

14th International
Conference

LCA FOOD

2024



HEALTHY FOOD
SYSTEMS FOR
A HEALTHY PLANET

8 – 12 September,
Barcelona, Spain

PROGRAMME



**Welcome to the LCA Food 2024 conference
in Barcelona, Spain!**

**¡Bienvenidos y bienvenidas al congreso
LCA Food 2024 en Barcelona, España!**

**Benvingudes i benvinguts al congrés
LCA Food 2024 a Barcelona, Espanya!**



**On behalf of the Local Organising Committee and the
Scientific Committee I very warmly welcome you to the
14th edition of the LCA Food international conference, held
from 8 – 12 September 2024 in Barcelona, Spain.**

**En nombre del Comité Local Organizador y del Comité
Científico, te doy una calurosa bienvenida a la 14^a edición
del congreso internacional LCA Food, que se celebrará
del 8 al 12 de septiembre de 2024 en Barcelona, España.**

**En nom del Comitè Local Organitzador i del Comitè
Científic, us dono una càlida benvinguda a la 14a edició
del congrés internacional LCA Food, que se celebrarà del
8 al 12 de setembre de 2024 a Barcelona, Espanya.**



**May your experience during the
14th LCA Food conference be
inspiring and unforgettable!**

Montse Núñez,
conference chair

Why host the LCA Food conference in Spain

Spain is, along with other nearby countries, the cradle of the Mediterranean diet, which is usually considered one of the best in the world. Based on fruit, vegetables, healthy fats, pulses, and lean meat and incorporating specific cooking methods, it has a positive impact on human health and the planet compared to prevailing Westernised diets. Spain is also Europe's orchard, being one of the largest producers of fruits and vegetables for export, which indicates the strategic importance of the agricultural sector for the economic, territorial, social, and environmental development of the country.

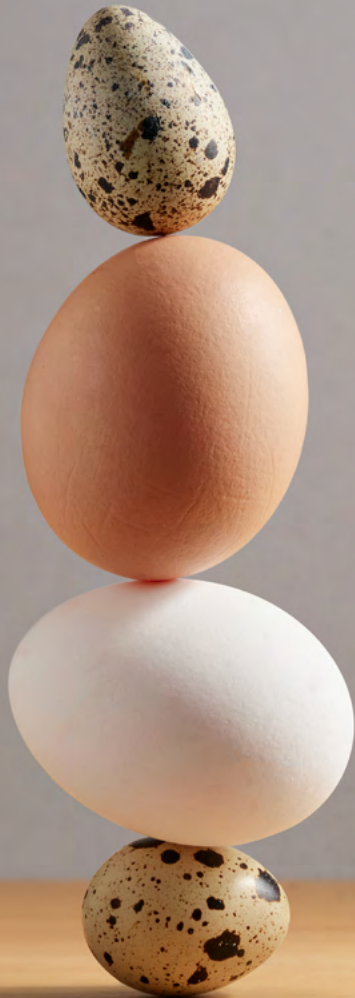
Nevertheless, current food consumption and production trends in Spain need improvement: many Spaniards have turned their back on the Mediterranean diet and eat more than they should. Moreover, intensive crop and livestock production has led to many unresolved environmental and social impacts that need to be addressed urgently.

The LCA food community in Spain is mature, large, and always growing. We use LCA to address the challenges of our food systems and contribute to improve the method to better represent critical aspects in the country, including but not limited to water scarcity, soil quality, and nutrient pollution.

So, we hope you enjoy in Spain to help us celebrate this 14th edition of the LCA Food conference.



Diets are much more than food;
they are culture, identity,
and a lifestyle, to the point that
“we are what we eat.”



Healthy food systems for a healthy diet

Across the world, there has been a change away from traditional diets, characterised by high consumption of seasonal and local plant-based foods, grains, and fruits, towards a homogeneous, global diet made of processed foods high in calories, sugar, and animal fat, and sedentary lifestyles. This “nutrition transition” is highly relevant because modern diets have been related to negative effects on the health of people and the planet. Particularly, overconsumption of unhealthy food options has led to an increase in chronic, non-communicable diseases and obesity, even in children. Furthermore, overconsuming food requires producing more of it, resulting in significant environmental and social impacts as well as a large amount of food lost and wasted before it reaches consumers. Also, as the global diet Westernises, concern for the world’s food security and sovereignty is growing. In this context, it is essential to take action at all levels to further transform food systems to more sustainable and healthier systems, while simultaneously respecting local eating tradition and culture.

Life cycle sustainability assessment (LCSA = LCA + Life Cycle Costing + Social LCA) is an approach that applies systems thinking, identifying all processes along value chains that matter from environmental, social, and economic perspectives. It is a powerful tool to critically measure the sustainability of current food systems and help them improve their ability to build a healthy planet, in which food systems are a source of health for people and a guarantee of a future planet Earth for all.

Organizing Committee



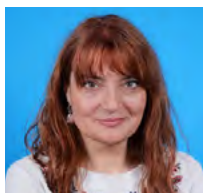
Montse Núñez,
conference chair, IRTA



Marta Ruiz-Colmenero,
IRTA



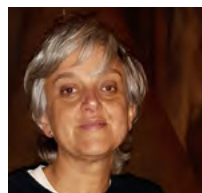
Ralph K. Rosenbaum,
IRTA



Alba Bala,
UNESCO Chair in Life
Cycle and Climate
Change ESCI-UPF



Almudena Hospido,
Universidad de Santiago de
Compostela



Neus Sanjuan,
Institute of Food
Engineering – FoodUPV.
Universitat Politècnica
de València



Saïoa Ramos,
AZTI, Food Research,
Basque Research and
Technology Alliance (BRTA)



Mariluz Latorre
University of Barcelona



Carmen Vidal-Carou,
University of Barcelona

Scientific Committee

Name	Affiliation	Country
Cécile Bessou	CIRAD	France
Clea Figueiredo	Embrapa	Brazil
Michael Corson	INRAE	France
Ulrike Eberle	corpus-corporate sustainability GmbH	Germany
Shabbir H. Gheewala	Joint Graduate School of Energy and Environment	Thailand
Kiotada Hayashi	EarthShift Global, Asia G.K.	Japan
Nicholas Holden	University College Dublin	Ireland
Niels Jungbluth	ESU-services Ltd	Switzerland
Sergiy Smetana	DIL	Germany
Sarah McLaren	Massey University	New Zealand
Corina van Middelaar	Wageningen University	Netherlands
Llorenç Milà i Canals	UNEP	
Rattanawan Tam Mungkong	Kasetsart University	Thailand
Thomas Nemecek	Agroscope	Switzerland
Bruno Notarnicola	University of Bari Aldo Moro	Italy
Montserrat Nuñez	IRTA	Spain
Brad Ridoutt	CSIRO	Australia
Laura Scherer	CML, Leiden University	Netherlands
Hanna Tuomisto	University of Helsinki	Finland
Greg Thoma	University of Arkansas	United States
Ian Vazquez Rowe	Pontifical Catholic University of Peru	Peru
Bo Weidema	2. -0 LCA Consultants	Denmark
Edmundo Muñoz	Andres Bello National University	Chile

Plenary speakers



Louise O. Fresco
President of Wageningen
University & Research
(WUR) since 1 July 2014 till
1 July 2022



**Marta G. Rivera
Ferre**
Research Professor at
INGENIO (CSIC-UPV)



J. David Tàbara
Independent social
scientist with 30 years'
experience in international
interdisciplinary
research on sustainable
development.



Joan Romanyà
Professor of soil
science at the
University of Barcelona.



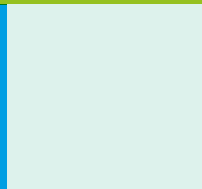
Sarah Sim
Environmental
Sustainability Programme
Director in Unilever's
Safety and Environmental
Assurance Centre



Paz Fentes
Deputy Director General
of Herbaceous and
Industrial Crops and
Olive Oil of the Ministry
of Agriculture, Fisheries
and Food



**Lisbeth
Hernández**
Sustainability Officer for
OSI Group in all European
markets.



Anna Castellví
Responsible for technical advice
of the Subdirectorate General of
Agri-food Companies, Quality and
Gastronomy in the Department of
Agriculture, Livestock, Fisheries
and Food of the Government of
Catalonia.



Leo Bejarano
Degree in Environmental
Sciences from the
University of Girona, Spain



Isabelle Privat
Head of "Plant &
Nutrition" Department in
the newly created Nestlé
Institute of Agricultural
Science part of Nestlé
R&D

Conference topics

Sustainable livestock systems

**Food loss and waste:
environmental impacts and
solutions**

Sustainable cropping systems

**Innovations in food production
beyond the farm gate**

**Life cycle sustainability
assessment of food systems**

**Greenhouse gas accounting and
reporting**

**Combined nutritional and
environmental assessment of foods
and diets**

**Life cycle sustainability
assessment of food systems**

**Integration of agroecology and soil
health in LCA**

**Sustainability in fisheries and
aquaculture systems**

**LCA and footprint studies
explained by companies**

Circular food systems

**Cocoa and olive oil: sustainability
assessments**

**Life cycle inventory: modelling,
databases and tools**

Ecolabelling

**Communication of LCA results and
integration of ESG criteria into
business**

**Novel foods and protein
diversification**

**Sustainable territories and
economies**

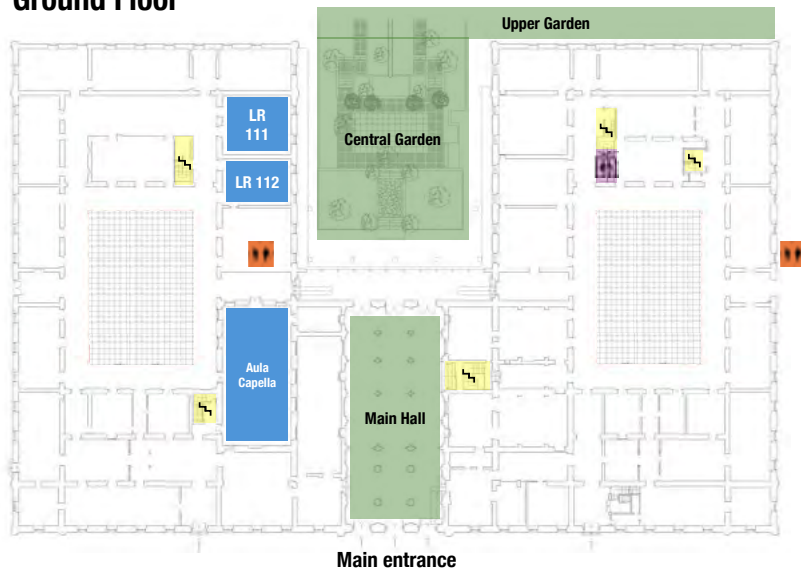
**Sustainability of food systems
in developing and emerging
economies**

**Life cycle impact assessment: new
developments**

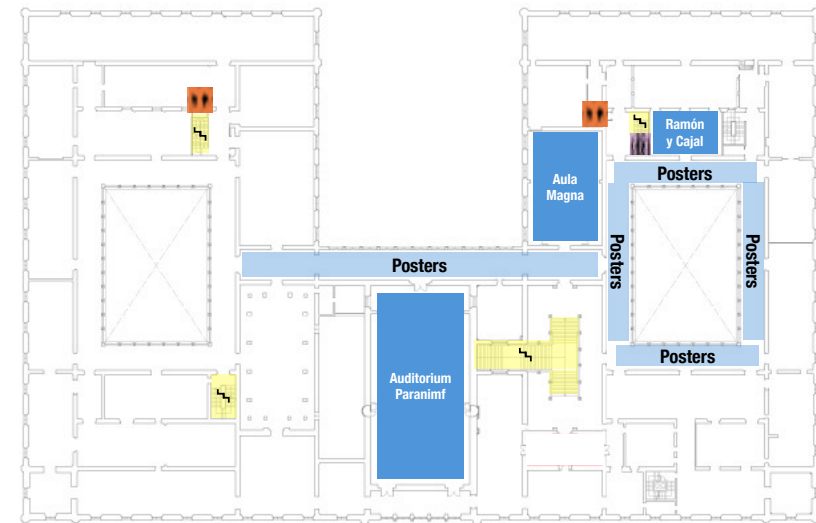
Venue and conference room plan



Ground Floor



First Floor



Historic Building of the University of Barcelona,

Address:

Gran Via de les Corts Catalanes 585, 08007 Barcelona.

The 14th LCA Food 2024 will be held in the historic building of the University of Barcelona, conveniently located in the heart of the city. It is well connected to both the Barcelona Sants international train station and to the Josep Tarradellas Barcelona airport by public transportation.

The University of Barcelona is a Spanish public university based in the city of Barcelona. Its faculties are currently distributed in Barcelona and the surrounding area.

The University of Barcelona Library, with 1,611,721 volumes, is the second largest university library in Spain after the Complutense University Library in Madrid.

It is the university with the largest higher education space in Catalonia, and is a leader in terms of student numbers, teaching, research and innovation.



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SYSTEMS FOR
A HEALTHY PLANET



PROGRAMME

8 – 12 September,
Barcelona, Spain

Practical Information

VENUE

Universitat de Barcelona
Address: Gran Via de les Corts Catalanes, 585.
08007 Barcelona

SPACES / ROOMS

GROUND FLOOR

Technical Secretariat / Sponsor Exhibition

[Main hall](#)

Conference Sessions

[Aula Capella / Lecture room 111 / Lecture room 112](#)

Coffee Break / Lunch

[Central Garden and Upper Garden](#)

FIRST FLOOR

Conference Sessions

[Auditorium Paranimf / Aula Magna /
Meeting room Ramón y Cajal](#)

Poster Exhibition

[Paranimf Gallery and Cloister](#)

WiFi

Network: WWW.UB.EDU

ID: agynby.tmp

Password: bypg98

The session automatically disconnects
after 15 minutes of inactivity.

Book
of
abstracts




GROUND FLOOR (GF)

- Main Hall
- Central Garden
- Upper Garden
- Lecture room 111
- Lecture room 112
- Lecture room “Aula Capella”

FIRST FLOOR (1.F)

- Auditorium “Paranimf”
- Lecture room “Aula Magna”
- Meeting room “Ramón y Cajal”

	Main hall (GF)		Central Garden (GF)
11:00-19:30	Arrival and registration		
		16:00-17:00	Groups 1 / 2 / 3 Visit to the historic building of the University of Barcelona
		17:00-18:00	Groups 4 / 5 / 6 Visit to the historic building of the University of Barcelona
		18:00-19:30	Welcome reception & Castells (Human towers) exhibition

	Meeting room “Ramón y Cajal “ (1.F)		Lecture room 112 (GF)
12:00-17:00	<p>Special session, by invitation only: Harmonized methods for cultivated meat LCA.</p> <p>Sponsor:</p>  Gerald J. and Dorothy R. Friedman School of Nutrition Science and Policy	14:00-16:00	Special OPEN session: Harmonized methods for Food Loss and Waste LCA.

9 Sep

08:00-18:00	Main hall (GF) - Arrival and registration
08:30-09:00	Auditorium "Paranimf" (1.F) - Opening session UB Vice-chancellor, Ms. Mercè Segarra IRTA DG, Mr. Josep Usall Conference chair, Ms. Montse Núñez
09:00-10:00	Plenary 1 Ms. Paz Fentes. <i>Deputy Director General of Herbaceous and Industrial Crops and Olive Oil of the Ministry of Agriculture, Fisheries and Food, Government of Spain.</i> Ms. Anna Castellví Méndez  sponsible for technical advice of the <i>Subdirector General of Agri-food Companies, Quality and Gastronomy in the Department of Agriculture, Livestock, Fisheries and Food of the Government of Catalonia.</i> The Catalan Food Strategy for a sustainable food System Mr. Leo Bejarano i Manjón. <i>Head of the Catalan Office for Climate Change, Government of Catalonia.</i> Public policies for sustainable food systems in Spain and Catalonia Chair: Ms. Montse Núñez
10:00-10:30	Central Garden (GF) / Paranimf Gallery and Cloister (1.F) Coffee break / Poster session
10:30-11:30	Auditorium "Paranimf" (1.F) Plenary 2 Keynote speaker Joan David Tàbara. <i>Global Climate Forum and Autonomous University of Barcelona.</i> From less negative impact cycles to regenerative spirals. How can we build the conditions for the emergence of net-positive tipping points in global systems? Chair: Ms. Anna Pallí Güell



L'Estació Espai Gastronòmic
(Estació de França/França
Railway Station)
Cocktail gala dinner

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SYSTEMS FOR
A HEALTHY PLANET**


	Lecture room 112 (GF)	Lecture room 111 (GF)	Lecture room "Aula Magna" (1.F)	Lecture room "Aula Capella" (GF)
11:30-13:00	Sustainable livestock systems (I) Chair: Ms. Corina van Middelaar	Food loss and waste: environmental impacts and solutions Chair: Mr. Ralph Rosenbaum	Combined nutritional and environmental assessment of foods and diets (I) Chair: Ms. Sarah McLaren	Greenhouse gas accounting and reporting Chair: Ms. Cécile Bessou
11:30-11:45	The contribution of dam evaporation to Brazilian cattle water use. Michael Lathuilière. <i>Stockholm Environment Institute</i>	Sensor-based solution in retail food waste reduction: an LCA perspective on uncertainties and impacts. Junzhang Wu. <i>University of Padova.</i>	REFRESH: a Validated Public Health Screener for Healthy Diets with Low Environmental Impact. Ujué Fresán. <i>ISGlobal</i>	Integrating land use and land-use change greenhouse house gas emissions into the French life cycle inventory database Agribalyse. Xavier Boton. <i>Arvalis institut du végétal.</i>
11:45 -12:00	Absolute Environmental Sustainability of Milk Production in Brazil with a focus on climate change mitigation. Daiane Vitória Dai. <i>Federal University of São Carlos.</i>	Consequential Life Cycle Assessment of a Novel Resource Recovery Solution for Food Waste Management. Haodong Lin. <i>University College London.</i>	The Planet Health Conformity-Index: bridging the gap between nutritional and environmental sustainability in nLCAs. Toni Meier. <i>INL Institute for Sustainable Agriculture and Food Economics.</i>	Methodological development to include the effect of land management changes in GWP of field crops. Noora Anniina Lehtilä. <i>Natural Resources Institute Finland (Luke)</i>
12:00-12:15	Climate Impact and Ecosystem Services in Cattle Production: Including Non-Provisioning Ecosystem Services in Life Cycle Assessments. Karin von Greyerz. <i>Swedish University of Agricultural Sciences.</i>	Evaluate environmental impacts of uneaten food in the food chain. Yanne Goossens. <i>Thuenen Institute of Market Analysis.</i>	Do Swiss food trends lead to healthier, more nutritious and environmentally friendly diets? Alba Reguant-Closa. <i>Agroscope.</i>	Quantifying land conversion carbon emissions in the absence of traceability. Jürgen Reinhard. <i>AdAstra Sustainability.</i>
12:15-12:30	Assessing the Carbon Footprint of Small-Scale Dairy Cattle Systems in Kenya, Africa: An Application of Life Cycle Assessment Methodology. Ricardo Gonzalez Quintero. <i>International Center for Tropical Agriculture.</i>	Environmental impact of food losses and food waste of the milk sector in Catalonia, Spain. Ariadna Ballega Calvo. <i>IRTA.</i>	Environmental and nutritional performance of meal trays served in public collective catering. Caroline Penicaud. <i>INRAE.</i>	Radiative forcing footprints for the Australian red meat industry. Brad Ridoutt. <i>CSIRO.</i>
12:30-12:45	Farm efficiency and environmental impact of dairy sheep. Irene Sodi. <i>University of Pisa.</i>	Direct valorization of grocery food waste for poultry feed: opportunities to improve sustainable egg production. Shaiyan Siddique. <i>The University of British Columbia Okanagan.</i>	Nutrition-related health and environmental impacts of shifting to recommended diets in the US. Brooke M. Bell. <i>Friedman School of Nutrition Science and Policy, Tufts University.</i>	Application of environmentally extended input-output data to estimate greenhouse gas emissions attributable to packaged foods and beverages in Australia. Maria Shahid. <i>The George Institute for Global Health.</i>
12:45-13:00	LCA unveils positive contribution from traditional sheep-farming. Koesling Matthias. <i>NIBIO – Norwegian Institute of Bioeconomy Research.</i>	Food waste reduction strategies in independent restaurants from the eco-efficiency perspective. Sergey Mikhaylin. <i>Université Laval</i>	Environmental and Health Impact Assessment of 6,000 Menu Items. Genta Sugiyama. <i>Waseda University.</i>	Carbon footprint of low-input livestock systems: accounting for natural baseline emissions within the ecosphere. Guillermo Pardo Nieva. <i>Basque Centre for Climate Change - BC3.</i>
13:00-14:30	Central and Upper Garden (GF) - Lunch			

	Lecture room 112 (GF)	Lecture room 111 (GF)	Lecture room "Aula Magna" (1.F)	Lecture room "Aula Capella" (GF)
14:30-16:00	Sustainable livestock systems (II) Chair: Ms. Corina van Middelaar	Sustainable cropping systems (I) Chair: Mr. Bo Weidema	Combined nutritional and environmental assessment of foods and diets (II) Chair: Ms. Alba Bala	Topical discussion session 1 Bridging the Environmental Footprint Data Gap: Enhancing Collaboration between Users and Creators of Background Databases
14:30- 14:45	Can milk and beef footprint reductions deliver national climate targets? Daniel Henn. <i>University of Limerick</i> .	Urbanization of food production: Can indoor vertical farming reduce the environmental footprint of kitchen herbs? Wanner Silvan. <i>Zurich University of Applied Sciences</i> .	Changes in dietary-related greenhouse gas emissions through time in Peruvian cities. Joan Sanchez Matos. <i>Pontificia Universidad Católica del Perú</i> .	
14:45- 15:00	Integrating ecosystem services into LCA of livestock farming: a comparative analysis of beef production systems in Galicia (NW Spain). Alberto Fraile De Benito. <i>Universidade de Santiago de Compostela</i> .	LCA comparison of vertical and rooftop farming with conventional agricultura. Joan Muñoz Liesa. <i>KTH</i> .	Climate change impacts of dietary patterns of young adults in Canada. Sadaf Mollaei. <i>George Brown College</i> .	
15:00- 15:15	Assessing the Overall Sustainability Performance of the Meat Processing Industry Before and After Wastewater Valorization Interventions. Angeliki Petridi. <i>DIGNITY PRIVATE COMPANY</i> .	LCA to inform detailed agricultural practice ecodesign at farm scale, example of viticulture. Renaud Gentié Christel. <i>ESA</i> .	Environmental Impacts and Nutrition of Dietary Patterns: A Case Study of Canadian Provinces. Goretty Dias. <i>University of Waterloo</i> .	
15:15- 15:30	Hunting for meat with low greenhouse gas emissions- a case study of wild boar in Sweden. Danira Behaderovic. <i>RISE Research Institutes of Sweden</i> .	Life Cycle Assessment (LCA) of Frost Protection Methods in Viticulture: A Conceptual Framework to Assess and Compare Different Technologies. Vincent Baillet. <i>Ecole Supérieure des Agricultures (ESA)</i>	Nutritional life cycle assessment of Canadian grains, oilseeds and pulses. Nicole Bamber. <i>University of British Columbia, Okanagan campus</i> .	
15:30- 15:45	Evaluation of the ecoefficiency of post-weaned swine production. Claudio Ruviaro. <i>Universidade Federal da Grande Dourados</i> .	Winery 4.0: technology innovations to improve grape production sustainability. Michele Zoli. <i>Department of Environmental Science and Policy - University of Milan</i> .	Combined nutritional and environmental assessment of the Portuguese Dietary Pattern. Joana Bôto. Faculty of Nutrition and Food Sciences, <i>University of Porto</i> .	
15:45- 16:00	Developing a climate scan for pig farms without overlooking the regional policies on nitrogen emissions. Freya Michiels. <i>ILVO</i> .	Assessing the environmental performance of valorisation opportunities for sunflower hulls. Villi Ieremia. <i>KU Leuven</i> .	Towards a combined environmental and nutritional Life Cycle Assessment of the four most caught fish by Belgian fisheries. Matthys Sarah. <i>KU Leuven</i> .	
16:00-16:30	Central Garden (GF) / Paranimf Gallery and Cloister (1.F) Coffee break / Poster session			

	Lecture room 112 (GF)	Lecture room 111 (GF)	Lecture room "Aula Magna" (1.F)	Lecture room "Aula Capella" (GF)
16:30-18:00	Sustainable livestock systems (III) Chair: Ms. Hanna Tuomisto	Sustainable cropping systems (II) and Innovations in food production beyond the farm gate Chair: Ms. Neus Sanjuan	Combined nutritional and environmental assessment of foods and diets (III) Chair: Mr. Brad Ridoutt	Topical discussion session 2 Opportunities from land use change assessments frameworks to unlock supply chain interventions
16:30-16:45	Cropland and carbon footprints of global crop demand for animal feed. Neus Escobar. <i>Basque Centre for Climate Change (BC3)</i> .	Improving rice production sustainability through variable rate fertilization and alternative water management. Michele Zoli. Department of Environmental Science and Policy - <i>University of Milan</i> .	Calculating thresholds for differentiating different levels of climate friendliness for meals. Miguel Brandao. KTH - <i>Royal Institute of Technology</i>	
16:45- 17:00	Spent Coffee Grounds as a sustainable livestock feed ingredient. Maite Ciudad. <i>AZTI</i> .	Towards climate-neutral agriculture: exploring scenarios for arable and dairy farms. Emily Miranda Oliveira. <i>INRAE</i> .	Methodological considerations for quantifying the effect of nutritional compositions and product formulation in environmental life cycle assessments of food items. Ashley Green. <i>ETH Zurich</i> .	
17:00- 17:15	Multi-objective optimization of Canadian laying hen feed formulation for least-carbon footprint and -economic costs. Ian Turner. <i>University of British Columbia</i> .	Assessing Organic Waste Products in LCA: Insights from Agribalyse. Melissa Cornelus. <i>INRAE</i> .	Multi-criteria decision analysis (MCDA) as a context-adaptable weighting method for Life Cycle Assessment impact categories in sustainable nutrition science. Elise de Boer. <i>University Medical Center Groningen</i> .	
17:15- 17:30	Investigation of lay cycle extension as an environmental sustainability improvement strategy for the Canadian egg industry using LCA and predictive modelling. Ian Turner. <i>University of British Columbia</i> .	Comparison between a delivery service of ready-to-cook ingredients and a meal prepared by a home helper for the elderly. Gremy-Gros Cécile. <i>Université d Angers</i> .	Mitigating environmental impacts through more sustainable diets: consequential life cycle assessment of various regional diet shift scenarios. Guillaume Aurore. <i>KU Leuven & UCT Prague</i> .	
17:30- 17:45	Ecosystem services and life cycle assessment frameworks provide opposite assessments of animal-production systems. Jean-Charles Joly Frédéric. <i>INRAE</i> .	Analyzing the impacts of the production of vegetable oil: understanding the role of packaging impacts. Diana Ita Nagy. PELCAN-Pontificia <i>Universidad Católica del Perú</i> .	Life cycle environmental consequences of a more cycling-oriented mobility including additional calorie intakes and regional diet evolutions. Anne de Bortoli. <i>CIRAIG, PolyMTL</i> .	
17:45- 18:00		Interlaboratory collaborative life cycle assessment study in the food and packaging sector. Andrea Casson. <i>Università degli studi di Milano</i> .	A Protein Quality Adjusted nutritional-LCA of Soy-Based Meat and Dairy Alternatives: Understanding the Environmental and Nutritional Implications of Food Processing. Eric Mehner. <i>Agroscope</i> .	
18:00-19:00	Paranimf Gallery and Cloister (1.F) - Poster session			
20:00	L'Estació Espai Gastronòmic (Estació de França/França Railway Station) Cocktail gala dinner			

08:00-18:00 **Main hall (GF) - Arrival and registration**

	Lecture room 112 (GF)	Lecture room 111 (GF)	Lecture room "Aula Magna" (1.F)	Lecture room "Aula Capella" (GF)
08:30-10:00	Life cycle sustainability assessment of food systems Chair: Mr. Sergiy Smetana	LCA and footprint studies explained by companies Ms. Clea Figueiredo	Life cycle inventory: modelling, databases and tools (I) Chair: Mr. Bruno Notarnicola	Ecolabelling Chair: Ms. Ulrike Eberle
8:30- 8:45	Integrated sustainability assessment of insect-fed chicken: Integrated Sustainability Index. Dusan Ristic. <i>German Institute of Food Technologies (DIL e. V.)</i> .	Assessing Oatly's Handprint. Vasiliki Takou. <i>Oatly AB</i> .	A food biodiversity database has been born! Karin Morell. <i>RISE Research Institutes of Sweden</i> .	A Comparison of Databases to assess the climate impact of labeled foods. Katrin Geburt. <i>Thünen Institute of Market Analysis</i> .
8:45-9:00	Sustainability performance of innovative ruminant systems in Europe. Pietro Goglio. <i>Department of Agricultural, Food and Environmental Science, University of Perugia</i> .	Using environmental footprint in dairy and plant-based dairy alternative sectors. Saioa Ramos. <i>AZTI</i> .	The Biodiversity Value Increment method in the GaBi database. Jan Paul Lindner. <i>University of Augsburg</i> .	How to develop robust Sustainability labels for food? Learnings from the Environmental Footprint. Laura Garcia Herrero. <i>EC-JRC</i> .
9:00-9:15	DEXi a framework to integrate LCA in sustainability assessment. Application to animal production system. Aurélie Wilfart. <i>INRAE</i> .	Creating Novel Value in the Pork Chain Through LCA-Quantified Carbon Reductions Enabled by Genetic Innovation. Lindsay Case. <i>PIC</i> .	Agro-SCAN: A new Multi-Regional Input-Output database for estimating cropland and calorie footprints of agri-food consumption. Neus Escobar. <i>Basque Centre for Climate Change (BC3)</i> .	Reducing complexity for a single score for food products. Felix Lücking. <i>Corsus corporate sustainability GmbH</i> .
9:15-9:30	LCA to feed multi-criteria sustainability assessment of intermediate food value chains. Mehran Naseri Rad. <i>RISE - Research Institutes of Sweden</i> .	Carbon footprint and decarbonization of a territorial agrifood research institute. Núria Martínez Soler. <i>IRTA</i>	Incorporating environmental impact data in existing agri-food software using API: a case study on Haifa NutriNet. Eline Willems. <i>Pre sustainability</i> .	Product Environmental Footprints of organic food – status quo and improvement potentials. Antony Florian. <i>Öko-Institut e.V. Institute for Applied Ecology</i> .
9:30- 9:45	A practitioner-driven methodological framework to assess the environmental, social and economic sustainability of regional food products. Barbara Mejía. <i>Agroscope, LCA Group</i> .	A Comparative Life Cycle Assessment of RSPO certified and non-certified palm oil in Malaysia, Indonesia, Thailand, Colombia, and Nigeria, with inclusion of regionalisation, time Series, and diverse FFB Suppliers. Iris Helena Weidema. <i>2.-0 LCA consultants</i> .	Promoting harmonization of life cycle inventory and food composition databases through semi-automatic standardization. Thomas Nemecek. <i>Agroscope</i> .	The environmental footprint of packaged food and beverage products in Australian supermarkets. Pankti Shah. <i>Deakin University</i> .
9:45- 10:00	Environmental and Social Life Cycle Assessment of drinking water. Marianna Garfí. <i>Technical University of Catalonia (UPC)</i> .		Batch generation of agricultural LCIs: comparison of strategies. Patrik Henriksson. <i>Stockholm University</i> .	Ecolabeling, time for action; the French case. Vincent Colomb. <i>ADEME</i> .
10:00-10:30	Central Garden (GF) / Paranimf Gallery and Cloister (1.F) Coffee break / Poster session			

10:30-11:30	Auditorium "Paranimf" (1.F) Plenary 3 Keynote speaker Joan Romanyà. <i>University of Barcelona.</i> Healthy soils for a healthy life. Chairs: Ms. Carmen Vidal and Ms. Mariluz Latorre			
	Lecture room 112 (GF)	Lecture room 111 (GF)	Lecture room "Aula Magna" (1.F)	Lecture room "Aula Capella" (GF)
11:30-13:00	Integration of agroecology and soil health in LCA Chair: Ms. Neus Sanjuan	Circular food systems Chair: Ms. Ulrike Eberle	Life cycle inventory: modelling, databases and tools (II) Chair: Mr. Niels Jungbluth	Communication of LCA results and Integration of ESG criteria into business Chair: Mr. Thomas Nemecek
11:30- 11:45	Enhancing Life Cycle Assessment Methods for Agroecological Systems: Insights from a UK Case Study. Sally Westaway. <i>University of Reading.</i>	Circular integration of insect bio-converting food waste into protein: A Life Cycle Assessment perspective on black soldier fly. Vikunu Khieya. <i>German institute for Food Technology e. V. (DIL)</i>	The big Climate Database - 500 food products. Jannick Schmidt. <i>2.-0 LCA consultants.</i>	From gut feeling to data driven decisions in Michelin starred restaurants. Ellie Williams. <i>PRé Sustainability.</i>
11:45-12:00	Mapping a Path to Climate Neutrality for Nebraska Agriculture: Approach and Findings. Martin Heller. <i>Blonk Consultants.</i>	Potential of insects for the nutrient circularity in food systems through the framework of Life Cycle Assessment. <i>Serjij Smetana. DIL.</i>	Trase/Orbae: spatially-explicit supply chain mapping of forest risk commodities for scope 3 GhG emissions. Michael Lathuilière. <i>Stockholm Environment Institute.</i>	From LCA to on-the-ground impact- a case study with Californian cotton. Danai Mangana. <i>PRé Sustainability.</i>
12:00- 12:15	Organic farming expansion: identifying areas optimal for achieving EU organic agriculture goals using spatial-explicit LCA modelling. Anna Muntwyler. <i>Institute of Environmental Engineering, ETH Zurich.</i>	Framework to assess the potential of circular food system technologies.  <i>Clark Halpern. Wageningen University.</i>	An open-source toolset to assess deforestation impact embodied in trade of bio commodities. Selene Eliana Patani. <i>ARCADIA SIT</i>	Accounting for Overfishing in Environment Labelling – Comparing LCA and Fishery Science Methods. Gregoire Gaillet. <i>Sayari.</i>
12:15- 12:30	Combining LCA results and soil indicators for long-term decision making: a case study with Californian cotton. Ellie Williams. <i>PRé Sustainability.</i>	Leveraging circular nutrients to improve the sustainability of urban agricultura. Maria Angelica Mendoza Beltran. <i>2.-0 LCA consultants.</i>	Development of the Crop System Efficiency Index. Iana Camara Salim. <i>Mérieux NutriSciences / Blonk.</i>	Scaling LCA capabilities within companies. Peter-Jan Roose. <i>BrightWolves.</i>
12:30- 12:45	Evaluation of different fertilization scenarios in a vineyard, integrating the LCA methodology and the RothC model to analyze carbon dynamics in soil. Ana Cavallo. <i>University of Bologna.</i>	An Ecodesign Framework for Sustainable Food Product Development. Beatriz Ines Queiroz Lopes da Silva. <i>DIL Deutsches Institut für Lebensmitteltechnik e.V.</i>	Exploring HESTIA – a platform storing standardised data on agricultural production systems. Lucy Walker. <i>University of Oxford.</i>	Assessing impacts on biodiversity on an Aquaculture portfolio. Anne Asselin. <i>SAYARI.</i>
12:45- 13:00	Climate change impacts of organic crops in Canada. Shenali Madhanaroopan. <i>Riverside Natural Foods Ltd.</i>	Life Cycle Assessment for the eco-design of an innovative strategy for the valorization of whey in a bioeconomy approach. Lauranne Collet. <i>AgroParisTech - UMR SayFood</i>	Development of an Italian Life Cycle Inventory Database of Agri-Food Products (ILCIDAF). Bruno Notarnicola. <i>Università degli Studi di Bari Aldo Moro.</i>	Biodiversity footprint for food products: a research agenda. Laura Garcia Herrero. <i>EC-JRC.</i>
13:00-14:30	Central and Upper Garden (GF) Lunch		Auditorium "Paranimf" (1.F) 13:40 – 14:25 Special OPEN session: Global Guidance for Life Cycle Impact Assessment Indicators and Methods (GLAM) phase 3	

	Lecture room 112 (GF)	Lecture room 111 (GF)	Lecture room "Aula Magna" (1.F)	Lecture room "Aula Capella" (GF)
14:30-16:00	Sustainability in fisheries and aquaculture systems Chair: Ms. Saioa Ramos	Cocoa and olive oil: sustainability assessments Mr. Shabbir H. Gheewala	Life cycle inventory: modelling, databases and tools (III) Chair: Mr. Sergiy Smetana	Topical discussion session 3: Achieving alignment and transparency within the feed and food supply chain: embracing the complexity of new developments in impact assessment and modelling
14:30- 14:45	How do illegal, unreported, and unregulated (IUU) fishing activities influence Life Cycle Assessment results? Ian Vázquez Rowe. <i>Pontifical Catholic University of Peru.</i>	Land use change emissions linked to Ivorian cocoa exports. Carina Miriam Mueller. <i>Stockholm Environment Institute.</i>	The GRINS Project for the development of Life Cycle Inventory databases of beef cattle raised in Italy: preliminary results of the statistical dataset. Umile Gianfranco Spizzirri. <i>Università degli Studi di Bari Aldo Moro.</i>	
14:45- 15:00	Building Life Cycle Inventories of IUU fishing activities in the Peruvian EEZ using remote sensing techniques. Eizo Muñoz. <i>PELCAN Pontificia Universidad Católica del Perú.</i>	A Landscape-scale Biodiversity Impacts Analysis of Côte d'Ivoire's Cocoa Cultivation Along Export Supply Chains. Shuntian Wan. <i>ETH Zürich.</i>	Environmental assessment of swine and beef cattle sectors in Catalonia. Marta Ruiz. <i>IRTA.</i>	
15:00- 15:15	BASES: a biophysical assessment framework for valuating ecosystem services. Aurélie Wilfart. <i>INRAE</i>	Social LCA to Support Decision-Making in the Cocoa Supply Chain. Naeem Adibi. <i>WeLOOP.</i>	Cause-effect-based approach to inventory and model pig products in slaughterhouses. Annika Erjavec. <i>2-0 LCA Consultants.</i>	
15:15- 15:30	A Novel Approach to including Ecosystem-Scale Biodiversity Impacts of Wild Capture Fisheries in Life Cycle Impact Assessment. Arnaud Helias. Elsa - <i>INRAE</i>	Plastic biopolymers: a second life to olive oil. Almudena Hospido. <i>Universidade de Santiago de Compostela.</i>	The water footprint of global crop production – Country level and gridded LCI data for 175 crops from 1990 to 2019. Markus Berger. <i>University of Twente.</i>	
15:30- 15:45	Operational Accounting of two Major Drivers of Marine Biodiversity Loss in LCA of Seafood Products. Aurore Wermeille. <i>Sayari</i>	Environmental Assessment of the daily intake of polyphenols derived from Extra Virgin Olive Oil in the Mediterranean Population. Maria Vittoria Di Loreto. <i>Università Campus Bio-Medico di Roma.</i>	Can we account for all agri-food chemicals in the impact assessment? Nyberg Carl Oskar Peter. <i>Stockholm Resilience Centre.</i>	
15:45- 16:00	Expanding Life Cycle Impact Assessment to account for marine plastic emissions: a case study for the fishing industry. Cecilia Askham. <i>NORSUS AS.</i>		Global pesticide application data for use in LCA. Yuyue Zhang. <i>QSA, DTU (Technical University of Denmark)</i>	
16:00-16:30	Central Garden (GF) / Paranimf Gallery and Cloister (1.F) Coffee break / Poster session			

16:30-17:30	Auditorium “Paranimf” (1.F) Plenary 4 Roundtable with Louise Fresco <i>(Wageningen University & Research -WUR)</i> and Marta Rivera-Ferre <i>(INGENIO -CSIC-UPV-)</i> Sustainable food systems: what, why, how? Chairs: Ms. Alba Bala and Mr. Llorenç Milà	
17:30-18:00	Paranimf Gallery and Cloister (1.F) - Poster session	
18:00-19:00	Central Garden (GF) Olive oil tasting	Lecture room “Aula Magna” (1.F) LCA Food Scientific Committee meeting
20:00	Scientific committee side event	



IRTA CENTRE
 Institut
 de Recerca i Tecnologia
 Agroalimentàries

14th International
Conference

LCA
FOOD

2024



HEALTHY FOOD
SYSTEMS FOR
A HEALTHY PLANET

08:00-10:00

Main hall (GF) - Arrival and registration

	Lecture room 112 (GF)	Lecture room 111 (GF)	Lecture room "Aula Magna" (1.F)	Lecture room "Aula Capella" (GF)
08:30-10:00	Novel foods and protein diversification (I) Chair: Ms. Marta Ruiz	Sustainable territories and economies Chair: Ms. Almudena Hospido	Life cycle impact assessment: new developments (I) Chair: Mr. Ian Vazquez Rowe	Topical discussion session 4: Recommendations for sustainable nutrition in the political debate
8:30-8:45	Greenhouse gas emissions of farmed Ulva and three conservation methods. Anna Frida Maria Axelsson. <i>RISE Research Institutes of Sweden</i> .	LCA of territorial food supply scenarios: a spatialized and prospective approach. Lazare Deteix. <i>INRAE</i> .	Development of a regionalized dynamic weighting method for the environmental impact of alternative protein sources. Aditya Francis. <i>German Institute for Food Technology e. V.</i>	
8:45-9:00	Life Cycle Assessment of microalgae production for food and feed: from light to dark. Abbigel Sadhu. <i>Deutsch Institute für Lebensmittel (DIL)</i> .	Advancing the sustainability transformation of agriculture under the European Green Deal: An Agent-Based LCA for policymaking support. Raül López i Losada. <i>Centre for Environmental and Climate Science - Lund University</i> .	Ecotoxicity assessment of pesticide use based on Japanese PRTR data. Marika Muramoto. <i>Waseda University</i> .	
9:00-9:15	Life Cycle Assessment of Oatly products compared to dairy equivalents for Oatly's key global markets. Elisabeth Keijzer. <i>Blonk Consultants</i>	Comparative assessment of the land footprint and regulating ecosystem services embodied in the EU-27 consumption of vegetable oils: an environmental trade-off analysis among substitutes goods. Giovanni Bausano. <i>University of Padova</i> .	Framework for evaluating animal welfare in life cycle assessments of diets. Sebastian Richter. <i>Research Institute of Organic Agriculture (FiBL)</i>	
9:15-9:30	Life cycle assessment of Beefy-9 and Beefy-R serum-free culture media for cell-cultivated beef production. Nicole Blackstone. <i>Friedman School of Nutrition Science and Policy, Tufts University</i> .	Mapping Deforestation Embodied in EU Bio-based Imports. Teresa Armada Bras. <i>European Commission, Joint Research Centre (EC-JRC)</i> .	Biodiversity impacts of major crops – Spatially explicit characterization factors for 152 major crops. Julian Quandt. <i>Augsburg University</i> .	
9:30-9:45	Life Cycle Assessment of Growth Factor Production for Cultivated Meat Through Molecular Farming. Taiwo Omotosho. <i>University of Helsinki</i> .	Carbon and Biodiversity Footprints of the Swiss food consumption. Wanner Silvan. <i>Zurich University of Applied Sciences</i> .	Assessing the impact of vegetables on biodiversity in life cycle assessment. Pépin Antonin. <i>INRAE</i> .	
9:45- 10:00	Looking forward a sustainable insect meal value-chain: a LCA study on yellow mealworm meal production. Matteo Cordara. <i>CNR-STIIMA</i> .	Land-related biodiversity impacts in global agri-food supply chains a spatially-resolved assessment from 1995 to 2022. Schlosser Veronika. <i>Technical University of Munich</i> .	Characterization factors for land use impacts on terrestrial ecosystem quality considering intensities and fragmentation. Laura Scherer. <i>CML, Leiden University</i> .	
10:00-10:30	Central Garden (GF) / Paranimf Gallery and Cloister (1.F) Coffee break / Poster session			

10:30-11:30	Auditorium “Paranimf” (1.F) Plenary 5 Business roundtable, with Sarah Sim (<i>Unilever</i>), Lisbeth Sofia Hernández (<i>OSI</i>), and Isabelle Privat (<i>Nestlé Institute of Agricultural Science</i>) On the road of green business transition to sustainable food systems. Chairs: Ms. Almudena Hospido and Mr. Ralph Rosenbaum			
	Lecture room 112 (GF)	Lecture room 111 (GF)	Lecture room “Aula Magna” (1.F)	Lecture room “Aula Capella” (GF)
11:30-13:00	Novel foods and protein diversification (II) Chair: Ms. Marta Ruiz	Sustainability of food systems in developing and emerging economies Chair: Mr. Llorenç Milà i Canals	Life cycle impact assessment: new developments (II) Chair: Ms. Laura Scherer	Topical discussion session 5: Ecolabeling of food products is happening – the devil is in the details
11:30-11:45	The nutritional and environmental consequences of replacing meat and dairy products with market-ready alternatives in recommended and average Swiss diets. Eric Mehner. <i>Agroscope</i> .	Environmental and socio-economic analysis of the Ivorian market vegetables suburban systems. Moussa Dosso. <i>CIRAD UPR Recyclage et risque</i>	The effect of El Niño events and climate change in the water scarcity characterization factors based on AWARE. Joan Sanchez Matos. <i>Pontificia Universidad Católica del Perú</i> .	
11:45-12:00	The sustainability and nutritional profile of alternative protein sources - Avoiding fallacy by including protein quality and nutrient density in LCIA of novel foods. Julian Quandt. <i>Augsburg University</i> .	Life Cycle Assessment of major Myanmar crop products using HESTIA. Valentina Caldart. <i>University of Oxford</i> .	Drivers of trends and uncertainty in prospective water scarcity impact assessment with AWARE2.0. Georg Seifudem. <i>CIRAIG, Polytechnique Montreal</i> .	
12:00- 12:15	A novel nutrient quality index for life cycle assessment of protein-rich foods. Ana Fernández Ríos. <i>University of Cantabria</i> .	LCA of the Ivorian cashew value chain as a key component of a corporate sustainability framework. Angel Avadí. <i>Cirad UPR Recyclage et risque</i> .	Resource criticality in LCIA: regionalised characterisation factors for water and land. Lazare Deteix. <i>INRAE</i> .	
12:15-12:30	Global environmental impact of replacing livestock with cell-cultured and microbial proteins. Mohammad El Wali. <i>University of Helsinki</i> .	LCA of Robusta coffee production in Vietnam:How grafting and cycle lengths influence the impacts?. Sandra Payen. <i>Cirad</i> .	Regional characterization of the albedo impacts of agricultural land use at the global scale. Kathryn Loog. <i>CIRAIG, Polytechnique Montreal</i> .	
12:30-12:45	Comparative Life Cycle Assessment of Innovative Plant-Based and Conventional Meat Products. Joel Bonales Revuelta. <i>EarthShift Global</i> .	LCA and carbon sequestration evaluation: cupuacu jam from agroforestry in the Amazon rainforest. Valeria Arosio. <i>Demetra</i> .	Assessment of Agricultural Microplastic Emissions Impacts via Novel Comprehensive Multimedia Characterization Factors. Juliette Louvet. <i>CIRAIG, Polytechnique Montréal</i>	
12:45-13:00	Comparative assessment of alternative protein sources for meat substitution. Sergiy Smetana. <i>DIL</i> .	Social Life Cycle Assessment of low-tech digesters in small-scale farms. Kurt Eduardo Ziegler Rodriguez. <i>Universitat Politècnica de Catalunya</i> .		

11 Sep

13:00-14:00	Central and Upper Garden (GF) Lunch-picnic
14:00-15:00	Auditorium "Paranimf" (1.F) Closing ceremony

12 Sep

08:30 - 18:00 **Visit to IRTA's facilities**

Departure and estimated arrival time	Meeting point	IRTA Centre
08:30 - 18:00	Hotel Catalonia Ramblas	IRTA La Ràpita
08:30 - 18:00	Hotel Catalonia Ramblas	IRTA Mas Badia and IRTA Monells
09:00 - 16:00	Hotel Catalonia Ramblas	IRTA Torre Marimon

LIST OF POSTERS

14th International
Conference

LCA
FOOD
2024



HEALTHY FOOD
SYSTEMS FOR
A HEALTHY PLANET



Hang up posters:
Sunday, 8th September from 16:00
Take down posters:
Wednesday, 11th September until 10:30

Lists of posters

Sustainable livestock systems			
01	Reduction of greenhouse gas emissions from pig and poultry production in Japan by climate change mitigation measures	Akifumi Ogino	National Agriculture and Food Research Organization
02	Evaluation of Eco-efficiency in a Swine Production System in Post-weaning Phase: A Sustainability Approach	Clandio Ruviano	Universidade Federal da Grande Dourados
03	Mitigation actions to reduce the carbon footprint of dairy sheep farming systems. Net benefits assessment from an Italian case study	Enrico Vagnoni	AGRIS
04	Environmental Sustainability Evaluation of PIC Genetics vs. Industry Average: North America	Greg Thoma	Resilience Services, PLLC
05	Life cycle assessment of alternative heating ventilation and air conditioning (HVAC) systems for poultry housing in Canada.	Leandra Vanbaelinghem	University of British Columbia - Okanagan
06	Life cycle environmental sustainability assessment of feed supplementation strategies to reduce enteric methane emissions in dairy cattle production	Lisbeth Mogensen	Aarhus University
07	Life Cycle Assessment (LCA) of intensive sheep milk production system	Maria Ravani	Hellenic Agricultural Organization DIMITRA
08	Insect meal from rice by-product as low-impact feed in aquaculture: life cycle assessment of different insect diets	Michele Zoli	University of Milan
09	Best practices on scientific computing applied to dairy LCA models	Miguel Fernández Astudillo	2-0 LCA consultants
10	Optimization of resource use and reduction of Environmental impact in different pig genetics	Miquel Andón Mañero	IRTA
11	Assessing the environmental impacts of beef production chains integrating grazing and landless systems	Raisa Margarita Tinitana Bayas	Universitat Politècnica de València
12	Strategies for mitigating the carbon footprint of milk production in the South and Southeast of Brazil	Vanessa Romário de Paula	Brazilian Agricultural Research Corporation
13	An environmental cost-benefit analysis of organic and non-organic sheep farming in Iceland	Vincent Merida	University of Iceland
14	Development of the National Environmental Sustainability and Technology Tool (NESTT) for Canadian egg farmers	Vivek Arulnathan	University of British Columbia - Okanagan
15	Effects of early season drought on carbon footprint of milk in northern latitudes	Yajie Gao	University of Helsinki
16	Improving the sustainability of livestock system by using low carbon trace mineral sources	Yron Manaig	ANIMINE
17	Carbon footprint of Basque dairy farms under different production systems	Haritz Arriaga	NEIKER

Food loss and waste: environmental impacts and solutions

18	Circling the sandwich: A characterisation of food waste and its drivers in UK commercially-prepared sandwiches	Alexander Moores	Brunel University London
19	Exploring sustainable approaches to mitigate food waste and reduce environmental impact at the Ortomercato wholesale fruits and vegetables market in Milan	Andrea Casson	Università degli studi di Milano
20	Comparative Life Cycle Assessment of surplus food waste prevention through reuse and upcycling	Asimina Bairaktari	University of Copenhagen
21	Sustainability of the food supply chain: Impacts assessment of food losses at primary production stages of plant-based food products	Imane Uald Lamkaddam	UVic UCC - BETA TC
22	Farm level dominates losses in Swedish beef supply chain	Ingrid Strid	Swedish University of Agricultural Sciences

Sustainable cropping systems


23	Assessing Land Use of an Indoor Vertical Farm, Microgreens production through Life Cycle Assessment	Ana Cavallo	University of Bologna
24	Improving environmental impacts of apple	Ariane Grisey	CTIFL
25	Ex-ante LCA of Rooftop Greenhouse Vegetable Production in Barcelona	Diego Macall	ICTA-UAB
26	Controlled Environment Agriculture in the City of Barcelona	Diego Macall	ICTA-UAB
27	Life cycle assessment of a building-integrated rooftop aquaponics farm	Elisabet Henriksson	IVL Swedish Environmental Research Institute
28	Life cycle assessment of mycorrhizae production	Emma Cecilia Girón Rojas	Universitat Politècnica de Catalunya
29	Transitioning from Conventional to Zero Chemical Nitrogen Grass Production: Promoting Healthier Food Systems in the Republic of Ireland	Everton Vogel	Universidade Federal da Grande Dourados
30	What is the climate and environmental impact of organic food? A meta-analysis of food LCA studies	Fatemeh Hashemi	Aarhus University-Department of Agroecology
31	Life cycle assessment of peat substitutes: sustainability of Danish growing media	Fatemeh Hashemi	Aarhus University-Department of Agroecology
32	Life Cycle Assessment on Semi-closed Lettuce Greenhouses	Fatima Marashi	Van der Hoeven Horticultural Projects B.V.
33	Life Cycle Assessment (LCA) of seed-to-fruit tomato to promote renewable energy sources and sustainable agricultural production	Georgios Ntinis	Hellenic Agricultural Organisation-Dimitra
34	Life Cycle Assessment of a Container Farm in Toronto, Canada	Goretty Dias	University of Waterloo
35	Growing Green: Environmental Assessment of Struvite Fertilization in Hydroponic Tomato Cultivation	Guido Evangelista	Universitat Autònoma de Barcelona

36	Applicability of LCA to analysing the biodiversity impacts of different coffee production systems	Jasmine Savallampi	LUT University
37	Displacing imports and impacts with peri-urban agriculture: An integrated assessment of local produce in the Metropolitan Area of Barcelona	Juan David Arosemena	Universitat Autònoma de Barcelona (UAB)
38	The use of biochar to offset the lifecycle greenhouse gas emissions of sugarcane produced in Brazil	Lucas Pereira	Embrapa Environment
39	Impact of installing a cashew orchard in an area with native vegetation in Brazil	Maria Cléa Brito de Figueirêdo	Embrapa Tropical Agroindustry
40	Addressing climate change, blue water scarcity and toxicity-related impacts of citrus tree nurseries	María Inés Cabot Lujambio	Unión de Productores y Exportadores de Frutas de Uruguay
41	Identifying environmental hotspots in malting barley production: an Italian case study	Maria Vittoria Di Loreto	Università Campus Bio-Medico di Roma
42	Environmental impact scenarios for the introduction of True Potato Seed-based starting material in ware potato cultivation practice	Roel Helmes	Wageningen Economic Research
43	Data science integration with LCA modelling: a review with a focus on spatial-temporal variability in agriculture	Sofia Bahmutsky	University of British Columbia
44	Environmental evaluation of digital and connectivity solution for agricultural application with LCA	Valteri Manninen	Seinäjoki University of Applied Sciences
45	Carbon and water footprints of an oat-based drink	Victor Rancaño Garcia	IRTA

Innovations in food production beyond the farm gate

46	Emerging technologies in agriculture – an Environmental and Social LCA assessment	Annabel Oosterwijk	Wageningen Economic Research
47	Optimising Downscaled Food Chains for Sustainable Resource Use: A Comprehensive Case Study on Tomato Juice	Beatriz Ines Queiroz Lopes da Silva	DIL Deutsches Institut für Lebensmitteltechnik e.V.
48	Simplified parametrized LCA user-friendly tool to eco-design returnable bottles scenarios	Caroline Penicaud	INRAE
49	Optimizing Food Transportation Boxes	Catarina Basto-Silva	PIEP
50	Life Cycle Assessment comparing Conventional and Active Packaging for Fresh-cut salads	Diana Alexandra Murcia Velasco	Universidad de Valladolid
51	Integrated Assessment of E-LCA and S-LCA based on a techno economic assessment of side stream valorization in the brewery industry	Dimitri Chryssoulouris	ZHAW Zurich University of Applied Sciences
52	Technical and Environmental Assessment of Mushroom Production and its Inputs	Éamonn Walsh	Teagasc
53	Life cycle assessment of processed peas, lentils, and beans products in Canada	Jannatul Ferdous	University of British Columbia
54	Carbon Footprint of Pasteurized Foods: A Case Study on Salmorejo Production	Javier Rocher Morant	Universitat Politècnica de Valencia

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55	Promoting Food Safety and Sustainability through the revalorization of a winery by-products in fermented Sausages	Mariluz Latorre	Universitat de Barcelona
56	Environmental assessment of multilayer flexible coffee packaging: italian case study	Matteo Cigada	Politecnico di Milano
57	Design of a sustainable product in gastronomy: integrating LCA and consumer-centered design	Paula Toran Pereg	BCC Innovation
Combined nutritional and environmental assessment of foods and diets			
58	LCA as a tool to unravel the challenges of algae biomass production	Lais Gailieu Speranza.	GreenCoLab – Associação Oceano Verde 
59	Are quinoa-based snacks a healthier and more ecofriendly alternative to their traditional counterparts? A comparative study based on nutritional life cycle assessment	Ana Fernández Ríos	University of Cantabria
60	Not presented		
61	Perceptions of food and food sustainability among college students in the field of food science	Carmen Vidal	Universitat de Barcelona
62	Knowledge and perceptions of food sustainability in a Spanish university population	Carmen Vidal	Universitat de Barcelona
63	Sustainability on the plate- Footprint Reduction and Nutritional Improvement through Meal Optimization in University Canteens	Dimitri Chryssoulouris	ZHAW Zurich University of Applied Sciences
64	Not presented		
65	Eating habits and sustainability: environmental impacts of the consumption of fruit and vegetables	Ilenia Bravo	University of Cassino and Southern Lazio
66	Assessing the climate impacts of different protein sources: an nLCA approach based on system expansion	Ilkka Leinonen	Natural Resources Institute Finland
67	Climate and nutrition benefits of diets compatible with 1.5°C lifestyles	Laura Scherer	Leiden University
68	Assessing the Nutritional Attributes of Plant-Based Meat Analogues and conventional Meat Products: A Comparative Study	Mariluz Latorre	Universitat de Barcelona
69	Increasing healthier and more sustainable food consumption at daycare centers	Marita Kettunen	Natural Resources Institute Finland (Luke)
70	Product grouping and nutrient selection for nutritional functional units in the product-group specific approach to nutritional Life Cycle Assessment	Merja Saarinen	Natural Resources Institute Finland
71	Prediction of oil losses with a filter (winter) cake during the sunflower oil winterization	Ranko Romanic	Faculty of Technology Novi Sad, University of Novi Sad
72	Investigation of wax content in sunflower winter cake	Tanja Luzaic	University of Novi Sad, Faculty of Technology Novi Sad

73	Novel Sustainable Food Profiling Model to evaluate the absolute environmental sustainability of foods while considering nutritional quality	Venla Kyttä	Natural Resources Institute Finland (Luke)
74	Eating Within Planetary Limits- Life Cycle Assessment of Food Waste Prevention and Dietary Shifts in Danish Universities	Xun Zhou	University of Copenhagen
75	The Potential of National Dietary Guidelines to Meet Planetary Boundaries: A Life Cycle Assessment of Canada's Food Guide	Xuyang Guo	University of Waterloo
76	Life Cycle Assessment of Plant-Forward Meals at Canadian University Campuses	Xuyang Guo	University of Waterloo

Greenhouse gas accounting and reporting

77	Potential Climate Change impact associated with the milk production chain. Is it possible to make a complete assessment?	Anna Mourad	Independent scientific researcher
78	Radiative forcing climate footprints in China's agri-food systems	Huang Jing	Southwest University of Science and Technology
79	Determination of N ₂ O emission factor in hydroponic cultivation with alternative nitrogen fertilization sources: the case of Struvite and human urine	Jonatan Manosalva	ICTA
80	Carbon footprints for food systems: A readiness assessment	Koen Deconinck	OECD
81	Footprint Pro Carbono: A Robust Tool for Carbon Accounting of Agricultural Products	Marilia Ieda da Silveira Folegatti	Embrapa Environment
82	Evaluating methods to estimate carbon sequestered in biomass and its climate change effects	Muhammad Ahmed Waqas	Aarhus University
83	An analysis of the mathematical logic on IPCC Tier 1 and Tier 2 methods in soil organic carbon storage estimation	Teng Hu	University of Helsinki

Life cycle sustainability assessment of food systems

84	A study of environmental, social and economic sustainability in vegetable and fruit production in Norway	Erik Svanes	NORSUS- Norwegian Institute for Sustainability Research
85	Environmental, economic and social impact of contemporary dairy industry	Dimitra - Nektaria Fragkouli	National Technical University of Athens (NTUA)
86	Life cycle sustainability assessment (LCSA) of goat meat in Western Nepal	Ira Bhattarai	Natural Resources Institute Finland (Luke)
87	Environmental, technological, and economic evaluation of precision agriculture farming: A review of the life cycle assessment and costing literature	Sofia Bahmutsky	University of British Columbia

Integration of agroecology and soil health in LCA

88	Assessing Sustainability of Land Use: The SHARInG-MeD project	Carlo Russo	Dipartimento di Scienze Veterinarie - Università di Pisa
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89	Charting a research agenda for modelling agroecological practices in Life Cycle Assessment: insights from an interdisciplinary collaboration	Cecilia Casonato	ALMA MATER STUDIORUM - Università di Bologna
90	NOT PRESENTED		
91	Environmental trade-offs of Bio-Based Fertilizers application: Adaptability of non-LCA impacts and methods into LCA	Jorge Senan Salinas	UVIC-BETA
92	Species richness of vascular plant species within regenerative farms in the Netherlands as a basis for updated land-stress based biodiversity impacts with life cycle assessment.	Natasha Järviö	LUT university
93	Modelling the environmental impacts of Swiss mixed agroforestry systems	Philipp Oggiano	Research Institute of Organic Agriculture FIBL Switzerland
94	Using participatory approaches for the development of LCA methodology aiming at assessing crop-livestock interaction and legume-based cropping systems	Pietro Goglio	Department of Agricultural, Food and Environmental Science, University of Perugia
95	Estimating SOC change rates from agricultural management. A systematic review and meta-analysis of long-term experiments.	Raül López i Losada	Centre for Environmental and Climate Science, Lund University

Sustainability in fisheries and aquaculture systems

96	Identifying current trends in the environmental impacts linked to fishmeal and fish oil production in Peru	Alejandro Deville	Pontificia Universidad Católica del Perú
97	LCA of artisanal fishing in the Union of the Comoros	Angel Avadí	Cirad UPR Recyclage et risque
98	Navigating the environmental impacts of Manila clam seed production in hatcheries: combining innovation with resources' recovery	Arianna Martini	CREA
99	Can the transition from mono- to polyculture reduce aquaculture environmental footprint? An LCA approach proposed within the BLUEBOOST project	Arianna Martini	CREA
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101	Hidden water scarcity footprint of salmon aquaculture feed in Iceland	Clara Maria Vasquez Mejia	University of Iceland
102	Sustainability Assessment of Octopus industry in Portugal: An Environmental Life Cycle Perspective from Two Key Regions	David Alonso Baptista de Sousa	ANFACO-CECOPECA
103	Environmental performance of oyster farming technologies in Maine, USA	Friederike Ziegler	RISE Research Institutes of Sweden
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105	LCA of fish oil production: inclusion of biotic resource depletion in impact assessment	Gregoire Gaillet	Sayari
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107	Assessing Environmental Impacts: Mussel Imports at La Spezia Farms	Letizia Caroscio	University of Bologna

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110	Assessing cumulative fishing impacts on marine ecosystem quality	Nico Mumm	Corsus - corporate sustainability GmbH
111	Assessing the environmental impacts of conventional and organic scenarios of rainbow trout farming in France	Pouil Simon	INRAE
112	Sustainability of luxury food: LCA of sturgeon caviar and meat	Riccardo Napolitano	CREA
LCA and footprint studies explained by companies			
113	A tailored carbon footprinting solution to enable farmer engagement and portfolio assessment: A pilot study for Nomad Foods	Eline Willems	Pre sustainability
114	Application and value of life cycle sustainability assessment for food ingredients portfolio	Eleni Moutousidi	Corbion
115	Environmental food impact: semi-specific LCA approach for food sector industrials and their supply chain	Jaune Vaitkeviciute	FoodPilot
116	Establishing a harmonized environmental footprint approach in the European Fresh Produce industry	Jeroen Weststrate	Wageningen University and Research
117	SMEs experience in assessing the Environmental Footprint using an easy-to-use life cycle-based tool	Maite Ciudad	AZTI
118	Returnable glass bottles vs single-use alternatives: the case of "Le Fourgon" company	Naeem ADIBI	WeLOOP
119	Can Chained Life Cycle Analysis be economically viable?	Sampsa Nisonen	Luke Natural Resources Institute Finland
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121	Circularity and sustainability metrics for Italian agri-food systems: the CIRCULAGRIS project	Alberto Simboli	University "G.d'Annunzio" of Chieti-Pescara
122	An assessment framework to incorporate circularity, sustainability, and systems thinking in transformative food systems innovation	Alexander Moores	Brunel University London
123	Analyzing the uses of biomass and land at the Agro-Food-Waste System level to assess the environmental benefits of livestock-based circularity	Alvanitakis Manon	CIRAD
124	Assessing the role of livestock within circular food systems	Clark Halpern	Wageningen University
125	Methodological framework to evaluate circularity in livestock systems	Guillermo Pardo Nieva	Basque Centre for Climate Change - BC3

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127	Fertilisers from fish processing and aquaculture production waste: An ecofriendly alternative for crop production?	Landert Jan	Research Institute of Organic Agriculture FiBL
128	Modelling and assessment of circular scenarios in local sheep supply chains: the MAX-SHEEP project	Raffaella Taddeo	Department of Economic Studies - University "G. d
129	Environmental Perspectives on Wine Packaging: A Comparative Study of Single-Use and Reusable Options	Sahar Azarkamand	UNESCO Chair in Life Cycle and Climate change ESCI-UPF
130	LCA of hazelnut by-products valorization through animal feed application	Urko Goya Piñeiro	University of Zaragoza
Cocoa and olive oil: sustainability assessments			
131	Olive pit: Transform a waste product into a valuable resource	Catarina Faria	PIEP
132	Life Cycle Assessment of organic chocolate products in Peru	Ian Vázquez Rowe	Pontificia Universidad Católica del Perú
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133	Input-output based life cycle inventory for staple foods in Indonesia	Adisa Ramadhan Wiloso	University of Helsinki
134	Improved Life Cycle Inventory Data for Food Packaging in a Public Database for Eco-design and Food labelling	Audoye Pauline	CTCPA
135	Not presented		
136	Making a consistent environmental footprint database for the agri-food sector: Agri-footprint	Carolina Carrillo Diaz	Blonk Sustainability
137	Improving data availability for agricultural life cycle inventories through a common data standard	Christian Schader	FiBL
138	Towards streamlined and transparent tools in the agri-food sector: a user-friendly benchmarking protocol to align tools with LCA standards	Eline Willems	Pre sustainability
139	NewTools- social categories as a part of a food scoring system	Hanne Møller	NORSUS
140	Harvesting Precision: Developing an Uncertainty Strategy for an Agricultural Carbon Footprint Calculator	José Paulo Pereira das Dores Savioli	Embrapa
141	FarmLCA: a LCA tool for capturing the complexity of agro-ecological farm systems	Laura de Baan	FiBL
142	Recommendations for ISO-compliant allocation in agri-food scenarios	Nicole Bamber	University of British Columbia, Okanagan campus
143	An overall system perspective on food (processing) residues in life cycle inventories	Niels Jungbluth	ESU-services Ltd.
144	Completeness issues in LCA data results in underestimated results	Patrik Henriksson	Stockholm University

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156	A practitioner's role against eco-amplification- a case study with California cotton	Danai Mangana	PRé Sustainability
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158	Navigating the Path of Climate Transparency: Oatly's Product Climate Footprint Declarations	Estefania Herrera Osorio	Oatly
159	Advancing and Automating LCA for Sustainable Agrifood Production with OpteinicsTM	Irene Rosique Conesa	Chemovator GmbH
160	Towards more harmonized PEF wise food LCAs in Finnish context	Juha-Matti Katajajuuri	Natural Resources Institute Finland
161	13. Ecolabelling of food products – exploring interactions between methodological challenges and stakeholder interests	Marius Rödder	corsus - corporate sustainability GmbH
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173	The environmental impact of mycoprotein-based meat alternatives compared to plant-based meat alternatives: a systematic review of life cycle assessments	Maria Shahid	The George Institute for Global Health
174	Assessing the Environmental Costs of different Protein sources	Sahar Azarkamand	UNESCO Chair in Life Cycle and Climate change ESCI-UPF
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193	Compiling a Life Cycle Inventory for avocado production in Ecuador: challenges and future steps	Margarita Baquero	KU Leuven
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199	Taxa and reference state in LCA methods for biodiversity impact assessment	Huayang Zhen	Aarhus University
200	Biodiversity efficiency vs. effectiveness at the product level	Jan Paul Lindner	University of Augsburg
201	Phylogenetic diversity as an indicator for biodiversity loss	Jannick Schmidt	2.-0 LCA consultants
202	Applying existing four biodiversity assessment methods to Agribalyse : similarities and differences among methods ?	Melissa Cornelus	INRAE
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