International Consortium on Applied Bioeconomy Research
ICABR

# ICABR *Quarterly*

Quarterly ICABR News Volume 5, Issue 1

***ICABR Conference is a global forum for scholars and practitioners to exchange knowledge on the technological, economic and policy factors that shape bioeconomy innovation.***

***Just a couple of months to the 30th ICABR Conference:***

## *"The Bioeconomy Transformation in Transition: Past Successes, Current Challenges, and Future Prospects"*


*Back to the breathtaking town of Ravello, Italy. Celebrating three decades of pioneering research and global dialogue, the 30th International Consortium on Applied Bioeconomy Research (ICABR) conference brings together leading minds to explore innovation, policy, and progress in biotechnology and agricultural development.*

***Join us in Ravello, July 7-10, 2026!***

*In an increasingly fragmented global landscape—marked by geopolitical tensions, ongoing conflicts, and strained international relations—the need to rethink our development paradigms has never been more urgent. Critical challenges such as climate change risk being overshadowed, despite their systemic importance.*

*In this context, the bioeconomy emerges not only as an economic model, but as a governance framework that recognizes the interdependence of all living systems and calls for integrated, sustainable approaches.*

***For three decades, ICABR has played a leading role in advancing this vision, fostering interdisciplinary research and dialogue at the intersection of science, policy, and innovation. Today, its mission is more relevant than ever: to support the transition toward resilient and inclusive systems through knowledge, collaboration, and evidence-based policy.***

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**The bioeconomy is emerging as a transformative model with the potential to drive inclusive development, spur innovation, and protect ecosystems. Read the news...**



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# Waiting for ICABR Ravello 2026

## Introducing ICABR 2026 Conference Expert Speakers (part II)

### Johan Swinnen

Dr. Johan Swinnen is Director General of the International Food Policy Research Institute (IFPRI) since 2020.

From 2005 to 2019, he was professor of economics and director of the LICOS Centre for Institutions and Economic Performance at KU Leuven (Belgium) and senior research fellow at the Centre for European Policy Studies in Brussels. Earlier he was lead economist at the World Bank (2003-2004) and economic advisor to the European Commission (1998-2001). He has been a visiting professor at various universities and a frequent advisor to institutions such as the World Bank, OECD, FAO, and EBRD.

Dr. Swinnen earned his PhD from Cornell University and holds honorary doctorates from the University of Göttingen and the Slovak University of Agriculture in Nitra. He is a fellow of the Agricultural and Applied Economics Association (AAEA) and of the European Association of Agricultural Economics (EAAE). He served as president of the International Association of Agricultural Economists (2012-2015).

Dr. Swinnen has published extensively on agricultural and food policies, international development, political economy, institutional reforms, trade, and global value chains. He received a series of awards including for his books The Political Economy of Agricultural and Food Policies (2018) and COVID-19 and Global Food Security (2020); both received awards from the AAEA and EAAE. For more details, please see his CV.

### Mary Maxon

Dr. Mary Maxon is a Research Affiliate at Caltech's Linde Center for Science, Society, and Policy. Previously she was Executive Director of the Biosciences Institute at Schmidt Sciences where she led a new effort to seed innovation in synthetic biology and the bioeconomy. Dr. Maxon has worked in the private sector, both in the biotechnology and pharmaceutical industries, as well as the public sector, highlighted by her tenure as the Assistant Director for Biological Research at the White House Office of Science and Technology Policy where she was the principal author of the Obama Administration's National Bioeconomy Blueprint.

She is a member of the International Advisory Council on Global Bioeconomy, and a member of the Carnegie Science Board of Trustees. Dr. Maxon serves as a biotechnology subject matter expert for Eric Schmidt, a Commissioner on the National Security Commission on Emerging Biotechnology.

### Koen Deconinck

Koen Deconinck is Special Advisor to the Director for Trade and Agriculture at the OECD in Paris. He is lead author of the 2025 OECD report "Measuring Carbon Footprints of Agri-Food Products" and has previously worked on market concentration, resilience, and environmental impacts of food systems.

He holds a PhD in Economics from the University of Leuven, and his research has been published in the American Journal of Agricultural Economics, the European Review of Agricultural Economics, Food Policy, and Business History, among others. He has also been a peer reviewer for Nature, Science, and leading field journals, and was lead author of the landmark OECD report "Making Better Policies for Food Systems" (2021).

### Matin Qaim

Matin Qaim is Professor of Agricultural Economics and Executive Director of the Center for Development Research (ZEF), University of Bonn, Germany. Before, he had professorships at the Universities of Goettingen and Hohenheim and was research fellow at UC Berkeley, California. Qaim's main research areas relate to sustainable food systems, agricultural technology, and rural development. He has experience in numerous countries of Africa, Asia, Europe, and the Americas.

Qaim is a Highly-Cited Researcher, Member of the German National Academy of Sciences, Fellow of the American Agricultural & Applied Economics Association (AAEA), and President of the International Association of Agricultural Economists (IAAE).

### Marta Gomez

Ms Gomez San Juan is an Agricultural and Biosystems Engineer working in the United Nations Food and Agriculture Organization (FAO) as Senior Expert to the FAO's programme on Bioeconomy for Sustainable Food and Agriculture (2022-2031) in the Office of Climate Change, Biodiversity and Environment.

She has been working for 11+ years at FAO's Bioeconomy team, since it was formed. She supports the development of national and regional bioeconomy strategies and provides guidance on bioeconomy innovations that address sustainability trade-offs on the ground. She coordinates an international Working Group and partnerships for knowledge-exchange focused on sustainable bioeconomy, and has recently led FAO work on bioeconomy monitoring, indicators and metrics under the G20 Initiative on Bioeconomy and the COP30 Bioeconomy Challenge.

***ICABR supports collaboration with organizations committed to advancing the bioeconomy and sustainable development, fostering knowledge sharing and exchange. This year, we are pleased to present the Summer School organized in collaboration with SITES***
***join us!***

# *SITES-ICABR 2026 Summer School - Join us!*

## Economics for Sustainable Development: Bioeconomy and One Health as Interdependent Governance Frameworks

**Ravello (Italy) | July 6–7, 2026**

***The Summer School is grounded in the recognition that human, animal, and environmental health are deeply interconnected, and that agriculture and rural territories play a central role in addressing global challenges related to food security, climate change, biodiversity, and public health. The One Health approach provides the overarching conceptual framework through which bioeconomy strategies, innovation pathways, and policy interventions are analysed.***
***The Summer School aims to serve as a premier technical incubator where researchers bridge the gap between micro-level biotechnological shifts and macro-economic policy frameworks. By mastering integrated CGE and econometric modeling, participants gain the specific analytical toolkit required to lead multilateral bioeconomy initiatives for sustainable development.***

### Why apply?

**The SITES–ICABR 2026 Summer School offers:**

- **advanced training in cutting-edge modelling techniques**
- **an integrated One Health and bioeconomy perspective**
- **exposure to leading international scholars**
- **opportunities for networking and interdisciplinary exchange**
- **a stimulating learning environment in the unique setting of Ravello**

***Read more...***

***The SITES–ICABR 2026 Summer School invites applications from PhD students, early-career researchers, and professionals interested in the economics of sustainable development, with a particular focus on the role of bioeconomy and biotechnological innovation within a One Health framework.***

***Apply here...***

***share the CALL!***

# *News from the bio world*

**Capturing the potential of Gene editing for a sustainable BioEconomy**

**The *EU-funded GeneBEcon* project focuses on: 1) NGTs R&I in potatoes and microalgae for promoting energy-efficient, zero-pollution agricultural production and clean industrial processing by eliminating chemically treated starch and novel compounds; 2) studying social, economic and regulatory dimensions of the NGT potential for the European Green Deal, the 2030 Climate Target Plan and the Circular Economy Action Plan, and contributing to EU policy; 3) investigating potential benefits and concerns to ensure that NGT innovations are developed in a responsible, inclusive and transparent way.**

***read more...***

***China's smart breeding industry blossoming in glow of AI-driven tech***

**AI-driven technologies are invigorating China's smart breeding sector, propelling the digital and intelligent transformation of the seed industry.**

**During the ongoing spring farming season, a surge of AI-driven innovative applications has emerged. The Nanfan smart breeding platform, which focuses on breeding data processing, recently unveiled two key technological tools: a gene-environment interaction algorithm tool and a breeding simulation tool.**

**Developed by the Institute of Genetics and Developmental Biology of the Chinese Academy of Sciences (CAS), GEAIR highlights the deep integration of biotechnology and AI technology in the agricultural intelligent breeding sector.**

***read more...***

**"*Canada* is a global leader when it comes to agricultural research.**

**AAFC has a lengthy history of being a key institution in the research that leads to the commercialization of new crop varieties and livestock genetics. This research, along with those from other public institutions and the private sector, have established Canada as a leading research country. This global cutting edge research capacity enables Canadian farmers to be global leaders in sustainable agricultural practices and food production. Research confirms that Canadian crop production results in lower carbon emissions than other leading crop producing countries.**

**However..**

**On January 22nd, 2026, Agriculture and Agri-Food Canada (AAFC) announced that it was closing three research centers and four satellite research farms. In addition to this, a further 665 staff at existing research facilities would be terminated. One of the seven priorities Prime Minster Carney gave to every cabinet minister was to spend less on operations.**

**from: *Saifood***

***read more...***

**United Kingdom: Biofuels Annual**

**The United Kingdom (UK) is a significant market for biofuels, for road fuel use of bioethanol, biodiesel and renewable diesel, as well as other uses as the Sustainable Aviation Fuel expands. The UK has maintained a strong connection to the European Union (EU) market and some regulatory similarities since Brexit. UK demand is primarily driven by the government's decarbonization policy, namely the Renewable Transport Fuel Obligation (RTFO) and evolving sustainability standards. The UK remains a significant importer of biofuels, particularly from China, the United States, Southeast Asia, and Brazil. However, these trends may be impacted by UK trade policies and decarbonization goals in the coming years. While the zero-emission vehicle (ZEV) mandate is gradually reducing the role of biofuels in the road transport sector, 2025 marks a turning point as advanced fuels—particularly SAF and renewable diesel—see accelerated growth in aviation and heavy-duty transport, offsetting declines in traditional road fuel use.**

**read more...**

**Fermentation and Biomanufacturing**

**Biotech Act II is a window of opportunity....**

**"Biotech Act II is a window of opportunity, among several legislations, to create a foundation for a competitive biomanufacturing sector, a secure EU food system, including livestock, with lower dependency on imports and greater geopolitical autonomy.**

**Deep import dependency. ~70% of EU plant protein for animal feed is imported, primarily soy from South America. But the deeper vulnerability is the EU' s near-total dependence on China for fermentation-derived amino acids (lysine, threonine, methionine) and vitamins (B2, B12, D3) — without which modern European livestock production cannot function [1]. And China is already scaling for the next dependency: biomanufacturing for a wide range of products, including new proteins for feed and food.**

**A structurally brittle food system. - The EU' s food system is built almost entirely on land-based agriculture and livestock — a fixed production base with limited capacity to absorb the convergent shocks of the coming decades: climate disruption in global breadbaskets, geopolitical instability impacting food chain chokepoints and increasing pandemic risk. Making the EU food system future-proof through higher independence is an urgent task for EU policy." [...]**

***read more..***

# GET TO KNOW THE NEW BOARD (part I)

## MADHU KHANNA

I first became aware of the idea of a bioeconomy when I heard Steve Long, a visionary plant biologist, talk about the immense potential of perennial grasses as a feedstock for the bioeconomy. He introduced me to a perennial grass called Miscanthus Giganteus, a high yielding, productive 14 feet tall plant that requires very few chemical inputs, can be grown on low quality land, under rainfed conditions and once planted, keeps growing back year after year to provide large quantities of biomass that could displace coal and other fossils, sequester vast amounts of carbon in the soil and reduce nutrient loss from cropland. It seemed a wonder crop and it sparked my curiosity and skepticism as an economist to find out if this was really the case and whether it would make economic sense for farmers to grow it. I have spent over 20 years of my career working on the economics of energy crops like miscanthus, understanding their potential benefits for a bioeconomy and the trade-offs they offer and the policies needed to induce their adoption.

## CAMI RYAN

Growing up in a small Saskatchewan community, I was immersed in the rhythms of agriculture, where many desks were often empty during seeding and harvest. This early exposure sparked my passion for farming and sustainability. My journey in the ag industry truly began on my uncle's u-pick fruit farm, where I learned the value of hard work and the joy of connecting with nature, taking pride in our efforts as we sold our produce at farmers' markets.

Throughout my career, I have often felt like a fish out of water or a square peg in a round hole. Whether attending seminars, conferences, or navigating offices and boardrooms, I have frequently struggled to find a chair that fully fit. I have never felt "economist" enough, "scientist" enough, or "farmer" enough. However, this unique perspective has proven to be extremely valuable as agriculture continues to face economic and social challenges. It has given me insight into how people perceive agriculture and the impact of misinformation on policy-making. While science thinks, the public feels. My life's work has been, and continues to be, bridging that gap in the agricultural landscape. I strive to foster understanding and connection between the scientific community and the public, ensuring that informed decisions are made for a sustainable agricultural future.

## PHILIPP AERNI

I originally studied Geography at the University of Zurich in the 1990s and was very skeptical about the use of biotechnology in agriculture. However, during and after my PhD at ETH Zurich I conducted surveys on stakeholder attitudes and influence in the domestic debates on agricultural biotechnology in the Philippines, Mexico and South Africa. This field research taught me that context matters. The policy network analyses in the three countries revealed that most of the funding for radical supporters and opponents actually was directly or indirectly linked to foreign aid from the United States and Europe. The research insights triggered my interest in the political economy of bioeconomy in general and agricultural biotechnology in particular. ICABR provided a great platform to share my empirical research results and ideas and to get inspired by innovative research on sustainable agriculture, agroecology, food security and inclusive technological change.

## HUGO CHAVARRIA

I often joke that I came to the bioeconomy through the back door" I am an economist by training, with a postgraduate degree in international trade, and for much of my career I focused on political economy and public policy.

My work involved supporting countries in designing and evaluating agricultural policies, using both quantitative and qualitative methods—an approach deeply rooted in economics and quite far from anything biological. A little over ten years ago, however, the concept of the bioeconomy began to emerge in Latin America and the Caribbean, and at IICA we started exploring its potential. What caught my attention was not the biology itself, but the economic promise behind it: the possibility of transforming the rich biomass and biodiversity of the Americas into high-value products and services, generating competitiveness, jobs, and sustainability in rural areas. I had the opportunity to enter this field at a time when the concept was still largely unknown in the region: no country had dedicated strategies or policies, and there were no formal education programs on the bioeconomy. I learned directly from some of the leading international experts, who became my mentors. My training has been mostly practical, built through experience and doing.

Today, and largely thanks to the collaborative work we have promoted at IICA with many partners, at least seven countries are developing or implementing bioeconomy strategies, and several universities now offer specialized programs. At the same time, bioeconomy-based businesses—such as bioinputs, biofuels, biocosmetics, biochemicals, superfoods, natural ingredients, biopolymers, among others—are becoming some of the most promising economic sectors in the region. It is deeply rewarding to know that we have been part of this process.I have had the privilege of supporting countries, academia, and the private sector across the Americas in building their bioeconomies

## ANWAR NASEEM

My path into agricultural development (and economics) was not especially planned. I studied the biological sciences as an undergraduate, at a time when biotechnology was being talked about as the next transformative force in agriculture. It seemed like the place to be.

As a student, I did an internship at a scientific institute in Thailand, working on a biological nitrogen fixation project. The goal was straightforward: encourage smallholder farmers to adopt a technology that was both effective and environmentally sound. What I found in the field, though, was that farmers were not really the problem. They had done their own quiet calculation and concluded, quite reasonably, that the economic returns were not there. The gap was not technical, and it was not a matter of ignorance. It was economic.

That observation sent me in a new direction. I enrolled in the international development program at the University of Pennsylvania, where I was fortunate to meet Carl Pray, who introduced me to the economics of agricultural biotechnology (and ICABR). That encounter set the course for much of what followed: research on innovation policy, impact of GM crops, and the conditions under which new technologies actually reach the farmers who need them most.

I have been asking the same basic question ever since, just in different places.

Part II of GET TO KNOW THE NEW BOARD, in the next newsletter!

# *The Board of ICABR*

Welcome to old and new members of the board and council!

## Executive Members

**President**
**Stuart Smyth**
**University of Saskatchewan**

**Vice-President**
**Jose Falck-Zepeda**
**IFPRI**

**Previous President**
**Justus Wesseler**
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**Inter-American Institute for Cooperation on Agriculture (IICA)**

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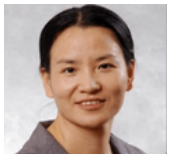
**Cami Ryan**
**Bayer Science Fellow Social and Behavioral Sciences Lead, Regulatory Scientific Affairs**

**Philipp Aerni**
**School of Management Fribourg (HEG-FR)**
**Director of the Center for Corporate Responsibility and Sustainability (CCRS)**



**Yanhong Jin**
**Rutgers University**

**Lorenza A. Lorenzetti**
**Università Cattolica Milano**

**About ICABR:** The Consortium was established to bring together international scholars in the field of bioeconomy studies – its partners come from across the globe and include leaders in agricultural and economic development, natural resources management, environmental policy, risk communication and other fields. Our objectives:

**(a) contribute to the advancement of knowledge and understanding of nature and human behavior in the field of economics and biological sciences with special regard to natural resources, agriculture and the bioeconomy;**

**(b) encourage and improve communication between teachers, researchers and students in the advancement of knowledge and understanding of nature and human behavior in the field of economics and biological sciences with special regard to natural resources, agriculture and bioeconomy; and**

**(c) develop and encourage cooperation between university level teaching institutions and research**

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**For more information:**
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