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Prior notice of any planned publication shall be given to the other Parties at least 15 calendar days before the publication. Any objection to the planned publication shall be made by written notice to the Coordinator and to the Party or Parties proposing the dissemination within 10 calendar days after receipt of the notice. If no objection is made within the time limit stated above, the publication is permitted.

Please check the information in the Table below.

If you see issues to be resolved before publishing send a mail to Solveig.langsrud@nofima.no and the authors within 30 days after reception of the notice

Please check for

- **Conflicts of interest**
- **IPR issues**
- **Those who contributed to the presentation is included either as an author or in the acknowledgement**

☐ The MICROORC procedures/principles has been followed: see [document here](#)

☐ The WP leader and WP co-workers have been informed about the presentation and they agree with the content of the presentation.

Type (poster, presentation, debate, other (explain))	Poster
Title	Explorative analysis of microbial communities in chicken production – a chemometric approach
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Abstract

Introduction

This study is part of the EU-funded MICROORC project (www.microorc.eu), which aims to reduce food waste by monitoring and utilizing microbiomes in the food processing chain. One key development in the project is a shelf-life prediction model, to enable dynamic and more accurate shelf-life labelling.

Chicken production in Portugal and Norway serves as a case study in the project. The work is divided in three innovation cycles, and the first cycle has just been finalized. This phase consists of a broad exploration of the microbiome in the chicken factories, and in chicken products during storage. The aim is to identify critical control points in the factories and to hypothesize relationships between factory microbiota and chicken shelf life. The findings will guide data collection in the second phase, to ensure that the collected data is relevant for developing the shelf-life prediction model.

Purpose

The study demonstrates how chemometric tools can transform complex, messy, semi-unstructured, high-dimensional industry data into meaningful insights. Key research questions include:

- What are the differences and similarities between factories?
- How does the microbial communities change along the production line?
- How does the microbial communities evolve during a production day?
- Are there relationships between the factory microbiota and food spoilage?
- What are the critical control points in the factory?

Methods

We use a combination of various well-known chemometric tools, including multivariate ANOVA, multiblock, and N-way methods, to address the research questions.

Results and Conclusions

Results demonstrate that the good old chemometric workhorses are highly effective in disentangling complex data when applied sensibly and guided by domain knowledge.

Acknowledgements

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Type of event (conference, education and training, meeting, clustering activity, collaboration with other EU project, other (explain))

Conference

Name of event (link if available)

Scandinavian Symposium of Chemometrics,
<https://ssc2025.org/>

Date and location of the event

June 15 - 18, 2025
Keflavík, Iceland

Type of audience (industry, academia, policy makers etc)

Academia and industry

Estimated size of audience

130

Work package

WP2

Link to MS/poster/presentation (if ready)**Reason for disseminating results (how will it increase impact of project?)**

Show how collecting extensive data from industry in combination with advanced data analytical methods can lead to new insights that improve food shelf life