

# Programme

# Global Bioeconomy Alliance Conference 2025

29 Sep 2025

---

08:30 - 09:00 **Check-in and Coffee**

---

09:00 - 09:30 **Opening Session**

- Christine Nellemann, Provost, The Technical University of Denmark
  - Volker Sieber, GBA Chairperson, Rector, TUM Campus Straubing for Biotechnology and Sustainability, The Technical University of Munich, Germany
  - Bjarke Bak Christensen, Head of Department of Biotechnology and Biomedicine, The Technical University of Denmark
  - Opening Remarks by Moderator Nynne Bjerre Christensen
- 

09:30 - 10:00 **Keynote Speaker**

**Towards a Resilient Bioeconomy: Merging Biotechnologies, Renewables and Societal Change**

Luuk van der Wielen, Director, The Novo Nordisk Foundation Biotechnology Research Institute for the Green Transition (BRIGHT), Denmark

---

10:00 - 10:30 **Coffee Break**

---

10:30 - 11:30 **Bioeconomy From a Governmental Perspective**

**PLENARY TALK**

Jeppe Bruus, Minister of Green Tripartite, The Danish Government, Denmark

**Round Table Discussion**

- Jeppe Bruus, Minister of Green Tripartite, The Danish Government, Denmark
  - H.E. Anke Meyer, Ambassador of Germany to Denmark
  - H.E. Dave Vosen, Ambassador of Australia to Denmark
  - H.E. Leonardo Luís Gorgulho Nogueira Fernandes, Ambassador of Brazil to Denmark
  - H.E. Norma Bertha Pensado Moreno, Ambassador of Mexico to Denmark
- 

11:30 - 12:30 **Lunch**

---

12:30 - 13:45 **Bioeconomy in a European Context**

**PLENARY TALK**

Morten O. A. Sommer, Professor, Group Leader, Scientific Director at the Novo Nordisk Foundation Center for Biosustainability, The Technical University of Denmark, Denmark

**PLENARY TALK: EU Bioeconomy Strategy**

Adrian Leip, Head of Sector, Bioeconomy, European Commission, DG Research & Innovation, Bioeconomy and Food Systems Unit, Bruxelles

**PLENARY TALK: Visions for a competitive and resilient European future – time to act!**

Sofie Carsten Nielsen, Director, DI Biosolutions & European Biosolutions Coalition, Denmark

**Round Table Discussion**

- Morten O. A. Sommer, Professor, Group Leader, Scientific Director at the Novo Nordisk Foundation Center for Biosustainability, The Technical University of Denmark
  - Adrian Leip, Head of Sector, Bioeconomy, European Commission, DG Research & Innovation, Bioeconomy and Food Systems Unit, Belgium
  - Sofie Carsten Nielsen, Director, DI Biosolutions & European Biosolutions Coalition, Denmark
- 

13:45 - 14:15 **Coffee Break**

---

14:15 - 15:15 **Industry Perspectives on Bioeconomy**

**PLENARY TALK: The Case of Biosolutions - How Do We Scale Up Production of the Solutions of Tomorrow?**

Anne Lerche, Head of Biosolutions, The Danish Chamber of Commerce

**Round Table Discussion**

- Anne Lerche, Head of Biosolutions, The Danish Chamber of Commerce, Denmark
  - Susanne Palsten Buchardt, Director, Algicel, Denmark
  - Christian Brix Tillegren, Director of Planetary Health Business Development, BioInnovation Institute, Denmark
  - Carsten Orth Gaarn-Larsen, Senior Vice President, The Technical University of Denmark
- 

15:15 - 15:30 **Announcement: Winner of the GBA Award for Impact and Leadership in Bioeconomy**

**Presented by**

- Henning Jørgensen, Senior Scientific Manager, PhD, Novo Nordisk Foundation
  - Volker Sieber, GBA Chairperson, Rector, TUM Campus Straubing for Biotechnology and Sustainability, The Technical University of Munich, Germany
-

15:30 - 17:00

**Networking**

Light refreshments will be served.

08:15 - 10:30 **Transport to Kalundborg**

Pick-up: Øster Voldgade 4A/4B, 1350, Copenhagen  
Please be ready to board the bus no later than 8.15

Estimated time of arrival: 10.30

---

10:30 - 12:15 **Helix Lab**

10.30: Presentation by Anette Birck, Director, Helix lab  
10.50: Presentation by Senior Project Manager Sif Kjølby, Kalundborg Symbiosis  
11.10: Presentation by director Christian Beenfeldt, Knowledge Hub Zealand  
11.30: Presentation by Recovery UF Specialist Nikolaj Hansen, Novonesis  
11.50: Presentation by Head of Strategic Communication and Public Affairs William Ejlsing, Kalundborg Utility  
12.10: Closing remarks

---

12:15 - 13:00 **Lunch at Absalons**

---

13:00 - 14:00 **Site Visit by Bus: Novo Nordisk and Novonesis**

The bus will drive around Novo Nordisk and Novonesis sites, where Helle Petersen Vastring from Novo Nordisk and Nikolaj Hansen from Novonesis will tell us about relevant building and facilities along the way.

---

14:00 - 14:30 **Transport to Fermhub**

---

14:30 - 16:00 **Fermhub**

Presentation and site tour

---

16:00 - 17:30 **Transport to Copenhagen**

Estimated time of departure: 16.00  
Estimated time of arrival: 17.30  
Please note that transport time can vary, depending on traffic.

Drop-off: Øster Voldgade 4A/4B, 1350, Copenhagen.

08:00 - 09:15 **Departure by bus to Marienlyst Hotel in North Zealand**

Pick-up: Øster Voldgade 4A/4B, 1350, Copenhagen

---

09:15 - 09:55 **Light Breakfast**

---

09:55 - 10:00 **Welcome**

Volker Sieber, GBA Chairperson, Rector, TUM Campus Straubing for Biotechnology and Sustainability, The Technical University of Munich, Germany

---

10:00 - 11:00 **SESSION I: BIOECONOMY – HOW TO SCALE SOLUTIONS GLOBALLY**

Chair: Paul Spee, Associate Professor, Research Hub Leader (Practice and Process Studies), The University of Queensland, Australia

10.00 - 10.30: **PLENARY TALK**

**Bioeconomy – How to Scale Solutions Globally**

Livia Cabernard, Assistant Professor, Sustainability Assessment of Food and Agricultural Systems, Technical University of Munich, Germany

10.30 - 11.00: **PLENARY TALK**

**How the Biocapacity can Enhance the Bioeconomy**

Alcides Lopes Leão, Professor, Department of Bioprocess and Bioengineering, School of Agricultural Sciences, Campus of Botucatu, São Paulo State University, Brazil

---

11:00 - 11:30 **Coffee Break**

---

11:30 - 12:45 **SESSION II: SUSTAINABLE FOOD PRODUCTION**

Chair: Timothy Hobley, Associate Professor, The Technical University of Denmark.

11.30 - 12.00: **PLENARY TALK**

**Upcycling of Alkaline Maize Wastewater: From Tortilla to Lettuce**

Janet Alejandra Gutiérrez Uribe, Regional Department Head of Bioengineering and Science School of Engineering and Sciences, Tecnológico de Monterrey, Mexico

12.00 - 12.45: **Round table**

on Sustainable Food Production

- **Valorisation of Soy Sidestreams via Fungal Fermentation and Bioprocess Intensification**

Sonja Berensmeier, Professor, The Technical University of Munich, Germany

- **Integrated Dual Pathways for Fruit Waste Valorization in Food and Bioprocessing Towards a Circular Bioeconomy**

Daniel Ojwang, Research Scientist, Kenya Industrial Research and Development Institute, Kenya

- **Unlocking the Nutritional Potential of *Nannochloropsis* spp.: A Novel Microalgae Ingredient for Sustainable Future Foods**

Oladipupo Q. Adiamo, PhD Candidate & QAAFI Early Career Research Fellow, The University of Queensland, Australia

- **Q&A**

---

13:00 - 14:00 **Lunch**

---

14:00 - 14:30 **SESSION I (Continued): BIOECONOMY - HOW TO SCALE SOLUTIONS GLOBALLY**

14.00 - 14.30: **PLENARY TALK**

**A Sustainable Bio-platform for High Quality Microbial Protein Production**

Yan Zhou, Associate Chair (Faculty) and Professor, School of Civil and Environmental Engineering, Nanyang Technological University, Singapore

---

14:30 - 14:45 **Coffee Break**

---

---

14:45 - 16:00

### SESSION III: SUSTAINABLE AGRICULTURE

Chair: Damaris Mbui, Professor, University of Nairobi, Kenya

14.45 - 15.15: **PLENARY TALK**

#### **Robotics-Assisted Discovery of New Biosolutions for the BioAg Space –Smarter AgroBiological Screening (SABS)**

Rasmus J. N. Frandsen, Professor, DTU Bioengineering, The Technical University of Denmark, Denmark

15.15 - 16.00: **Round table**

on Sustainable Agriculture

- **Metabolomics-Guided Discovery of Bioactive Natural Products from Soil and Marine Microbial Ecosystems for Bioeconomy Applications**  
Zeinab Khalil, Australian Research Council Future Fellow, The University of Queensland, Australia
- **Enabling Automatic Plant Disease Phenotyping through Deep Learning-Based Image Segmentation**  
Sofia Martello, PhD Student, HSWT, The Technical University of Munich, Germany
- **Enzybiotics: Innovative biocatalysts to support sustainable citriculture**  
Igor Vinicius Ramos Otero, Postdoc, São Paulo State University, Brazil
- **Q&A**

---

16:00 - 17:30

**Poster Session and Refreshments**

---

17:30 - 18:30

**Break and Check-in**

---

18:30 - 20:30

**Dinner at Marienlyst**

09:00 - 11:30

### **SESSION IV: CHALLENGES AND OPPORTUNITIES IN BIOECONOMY**

Chair: Bjarke Bak Christensen, Professor, The Technical University of Denmark & Gary Schenk, Professor, The University of Queensland

09.00 - 09.30: **PLENARY TALK**

#### **Forging a Link Between Bioeconomy Resources, Biotechnology to Products and Market Specific Solutions and Services Opportunities and Challenges in Africa**

Professor Francis J. Mulaa, Deputy Vice-Chancellor, University of Nairobi, Kenya

09.30 - 10.00: **PLENARY TALK**

#### **Industrial Microbiology as a Driver for Linking Mining and Agriculture in Chile**

Pilar Parada Valdecantos, Director, Center for Systems Biotechnology (CSB), Universidad

Andrés Bello, Chile

10.00 - 10.30: Coffee break

10.30 - 11.30: **Panel discussion**

on Challenges and Opportunities in Bioeconomy

- Livia Cabernard, Professor, Sustainability Assessment of Food and Agricultural Systems, Technical University of Munich, Germany
- Alcides Lopes Leão, Professor, Department of Bioprocess and Bioengineering, School of Agricultural Sciences, Campus of Botucatu, São Paulo State University, Brazil
- Francis J. Mulaa, Deputy Vice-Chancellor, University of Nairobi, Kenya
- Pilar Parada Valdecantos, Professor and Director, Center for Systems Biotechnology (CSB), Universidad Andrés Bello, Chile
- Yan Zhou, Professor and Associate Chair (Faculty), School of Civil and Environmental Engineering, Nanyang Technological University, Singapore

---

11:30 - 12:30

### **Lunch**

---

12:30 - 13:45

### **WORKSHOP: Designing Sustainable Business Ecosystems and Innovation**

This workshop explores how sustainable business ecosystems can address pressing societal challenges—such as the energy transition—by overcoming barriers and leveraging synergies. Through panel discussion and active audience participation, it fosters dialogue across diverse perspectives. The aim is to develop a shared understanding of ecosystem dynamics and to identify opportunities for collaborative research and innovation.

Moderators: Claudia Doblinger, Associate Professor, The Technical University of Munich & Paul Spee, Associate Professor & Research Hub Leader, The University of Queensland.

Speakers:

- Claudia Doblinger, Associate Professor, The Technical University of Munich
- Paul Spee, Associate Professor & Research Hub Leader, The University of Queensland
- Brandon Weber, Chief Research Officer, Director for Centre for Bioprocess Engineering Research, The University of Cape Town
- Puja Thiel, Environmental Bioeconomy Lead, Exeter Innovation, The University of Exeter

---

13:45 - 14:00

### **Get-ready Break**

---

14:00 - 16:30

### **Walk to Kronborg Castle**

Kronborg Castle is one of Northern Europe's most iconic Renaissance castles. Built in the 15th century and later transformed into a royal residence, it is best known as Elsinore, the setting of Shakespeare's *Hamlet*. The castle is a UNESCO World Heritage Site and offers stunning views of the Øresund Strait.

Kronborg Castle is situated 20 minute walk from Marienlyst Strandhotel.

---

16:30 - 16:45

### **Coffee and Cake**

---

16:45 - 18:00

## **SESSION V: CELL-FREE BIOSOLUTIONS**

Chair: Anne S. Meyer, Professor, The Technical University of Denmark & Lara Pfaff, Postdoc, The Technical University of Denmark.

16.45 - 17.15: **PLENARY TALK**

### **Biocatalytic Upgrading of Renewable Biomass to Chemicals and New Bio-based Materials**

Emma Masters, Director at Biozone, Principal Investigator at Bioproducts Research Lab,  
University of Toronto, Canada

17.15 - 18.00: **Round table**

on Cell-Free Biosolutions

- **Diversity study of Alcohol Dehydrogenases through in silico sequence structure function analysis**  
Cecilie Nørskov Jensen, PhD Student, The Technical University of Denmark, Denmark
- **Towards a universal screening platform: Harnessing cell-free protein synthesis for high-throughput protein discovery**  
Tobias Köllen, Doctoral Researcher, The Technical University of Munich, Germany
- **Engineering stable and efficient ketol-acid reductoisomerases for industrial biotransformations using ancestral sequence reconstruction**  
Oscar Paredes Trujillo, PhD Student, The University of Queensland, Australia
- **Q&A**

---

18:00 - 18:30

**Break**

---

18:30 - 20:30

**Dinner at Marienlyst**

09:00 - 10:15 **SESSION VI: BIOMATERIALS AND BIOMASS CONVERSION**

Chair: Michael Zavrel, Professor, The Technical University of Munich, Germany

09.00 – 09.30: **PLENARY TALK**

**From Supramolecular Assembly to Biobased and Bioinformed Materials for a Circular Bioeconomy**

Stephen Schrettl, Professor, Functional Materials for Food Packaging, Technical University of Munich, Germany

09.30 – 10.15: **Round table**  
on Biomaterials and Biomass Conversion

- **Data-driven, Bio-based Solutions for Bioenergi, Agriculture, and Environment: From Underutilised Biomass to Reliable Performance**  
Bruno Rafael De Almeida Moreira, Research Fellow, The University of Queensland, Australia
- **Model-Driven Bioprocessing for Agrifood Residue Valorization into Protein and Bioplastics**  
Mario Torres, Assistant Professor, Tecnológico de Monterrey, Mexico
- **A new function among copper enzymes with implications in lignin valorization**  
Caio de Oliveira Gorgulho Silva, Postdoc, The Technical University of Denmark, Denmark
- **Q&A**

---

10:15 - 10:45 **Coffee Break**

---

10:45 - 12:00 **SESSION VII: SUSTAINABLE MINING**

Chair: Nicholas Harmer, Professor, University of Exeter, United Kingdom

10.45 - 11.15: **PLENARY TALK**

**Bio-inspired technologies for diversified metal supply from previously under-exploited resources**

Sue Harrison, Professor, Deputy Vice-Chancellor for Research and Innovation, The University of Queensland, Australia

11.15 - 12.00: **Round table**  
on Sustainable mining

- **Microbially-Induced Calcite Precipitation in Co-disposed Coal Waste Systems**  
Ishaaq Hajee, Lecturer, University of Cape Town, South Africa
- **From Environmental Liability to Strategic Resource: Cobalto Verde® Bioleaching Tailings for Cobalt Recovery**  
Pilar Parada Valdecantos, Centre for Systems Biotechnology Director, Universidad Andrés Bello, Chile
- **Valorisation of Bauxite Residue for Critical Metal Recovery Using Fungal Bioleaching: A Pathway Toward Circular Economy**  
Fernanda Soto-Montandon, PhD Student, The University of Queensland, Australia
- **Q&A**

---

12:00 - 13:00 **Lunch**



---

13:00 - 14:15

## **SESSION VIII: FERMENTATION: A KEY DRIVER IN THE BIOECONOMY**

Chair: John Woodley, Professor, The Technical University of Denmark, Denmark

13.00 - 13.30: **PLENARY TALK**

### **The harder we TRY – towards low cost, fermentation-based manufacturing**

Lars Keld Nielsen, Scientific Director of Novo Nordisk Foundation Center for Biosustainability, DTU

Senior Group Leader, The University of Queensland, Australia

13.30 – 14.15: **Round table**

on Fermentation - A Key Driver in the Bioeconomy

- **Improving the Production of Mogroside-V in *Saccharomyces Cerevisiae* by Developing a Sucrose Responsive GAL Promoter System**  
Hannes Ehlert, PhD Student, The University of Queensland, Australia
- **Single-cell Protein Production from Mexican Food Industry Waste via Submerged Fermentation**  
Aurea Karina Ramírez-Jiménez, Professor, Tecnológico de Monterrey, Mexico
- **Engineering of *Corynebacterium Glutamicum* and Process Development for 1,4-daminobutane Production from C1-based Acetate**  
Katharina Dietz, Doctoral Candidate, The Technical University of Munich, Germany
- **Q&A**

---

14:15 - 14:45

## **Coffee Break**

---

14:45 - 15:15

## **SESSION IX: THE WORK IN THE GLOBAL BIOECONOMY ALLIANCE**

The Board of the Global Bioeconomy Alliance provides an update on the alliance's work; key initiatives that has been initiated and achieved and our long-term goals.

---

15:15 - 16:00

## **SESSION X: MATCHING RESEARCHERS - NEXT STEP?**

---

16:00 - 16:30

## **Closing Session and Poster Prize Winner Announcement**

Volker Sieber, GBA Chairperson, Rector, TUM Campus Straubing for Biotechnology and Sustainability, The Technical University of Munich, Germany

---

16:30 - 18:30

## **Networking**

---

17:00 - 18:15

## **Optional: Bus departures for Copenhagen**

Drop-off: Øster Voldgade 4A/4B, 1350, Copenhagen

---

18:30 - 20:00

## **Dinner at Marienlyst**

Dinner at Marienlyst for participants staying overnight from Friday to Saturday (3 to 4 October).