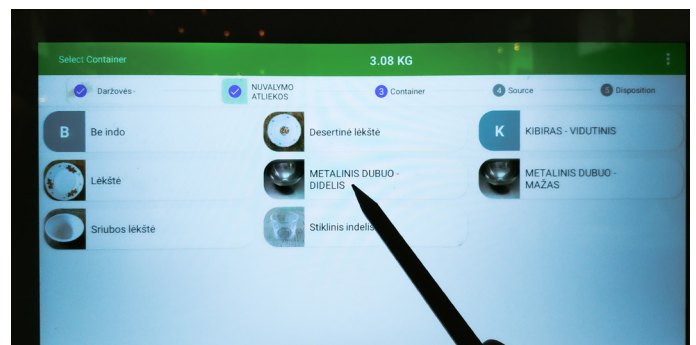
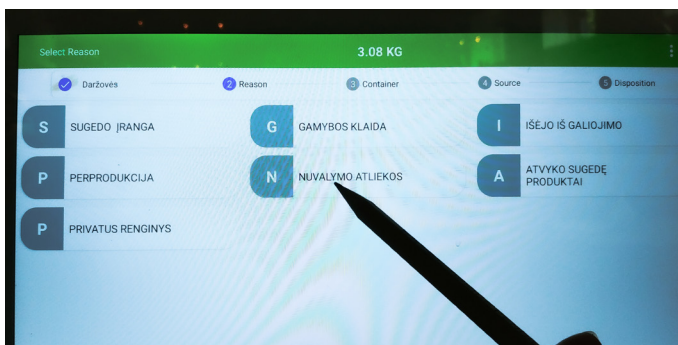
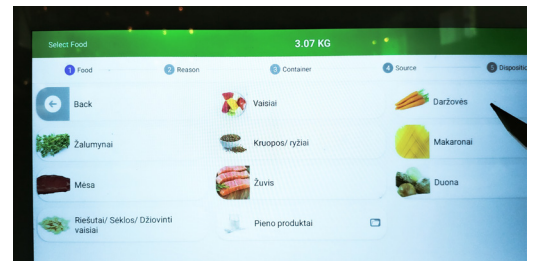
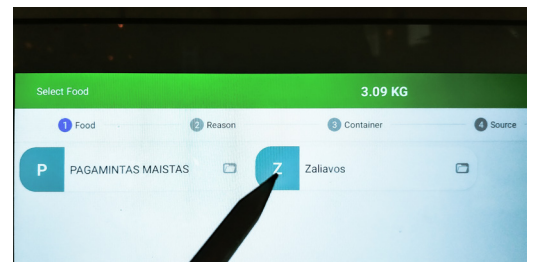
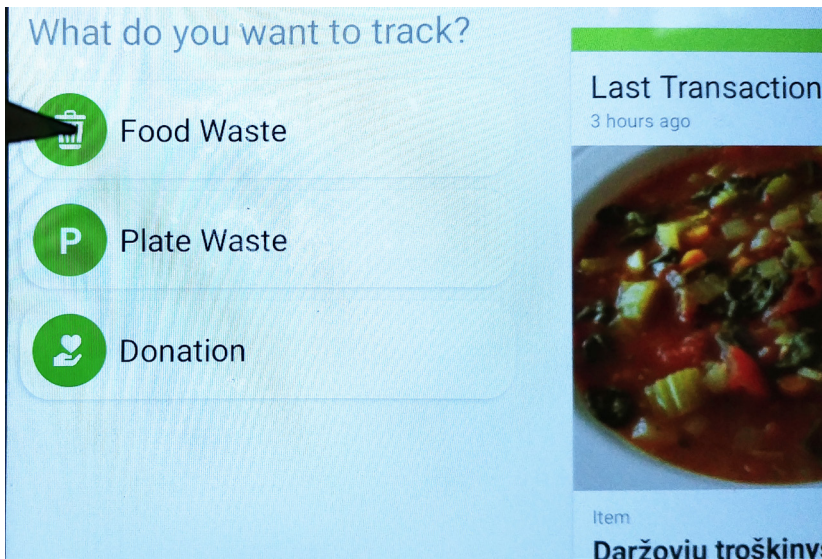
3. Every month.

Every month, company managers analyse software reports on food waste. These reports, which are generated in different sections, are discussed by the management with the kitchen staff, consulted with the suppliers of the food waste accounting equipment, and further decisions are taken on raw material purchases, food storage, restaurant production, and sales management. The collected food waste statistics are published on social networks.



4. Every year.

Annual food waste measurement data will enable company managers to make more effective operational and financial decisions, to objectively assess the efforts and motivation of the team, and to present sound CSR performance to the public.



1 step

The chef places the leftovers of the food to be weighed on the scales with the dish.

2 step

Press the **FOOD WASTE** button on the tablet screen.

3 step

In the section that opens, choose which type of residue you want to weigh: **PRODUCED FOOD** or **FOOD RAW MATERIALS**.

- ✓ Selecting **PREPARED FOOD** will open the main dishes section.
- ✓ Selecting **FOOD RAW MATERIALS** will open the section with the main products used in the kitchen.

6 step

Once the container has been indicated, the chef is then taken to a section where he/she has to indicate the location of the food residue to be weighed - **KITCHEN** or **BAR** (for desserts and beverages).

4 step

Once the chef has indicated which leftovers or raw materials he wants to weigh, a section opens where he has to choose one of 7 reasons for discarding food.

1. Defective equipment
2. Overproduction
3. Production error
4. Expiry date
5. Waste from the cleaning of food raw materials
6. Low-quality products delivered
7. Private event

7 step

Once the location has been specified, the last step is to mark where the weighed food leftovers will go - to the **COMPOST** or to the **WASTE BIN**.

SURVEY.

How to measure FOOD WASTE.



5 step

Once the reason has been selected, the chef is then taken to a section where he/she has to indicate in which container he/she is weighing the food leftovers.

Here are the 8 most commonly used utensils in the kitchen, the weight of which is deducted to calculate the value of the food leftovers to be weighed.

PREVENTION

1. Responsible kitchen planning.

Company managers, together with kitchen staff, review the production process on a monthly basis, taking into account food waste statistics, and make changes where necessary.

2. Ensuring the availability of food accompaniments.

The smart checkout allows customers to choose the accompaniments to their meals and to refuse those they do not want to eat or pay for.

3. Promoting responsible food consumption.

By allowing customers to weigh their own food leftovers and to see the financial and environmental value of leftovers, we remind them of the problem of food waste and encourage them to order responsibly.

REDUCTION

We have combined our newly introduced food waste measurement and prevention solutions with food waste reduction solutions that have been in use for several years:

1. Food donation.

If there are any leftover meals that have not been sold, at the end of the working day, we give them away to poor people or charities in the same area.

2. The possibility to take away uneaten food.

We make it possible for customers to take away uneaten food using reusable dishes.

3. Composting food waste.

We process food waste in a composting facility at the “Miesto Laboratorija”, which turns it into compost within 24 hours for use as fertilizer for the local garden.



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