



BioRural Knowledge-exchange Workshops: Advancing the European Rural Bioeconomy



Workshop 1:
**Biochemicals and
biomaterials**



25-27 October 2023
Online event

**Register
here or**



Who should participate?

The BioRural Knowledge-exchange Workshop is designed for rural businesses, industry professionals, community leaders, policymakers and other actors sharing the passion and ambition of advancing rural bioeconomy. It provides a unique platform for networking, knowledge exchange, and collaboration.

Benefits of attending the workshop

By participating in this workshop, you will:

- Gain insights into the current state of the European rural Bioeconomy and its potential for growth and innovation;
- Discover success stories and best practices of bio-based solutions implemented in rural areas;
- Explore the BioRural Toolkit, an online open stakeholders' tool designed to facilitate information sharing and support decision-making processes;
- Engage in interactive discussions, workshops, and capacity-building sessions aimed at fostering regional development and the adoption of circular bio-based solutions;
- Contribute to the formation of the European Rural Bioeconomy Network (ERBN) and help shape the future of sustainable rural communities.

Workshop Format

The BioRural Workshop will be held online over three consecutive days. Participants will have the opportunity to attend plenary sessions, interactive workshops, and virtual networking events. The schedule will feature engaging presentations by renowned experts, panel discussions, and case studies highlighting successful bio-based initiatives in rural areas.



Project Overview:

BioRural aims to establish a pan-European Rural Bioeconomy Network that fosters collaboration among stakeholders, promotes the adoption of bio-based solutions, and bridges the gap between cutting-edge innovations and everyday rural life. Through assessments, knowledge exchange, and the development of regional blueprints, BioRural strives to create a sustainable, inclusive, and circular Bioeconomy across Europe.

Save the Date and join us in shaping the future of rural communities through bio-based solutions!

For workshop updates and registration, please follow us on <https://biorural.eu>

Draft Programme

Day 1 (25 October 2023)

14:00 Introduction to the workshop	<i>Luka Juvančič (University of Ljubljana)</i>
14:10 Structure and technological properties of biomass (side-) streams: forestry & wood processing	<i>Primož Oven (University of Ljubljana)</i>
14:25 Structure and technological properties of biomass (side-) streams: agri-food sector	<i>Gasan Osojnik (University of Ljubljana)</i>
14:40 Structure and technological properties of biomass streams: aquatic systems	<i>Maja Berden Zrimec (AlgEn)</i>
14:55 From biomass to biomaterials - technological pathways and applications	<i>Sabina Berne (University of Ljubljana)</i>
15:10 Small-scale biorefining solutions - overview, challenges	<i>Blaž Likozar (National Institute of Chemistry)</i>
15:25 Follow-up session: Q&A, moderated discussion with the presenters	<i>Moderator: Luka Juvančič (University of Ljubljana)</i>
15:55 Closure of Day 1	

Day 2 (26 October 2023)

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| 14:00 Brief introduction of the Showcase Tour | <i>Luka Juvančič
(University of Ljubljana)</i> |
| 14:05 Ars Pharmae - food supplements from wood extractives | <i>Marko Domazet
(Ars Pharmae)</i> |
| 14:15 Olea4Value - valorising side streams from olive production | <i>Jakub Sandak
(Innorennew)</i> |
| 14:25 High-end solutions in fungi cultivation | <i>Andrej Gregori
(MycoMedica)</i> |
| 14:35 Circular Paper - paper from biomass waste streams | <i>David Ravnjak
(Pulp&Paper Institute)</i> |
| 14:45 Soluble green packaging solutions | <i>Callum O'Connell
(Notpla)</i> |
| 14:55 Green chemicals from pyrolysis oil as wood preservative and adhesives | <i>Bror Sundqvist
(Vinnova)</i> |
| 15:05 Follow-up session: Q&A, moderated discussion with the presenters | <i>Moderator: Luka Juvančič
(University of Ljubljana)</i> |
| 15:15 Closure of Day 2 | |



Day 3 (27 October 2023)

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| 14:00 Brief introduction of the Cross-cutting and emerging themes | <i>Luka Juvančič
(University of Ljubljana)</i> |
| 14:10 Application of design thinking in new product development | <i>Blaž Zupan
(University of Ljubljana)</i> |
| 14:25 Bio-based content certification: Better Biomass Certificate | <i>Harmen Willemse
(NEN)</i> |
| 14:40 Intellectual property management, commercialisation of innovative biobased products | <i>Gabriela Droga Mazovec
(University of Ljubljana)</i> |
| 14:55 Biobased start-up ecosystem management – learning Food ecosystems accelerator | <i>Janne Saarikko
(Natural Resources Institute Finland (Luke) and Founder Institute)</i> |
| 15:10 Circular Economy and Value Chains Transformation | <i>Bart Stegeman
(EIT Climate)</i> |
| 15:25 Follow-up session: Q&A, moderated discussion with the presenters | <i>Moderator: Luka Juvančič
(University of Ljubljana)</i> |
| 15:55 Closure of workshop, evaluation & satisfaction survey | |



Univerza v Ljubljani
Biotehniška fakulteta



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SPEAKERS



LUKA JUVANČIČ



Luka Juvančič is agricultural and resource economist, and associate professor of Economics of Natural Resources at the Biotechnical Faculty, University of Ljubljana. He is intensively engaging in strategic research, providing evidence base for unlocking bioeconomy potentials both nationally (Slovenia) and internationally. His applied research work deals with prototyping business models and value chains in bioeconomy sectors. Currently, Luka Juvančič is co-chairing the Strategic Working Group on Bioeconomy at the Strategic Committee on Agricultural Research (SCAR), the advisory body of the European Commission.

PRIMOŽ OVEN



Primož Oven is full professor at the Biotechnical Faculty, University of Ljubljana, where he is leading the Chair for chemistry of wood and other ligno-cellulosic materials at the Department of Wood Science and Technology. His research topics are structure and chemistry of wood, valorization of bark and woody biomass, as well as science, technology and utilization of nanocellulose and extractives. Among his professional duties, one can highlight his leadership of the Focus Area on Biomass and alternative raw materials of the Slovenian Strategic Research and Innovation Partnership (SRIP) Networks for the Transition to Circular Economy.

GASAN OSOJNIK



Ilija Gasan Osojnik Črnivec is a research associate in renewable technologies at National Institute of Chemistry (NIC) and assistant professor of food chemistry at the University of Ljubljana, Biotechnical Faculty. He is experienced researcher in studies of inorganic and organic materials, catalysis, and biotechnology. He is member of the core group of researchers at the Center for Carbon-Free Technologies (NIC) enabling decarbonisation with H₂, CO₂ and waste valorisation. At Biotechnical Faculty (UL), his research focuses on bioactives and microbial encapsulation. He is heading several research projects and is well published in peer review publications and patents.

MAJA BERDEN ZRIMEC



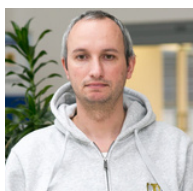
Maja Berden Zrimec is the Head of the research group and project manager at Algen, algal technology centre, llc. She holds a PhD on Biology (University of Ljubljana). Maja has more than 25 years of working experience with algal physiology, water ecology, and toxicology, field, and laboratory work. She has been actively engaging in basic and applied research on algal cultivation and wastewater treatment, both internationally (EU) and nationally. Currently, she is editing a special issue on Boosting the Potential of Algae for Biomass Production, Valorisation, and Bioremediation at (journal Frontiers).

SABINA BERNE



Assistant Professor Sabina Berne is a Senior Researcher at the University of Ljubljana, Biotechnical Faculty, Department of Agronomy, Slovenia. She holds a PhD in Biochemistry and Molecular Biology, awarded by the Medical Faculty, University of Ljubljana. She is an expert in biochemistry, plant-pathogen interactions, and screening of bioactive natural products. Her research focuses on plant biotechnology, genetics and breeding, and plant cell wall-degrading enzymes for biomass processing.

BLAŽ LIKOZAR



Prof. Blaž Likozar is leading the Department of Catalysis and Chemical Reaction Engineering at the National Institute of Chemistry (NIC), Slovenia. He is leading the national research programme "Chemical Reaction Engineering", as well as numerous research projects. With respect to the topic of this workshop, the following research areas can be highlighted from his broad expertise: heterogeneous catalysis materials, modelling, simulation and optimization of process fluid mechanics, transport phenomena and chemical kinetics. He is an awarded scientist with an outstanding record of scientific publications and patents. He is engaging in applied research with industrial partners, amongst them Total Energies, Evonik Industries, UPM, Novartis, Carbon Recycling International.

MARKO DOMAZET



Marko Domazet is CEO of Ars Pharmae®, a Slovenian company dedicated to innovating natural food supplements for human health. In partnership with the University of Ljubljana, we have pioneered Abigenol/AlbiPhenol®, a groundbreaking natural extract from silver fir bark, Slovenia's first natural ingredient sourced from its pristine environment. The company prioritizes environmental sustainability by exclusively using waste bark from silver fir trees in its production. Ars Pharmae® actively participates in the activities of the Focus Group on Biomass and Alternative Raw Materials of the Slovenian Strategic Research and Innovation Partnership (SRIP) Networks for the Transition to Circular Economy.

JAKUB SANDAK



Jakub Sandak is leading the research group on Advanced Manufacturing at the InnoRenew Centre of Excellence and is associate professor at the Faculty of Mathematics, Natural Science and Information Technology at the University of Primorska. His research interests include multi-sensor evaluation of wood properties, expert systems dedicated for wood machining process control and monitoring, organization of manufacturing processes in furniture industries, vision systems in the wood industry, characterization of the wood surface, physics of the wood cutting, wood mechanics and fracture, spectroscopy and chemometry, hyperspectral imaging, numerical modelling of wood at different scales, and mechatronics. His passion is designing, assembling, testing and implementing prototype scientific instrumentation.

SPEAKERS



ANDREJ GREGORI



Asist. prof. dr. Andrej Gregori has been engaged in applied mycology for more than twenty years, especially with the cultivation of medicinal mushrooms. Within his company MycoMedica Ltd they produce food supplements from medicinal fungi and develop new cultivation methods. In cooperation with domestic and foreign research institutions and universities they conduct research on extraction and analytical processes of active ingredients and determine their medicinal effects on the body.

DAVID RAVNJAK



David Ravnjak has a PhD in Chemical Engineering. His fields of expertise are paper technology and coating technology, barrier coatings for packaging, legal requirements for food contact materials. His professional career led him from applied research at the Pulp and Paper Institute, towards managerial post (leading R&D) in paper industry (Brigl & Bergmeister, Papirnica Vevče d.o.o.). He successfully led the development and market introduction of new products, implementation of new technologies and several optimizations in the papermaking production. He has also been involved in national and international research work. In 2021 he returned to Pulp and Paper Institute where he holds the positions of the managing director.

CALLUM O'CONNELL



MPhil in Marine Science. Previously oversaw the technical and operational duties of the UK's first commercial seaweed nursery. Background in macroalgae research, in particular the molecular characterisation of commercially relevant seaweeds and their pathogens cultivated in European (GenialG) and tropical (Global Seaweed Star) ecosystems. Currently works as one of Notpla's Seaweed Sourcing Managers, with a focus on identifying and testing new unrefined biomass for our early stage products.

BROR SUNDQVIST



Dr. Bror Sundqvist (Luleå University of Technology, Department of Engineering Sciences and Mathematics) is the Program Director of Wood Centre North. Wood Centre North is a platform whose fundamental mission is to promote applied research and cooperation between the academia and industry. The focus is on industry-driven and needs-oriented projects, ranging along the forest-wood value chain. Dr. Bror Sundqvist will present one of the current projects of the Wood Centre North, which investigates technical feasibility and economic viability of the production of wood preservatives and adhesives from pyrolysis oil.

BLAŽ ZUPAN



Blaz Zupan is an assistant professor at the department for Entrepreneurship of the Faculty of Economics, University of Ljubljana. He is engaged in many entrepreneurship related courses and specializes in the field of new idea development. Alongside the educational and research work he is also a co-founder of several companies and an active angel investor and business consultant.

HARMEN WILLEMSE



Harmen Willemse is an independent consultant with broad experience in the field of standardization and certification and extensive knowledge of stakeholder management. He is the Scheme manager of the Better Biomass certification scheme for sustainable biomass, on behalf of NEN, the Dutch Standardisation Institute. Harmen has been involved in the development of several standards and certification schemes in the bio-based economy in several positions. This included the secretariat of CEN Technical Committee CEN/TC 411 Bio-based products and three of its working groups, which developed European standards for bio-based products in the period 2011 – 2017.

GABRIELA DROGA MAZOVEC



After obtaining her PhD in Biochemistry and Molecular Biology, Gabriela Droga Mazovec pursued her research work at the Jožef Stefan Institute and later on at the Institute for Molecular and Cell Biology, in Portugal. Her experience with the biotechnology industry started with a 5-years collaboration with the group Sanolabor d.d., where she had the opportunity to interact with some of the most prominent biotechnology and pharmaceutical companies. Her background in academia, experience with the industry and understanding of the patenting process enables her to understand the academic partners' perspective, as well as the critical view necessary for the successful commercialization of new technologies.

BART STEGEMAN



With more than 20 years long track record in digitalization of business processes, Bart Stegeman is a multi-talented people manager with a strong drive for analytic processes and workflows. Currently, he is the Slovenian Orchestrator - Circular Economy and Value Chains Transformation at EIT Climate KIC. He is responsible to bring systems innovation for the Slovenian transition to a circular, regenerative and low-carbon economy. With an extensive work experience in complex supply chains and digitalisation, he is connecting the needs from the Slovene environment with the current regional /European challenges.