

## **EuroTeQ Collider 2023**

### **Theme: What to do with waste? – Utilizing waste from beer labels after bottle cleaning in Velké Popovice**

#### **Introduction**

Waste in the brewing industry is nothing new, but it does not only include waste generated during the brewing and logistical processes. When it comes to bottles, there is waste generated after washing them. We're talking about washed-out labels made of a mix of water, paper, and glue residue. How are we currently dealing the waste in the Czech Republic? We are paying a waste collection company in Pilsen and we turn the waste into a stable base for waste dumps in Nošovice. However, the same processes cannot be used in the Velké Popovice brewery that has different infrastructure and nearby company network.

That is why we wanted to take advantage of this opportunity to issue a challenge to students to devise methods to reduce, completely eliminate or make profit as a brewery from the waste from washed beer bottle labels. We will first proceed with ways to connect those to the region of Velké Popovice and later even to other breweries globally.

#### **Who is behind this initiative?**

Asahi Europe & International (AEI) is a subsidiary of Asahi Group Holdings, a Tokyo-listed global beer, spirits, soft drinks, and food company. We have a long history in Europe and operate 19 production facilities in eight different countries. Our global beer brands include iconic premium beers such as Pilsner Urquell, Kozel, Peroni Nastro Azzurro, Asahi Super Dry, and Grolsch.

If we stay in the Czech Republic, Plzeňský Prazdroj is a well-known international company as well as one of the most admired companies in the country. People usually think of Pilsner Urquell as the most popular beer in the Czech Republic, but they overlook our brand Kozel, which is the best-selling Czech beer in the world and has its headquarters in Velké Popovice. Another brewery is located in Nošovice where Radegast is produced.

It is critical for AEI to work actively with all partners, including packaging manufacturers, retailers, waste collection and recycling systems, to improve collection and recycling efficiency as we are eager to meet our zero-waste targets by 2030.

#### **What is the challenge?**

The goal of this project is to find ways to reduce, eliminate or transform the 230+ tons of waste generated each year from washing off beer bottle labels in Velké Popovice.

At the end of this project, the following deliverables should be completed:

1. Strategies, solutions for reducing, eliminating the overall amount of the final waste which is also connected to the waste's transportation and manipulation costs.

2. Identifying potential companies/customer types interested in reusing waste, connecting them to the fight for zero waste, and opening up a new revenue stream for the Velké Popovice brewery. This would include financial analysis of profit and loss based on the proposed type of cooperation(s).

Will the solution be a technological solution that converts waste into a new product or reusable material for our or other businesses, or will it simply aid in waste reduction? It could also be a business model, a partner network, and an innovative cycle of processes? Or even a combination of the two?

Example:

The brewery will use THE SOLUTION to REDUCE/ELIMINATE the waste by X %.

The brewery will use THE SOLUTION to TRANSFORM X % of the waste into MATERIAL/PRODUCT that can be used for PURPOSE or offered to PARTNER/COMPANY for PROFIT/BARTER.

The brewery will cooperate with PARTNER/COMPANY to REDUCE/ELIMINATE the waste or TRANSFORM the waste into MATERIAL/PRODUCT.

**Interested student teams are asked to engage in the above area by**

Coming up with solutions that will support reaching the following metrics:

- What percentage of total washed beer label waste can the solution reduce/reuse?
- How much effort/additional infrastructure and investment is required to put the solution in place?
- Is there a possibility to turn waste into a revenue stream? What would be the expected profit from the waste?

**Relevant considerations for the challenge / theme:**

Waste is not only harmful to the environment, but it is also represented as a cost in the business, whether it is associated with transportation, elimination, or simply manipulation of the waste.

Despite the fact that we have solutions in Pilsen and Nošovice, there is not only an opportunity to launch a new initiative in Velké Popovice, but the solution and knowledge of possibilities could also improve waste management in all other breweries worldwide in the later stages.

Currently, waste is dealt with in the following ways: brewery pays for disposal of washed-out labels to external partner, who transports it and turns it into alternative fuel for cement factories.

Are there kind of partners or companies we as a brewery can directly cooperate with? Or should we manage the waste ourselves instead?

More information will be provided at the Collider.