

Join us at the **BioRural Knowledge-exchange Workshop:** Advancing the European Rural Bioeconomy

Workshop 3: Agriculture & Food



14-16 February 2024 <u>Online event</u> Register <u>here</u> 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.

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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

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11:00 Introduction to the workshop	Magdalena Borzęcka (IUNG)
11:10 Synergy of soil management with bioeconomy	Grzegorz Siebielec, (IUNG)
11:25 Key challenges in organic farming	Jaroslaw Stalenga, (IUNG)
11:40 Carbon farming - an answer to the challenges of the XX century agriculture	KI Jerzy Kozyra (IUNG)
11:55 Agroforestry - ecological restoration and climate change mitigation	Robert Borek (IUNG)
12:10 Green Biorefinery opportunities for agriculture	James Gaffey (MTU)
12:25 Value chains in food systems	Paweł Chmieliński (IRWIRPAN)
12:40 Nutrient recycling practices- new opportunities for agriculture -MainstreamBio	Piotr Skowron (IUNG)
Follow-up session: O&A, moderated discussion with th	_e Moderator: Magdalena Borzęcka

Follow-up session: Q&A, moderated discussion with the MO 12:55 presenters Closure of Day 1 (IUNG)



Day 2 - Showcase of good practices, factors of success

11:00	Introduction to the workshop	Magdalena Borzęcka (IUNG)
11:10	Artificial Intelligence in reducing plant protection chemicals - Ribes Technologies	Lukasz Kopinski (Ribes Technologies)
11:25	Robot application in field cultivation - Agrointelli	Michał Zabost (Agrointelli)
11:40	Use of mobile applications for rational fertiliser use by agricultural producers	Tamara Jadczyszyn (IUNG)
11:55	Innovative methods of plant simulation using mineral fertilizers and biostimulants	Anna Ogar (INSIGNES LABS)
12:10	Plant and animal extraction service	Mateusz Galiński (Creoplus)
12:25	Agriculture Drought Monitoring System (ADMS) in Poland	Katarzyna Żyłowska (IUNG)
12:40	Circularity in the food processing industry - valorisation of various waste streams originating from wine production	Slavcho Aleksovski (University of Skopje)
12:55	Follow-up session: Q&A, moderated discussion with the presenters. Closure of Day 2	Moderator: Magdalena Borzęcka (IUNG)





Day 3 - Showcase of good practices, factors of success

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11:00 Introduction to the works	shop	Magdalena Borzęcka (IUNG)	
11:10 agriculture and food proc	Invention support and commercialization in the field of agriculture and food production of scientists from public research centres on the example of Poland		
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11:40 Remote sensing for land	monitoring	Rafal Pudelko, (IUNG)	
11:55 Satellite monitoring for a	gricultural drought	Anna Jędrejek, (IUNG)	
Geographical Information 12:10 assessment	n System- for food biomass	Malgorzata Kozak, (IUNG)	
Consumer perception, fo 12:25 practices in agri-food sys	od certification; sustainability tems	Aleš Kuhar (University of Ljubljana)	
Follow-up session: Q&A, 1 12:40 presenters. Closure of we satisfaction survey	moderated discussion with the orkshop, evaluation &	Moderator: Magdalena Borzęcka (IUNG)	
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****Funded by****the European UnThis project has received funding from	nion in <u>biorural</u>	DioRural channel bioruraleu BioRural urope research and innovation	

This project has received funding from the European Union's Horizon Europe research and innovation program under grant agreement No 101060166.

SPEAKERS





Magdalena Borzęcka is an expert in the field of bio-economy, working in the Institute of Soil Science and Plant Cultivation, Department of Bioeconomy and Systems Analysis. She is one of the leading experts involved in creating a new strategy for the development of the bio-economy in Poland. Her main research interests are directed towards broadly understood sustainable agriculture aimed at producing high quality food. She is a co-author of two books and author or co-author of more than 30 scientific articles. Highly involved in the process of creating project proposals to EU, taking an active part in their implementation and dissemination of results to Polish stakeholders/farmers.

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GRZEGORZ SIEBIELEC



IAROSŁAW STALENGA

Grzegorz Siebielec - Senior research scientist and head of Soil Science Erosion and Land Protection Dept. at the Institute of Soil Science and Plant Cultivation – State Research Institute in Pulawy, Poland. Received a Ph.D. in agronomy in 2001. His main research interests are soil health, soil remediation, land use change, nature based solutions and waste management. He has participated in 19 international projects, including 5, 6, 7FP, H2020 and HE. Coordinator of NBSOIL (Nature Based Solutions for Soil Management) project and participates in other Soil Mission projects: PREPSOIL, NATIOONS and ISLANDR. A former member of SCAR Foresight. Coordinated national monitoring of soil quality for Ministry of Environment. A national representative for soil issues in EIONET and Global Soil Partnership.

Jarosław Stalenga ia a researcher with >20 years of experience in agricultural and environmental sciences. Currently working at the Department of Crop Production Systems and Economics of IUNG-PIB in Puławy. His scientific interests focus on evaluation of different farming systems, especially organic one and issues related to the nutrient management, soil organic matter balance and biodiversity protection. He has been involved in many research projects, including one project within the EU's FP7, 3 projects under Horizon 2020 and 2 ERA-NET projects. In 2009-2010 he was the coordinator of the project "Strategies for Reducing Greenhouse Gas Emissions from Agriculture" carried out within the Polish-Norwegian Research Program. In 2015-2017 member of the EU EIP-AGRI Focus Group "Mixed farming systems: livestock/cash crops". In 2013 and 2017 he participated in evaluations of several projects from the EU's FP7 and Horizon 2020. Author of over 150 scientific and popular publications.

Jerzy Kozyra his main scientific interest is assessment of climate change impact on agriculture, adaptation and mitigation measures in face of climate change, decision support systems in agriculture, GHG emission evaluation and remote sensing. He was an coordinator of agricultural experts group in national project "Development and implementation of a strategic adaptation plan for the sectors and areas vulnerable to climate change in Poland". He is regular expert for Ministry of Agriculture and Rural Development for CAP and climate and environmental issues and bioeconomy. He was consultant for DG Agri; DG CLIMA, CLIMA-EAST project and WMO Task Team Agromet of the Working Group on Climate and Hydrology. Involved in BioEcon

JERZY KOZYRA



ROBERT BOREK



JAMES GAFFEY



Robert Borek is an agronomist and senior researcher at IUNG. For several years he is involved in interdisciplinary research within sustainable agriculture topic, including agroforestry (projects: <u>SustainEARM</u>, <u>AFINET</u>, <u>AGROMIX</u>, <u>REFOREST</u>), bioeconomy development (<u>BioECON</u>, <u>BioEASTsUP</u>), low-carbon farming practices (<u>LCAgri</u> Biostrateg, <u>CARBON FARMING Interreg</u>), organic farming (<u>FOODLEVERS</u>) ecosystem services, provided by agroecosystems (<u>ECOSERV-POL</u>), livestock sustainability (<u>PATHWAYS</u>) and adaptation of agriculture to climate change (a strategic task for Ministry of Agriculture and Rural Development). He is a member of European and Polish expert groups working on sustainable agriculture, agroforestry, bioeconomy and agroenvironmental assessment of the CAP Rural Development Program. Robert is a founder of the Polish Agroforestry Association and is developing interdisciplinary country networks related to integrated crop, livestock and non-food production.

project, responsible for contacts with stakeholders. Principal Investigator.

James Gaffey is co-Director of the Circular Bioeconomy Research Group (CircBio) at Munster Technology University. James is Principal Investigator (PI)/Co-PI or coordinator on over 10 EU and nationally-funded circular bioeconomy research projects, including Biorefinery Glas, Farm Zero C, Bio4Africa, INFORMBIO, MainstreamBIO and many more. He is co-national team leader (co-NTL) on the International Energy Agency's IEA Bioenergy Task 45 collaborating with experts worldwide to understand the Climate and Sustainability Effects of Bioenergy within the broader Bioeconomy.

PAWEŁ CHMIELIŃSKI



Paweł Chmieliński Associate Professor and Head of the Department of European Integration at the Institute of Rural and Agricultural Development of the Polish Academy of Sciences (IRWiR PAN). His research interests focus on political economy, rural development & food systems, European integration. He chairs the Thematic Working Group on Food Systems (TWG FS), in which he cooperates with scientists and representatives of government administration of 11 Central and Eastern European countries associated within the BIOEAST initiative. He represents Poland in the work of the EU Standing Committee on Agricultural Research (SCAR), in the SCAR Strategic

SPEAKERS

PIOTR SKOWRON



ŁUKASZ KOPIŃSKI



Piotr Skowron specialist in the field of fertilization, agricultural environment protection, impact of agriculture on the environment. His scientific interests concern the issues of the migration of nutrients from soil to water, the share of agriculture in the dispersion of nutrients in the environment, the possibility of reducing environmental pollution, with particular emphasis on agriculture, modern and low-emission fertilizers and technology of their application, modern laboratory and environmental research methods. He was national project manager of the MANURE STANDARDS project (2018-2019), financed by Interreg BSR programme. From 2021 he is project manager of the ORGSAFETY project, financed by The National Centre for Research and Development. He is an expert of the Ministry of Agriculture and Rural Development in the international group Helcom AGRI.

Łukasz Kopiński - scientist, entrepreneur and farmer. CEO at startup Ribes Technologies Sp. z o. o. (R&D), creating technology for agriculture 4.0 and 5.0. Scientist at the University of Life Sciences in Lublin and the Agricultural University of Lublin. H. Kołłątaja in Kraków. Doctorate in 2019 at the University of Economics in Krakow. Member of the Polish Cluster of Precision Agriculture and the National Bioeconomy Hub in Puławy. Owner of a family orchard farm.

MICHAŁ ZABOST



Michał Zabost farmer, journalist, manager. He has been associated with agriculture all his life. He devoted his entire education to agriculture. A graduate of the Agricultural Technical High School in Łowicz, and then the Faculty of Agriculture of the Warsaw University of Life Sciences. He's got a diploma "MBA in Agri-Food Business" of the ESSEC Business School in Paris. He started his professional career as a journalist for TOP AGRAR POLSKA. Then he worked as the creator and editor-in-chief of agricultural magazines: AGROMECHANIKA (farm machinery report) and Bez Pługa (magazine devoted to no-plough soil cultivation). He used to work for global agricultural companies and brand in the commercial, R&D and global marketing departments. Currently, he has been working as Country Manager in the Danish company AGROINNTELLI and is responsible for the development of the markets in Poland & Baltic Countries within the project "ROBOTTI autonomous field robot". Owner of a farm and an apiary.

TAMARA JADCZYSZYN



Tamara Jadczyszyn Senior R&D specialist in The Institute of Soil Science and Plant Cultivation, Department of Plant Nutrition & Fertilization. Expert in fertilizer management and assessment of suitability of fertilizers and waste for use in agriculture, performer of many expert opinions in this field. Author of advisory systems for fertilization of agricultural crops and computer applications for fertilization planning.

ANNA OGAR



Anna Ogar is a co-founder and CEO of Insignes Labs and Microbe Plus - a biotech startups. She received her PhD from international doctoral studies at Jagiellonian University, Freie Universität Berlin and the University of Örebro in Sweden. Dr. Ogar is the author of numerous publications on environmental and industrial microbiology. She received numerous awards and scholarships such as Alexander von Humboldt Stiftung/Foundation as well as a scholarship from the Foundation for Polish Science.

MATEUSZ GALIŃSKI



Mateusz Galiński is a graduate of the Warsaw University of Technology with a master's degree in Environmental Engineering and Management Engineering. He is an outstanding specialist in the field of plant extraction; with 7 years of experience in extraction, especially hemp, expert in the use of methods such as soxhlet extraction with hexane, ethanol, CO2 and ultrasonic. In 2023, as Creo Plus, provided the R&D service of ultrasonic extraction of plant raw materials for Grupa Azoty Puławy.

Additionally, specializes in business consulting, management of investment and research and development projects, implemented with the aid of EU funds he has been successfully applying for over the last 10 years.

KATARZYNA ŻYŁOWSKA



Katarzyna Żyłowska is an employee of the Department of Bioeconomics and System Analysis at IUNG-PIB. She is a geographer. Her interests focus on widely understood agrometeorology, the impact of weather on plants, problems of adaptation of agriculture to climate change and, in particular, the phenomenon of drought. The main contractor in the project Agricultural Drought Monitoring System in Poland. She also participates in international projects on climate change and bioeconomy.

SPEAKERS

SLAVCHO ALEKSOVSKI



Slavcho Aleksovski is an experienced full-time professor at the Faculty of Technology and metallurgy in Skopje at the University of Ss. Cyril and Methodius, Republic of North Macedonia. He is one of the leading experts in the field of chemical engineering, with a proven track record of working in the higher education industry. He is skilled in pyrolysis, biofuels, biodiesel production, supercritical CO2 extraction, process simulation, chemical process equipment design, research and development (R&D), chemical engineering, and reaction engineering. His main interests are the circular economy, recycling, conversion, and valorization of solid and liquid waste into value-added products. He is the author of more than 30 printed scientific papers published in well-known journals. He is the main researcher and participant in several scientific projects.

PIOTR JURGA



Piotr Jurga is an innovation broker and scientist employed in the Institute of Soil Science and Plant Cultivation – State Research Institute in Poland. He has the Environmental Engineering and Water Management (MSc) diplomas. He completed "Business and Economics" and "Commercialisation and Innovation" postgraduate studies. He has been currently involved in six European funded projects (Horizon, Interreg) - incubating scientists ideas and being involved in research related tasks. His applied research deals with sustainable bioeconomy related challenges, decision making support, operationalization for policy coherence and investigation of business models and value chains withing bioeconomy sectors."

MARIO PETKOVSKI



Mario Petkovski, senior consultant for digital/precision agriculture in AgFutura Technologies. Graduated University of Goce, North Macedonia, with a diploma of agricultural engineer, specialty in plant protection (BSc), followed with MSc course in Arable crops (in progress). Has working experience as a technical advisory in the implementation of digital and precision technologies for agricultural production systems, project manager, Living Lab coordinator. Main fields of interests/expertise: analysis and creation of site-specific management zones and prescription maps; UAV crop monitoring; satellite crop monitoring; modern agricultural technologies, digital & precision agriculture, innovations in agriculture, business development in agriculture, and farm management.

RAFAŁ PUDEŁKO



Rafał Pudełko - main expertise: geographical information science, remote sensing, environmental monitoring, climate changes, precision agriculture, and bioenergy potential. In his work, he develops research for the bioeconomy and actively supports the Ministry of Agriculture and Rural Development by preparing scientific evaluations, assessments and reports. Scientific activity of dr. Pudełko focuses mainly on modelling of resources and flows of biomass as part of its use according to the assumptions of bioeconomy and circular economy. To conduct research, he uses tools such as: GIS spatial analysis, remote sensing, geostatistics, big-data analysis.

ANNA JĘDREJEK



Anna Jędrejek is a researcher at the Institute of Soil Science and Plant Cultivation – State Research Institute in the Department of Bioeconomy and Systems Analysis. She is/was involved in projects funded by the European Union (H2020, FP7) and the Polish government (e.g. NCRD, multi-annual programs) such as BioEcon, AFINET, BioReg, BioBoost, SmartVillages, ECOSERV SustainFARM, LCAgri, BioMAgic, TechRol, Agricultural Drought Monitoring System. In her work, she uses GIS environment to conduct spatial or spatio-temporal environmental analyses using data from many different sources including satellite data processing. Moreover, she has experience with database designing and modelling. Her main interests are monitoring various types of negative weather phenomena and their effects on plant health based on optical and radar imaging; possibilities of energy production from agricultural biomass.

MAŁGORZATA KOZAK



Małgorzata Kozak - GIS specialist working at the Institute of Soil Science and Plant Cultivation, Department of Bioeconomy and Systems Analysis. In her work, she uses GIS systems, remote sensing and tools for database management, spatial analysis and geovisualization in the context of research projects for bioeconomy research, agriculture, agroforestry and nature conservation. She was/is involved in several H2020 projects (e.g., BioEcon, BioReg, AFINET), FP7 projects (e.g. - S2BIOM, BioBoost,) as well as national projects (LCAgri, BioMAgic, Techrol, SmartVillages, Agricultural Drought Monitoring System, EcoServ-Pol). Her main research interests are use of GIS and remote sensing methods in environmental research.

ALEŠ KUHAR



Aleš Kuhar is an associate professor at the University of Ljubljana, where he has made significant contributions to the fields of economics and food systems. With a background in applied biosciences, he completed his scientific master's and PhD studies, specializing in macroeconomic modeling, econometrics, and food economics. His expertise spans various areas, including food system economics, entrepreneurship, marketing, new food product development, and food consumer behavior.