



Hygienic design in focus at the EHEDG World Congress 2024

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The EHEDG World Congress 2024 'Achieving hygienic excellence by design' was held on October 2-3, 2024 with the plenary meeting of EHEDG on October 1. The members of EHEDG represent food producers, food equipment manufacturers as well as research institutes and universities dealing with food safety and quality. Both above mentioned events were arranged in Nantes, France. Gun Wirtanen (Figure 1) amongst more than 300 professionals participated in this congress on hygienic design.



Figure 1. Gun Wirtanen participated in the EHEDG World Congress with Plenary meeting in Nantes (France)

on October 1-3, 2024 (Picture taken by Per Væggemose Nielsen, BioPres).

At this two-day event there was 17 plenary session presentations and 16 presentations given in breakout sessions. Furthermore, there were a poster session, and three sponsor tours arranged during the congress. Here follows a summary of some presentations focusing on food safety and hygienic designing food processing.

On Wednesday evening (2nd of October) the congress dinner was arranged. The place for the dinner was the museum Machines de l'Ile in a former shipyard with several animal machines (Figure 2) designed to mimic the animals' movements. The congress participants took part in a special tour arranged in English. Now to the main content of some presentations.

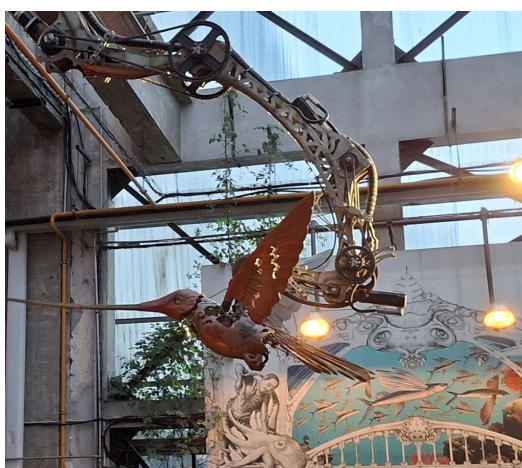
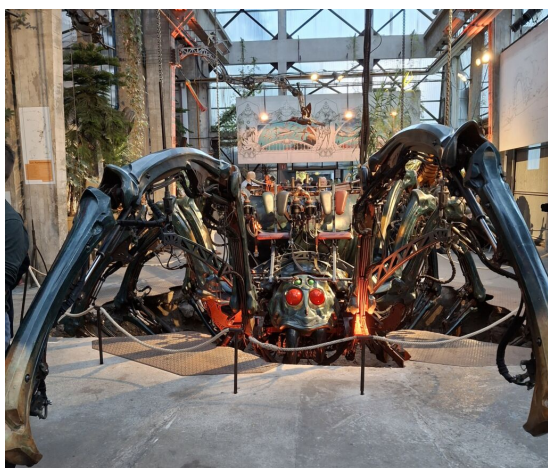


Figure 2. Visit to the museum “Machines de l'Ile”, which is an exceptional site in the former shipyards in Nantes. Here visitors can experience gigantic mechanical creatures. The mechanical creatures seen here are: a) a spider with a bird in the background, b) the bird and c) the Great Elephant. The latter creature was in the facilities in which the congress dinner was held. (Pictures taken by Gun Wirtanen).

The presentation “Safeguarding hygienic plant design: a proven approach to project excellence” given by Jeroen van den Boezem from NIRAS. In this presentation it was stated that hygienic design in food and beverage plants is important due to both safety and regulation compliance. Jeroen offered a holistic perspective using an engineering project focusing on technical engineering solutions aligned with hygiene standards. Adequate project preparation based on engineering is fundamental to mitigate risks and ensure

production requirements.

In the presentation “Open cleaning” the Executive Director Dyanne Parnel gave a comprehensive understanding of how hygienic design affects the entire organisation and demonstrate how involving all departments can reduce overall project costs. The key points covered the holistic impact of hygienic design (HD), HD in SMEs, comprehensive risk assessment and collaboration across departments dealing with food safety, food quality, engineering, process operations, human safety, and sanitation leadership throughout all phases in the process. She ended her presentation with the statement that the participants should be able to understand the importance of SME involvement in hygienic design. In the presentation given by Igor Bereznoi, who is an auditor at Lactalis, critical hazards associated with the heat treatment in food processing was discussed. At Lactalis, seven key hygienic design principles are emphasized to mitigate safety and quality risks. The principles are: no mixing of untreated product with heat-treated, safe separation of product from CIP, cleanability, holding section design, self-draining, compatibility of materials, smooth equipment surfaces and accessibility around the equipment installations. The cleanability principles include quality control based on both 7T and 4S principles.

The industrial representatives are aware that a perfect food safety plan and environmental monitoring programs can cause significant operational cost due to poor HD standards. Equipment selection in the food industry has significantly advanced in the last decades. Furthermore, improvement in reduction of waste and carbon food prints have been in focus. This can successfully be mitigated through effective communication and knowledge exchange. The audience was shown actual figures from Mondelez based on how engineering specifications affect the performance. Topics e.g. processes, technical requirements, competencies and capabilities of involved were discussed in a global manufacturing context. Furthermore, the former Vice-President Russell Dunn shared real life experiences from his 30 year long career how poor equipment design, factory layout and practices lead to challenges in food safety.

JDE Peet's food safety specialist Ana Dymond Soares talked about the company expansion into the coffee and tea business. Ana discussed the strategies employed by JDE Peet's in integrating the acquired business into JDE Peet's quality and food safety standards. In her presentation she covered methods used to identify and assess risks in hygienic design along with a risk mitigation review as well as the integration of hazard analysis critical control point (HACCP) based risk management of equipment.

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