# **HOGENT** wants to join consortium in call ID RUR 07 2020

CALL: Reducing food losses and waste along the agri-food value chain

ID: RUR-07-2020

Type of action: IA Innovation action

Deadline: 22 January 2020 17:00:00 Brussels

# Relevant expertise HOGENT within the call

Our expertise lies in the field of measuring the sustainability and environmental impact of processes and of products, both in primary production and along the agri-food chain. We have expertise in developing integrated sustainability tools to evaluate economic, social and ecological sustainability at farm level and to advise farmers on how to increase the sustainability of their activities.

Currently, we are working on a **life cycle assessment (LCA)-model** to calculate the environmental impact of **beer produced either with or without bread waste** as an input. We set up different **partnerships** between bakeries and breweries, to evaluate the full case-specific potential of using bread waste in beer brewing. Our LCA-model is intended to be used not only to calculate the potential environmental benefits of using bread waste in beer brewing, but also to give case-specific advice to brewers concerning alternative production options for including bread waste, and concerning the environmental impact of their activities in general.

We are currently involved in a multidisciplinary research project 'Bread2B' (<a href="https://www.hogent.be/projecten/bread2B">https://www.hogent.be/projecten/bread2B</a>), which aims to explore the valorization potential of bread waste as an input in new innovative food products. In this project, new bakery and brewery products using bread waste are developed, tested and optimized.

With our expertise, we can contribute to the following aspects of the call:

- 1. ... to discard as little food as possible all along the agri-food value chains without compromising on food quality, including safety, and sustainability.
- 2. ... to inform diverse actors along the agri-food chain, including consumers and policymakers, about the innovative solutions to food losses and waste, influencing their behaviour in relation to this issue, and supporting policy development and implementation.
- 3. In the long-term the innovation action will: increase resource use efficiency and reduce adverse environmental impacts, including emissions of greenhouse gases.

### References

- Potential of life cycle assessment to support environmental decision making at commercial dairy farms. By: Meul, Marijke; Van Middelaar, Corina E.; de Boer, Imke J. M.; et al. AGRICULTURAL SYSTEMS Volume: 131 Pages: 105-115 Published: NOV 2014
- 2. Reflection on the development process of a sustainability assessment tool: learning from a Flemish case. By: Triste, Laure; Marchand, Fleur; Debruyne, Lies; et al. ECOLOGY AND SOCIETY Volume: 19 Issue: 3 Article Number: 47 Published: 2014
- Carbon footprint of five pig diets using three land use change accounting methods. By: Meul, Marijke; Ginneberge, Celine; Van Middelaar, Corina E.; et al. LIVESTOCK SCIENCE Volume: 149 Issue: 3 Pages: 215-223 Published: NOV 2012



- 4. Higher sustainability performance of intensive grazing versus zero-grazing dairy systems. By: Meul, Marijke; Van Passel, Steven; Fremaut, Dirk; et al. AGRONOMY FOR SUSTAINABLE DEVELOPMENT Volume: 32 Issue: 3 Pages: 629-638 Published: JUL 2012
- 5. Multilevel and multi-user sustainability assessment of farming systems. By: Van Passel, Steven; Meul, Marijke. ENVIRONMENTAL IMPACT ASSESSMENT REVIEW Volume: 32 Issue: 1 Pages: 170-180 Published: JAN 2012
- Greenhouse gas mitigation in animal production: towards an integrated life cycle sustainability assessment. By: de Boer, I. J. M.; Cederberg, C.; Eady, S.; et al. CURRENT OPINION IN ENVIRONMENTAL SUSTAINABILITY Volume: 3 Issue: 5 Pages: 423-431 Published: OCT 2011
- 7. Learning through stakeholder involvement in the implementation of MOTIFS: an integrated assessment model for sustainable farming in Flanders. By: de Mey, K.; D'Haene, K.; Marchand, F.; et al. INTERNATIONAL JOURNAL OF AGRICULTURAL SUSTAINABILITY Volume: 9 Issue: 2 Special Issue: SI Pages: 350-363 Published: MAY 2011
- 8. Validating sustainability indicators: Focus on ecological aspects of Flemish dairy farms. By: Meul, Marijke; Nevens, Frank; Reheul, Dirk. ECOLOGICAL INDICATORS Volume: 9 Issue: 2 Pages: 284-295 Published: MAR 2009
- MOTIFS: a monitoring tool for integrated farm sustainability. By: Meul, Marijke; Van Passel, Steven; Nevens, Frank; et al. AGRONOMY FOR SUSTAINABLE DEVELOPMENT Volume: 28 Issue: 2 Pages: 321-332 Published: APR-JUN 2008
- 'On tomorrow's grounds', Flemish agriculture in 2030: a case of participatory translation of sustainability principles into a vision for the future. By: Nevens, Frank; Dessein, Joost; Meul, Marijke; et al. JOURNAL OF CLEANER PRODUCTION Volume: 16 Issue: 10 Pages: 1062-1070 Published: 2008
- 11. Energy use efficiency of specialised dairy, arable and pig farms in Flanders. By: Meul, Marijke; Nevens, Frank; Reheul, Dirk; et al. AGRICULTURE ECOSYSTEMS & ENVIRONMENT Volume: 119 Issue: 1-2 Pages: 135-144 Published: FEB 2007
- Genetic diversity of agricultural crops in Flanders over the last five decades. By: Meul, M;
  Nevens, F; Reheul, D. AGRONOMY FOR SUSTAINABLE DEVELOPMENT Volume: 25
  Issue: 4 Pages: 491-495 Published: OCT-DEC 2005

#### Contact details

Marijke Meul: Marijke.meul@hogent.be

Melissa Camerlinck: Melissa.camerlinck@hogent.be

Vakgroep Natuur- en Voedingswetenschappen

Campus Schoonmeersen,

Valentin Vaerwyckweg 1,

9000 Gent

# General info HOGENT (University of Applied Sciences and Arts Ghent)

University of Applied Sciences and Arts Ghent (HOGENT) consists of three faculties – Education, Health and Social Work; Science and Technology; Business and Information Management –, a School of Arts and a supporting Service Centre. Its 24 departments are responsible for 41 study programmes based on eight campuses in Ghent, Aalst and Melle. HOGENT counts 14,000 students and 1,800 members of staff, including over 200 researchers in national and international research projects.



HOGENT is a major player in the field of applied research and research in the arts. HOGENT aims to conduct research that is closely connected to its teaching, addresses contemporary societal challenges, favours interdisciplinary collaboration and strives for maximal impact. HOGENT's researchers systematically seek collaboration and co-creation with citizens and with professional partners from business, industry and government on a regional, national and international level. For the professional field, HOGENT is an invaluable innovation partner. HOGENT encourages interdisciplinary approaches in all research areas in order to enable researchers to tackle the increasing complexity of current societal challenges. By placing a high value on impact and sustainability, HOGENT aims to ensure that newly developed knowledge and practical applications contribute to a critical, creative and open society. To this end, for its applied research, HOGENT commits itself to the United Nations' Sustainable Development Goals. By incorporating this framework into its research policy, HOGENT hopes to encourage and mobilize researchers, lecturers and students to reflect on and contribute to solutions for the world's 'wicked problems'.

