

ESEIA Lecture Series

Sustainable Energy Innovation Systems for Climate Neutrality

The 4th Lecture

Circular Bio-Based Systems

25 May 2023, 19:00 – 21:00

Aula, Rechbauerstraße 12, TU Graz



Invitation

[European Sustainable Energy Innovation Alliance - ESEIA](#) cordially invites you to attend the **fourth** in a series of ESEIA international lectures entitled **Sustainable Energy Innovation Systems for Climate Neutrality**.

The fourth lecture, on **Circular Bio-Based Systems: metabolon From Theory to Practice** will be delivered at Aula, TU Graz, **25 May 2023, 19.00 – 21.00 CET**.

Guest lecture by **Michael Bongards** ([short CV](#) on the bottom of the page), ESEIA WG 1 Bioresource Coordinator, TH Köln - University of Applied Sciences, Germany

Response 1: **Alexandra Loidl**, City of Graz, Director Waste Management

Response 2: **Christian Schreyer**, CEO of Styrian Waste Management Association

Chair: **Marlene Kienberger**, Research group Biorefinery leader, CEET, TU Graz

*Use-reuse-upcycle-recycle? If you are interested in **circular economy** and if you would like to find out **how to make carbon black from bicycle tires**, then you should not miss this lecture. Our guest lecturer will not only explain the challenges of a circular economy in theory, he will also shed light on practical implications for making local material cycles for bioresources profitable. Our guest lecturer will give an overview of novel **green technologies** and the challenges linked to their integration in society. Using the case of [:metabolon](#), he will give an overview of **main areas of research and innovation** including organic and inorganic waste materials, treatment facilities on technical scale, and interdisciplinary approach, biotechnology, mechanical and chemical engineering, and automation using AI. Two respondents will give their **professional insights** highlighting solutions from the point of view of the City of Graz and the Region of Styria, Austria.*

Join us for this exceptional lecture! We invite you to [register](#) for onsite or online participation with the ESEIA Team **before 22 May**. Contact: ESEIA Team: office@eseia.eu

More information about ESEIA Lecture Series is available at [ESEIA Lecture Series Web page](#).

We look forward to your participation.

Best regards,

Brigitte Hasewend
ESEIA Director

Harald Kainz
Rector TU Graz and ESEIA President



Professor **Michael Bongards** has been scientific director of the research institute :metabolon from 2010 to 2020 and is the member of the Institute of Automation and Industrial IT at TH Köln - University of Applied Sciences, Germany. He is the Coordinator of ESEIA Working Group 1 Bioresources, Biobased Economy and Bioresource Utilization. In his scientific work, he focuses on using methods of computational intelligence (CI) to improve simulation systems and to optimize the operation of environmental technology systems, such as sewage treatment plants or biogas plants. Projects central topics include Waste to Value, New technologies for the use of Bioenergy, and of renewable Bioresources.

ESEIA LECTURE SERIES

Connect, share knowledge and discuss the way forward toward a climate-neutral future.

If we want to achieve climate neutrality by 2050, we must strengthen the understanding of the challenges we face and the interdisciplinary interactions involved in engineering a successful transformation process.

Join us at the upcoming events for an opportunity to engage with leading minds from science, education and training, business, politics, media, and civil society who will share their perspectives on this topic.

You will be able to:

- Explore paths to a carbon-neutral energy system;
- Discuss the challenges and opportunities for sustainable innovation in Europe today;
- Contribute to increasing awareness of the role, everybody must play in climate change mitigation.

Key Information

Aim

The EU is at the forefront of the global energy transformation, but while it has made great strides in reducing GHG emissions, it still has much work to do to achieve climate neutrality by 2050. The new ESEIA Lecture Series aims to improve the understanding of how different societal actors can mutually influence and support each other in tackling climate change and creating a sustainable future. To do that, it will provide a platform for intensive open debate among all the attendees.

Format

The lectures will be delivered in English in a hybrid format – in person with live streaming. Each session will feature a panel of three speakers, who will present the topic and their perspectives and encourage contributions from the floor.

Upcoming ESEIA Lecture Series 2023 Spring & Summer

- **5th Lecture:** 22 June 2023, 19.00 -21.00, Aula TU Graz, **Water-Energy-Food- Ecosystems in Sustainable Communities in the EU and Africa**, Lecture by **Fadi Comair**, Director Energy, Environment and Water Research Centre (EEWRC), the The Cyprus Institute.

ESEIA Lecture Series 2023 Fall & Winter will be started in September 2023.

Topics

- Smart energy systems for a sustainable future
- Decarbonisation of Energy-Intensive Industries (EII)
- New European Bauhaus: sustainable aesthetics in the built environment
- Sustainable mobility for urban resilience
- The social aspects of the energy transition

Target audience

This series of lectures is for everyone with existing knowledge or interest in the topic (European SMEs, local and regional governments, researchers from HEIs and ROs, post-graduate students, etc.)

Venue

Aula at the Graz University of Technology, in Graz, Austria, on Thursdays from 19:00 to 21:00 CET.

For more information, please visit: www.eseia.eu

ESEIA Graz Headquarter
Münzgrabenstraße 11/5
8010 Graz, Austria
Tel.: +43 316 873 5281
E-mail: office@eseia.eu