

# BIO energy & economy INTERNATIONAL

Conference (IBBC2025)



## Programme

📍 ISEC Lisboa, Lisbon, Portugal

📅 December 03-05, 2025 ⏰ Daily Sessions: 09:00 AM

Presented in  
Partnership with



Task XI: Industry-based  
biorefineries towards  
sustainability

# IBBC 2025 – Program Book Index

<b>Section</b>		<b>Page</b>
Welcome Message	.....	03
Conference Organization & Partners Info	.....	04-05
Conference Information, Venue Maps & Floor Layout	.....	06-07
How to Reach the Venue and Transportation	.....	08-10
General Travel & Tourist Information	.....	11
IBBC 2025 Social Program	.....	12-14
Technical Visit Information	.....	15
Presentation Instructions & Poster Presentation Guidelines	.....	16-17
IBBC 2025 Program at a Glance	.....	18
IBBC 2025 Technical Sessions Information	.....	19-28
IBBC 2025 Poster Session Information	.....	29-31
IBBC 2025 Workshops Information	.....	32
Professional Conduct & Compliance Guidelines	.....	33

## Welcome Message

### **International Conference on Bioenergy & Bioeconomy (#IBBC2025) 03-05 December 2025 | ISEC Lisboa, Portugal**

On behalf of the IBBC 2025 Organizing Committee, it is our great pleasure to welcome you to Lisbon, Portugal, for the International Conference on Bioenergy & Bioeconomy (IBBC 2025), hosted at ISEC Lisboa – Instituto Superior de Educação e Ciências in association with IEA-IETS Task XI.

#IBBC2025 brings together leading researchers, policymakers, innovators, and industry professionals from around the world to advance the global dialogue on bioenergy and bioeconomy. As nations strengthen their commitments toward achieving net-zero emissions and building circular, resource-efficient economies, this conference serves as a vital platform for sharing knowledge, fostering collaboration, and accelerating innovation across scientific, technological, and industrial domains.

Over the next three days, the conference will feature plenary lectures, technical sessions, poster presentations, workshops, and networking events, offering a comprehensive exploration of recent developments in sustainable biomass utilization, advanced biofuels, hydrogen value chains, biorefinery design, negative-emission technologies, digital transformation, and investment strategies supporting large-scale deployment.

A key highlight of the scientific program is the inclusion of two IEA IETS special sessions:

Task XI: Decision Support Tools for a Feasible Bioeconomy, focusing on data-driven modeling, decision-support frameworks, and circular biorefinery optimization.

Task XXIV: Process Integration for Industry Decarbonization, showcasing research on energy efficiency, carbon-negative systems, and cross-sector industrial integration.

Complementing these sessions are two dedicated workshops: Decision Support Systems and Scenario Analysis for Biorefinery Development and Management of Biomass Supply Chains: Stakeholders, Risks, and Value Creation, designed to bridge science, policy, and practice. The program also includes a Poster Competition, a panel on Project Financing Options for Bioenergy Innovation, and a Technical Tour to The Navigator Company one of Portugal's leading examples of sustainable industrial transformation.

Beyond the conference halls, participants are invited to experience Lisbon's heritage and hospitality through our Social Program, featuring a City Tour and a Conference Dinner & Networking Evening opportunities to connect, celebrate, and exchange ideas in a relaxed setting.

We extend our deepest appreciation to our Scientific Committee, Advisory Boards, session chairs, sponsors, and partners whose commitment and expertise have shaped this event. Most importantly, we thank all delegates your contributions and engagement are what make IBBC 2025 a vibrant and impactful forum for collaboration.

We wish you an inspiring and fulfilling experience at IBBC 2025, and hope that Lisbon a city where tradition meets innovation provides the perfect backdrop for meaningful discussions shaping the future of the global bio-economy

#### **Welcome to #IBBC2025**

**Welcome to three exceptional days of science, innovation, and partnership.**

**Warmest regards,  
Honorable Conference Chair  
Jorge Costa**

**Coordinator of the Degree in Renewable Energies and Environment,  
ISEC Lisboa – Instituto Superior de Educação e Ciências,  
On behalf of the IBBC 2025 Organizing Committee**

# #IBBC2025 Conference Organization

## Honorable Chair

**Jorge Costa**, Coordinator of the Degree in Renewable Energies and Environment.  
ISEC Lisboa - Instituto Superior de Educação e Ciências, Portugal

## National Advisory Board

- **Helena Nadais**, University of Aveiro, Portugal
- **Helder Viana**, Polytechnic University of Viseu, Portugal
- **José Carlos Pires**, University of Porto, Portugal
- **João Miranda**, Portalegre Polytechnic University, Portugal
- **Henrique Matos**, Instituto Superior Técnico, Portugal
- **Isabel Cabrita**, CERENA/IST, Portugal
- **Florbela Carvalheiro**, National Laboratory for Energy and Geology, Portugal
- **Ana Luísa Fernando**, Universidade Nova de Lisboa, Portugal
- **Edmundo Marques**, Polytechnic Institute of Viseu, Portugal
- **Alberto Reis**, National Laboratory for Energy and Geology, Portugal

## International Advisory Board

- **Antonis Kokossis**, National Technical University of Athens, Greece
- **Marzouk Benali**, Natural Resources Canada, Canada
- **Paul Stuart**, Polytechnique Montréal, Canada
- **Petros Samaras**, International Hellenic University, Greece
- **Walter Haslinger**, BEST - Bioenergy and Sustainable Technologies, Austria
- **Cemil Koyunoğlu**, Yalova University - Energy Systems Engineering Department, Turkey
- **Herminia Domínguez**, University of Vigo, Spain
- **Encarnación Ruiz**, University of Jaén, Spain
- **Arun Goyal**, Indian Institute of Technology Guwahati, India
- **Léa Vilcocq**, CP2M, CNRS, France

## Industrial Advisory Board

- **David Apollus**, Across Atlantic, United Kingdom
- **Luís Gil**, Directorate-General for Energy and Geology (DGEG), Portugal
- **Christoph Brunner**, AEE INTEC, Austria
- **Irshad Ahmed**, Avalon Energy Group LLC and MIT, USA

## Scientific Committee

- **Maria das Graças Felipe**, The University of São Paulo, Brazil
- **Eulogio Castro**, University of Jaén, Spain
- **Paulo Brito**, Polytechnic Institute of Portalegre, Portugal
- **Raúl Muñoz**, University of Valladolid, Spain
- **Francesco Zimbardi**, ENEA, Italy
- **Margarida Gonçalves**, NOVA University Lisbon, Portugal
- **Clemente Pedro Nunes**, Instituto Superior Técnico – University of Lisbon, Portugal
- **Ana Paula Oliveira**, ISEC Lisboa, Portugal
- **Ana Filipa Ferreira**, Instituto Superior Técnico, University of Lisbon, Portugal
- **Bruno Barbosa**, Instituto Superior de Educação e Ciências (ISEC Lisboa), Portugal
- **Luis C. Duarte**, National Laboratory for Energy and Geology (LNEG), Portugal

## Sponsors and Organizing Institutions

- **ISEC Lisboa – Instituto Superior de Educação e Ciências, Portugal**

## Sponsored and Endorsed By

- **IEA IETS – Task XI: Industry-Based Biorefineries**

## Associated Partners

We proudly recognize the **IEA IETS – Task XI: Industry-Based Biorefineries** and **ISEC Lisboa – Instituto Superior de Educação e Ciências, Portugal** for their valuable partnership in advancing the global transition toward sustainable and circular industrial systems.

**IEA IETS – Task XI** focuses on the transformation of industrial energy, technologies, and systems accelerating decarbonization, climate resilience, and circular bioeconomy pathways. Through its multidisciplinary work across decision support systems, technology innovation for net-zero/negative emission biorefineries, and biomass-oriented industrial symbiosis, Task XI drives cutting-edge international cooperation between industry, government, and academia. Their continuous efforts since 2008 have strengthened global knowledge exchange, fostered R&D collaboration, and advanced policy relevant science for optimized, integrated biorefinery solutions.

**ISEC Lisboa**, our host and academic partner, plays a pivotal role in bridging education, applied research, and industrial innovation. As a key contributor to Task XI – notably leading Subtask 3 on Circular Bioeconomy and Biomass Oriented Industrial Symbiosis ISEC supports systems-level methodologies that enable carbon circular industrial ecosystems and enhance technology deployment.

Together, these partners bring scientific depth, strategic insight, and international collaboration to #IBBC2025 ensuring a dynamic platform for knowledge sharing, policy development, and sustainable industrial transformation in Lisbon and beyond.

# Conference Venue Information

## Conference Venue

The first International Conference on Bioenergy and Bioeconomy (IBBC2025) takes place in ISEC Lisboa - Instituto Superior de Educacao e Ciencias, Lisbon, Portugal.

### Address and Google Map Location:

[Alameda das Linhas de Torres 179, 1750-142 Lisboa, Portugal](https://www.google.com/maps/place/Alameda+das+Linhas+de+Torres+179,+1750-142+Lisboa,+Portugal)

### Conference Registration Desk Open Hours

- Wednesday 3rd December, 07:25 - 18:00
- Thursday 4th December, 07:25 - 18:00
- Friday 5th December, 07:25 - 18:00

### Coffee-Breaks and Buffet Lunch:

The **Coffee-Breaks and Buffet Lunch:** and **Posters Session** will take place in the **MC** of the conference venue (see map of the conference venue below) and will be open to all participants. Kindly wear your Conference Badge.

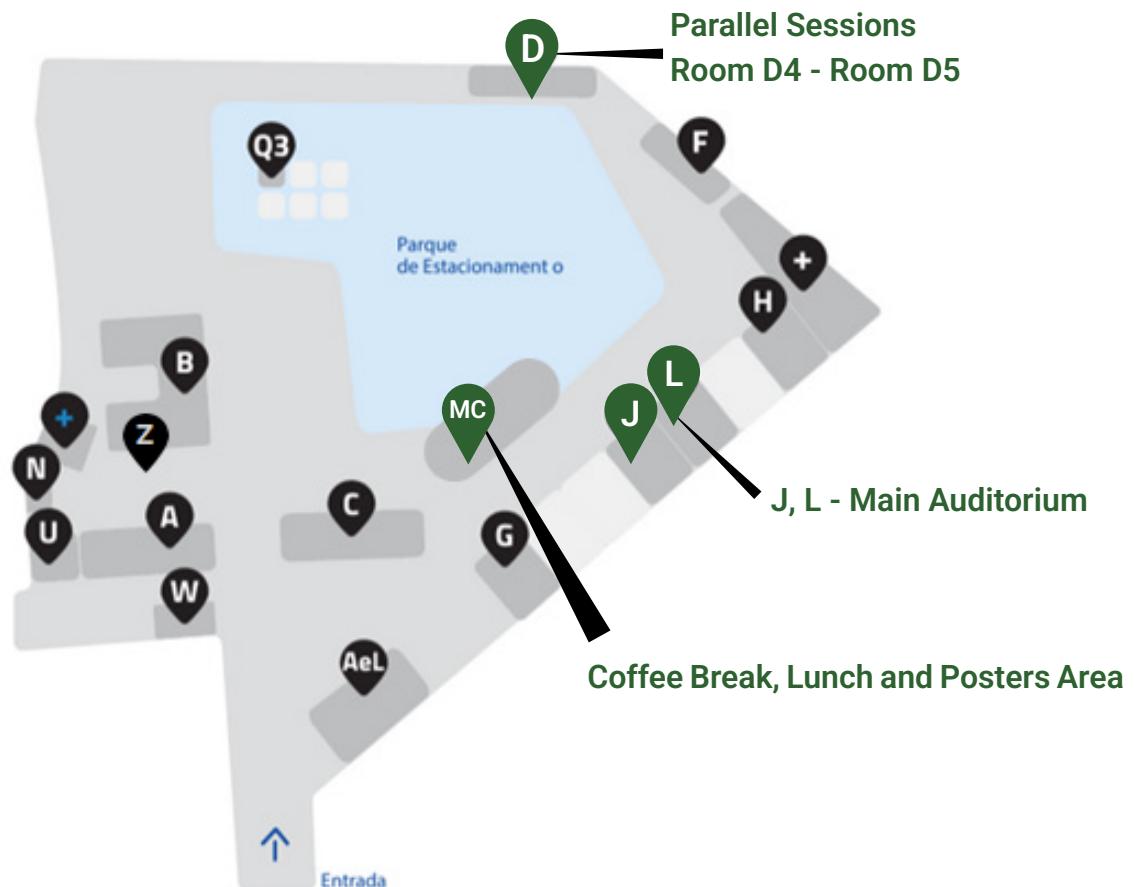
### Conference Sessions: -

Main Conference Room (For Plenaries and Panel Discussion)

Building J, L - Main Auditorium

### Parallel Sessions

Building D - Room D4 - Room D5



# Conference Venue Information



## Campus of Lumiar

**Building AeL** - Aerolab

**Building B + H** - Rooms B2, B6, B10, B11, B12, B13 + Box - Clinic - Stationery & Print Shop

**Building C** - ISEC Lisbon Administration

**Building D** - Room D3 - Room D4 - Room D5 - Chemistry Laboratory

**Building F** - AAISEC - Student Academic Association/Bar

**Building G** - Library/Biblioteca

**Building H** - Optics Laboratory - Physics Laboratory - Optometry Laboratory - CardVision Room - Dr. Almada's Office

**Building J** - Auditorium

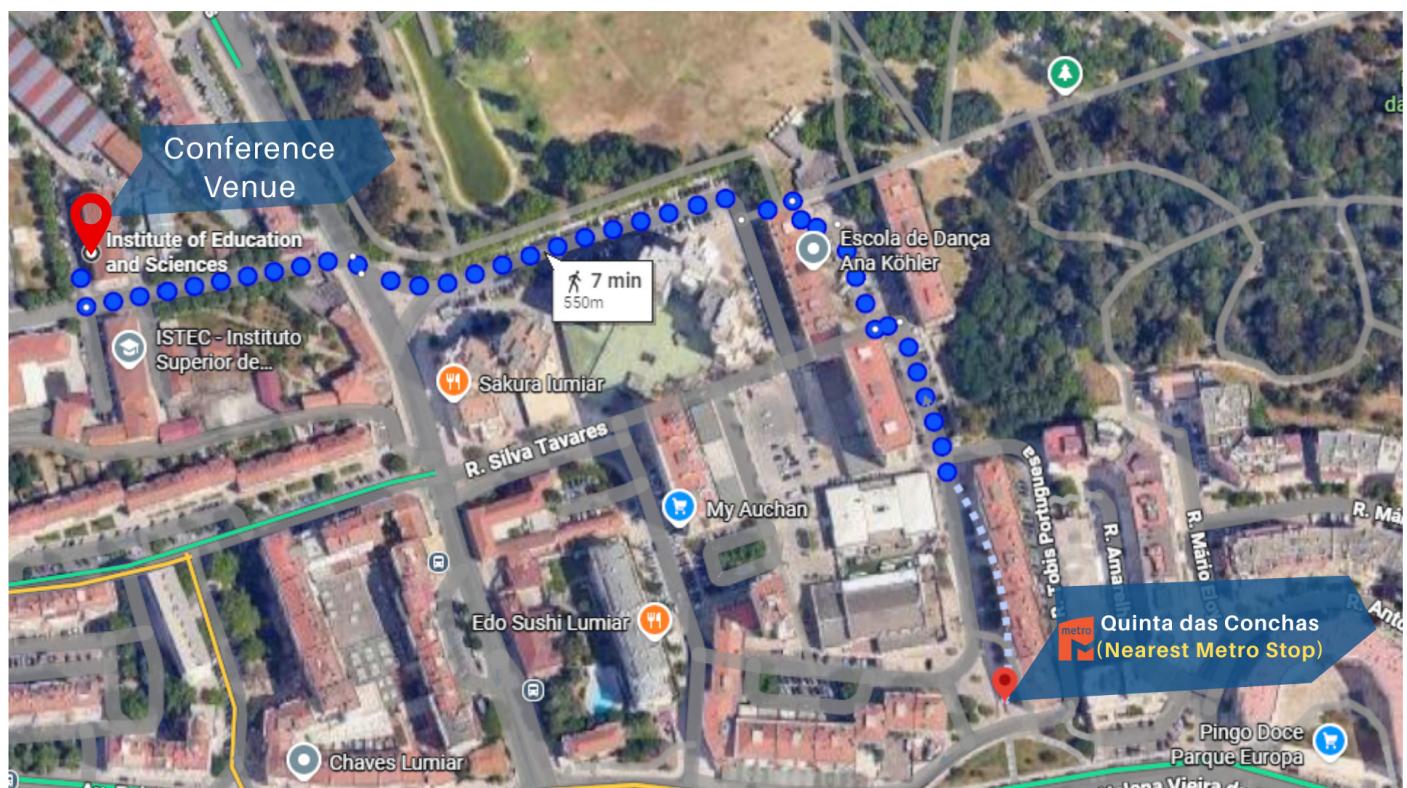
**Building L** - Print Research Lab - TGRAF

**Building N** - Student Residence - Application Hotel - Health Laboratory

**Building MC** - MyCampus - Student Room

**Building Z** - Campus Bar

# How to Reach the Venue by Metro



# Transportation



navegante®  
ocasional

Purchase it before you receive your own Navegante Card.

For occasional use, it allows you to load trips and pre-paid Navigator/Zapping fare.



navegante®  
personalizado

For frequent use, it allows you to load monthly passes, pre-paid, and post-paid fares.

- Application form duly filled.
- Personal Identity Document or Passport (Portuguese citizens) or Residence Permit.
- Original passport photo in colour, with a flat background.

## Where can I buy it?

### Standard delivery (10 week days)

	Blue line	Yellow line	Green line	Red line
Every day 07:45 a.m - 08:30 p.m				
Every day 07:45 a.m - 08:30 pm.	Colégio Militar/Luz Jardim Zoológico	Marquês de Pombal	Baixa-Chiado Cais do Sodré	Oriente Aeroporto

### Express delivery (1 week day)

	Blue line	Yellow line
Weekdays 07:45 a.m - 07:45 p.m		

### Express delivery (1 week day)

Normal 12 EUR  
4\_18 and sub23 6 EUR

### Standard delivery (10 week days)

Normal 7 EUR  
4\_18 and sub23 3.5 EUR

# Transportation

## Getting to Lisbon by air

Direct flights from most of European cities, North or South America and Africa land at the Portela Airport, terminal 1. A taxi ride from the airport to ISEC is about 4-5 km that takes 10-15 min, depending on traffic, and should cost around €8. To downtown the taxi ride is about 7 km and should cost around €10. €1.60 is charged for the transportation of luggage or animals. A sure option is the "Taxi Voucher" a prepaid taxi service starting at €16.40, on sale at the "Information Desk" in the arrival terminal. Lisbon Airport has its own Metro Station, Aeroporto - red line (see map of Lisbon with subway lines). Other options are the AeroBus and the Aeroshuttle (€3.50).

## Getting to Lisbon by car

Drivers can use highway A1 when coming from the North, highway A2, through the 25 de Abril bridge, when coming from the South, and highway A12, through Vasco da Gama bridge, when coming from the Northeast.

## Getting to Lisbon by train

The St. Apolónia station is the terminal for trains arriving from the North of Portugal. Another option is to use the train station Oriente. From the South of Portugal an option is to use the train station Oriente. Connections to the metro lines exist at both stations (St. Apolónia - blue line, Oriente - red line).

## Moving around

### Taxi:

Lisbon is served by an extensive network of public transportation that can take you anywhere in the city and to its surroundings. Taxis (black and green or beige) are cheap when comparing to most of the European countries. They can be called by phone, picked-up on taxi plazas or stopped on the street. The fare on the taxi meter should start at €3.25 (daytime pick-up) or €3.90 (nighttime). Outside the city limits, city fares are charged per kilometer. €1.60 is charged for the transportation of luggage or animals. Before taking a taxi, inquire about the fare.

### Metro:

The Lisbon Metro is an easy and comfortable way to reach most areas of the city, operating from 06:30 to 01:00. **The nearest Metro station to ISEC Lisboa is:**

- *Quinta das Conchas (Yellow Line – direction Odivelas)*

### Bus

Lisbon's bus network, operated by Carris, provides extensive coverage across the city and nearby areas. Tickets can be pre-paid using the Viva Viagem card or purchased on board.

For ISEC Lisboa, the nearest bus stops are:

#### Alameda das Linhas de Torres

Av. Rainha D. Leonor

Qta. das Conchas

**The main bus routes that connect to the ISEC area are:**

- *207, 717, 736, and 796*

### Metro and Bus Fares:

Reusable Viva Viagem card – €0.50

METRO/CARRIS (pre-paid) – €1.45

CARRIS Bus (on board) – €1.80

Tram (on board) – €2.85

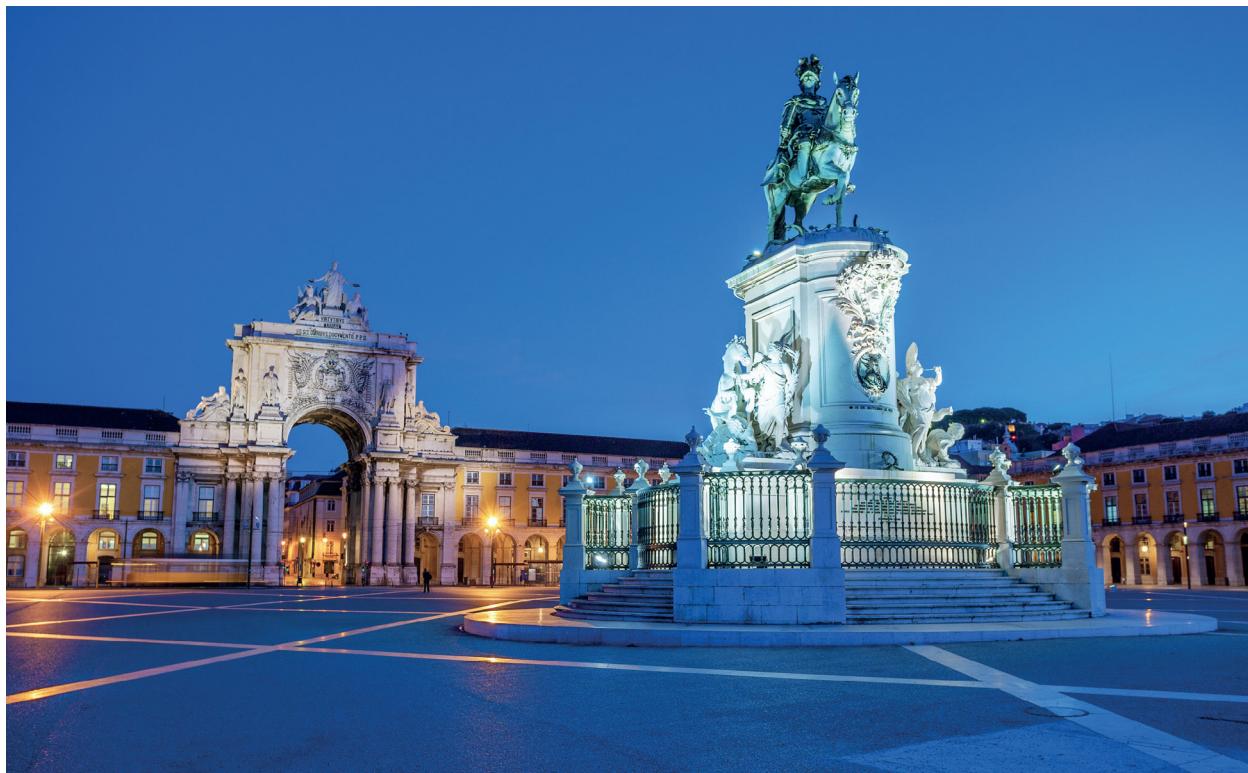
### Trains

The nearest train stations to ISEC Lisboa are Entrecampos and Roma-Areeiro, both about 10–15 minutes away by metro or bus. These stations connect to Lisbon's Sintra, Azambuja, and Fertagus train lines, offering easy access to other parts of the city and surrounding regions.

For regional trips, trains to Sintra depart from Oriente or Entrecampos, while trains to Cascais leave from Cais do Sodré. Both routes take around 35–45 minutes each way and are directly connected to the metro network, making transfers to ISEC Lisboa simple and convenient.

## Other General Information

- National emergency number: 112
- Time zone: GMT +0 Western European Time
- Electricity: 220V, 50 Hz with standard European power sockets
- Temperature: Average high 15 °C, average low 9 °C
- Currency: Euro (€)
- Banks: working hours are 08:30 h – 15:00 h (Monday-Friday)
- Pharmacies: 09:00 – 19:00 (duty pharmacies open 24 hours)
- Shops: 09:00 – 19:00 h
- Shopping Malls: 10:00 – 23:00 h



### Main Museums in Lisbon:

- **Centro de Arte Moderna**  
(Modern Art Museum)
- **Museu do Oriente**  
(Oriente Museum)
- **Museu Calouste Gulbenkian**  
(Calouste Gulbenkian Museum)
- **Museu dos Coches**  
(Coach Museum)
- **Museu Nacional de Arte Antiga**  
(National Museum for Ancient Art)
- **Colecção Berardo**  
(The Berardo Collection)
- **Museu do Azulejo**  
(Tile Museum)

### Main Monuments in Lisbon:

- **Aqueduto das Águas Livres**  
(Águas Livres' Aqueduct)
- **Basílica da Estrela**  
(Estrela Basilica)
- **Castelo de São Jorge**  
(Saint George's Castle)
- **Sé Patriarcal**  
(Patriarchal Church)
- **Mosteiro dos Jerónimos**  
(Jerónimos Monastery)
- **Padrão dos Descobrimentos**  
(Monument to the Overseas Discoveries)
- **Torre de Belém**  
(Belém Tower)

# #IBBC2025 Social Program

## #IBBC2025 City Tour – Experience the Magic of Lisbon by Night

**Wednesday, December 3rd, 2025 | 18:00 – 21:00**

After a full day of sessions, unwind and discover the beauty of Lisbon, one of Europe's most captivating capitals. The IBBC 2025 City Tour offers an evening filled with light, history, and local flavor – the perfect way to experience the city in comfort and good company.

You'll travel in an air-conditioned coach with a professional English-speaking guide who will share stories, legends, and fun facts about each stop. Even if it's your first time in Lisbon, you'll leave with a real sense of the city's spirit and charm.

### **Places to be Covered:**

**Campo Grande Park & University of Lisbon** – Pass through this lively green area and glimpse one of Portugal's most historic universities.

**Entrecampos Monument** – Learn about Portugal's role in European history through this elegant memorial to the Napoleonic Wars.

**Spain Square & the “New Avenues” District** – Admire early-20th-century architecture and modern city life in Lisbon's business quarter.

**Belém – Lisbon's Monumental Quarter** – See Portugal's greatest landmarks:

**Jerónimos Monastery** – A UNESCO World Heritage site and masterpiece of Portuguese art.

**Belém Tower** – A riverside fortress that once protected Lisbon's harbor.

**Monument to the Discoveries** – Honoring the explorers who sailed across the world.  
(Monuments will be viewed from the outside; stops depend on traffic.)

**River Tejo Drive** – Enjoy a scenic route along Lisbon's glittering waterfront.

**Eduardo VII Park & Marquês de Pombal Square** – The city's grand business and cultural center.

**Avenida da Liberdade** – Lisbon's most elegant boulevard, lined with theaters, cafés, and designer shops.

**Rossio & Restauradores Squares** – Step off the bus to stroll through the festive Christmas Market, filled with lights, music, and the aroma of roasted chestnuts.

**Alfama & São Jorge Castle** – View Lisbon's oldest neighborhood and the glowing castle high above the city.

**Campo Pequeno** – End the evening by passing this impressive 19th-century bullring, now a modern cultural venue.

## Why You'll Love It

This relaxed, panoramic evening tour is designed for conference delegates who want to see Lisbon's highlights in just a few hours. You'll experience the best of the city from its medieval roots to its riverside beauty all without the stress of navigating or planning on your own.

Return to ISEC Lisboa by 21:00, with lasting memories of Lisbon's warmth, charm, and night-time glow.



## Conference Dinner & Networking Evening

**Thursday, December 4th, 2025 | 19:30 – 21:30**

**Venue: Museu da Cerveja**

**Address: Terreiro do Paço – Ala Nascente nº 62 a 65, 1100-148 Lisboa, Portugal**

Map Link: <https://maps.app.goo.gl/cmRaCFsSnYKK1nKp9>

Join us for a warm and memorable evening at the renowned Museu da Cerveja, a vibrant culinary landmark set along Lisbon's iconic Praça do Comércio waterfront. This special gathering offers the perfect atmosphere to unwind after an inspiring day at IBBC2025.

Enjoy a taste of Portugal through a thoughtfully curated menu featuring regional delicacies, complemented by local brews and the welcoming spirit that defines this historic venue. Surrounded by colleagues from around the world, the evening provides a wonderful opportunity to deepen connections, exchange ideas, and experience the richness of Lisbon's cultural and gastronomic heritage.

We look forward to hosting you for an evening of good food, great conversations, and genuine camaraderie a true highlight of the IBBC2025 experience



## Technical Tour: The Navigator Company

Friday, December 5th, 2025 | Mitrena, 2901-861 Setúbal, Portugal

Experience one of Portugal's leading examples of industrial innovation and sustainability in practice.

The Technical Tour to The Navigator Company offers participants a unique opportunity to explore cutting-edge operations in bioproducts, paper manufacturing, and renewable resource management.

Gain insights into how advanced technologies and sustainable practices are shaping the future of the bio-based economy in Portugal and beyond.

**BIO energy & economy  
INTERNATIONAL**  
Conference (IBBC2025)

**Technical Visit** Save the Date: December 5th for the Technical Visit

**INTERNATIONAL CONFERENCE ON  
BIOENERGY & BIOECONOMY**

**December 3-5, 2025 - ISEC Lisboa, Lisbon, Portugal**

**The Navigator Company**

- Transportation from the conference venue to The Navigator Company facilities.
- Guided tour of the facilities, focusing on their bioenergy and sustainability practices.
- Q&A session with the company's technicians and managers.
- Return to the conference venue or another central point in Lisbon.

**In Association With**

**iseclisboa**  
INSTITUTO SUPERIOR  
DE EDUCAÇÃO E CIÉNCIAS

**iets**  
Instituto de Engenharia, Ciéncias e Tecnologia da Saúde

<https://ibbce.com/>

secretariat@ibbce.com

## Instructions for Speakers

- 1. Keynote Presentations:** Each keynote speaker will have 30 minutes to present their results, followed by a 5-minute discussion period.
- 2. Invited Talks:** Each invited speaker will have 15 minutes for their presentation, followed by a 5-minute discussion period.
- 3. Oral Presentations:** Each oral presenter will be allocated 12 minutes to present their results, followed by a 3-minute discussion period.
- 4. Adherence to Time Limits:** All presenters must strictly adhere to the allotted time to ensure smooth transition between sessions.
- 5. Presentation File Submission:** Presentation files must be sent at least one day prior to the presentation date to [secretariat@ibbce.com](mailto:secretariat@ibbce.com) or upload link provided by the organizers, clearly mentioning the presenter's name, session title, and presentation date.

Upload Your Presentation File

- 6. AV Setup:** A standard audio-visual setup will be available, including a laser pointer, cordless microphone, desktop microphone, and sound system.
- 7. Video Content in Presentations:** If your presentation includes video files, ensure they are properly formatted, embedded, and linked to the main PowerPoint file. Presenters may check their slides during coffee breaks to verify functionality.
- 8. Projector & Laptop Policy:** Projectors are equipped with HDMI ports, and all presentations will be preloaded on the conference computer system. Personal laptops cannot be used as per the technical procedures defined by the communications department.
- 9. Agenda Confirmation:** Presenters should recheck the final agenda after receiving confirmation from the organizers to verify the latest session time and any changes.
- 10. Q&A Procedure:** During the question-and-answer session, conference volunteers will assist with microphones. Attendees wishing to ask questions should raise their hand to receive the microphone.

## Instructions for Poster Presenters

- 1. Poster Size:** The maximum allowed poster size is A0 (84.1 cm × 118.9 cm / 33.1 in × 46.8 in) in portrait orientation.
- 2. Poster Material:** Posters should be printed on lightweight paper or fabric. Heavy laminated or foam-core posters are not recommended, as they may not adhere properly to the surface.
- 3. Attachment Method:** Posters will be mounted on glass walls using double-sided plaster tape provided by the organizers. Ensure the poster is light enough to stay secured throughout the display period.
- 4. Poster Placement:** Poster presenters will be directed to their assigned display area at the beginning of the poster session.
- 5. Display Schedule:** Posters will remain displayed during all lunch and coffee breaks on the first two days of the conference, as well as during the dedicated poster session on Day 2 (starting at 17:30).
- 6. Presenter Availability:** Authors are required to be present beside their posters during the dedicated session and encouraged to be available during breaks to interact with attendees and answer questions.
- 7. Poster Header:** The title of the paper, author names, and affiliations must be clearly displayed at the top section of the poster.
- 8. Content Guidelines:** Posters typically include an introduction, methodology or experimental setup, results, discussion, conclusions, and references (if applicable).
- 9. Design Recommendations:** Use clear, readable fonts and ensure text is large enough to be read from a distance of 1.5 meters. Avoid red-green color combinations to assist attendees with color vision deficiencies.
- 10. Mounting Tape Usage:** Use 4–6 pieces of double-sided plaster tape (approximately 5 cm each)  
– one near each corner and additional pieces at the center for support.
- 11. Poster Removal:** All posters must be removed after the conclusion of Day 2 according to the schedule. The organizers assume no responsibility for posters left behind

# #IBBC2025 Program at a Glance

Location	Wednesday Day 1. December 3rd, 2025	Thursday Day 2, December 4th, 2025	Location	Friday Day 3, December 5th, 2025
Main Hall (L, J)	REGISTRATION (08:00-08:50)	REGISTRATION (08:00-08:50)	Main Hall (L, J)	Workshop on Decision Support Systems and Scenario Analysis for Biorefinery Development Organizer:- Marzouk Benali (9:00-10:30)
	Inaugural Session (09:00-09:30)	Plenary: Philippe Tanguy (09:00-09:35)		
	Plenary: François Maréchal (09:30-10:05)	Plenary: Mohammed Hassan Abdullahi (09:35-10:10)		
MC	<b>Coffee Break (10:05-10:35)</b>	<b>Coffee Break (10:10-10:40)</b>	MC	<b>Coffee Break (10:30-11:00)</b>
Location	Parallel Sessions Session: 1&2	Parallel Sessions Session: 2 & Task XI Special Session	Main Hall (L, J)	Workshop on 'Management of Biomass Supply Chains: Stakeholders, Risks, and Value Creation Organizer:- Sebnem Yilmaz Balaman (11:00-12:30)
D4	Session Duration(10:45-13:00)	Session Duration(10:50-12:50)		
	Session-1	Session-2		
D5	Session Duration(10:45-13:00)	Session Duration(10:50-13:05)		
	Session-2	Task XI Special Session		
MC	<b>Lunch Break (13:00-13:50)</b>	<b>Lunch Break (12:50-13:40)</b>	MC	Lunch Break (13:00-14:00)
Main Hall	Plenary: Andrea Ramirez Ramirez (14:00-14:35)	Plenary: Paul Stuart (13:50-14:20)	<b>Technical Tour to Navigator Company 15:00-17:00</b>	
Location	Parallel Sessions Session: 1, 3, 4,	Parallel Sessions Session: 5, 6, 7 & Task-XXIV Session	<p><b>Session Codes:</b></p> <p><b>Session 1:</b> Bioenergy Production, Value Chain and End-use</p> <p><b>Session 2:</b> Sustainable Biorefineries in a Circular Economy</p> <p><b>Session 3:</b> Sustainable feedstock Supply and integration</p> <p><b>Session 4:</b> Pathways to Net-Zero and Negative Emissions, and Climate Change Mitigation Strategies</p> <p><b>Session 5:</b> Advanced Biofuels and Platform Chemicals for Industry Sectors</p> <p><b>Session 6:</b> Hydrogen Value Chain</p> <p><b>Session 7:</b> Digital Transformation in Biorefinery, Decision Support Systems and Scenario Analysis</p> <p><b>Session 8:</b> Project financing options</p> <p><b>Special Sessions:</b></p> <p><b>Task XI:</b> Decision Support Tools for a Feasible Bio-economy</p> <p><b>Task XXIV:</b> Process Integration for Industry Decarbonization</p>	
D4	Session Duration(14:45-17:45)	Session Duration(14:30-17:40)		
	Session-1, 3	Session-5, 6		
MC	<b>Coffee Break (16:05-16:35)</b>	<b>Coffee Break Timings For Parallel Sessions (15:40-16:10:D4; 15:50-16:20: Main Hall; 16:00-16:30:D5)</b>		
D5	Session Duration(14:45-17:55)	Session Duration(14:30-17:15)		
	Session-4	Task-XXIV, Session-7		
Main Hall		Session Duration(14:30-17:10)		
		Session-8		
		Poster Competition 17:45-18:45 (P1-P30)		
MC	City Tour (18:00 Onwards)	Social Dinner and Networking 19:30-21:30@Museu da Cerveja		

# Day- 1, December 3<sup>rd</sup>, 2025

08:00-08:50

Conference Registration

09:00-09:30 - Inaugural Session@Main Hall (J, L)

09:00-09:30

**Country Welcome and Introductory Comments**

**Harun Musa**, Head of Chancellery of the Embassy of Nigeria in Lisbon, Portugal  
**Johanna Mossberg**, Chair, IETS-TCP, Sweden  
**Jean Barroca**, Secretary of State for Energy, Portugal  
**Paul Stuart**, Polytechnique Montréal and Envertis Consulting, Canada  
**Luis Moreira**, ISEC Lisboa, Portugal

09:30-10:05 - Plenary Session@Main Hall (J, L)

Overview of Bioenergy in the Energy Transition

**François Maréchal**, EPFL, Switzerland

10:05-10:35 - Coffee Break and Networking@MC

10:45-13:00 - #IBBC2025 Techincal Session-1@Room D4 & Session-2@Room D5

13:00-13:50 - Lunch Break and Networking@MC

14:00-14:35 - Plenary Session@Main Hall (J, L)

Feedstock for the Future: Enabling Net-Zero/Negative Emissions Through Sustainable Feedstock Integration

**Andrea Ramirez Ramirez**, Delft University of Technology, Netherlands

14:45-17:55 - #IBBC2025 Techincal Session-1,3@Room D4 & Session-4@Room D5

Lisbon City Tour From 18:00 Onwards



# #IBBC2025 Technical Sessions (10:45-13:00)

ROOM: D4	Session 01	Bioenergy Production, Value Chain and End-use	Session Moderators: Fanxing Li, North Carolina State University, United States Ana Luís Fernando, NOVA University of Lisbon, Portugal	
	Abstract ID	Title	Authors	Speaker
10:45-11:05	IBBC2025_IO_83	Renewable Natural Gas (RNG) Will Replace Fossil Natural Gas (LNG) – Let Me Show You How	Ben Pluke	<b>Ben Pluke</b> , RAFT Energy, United Kingdom
11:05-11:25	IBBC2025_IO_84	Ecoplanta Project: A New First-of-Its-Kind Commercial Plant in Spain Which Will Produce Renewable Fuels and Circular Materials From Waste That Would Otherwise Be Destined for Landfill	Repsol, SA	<b>Ana Filipa Almeida</b> , Repsol, Spain <b>Dalia García Franco</b> , Repsol, Spain
11:25-11:45	IBBC2025_IO_104	Energy Transition in Portugal: The Role of Bioenergy	Jaime Braga	<b>Jaime Braga</b> , Portuguese Association of Bioenergy Producers, Portugal
11:45-12:00	IBBC2025_26	Variations in the Pyrolytic Devolatilization Kinetics of Rice Husks and Oak Wood Sawdust in Response to Particle Size	Timothy Namaswa, David F.R.P. Burslem, Jo Smith, Roberto Volpe, Afzal Waheed	<b>Timothy Namaswa</b> , University of Aberdeen, United Kingdom
12:00-12:15	IBBC2025_31	Production and Chemical Characterization of Biocrude Oil from Hydrothermal Liquefaction (HTL) of Sludge Anaerobic Digestates	David Gbenga Oke, Giovanni Manente, Giuseppe Mele	<b>David Gbenga Oke</b> , University of Salento, Italy
12:15-12:30	IBBC2025_17	Co-Pyrolysis of Orange Peels With Renewable Agro-Wastes for Sustainable Biofuel Synthesis	Emna Fassatoui, Khaled Loubar, Sana Kordoghl, Jean François Largeau, Fethi Zagrouba	<b>Emna Fassatoui</b> , IMT Atlantique, France
12:30-12:45	IBBC2025_28	Fuel Properties of Diesel and Gasoline Blends with Olive Pomace-Derived Bio-Oil for Partial Fossil Fuel Substitution	Catarina Marques, Nídia Caetano, Luís Tarelho, Maria Isabel Nunes	<b>Catarina Marques</b> , University of Aveiro, Portugal
12:45-13:00	IBBC2025-01	Evaluating the Interdependence of Solid Biofuels Properties: A Comparative Data-Based Analysis Across Five Fuel Types	André Pires, Elsa Cancela, Neuza Alves, Teresa Almeida, Sónia Figo, Luís Gil	<b>André Pires</b> , Biomass Center for Energy, Portugal
13:00-13:50	Lunch Break and Networking			

ROOM: D5	Session 02	Sustainable Biorefineries in a Circular Economy	Session Moderators: Florbel Carvalheiro, National Laboratory of Energy and Geology (LNEG), Portugal Helena Nadais, University of Aveiro, Portugal	
	Abstract ID	Title	Authors	Speaker
10:45-11:05	IBBC2025_IO_107	Molecular Microbiology Contributions to Bioenergy Production and Residue Valorization	Jorge H. Leitão	<b>Jorge H. Leitão</b> , University of Lisbon, Portugal
11:05-11:25	IBBC2025_IO_86	Biochar: From By-Product to Strategic Driver of the Bioeconomy and Carbon Sequestration	Paulo Correia	<b>Paulo Correia</b> , Ibero Forest Mass, Portugal
11:25-11:45	IBBC2025_IO_87	Fueling the Future: How Regenerative Agriculture can Power Biogas and Circular Economies	Katja Lyons	<b>Katja Lyons</b> , Bioenergy Group, Australia
11:45-12:05	IBBC2025_40	Integrated Biorefinery Approaches for the Sustainable Valorization of Olive-Derived Biomass	Eulogio Castro	<b>Eulogio Castro</b> , University of Jaén, Spain
12:05-12:25	IBBC2025_81	Multi-Platform Modern Biorefineries: Influence of Complexity on Sustainability	Carlos Ariel Cardona, Juan Felipe Hernández	<b>Carlos Ariel Cardona</b> , National University of Colombia, Colombia
12:25-12:40	IBBC2025_50	Disrupting Bacterial Cellulose Production: A Cost-Effective and Sustainable Solid-State Fermentation Process Using Agro-Industrial Waste	Kamaljit Sood	<b>Kamaljit Sood</b> , Sainc Biotech, SAINC ENERGY LIMITED, United Kingdom
12:40-12:55	IBBC2025_113	From Residual Yeast to Hydrochar: Exploring Sustainable Bioprocesses within the Sugar-Energy Sector	Fanny Machado Jofre	<b>Fanny Machado Jofre</b> , University of São Paulo (EEL-USP), Brazil
13:00-13:50	Lunch Break and Networking			

# #IBBC2025 Technical Sessions (14:45-17:45)

ROOM: D4	Session 01	Bioenergy Production, Value Chain and End-use (CONT.)	Session Moderator: Alberto Reis, National Laboratory of Energy and Geology (LNEG), Portugal	
	Abstract ID	Title	Authors	Speaker
14:45-15:05	IBBC2025_IO_85	Thermochemical Conversion of Biomass and Wastes: Pyrolysis and Gasification	Luís António da Cruz Tarelho	<b>Luís António da Cruz Tarelho</b> , University of Aveiro, Portugal
15:05-15:20	IBBC2025_43	Re-Feed: Renewable Energy Production at Farm Level for Energy Efficiency and Defossilization	Rita Fragoso, Miguel Nogueira, João Bastos, Paulo Brito, Olga Moreira, E. Duarte	<b>Rita Fragoso</b> , University of Lisbon, Portugal
15:20-15:35	IBBC2025_80	Computational Modeling of Biomass–Plastic Co-Gasification for Green Hydrogen Production	Oliveira Mateus, Eliseu Monteiro, Abel Rouboa	<b>Abel Rouboa</b> , FEUP, Portugal
15:35-15:50	IBBC2025_IO_100	Bioenergy Contribution to the Targets of the National Energy System and 2050 National Carbon Neutrality	Paulo Martins	<b>Paulo Martins</b> , Directorate-General for Energy and Geology (DGEG), Portugal
ROOM: D4	Session 03	Sustainable feedstock Supply and integration	Session Moderators: Eulogio Castro, University of Jaén, Spain Carlos Ariel Cardona, National University of Colombia, Colombia	
	Abstract ID	Title	Authors	Speaker
15:50-16:05	IBBC2025_51	Unlocking Full Value from Biomass: Scale-Up of an Integrated Biorefinery for the Co-Production of Xylooligosaccharides, Xylose, and Lignocellulosic Streams	Kamaljit Sood	<b>Kamaljit Sood</b> , Sainc Biotech, SAINC ENERGY LIMITED, United Kingdom
16:05-16:35	Coffee Break and Networking			
16:45-17:00	IBBC2025_15	Can Biomass from Peatlands Be a Future Source of Renewable Raw Materials for Sustainable Products?	Ralf Pecenka, Carsten Lühr, Florian Wolter, Karina Michalska, Monika Heiermann	<b>Ralf Pecenka</b> , Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB), Germany
17:00-17:15	IBBC2025_71	Advancing Algal Biorefineries: From Micro/Macroalgae to Added-Value Bioproducts in a Single-Step Conversion	Pedro L. Martins, Cristiana Andrade, Luís C. Duarte, Carla Motta, Cristina Oliveira, Alberto Reis, Helena Pereira, Florbela Carvalheiro	<b>Pedro L. Martins</b> , National Laboratory of Energy and Geology (LNEG), Portugal
17:15-17:30	IBBC2025_74	Biorefinery of Chestnut Burrs: A Promising Feedstock for Sustainable Production of High Value-Added Biomolecules	Iván Costa Trigo	<b>Iván Costa Trigo</b> , National Laboratory of Energy and Geology (LNEG), Portugal
17:30-17:45	IBBC2025_20	Valorization of Tomato Processing By-Products via Green Extraction: A NADES-Based Method for Single-Step Isolation of Different Classes of Compounds	Nádia Ribeiro, Paul Sauveteres, Chahinez Aouf, Cristina Silva Pereira	<b>Nádia Ribeiro</b> , Nova University Lisbon (ITQB NOVA), Portugal



# #IBBC2025 Technical Sessions (14:45-17:55)

ROOM: D5	Session 04	Pathways to Net-Zero and Negative Emissions, and Climate Change Mitigation Strategies	Session Moderators: Bruno Barbosa, ISEC Lisboa, Portugal Helder Viana, Polytechnic Institute of Viseu, Portugal	
	Abstract ID	Title	Authors	Speaker
14:45-15:05	IBBC2025_IO_88	<b>Biochar: from Agricultural Residues to Value</b>	Carbo Culture	<b>Jack Van Batenburg, Carbo Culture, Netherlands</b>
15:05-15:25	IBBC2025_IO_89	<b>Engineering More Green Gas and GGRs Through AD Pretreatment and Optimisation</b>	Jack Dyer-Jones	<b>Jack Dyer-Jones, ALPS Ecosystems UK Ltd, United Kingdom</b>
15:25-15:45	IBBC2025_IO_109	<b>Study of Low-Carbon Fuels in Portugal: Perspectives for 2030</b>	Nuno Lapa, Inês Matos, Maria Bernardo, Márcia Ventura, Marco António Ludovico Marques, Maria de Fátima Nunes Serralha, Natália Maria Ferreira Rebelo de Melo Osório, Raquel Alexandra Galamba Duarte, Paulo Miguel Marques Fontes, Luís Serrano, Helder Santos, Diogo Silva, Ricardo Almeida, Nuno António	<b>Marco Marques, Polytechnic Institute of Setúbal, Portugal</b> <b>Luis Manuel Ventura Serrano, Polytechnic Institute of Leiria/ADAI, Portugal</b>
15:45-16:00	IBBC2025_110	<b>From Water Circularity to Carbon Savings: Energy-Efficient Strategies for Sustainable Hotel Operations</b>	Fernando Rivera, Flávio Silva, Filipa Brandão, Helena Nadais	<b>Maria Helena Gomes de Almeida Gonçalves Nadais, University of Aveiro, Portugal</b>
16:00-16:30	Coffee Break and Networking			
16:40-16:55	IBBC2025_IO_90	<b>Renewable Energy in Poland – Biomass and Waste in Biogas Production</b>	Wojciech Czekala, Karol Kupryaniuk, Damian Janczak, Kamil Witaszek, Ludmila Machaieie	<b>Wojciech Czekala, Poznan University of Life Sciences, Poland</b>
16:55-17:10	IBBC2025_IO_108	<b>Energy Potential of Leaves of Selected Tree Species from Urban Parks</b>	Damian Janczak	<b>Damian Janczak, Poznan University of Life Sciences, Poland</b>
17:10-17:25	IBBC2025_IO_98	<b>The Effect of Corn Ensiling Methods on Digestibility and Biogas Efficiency</b>	Karol Kupryaniuk, Kamil Witaszek, Damian Janczak, Wojciech Czekala, Ludmila Machaieie, Jakub Kupryaniuk, Julia Panasiewicz	<b>Karol Kupryaniuk, Poznan University of Life Sciences, Poland</b>
17:25-17:40	IBBC2025_54	<b>Turning Biomass at Risk of Wildfire into Bioenergy: A Win-Win Solution for Remote and Indigenous Communities of Canada</b>	Nicolas Mansuy	<b>Nicolas Mansuy, Natural Resources Canada, Canada</b>
17:40-17:55	IBBC2025_32	<b>Techno-Economic Assessment of Methanol from Biogas CO<sub>2</sub> and Green Hydrogen for Maritime Applications</b>	Ajay Koushik Venkatanarasimhan, Andrea Ramírez Ramírez	<b>Ajay Koushik Venkatanarasimhan, TU Delft, Netherlands</b>



## Day- 2, December 4<sup>th</sup>, 2025

07:25-08:50

Conference Registration

09:00-9:35 - Plenary Session@Main Hall(J, L)

A Reality Check on Hydrogen Production from Biomass  
**Philippe Tanguy**, Hynergy Consulting Ltd, Portugal

09:35-10:10 - Plenary Session@Main Hall (J, L)

The Future of Bioenergy and Bioeconomy: The Sub-Saharan African Perspectives  
**Mohammed Hassan Abdullahi**, Former Minister of Environment, Nigeria

10:10-10:40 - Coffee Break and Networking@MC

10:50-12:50 - #IBBC2025 Techincal Session-2@Room D4 &  
Task XI-Special Session@Room D5

12:50-13:40 - Lunch Break And Networking@MC

13:50-14:20 - Plenary Session@Main Hall (J, L)

Viability of bioSNG Production from Biomass: Risk-Return Analysis Comparing  
European and Canadian Case Studies  
**Paul Stuart**, Polytechnique Montréal and Envertis Consulting, Canada

14:30-17:40 - #IBBC2025 Techincal Session-5, 6@Room D4 &  
Task XXIV-Special Session, Session 7@Room D5

16:00-16:30 - Coffee Break And Networking@MC

14:30-17:10 - Session and Panel Discussion on  
“Project Financing Options”@Main Hall (J, L)

17:45-18:45 - Global Poster Competition (Poster P1-P30)@Poster Area MC

Social Dinner and Networking - 19:30-21:30



# #IBBC2025 Technical Sessions (10:50-13:05)

ROOM-D4	Session 02	Sustainable Biorefineries in a Circular Economy (.Cont)	Session Moderators: Luis C. Duarte, National Laboratory of Energy and Geology (LNEG), Portugal Encarnación Ruiz Ramos, University of Jaén, Spain	
	Abstract ID	Title	Authors	Speaker
10:50-11:05	IBBC2025_09	<b>Environmental Performance of Polyurethane Production from Spent Coffee Grounds</b>	Ana Arias, Jose Luis Ares Sainz, Stamatia Skoutida, Sofia Maria Ioannidou, Apostolis Koutinas, Maria Teresa Moreira	<b>Ana Arias Calvo</b> , University of Santiago de Compostela, Spain
11:05-11:20	IBBC2025_45	<b>Improving the Cell Robustness of Heyndrickxia coagulans for Bioconversion of Municipal Forest Wastes into Lactic Acid</b>	M.F. Blanco, A.D. Moreno, J.M. Oliva, C. Álvarez, M. García, M.J. Negro, R. Iglesias, I. Ballesteros	<b>Manuel Francisco Blanco Roldán</b> , CIEMAT, Spain
11:20-11:35	IBBC2025_48	<b>Dry Carbonization of Olive Pomace, Olive Stone and Olive Wastewater Solids for Production of Biofuels, Porous Carbon Materials or Soil Amendment Agents</b>	Ana Paula Ramos, Didier Sanchez, Catarina Sousa, José Paulo Mota, Margarida Gonçalves	<b>Ana Paula Ramos</b> , NOVA University Lisbon, Portugal
11:35-11:50	IBBC2025_76	<b>Characterisation of Bioplastic Degrading Microbial Communities Using Biomolecular Techniques</b>	Raveena Vilas Sajgule, Elisa Clagnan, Mirko Cucina, Patrizia De Nisi, Fabrizio Adani	<b>Raveena Vilas Sajgule</b> , University of Milan, Italy
11:50-12:05	IBBC2025_62	<b>Sustainability of an Innovative Antibiotics Degradation System Using Fungal Bioreactors in Livestock Manure</b>	Pedro Tourís Sobradelo, Álvaro Fernández Braña, Julio Fierro Fernández	<b>Pedro Tourís Sobradelo</b> , CETIM Foundation, Spain
12:05-12:20	IBBC2025_63	<b>Practical Application and Environmental Profile of Sustainable Sludge Management by Biopolymer Valorisation</b>	Á. Fernández Braña, L. Sánchez Fernández, R. Iglesias Iglesias, A. Otero Rodriguez, J. Fierro Fernández	<b>Ana Otero</b> , CETIM Research Centre, Spain
12:20-12:35	IBBC 2025_82	<b>Advancing Power-to-Protein for Anaerobic Digestion By-Products Valorization: The Impact of Cathode Functionalization</b>	Gabriele Soggia, Amin Nariman, Barbara Mecheri, Niccolò Forin, Andrea Squartini, Fabrizio Adani	<b>Gabriele Soggia</b> , University of Milan, Italy
12:35-12:50	IBBC_2025_111	<b>Unlocking Bioenergy from Industrial Wastewater: Enhancing Methane Recovery through Intermittent Anaerobic Digestion</b>	Cátia Couras, Jorge H. Leitão, Maria Helena Nadais	<b>Maria Helena Gomes de Almeida Gonçalves Nadais</b> , University of Aveiro, Portugal
12:50-13:05	IBBC2025_29	<b>Integration of Upstream to Downstream Processes for Renewable Resources Conversions Into Valuable Products of Biofuels and Biopolymers Under Minimizing Waste, Maximizing Resource Efficiency, and Regenerating Natural Concepts</b>	P. Kaewkannetra, P. Dujjanutat, T. Kumsaen, A. Neramittagapong, K. Wantala	<b>Pakawadee Kaewkannetra</b> , Khon Kaen University, Thailand
13:05-13:40		Lunch Break And Networking		



# #IBBC2025 TASK-XI Special Session (10:50-12:50)

ROOM: D5	IETS-TASK XI Special Session	Task XI: Decision Support Tools for a Feasible Bioeconomy	<b>Moderators:</b> Marzouk Benali, Natural Resources Canada / Canmet ENERGY, Canada Paul Stuart, Polytechnique Montréal and Envertis Consulting, Canada	
			Authors	Speaker
Abstract ID	Title		Authors	Speaker
10:50-11:20	IBBC2025_53	<b>Development of Reliable Phase Equilibria Calculations to Improve the Design of Integrated Biorefineries: The Example of Fast Pyrolysis</b>	Axel Funke	<b>Axel Funke</b> , KIT - Karlsruhe Institute of Technology, Germany
11:20-11:50	IBBC2025_IO_120	<b>Fast Pyrolysis – Winning Economic Conditions for Emerging Fast Pyrolysis Technologies</b>	Paul Stuart	<b>Paul Stuart</b> , EnVertis Consulting and Polytechnique Montréal, Canada
11:50-12:05	IBBC2025_77	<b>An Early-Stage Framework For TRL-based Assessment of Risks, Mitigation Strategies, and Drivers In bio-based and Biorefinery Technologies</b>	Karam Moussa	<b>Karam Moussa</b> , Aalto University, Finland
12:05-12:20	IBBC2025_112	<b>Business Models in Recycling: Make or Coordinate</b>	Jawad Elomari	<b>Jawad Elomari</b> , SINTEF – Norwegian Foundation for Industrial and Technical Research, Norway
12:20-12:35	IBBC2025_33	<b>Green Biorefineries: Coupling Feed, Bioenergy and Biomaterials Production With Restorative Agriculture</b>	Sebnem Yilmaz Balaman	<b>Sebnem Yilmaz Balaman</b> , CIT - Chalmers Industrieknik, Sweden
12:35-12:50	IBBC2025_34	<b>Biogenic Carbon Flow Mapping in Swedish Agriculture</b>	Sebnem Yilmaz Balaman	<b>Sebnem Yilmaz Balaman</b> , CIT - Chalmers Industrieknik, Sweden
12:50-13:40	Lunch Break And Networking			



## #IBBC2025 Technical Sessions (14:30-17:40)

ROOM-D4	Session 05	Advanced Biofuels and Platform Chemicals for Industry Sectors	Session Moderators: Cemil Koyunoglu, Yalova University, Turkey Henrique Matos, University of Lisbon, Portugal	
	Abstract ID	Title	Authors	Speaker
14:30-14:50	IBBC2025_IO_91	<b>A Novel Process Technology Alternative to Address the Contaminant Challenge for Pretreating HEFA Feedstock for SAF Production</b>	Matthew Clingerman	<b>Matthew Clingerman</b> , Sulzer Chemtech, USA
14:50-15:10	IBBC2025_IO_92	<b>Pre-treatment of Waste Oils and Fats for Advanced Biofuels Production</b>	Raül Sanchis i Gonzàlez	<b>Raül Sanchis i Gonzàlez</b> , TECHNOLOGY srl, Italy
15:10-15:25	IBBC2025_23	<b>Evaluating Circularity and Sustainability Impacts of Renewable Liquid Fuel Production Pathways</b>	Cédric Diffo Téguia, Georgiana Bele, Marzouk Benali	<b>Marzouk Benali</b> , Natural Resources Canada / Canmet ENERGY, Canada
15:25-15:40	IBBC2025_06	<b>Comparative LCA of Municipal Solid Waste to Fischer-Tropsch Fuel Pathways and Tail Gas Utilization Strategies</b>	Jayakrishnan K. Ravindran, Duncan P. Fagg, Margarida C. Coelho	<b>Jayakrishnan Kaliyarmattom Ravindran</b> , University of Aveiro, Portugal
15:40-16:10	Coffee Break and Networking			

ROOM: D4	Session 06	Hydrogen Value Chain	Session Moderator: Isabel Cabrita, CERENA/IST, Portugal	
	Abstract ID	Title	Authors	Speaker
16:20-16:35	IBBC2025_IO_122	<b>Technologies and Challenges for a Sustainable Hydrogen Value Chain</b>	Carmen M. Rangel	<b>Carmen M. Rangel</b> , National Laboratory of Energy and Geology (LNEG), Portugal
16:35-16:50	IBBC2025_IO_123	<b>Connecting Bioeconomy and Hydrogen Value Chains: A Nordic Approach to a Sustainable and Independent Europe</b>	Jatta Jussila	<b>Jatta Jussila</b> , CLIC Innovation Oy, Finland
16:50-17:10	IBBC2025_IO_94	<b>Rational Design of Mixed-Oxides as Isothermal CO<sub>2</sub> Sorbents for Intensified Hydrogen Production from Biogenic Feedstocks</b>	Fanxing Li	<b>Fanxing Li</b> , North Carolina State University, United States
17:10-17:25	IBBC2025_22	<b>Integrated Hydrogen Production and Chemical Storage: Techno-economic and Carbon Intensity Perspectives</b>	Georgiana Bele, Cédric Diffo Téguia and Marzouk Benali	<b>Marzouk Benali</b> , Natural Resources Canada / Canmet ENERGY, Canada
17:25-17:40	IBBC2025_24	<b>Advancing Low-Carbon Hydrogen Deployment: Codes and Standards for a Sustainable Value Chain</b>	Olumoye [Moye] Ajao, Marzouk Benali	<b>Marzouk Benali</b> , Natural Resources Canada / Canmet ENERGY, Canada



# #IBBC2025 Technical Sessions (14:30-17:30)

ROOM: D5	IETS-TASK XXIV Special Session	Task XXIV: Process Integration for Industry Decarbonization	Session Moderators:	
			Authors	Speaker
14:30-14:45	IBBC_2025_114	Accelerating Industrial Decarbonization through Symbiosis: Insights from the Belgian Case	Rafailia Mitraki, Muhammad Salman, Daniel Flórez-Orrego, François Maréchal, Grégoire Léonard	Rafailia Mitraki, University of Liège, Belgium
14:45-15:00	IBBC_2025_115	Municipal Solid Waste Valorization Into Chemical Solvents for Industrial Symbiosis: Techno-Economic and Environmental Assessment	Oktay Boztaş, Daniel Flórez-Orrego, Meire Ellen Gorete Ribeiro Domingos, François Maréchal	Oktay Boztaş, EPFL, Switzerland
15:00-15:15	IBBC_2025_116	Transforming Whiskey Production into a Carbon-Negative and Energy-Flexible System via Heat Pumping and Renewable Energy Integration	Pullah Bhatnagar, Daniel Flórez-Orrego, Oktay Boztaş, Meire Ellen Ribeiro Domingos, François Maréchal	Pullah Bhatnagar, EPFL, Switzerland
15:15-15:30	IBBC_2025_117	Assessment of the Impact of Alternative Energy Resources in Colombia and their Relationship with Climate Change from a Thermodynamic Perspective and the Sustainable Development Goals	Pablo Silva Ortiz	Pablo Silva Ortiz, Industrial University of Santander (UIS), Colombia
15:30-15:45	IBBC_2025_118	Integration of Biomass Gasification and Power-to-Hydrogen for Enabling Carbon-Negative Aluminium Production	Dareen Dardor, Daniel Flórez-Orrego, Meire Ribeiro Domingos, Reginald Germanier, Manuele Margni, François Maréchal	Daniel Florez-Orreg, EPFL, Switzerland
15:45-16:00	IBBC_2025_119	Integrated Bio-waste and Biogenic CO2 Valorization, and Solid Oxide Cells for Enhanced Sustainable Natural Gas Production	Meire Ellen Ribeiro Domingos, Oktay Boztaş, Daniel Flórez-Orrego, Dareen Dardor, François Maréchal	Meire Ribeiro Domingos, IPSE group, EPFL Switzerland
16:00-16:30	Coffee Break and Networking			
ROOM: D5	Session 07	Digital Transformation in Biorefinery, Decision Support Systems and Scenario Analysis	Session Moderator:	
	Abstract ID	Title	Authors	Speaker
16:40-17:00	IBBC2025_IO_96	On the Road to Evaluate an Integrated Biomethane and Microbial Protein Production With a Prospective Holistic and Integrated LCRA Approach (pHILCSA)	Andrés Murillo, Heiko Wagner, Odorico Konrad, Munique Marder, Joice Mörs, Camila, Naiele Giovanella, Fernanda Nicolodi Brum, Fernanda Leonhardt, Rohan Karande, Alberto Bezama, Daniela Thrän	Andres Jose Murillo Merino, Helmholtz Centre for Environmental Research (UFZ), Germany
17:00-17:15	IBBC2025_19	Assessing the Potential for Bio-Aromatics Supply to the Netherlands: A Techno-Economic and Regional Supply Chain Perspective	Puck Wammes, Milkica Jovicic, Tonny Manalal, Ayla Uslu, Jonathan Moncada Botero	Puck Wammes, TNO Energy Transition Studies, Netherlands



# #IBBC2025 Technical Sessions (14:30-17:10)

Main Hall (J, L)	Session 08	Project Financing Options	Session Moderator: Paulo Martins, Directorate-General for Energy and Geology (DGEG), Portugal	
	Abstract ID	Title	Authors	Speaker
14:30-14:45	IBBC2025_IO_125	Exploring CETPartnership: Funding Opportunities and How to Join	Nina Dayana Berger	<b>Nina Dayana Berger</b> , Nordic Energy Research, CETPartnership, Norway
14:45-15:00	IBBC2025_IO_105	The Fundamentals of Project Finance and Using It to Fund Biogas Projects	Michael Ware	<b>Michael Ware</b> , Green Giraffe, Netherlands
15:00-15:15	IBBC2025_IO_97	Biogas Production Facilities - The Funding Choices & Financing Benchmarks for Owners	Andrew Rice	<b>Andrew Rice</b> , Global NRG Renewables & Global NRG Advisory, United Kingdom
15:15-15:30	IBBC2025_IO_106	What's Next for the Energy Sector in Horizon Europe Cluster 5 (2026–2027) and a Glimpse of the Future	Cristiana Leandro	<b>Cristiana Leandro</b> , ANI - National Innovation Agency, Portugal
15:30-15:45	IBBC2025_IO_121	Circular Design and Systems Thinking for Resilient and Profitable Biorefinery Operations	Ricardo Eiras	<b>Ricardo Eiras</b> , TNE PLC, Portugal
15:50-16:20		Coffee Break and Networking		

16:30-17:10

## Panel Discussion

### Project Financing Options – Enabling Bioenergy Innovation through Strategic Funding & Investment

**Moderator:** Andrew Rice, Global NRG Renewables & Global NRG Advisory, United Kingdom

**Panelists:** Michael Ware (Green Giraffe, Netherlands) · Cristiana Leandro (ANI – National Innovation Agency, Portugal) · Ricardo Eiras (TNE PLC, Portugal) · *Nina Dayana Berger (CETPartnership, Norway)*

#### Session Highlights:

- Insights into traditional and emerging financing models project debt, equity partnerships, green bonds, blended finance, and infrastructure funds.
- Understanding how investors assess bankability, risk, and credit enhancement for bioenergy and biogas ventures.
- Examination of project finance fundamentals and how they differ for bioenergy compared to other renewable sectors.
- Practical examples of successful deal structures and funding mechanisms used to scale bioenergy projects.
- Overview of EU funding opportunities within Horizon Europe Cluster 5 (2026–2027) and the forthcoming Framework Programme 10 (FP10).
- Discussion on strategic investment pathways for next-generation biorefineries and industrial-scale deployment.
- Perspectives on geopolitical factors and evolving funding landscapes influencing global bioenergy innovation.

# Poster Session (17:45-18:45)@MC

17:30-18:30	Poster ID	Title	Authors	Presenter
	Abstract ID			
P1	IBBC2025-02	<b>Effect of Operational Parameters on the Alcohol-Based Liquefaction of <i>Sargassum fluitans</i> and <i>Sargassum natans</i></b>	Katerin J. Páez M., Loubna Hadhoum, Khaled Loubar, Morgane Briand	<b>Katerin Julieth Paez Moreno</b> , IMT Atlantique, France
P2	IBBC2025_16	<b>Projecting Future Costs of Methanol Production From Biogenic CO<sub>2</sub> Sources Using Component-Based Learning Rates</b>	Eliana Lozano Sanchez, Ajay Koushik, Andrea Ramirez Ramirez	<b>Eliana Lozano</b> , Aalborg University, Denmark
P3	IBBC2025_21	<b>Circular Bioeconomy Strategies: Microalgae-Driven Bioremediation and Bioenergy Recovery From Anaerobic Digestate</b>	Guilherme Silva, Tiago Lopes, Alberto Reis, Natalia Renato	<b>Guilherme Henrique da Silva</b> , National Laboratory of Energy and Geology (LNEG), Portugal
P4	IBBC2025_27	<b>Experimental Optimization on Hemicellulosic Sugars Production From Sunflower Stalks Pretreated by Steam Explosion</b>	Alfonso M. Vidal, Francisco Espínola, Cristóbal Cara, Raquel García-Barranco, José Miguel Oliva, Cristina Álvarez, Encarnación Ruiz	<b>Francisco Espínola</b> , University of Jaén, Spain
P5	IBBC2025_42	<b>Autohydrolysis of Camellia Seed Husks: Dual Valorization for Bioactive Compounds Extraction and Bioethanol Production</b>	F. Díaz, R. Ferreira, K.D. González-Gloria, N. Flórez-Fernández, R. Silva-Reis, Rosa M. Rodríguez-Jasso, Héctor A. Ruiz, S. Cardoso, M. D. Torres, B. Piñeiro-Lago, H. Domínguez	<b>Francisco Díaz</b> , University of Vigo, Spain
P6	IBBC2025_44	<b>Anaerobic Co-digestion of Insect Frass and Brewers' Spent Grain: Assessing Biomethane Potential for Circular Bioenergy Systems</b>	Miguel Nogueira, Mariana Rodriguez, Elizabete Figueiredo, Rita Fragoso	<b>Miguel Nogueira</b> , University of Lisbon, Portugal
P7	IBBC2025_46	<b>Genome Sequencing of <i>Kluyveromyces marxianus</i> CECT 10875 and Differential Transcriptomic Response During Bioethanol Production in Presence of Lignocellulosic-Derived Inhibitors and Insoluble Solids</b>	M.F. Blanco, M. García, I. de la Torre, R. Iglesias, J.L García, J.M. Oliva, A.D. Moreno	<b>Manuel Francisco Blanco Roldán</b> , Research Centre for Energy, Environment and Technology (CIEMAT), Spain
P8	IBBC2025_58	<b>Hybrid Carrageenan-Based Films Impregnated With Lipid Fractions for Smart Food Packaging</b>	S. Oliveira, I. Sousa, A. Raymundo, H. Domínguez, M.D. Torres	<b>María Dolores Torres Pérez</b> , University of Vigo, Spain
P9	IBBC2025_67	<b>Decision Support Systems and Scenario Analysis for Circular Migration and Green Recovery</b>	Natalia Antoniuk	<b>Natalia Antoniuk</b> , National Academy of Management, Ukraine
P10	IBBC2025_10	<b>Production of Hydrogen and Combustible Gases from Sports Textile Waste via Pyrolysis Using Low-Cost Char-Based Nickel Catalysts.</b>	Maria Ángeles Martín-Lara, Gabriel Blázquez, Lourdes Arjona, Mario J. Muñoz-Batista, Rafael R. Solís, Mónica Calero	<b>Maria Ángeles Martín-Lara</b> , University of Granada, Spain
P11	IBBC2025_11	<b>Leaching Behavior of Chemically Activated Char from Cotton Textile Waste</b>	Mónica Calero, Lourdes Arjona, M. Alejandra Quintana, Gabriel Blázquez, Rafael R. Solís, Antonio Pérez, María Ángeles Martín-Lara	<b>Mónica Calero</b> , University of Granada, Spain



# Poster Session

P12	IBBC2025_35	<b>Alkaline Extrusion as Pretreatment in a Sunflower Biomass Biorefinery</b>	Anderson Correa, José Miguel Oliva, Cristina Álvarez, Ana Susmozas, Raquel Iglesias, Alfonso Vidal, Encarnación Ruiz, Daniel Pasquini, Milla Alves Baffi, Aleta Duque	<b>Anderson Correa</b> , Federal University of Uberlândia, Brazil
P13	IBBC2025_38	<b>Experimental Study of Biomass Gasification in a Prototype Bubbling Fluidized Bed Reactor</b>	Marianna Shevchenko, Márcia C. Santos, Luís António da Cruz Tarelho	<b>Marianna Shevchenko</b> , University of Aveiro, Portugal
P14	IBBC2025_39	<b>Antarctic Yeast <i>Naganishia adeliensis</i> L95 as a Potential Microorganism for Bioprocesses: Growth and Nutritional Response on Sugarcane Bagasse and Straw Hemicellulosic Hydrolysate</b>	Fanny Machado Jofre, Fernando Calheiros, Gabriele Santana de Farias, Lara Durães Sette, Adalberto Pessoa Junior, Valker Araújo Feitosa, Júlio César dos Santos, Maria das Graças de Almeida Felipe	<b>Fanny Machado Jofre</b> , University of São Paulo (USP), Brazil
P15	IBBC2025_65	<b>Selective Fractionation of Hemicelluloses From Residual Industrial Eucalyptus Biomass Using Autohydrolysis</b>	Pedro L. Martins, Adilaize M. Santos, Lara Justino, Luís C. Duarte, Florbela Carvalheiro	<b>Pedro L. Martins</b> , National Laboratory of Energy and Geology (LNEG), Portugal
P16	IBBC2025_68	<b>Continuous Conversion of Hemicellulosic Oligosaccharides Into Monosaccharides, Furans and Aliphatic Acids</b>	Mafalda Batalha, Pedro L. Martins, Miguel Gomes, Margarida Mateus, M. Joana Neiva-Correia, Florbela Carvalheiro, Luís C. Duarte	<b>Luis C. Duarte</b> , National Laboratory of Energy and Geology (LNEG), Portugal
P17	IBBC2025_69	<b>Acid-Based NADES for Eucalyptus Fines Upgrading: The Effect of Anti-Solvent in Cellulose Enrichment and Lignin Recovery</b>	Iván Costa-Trigo, Eliana De Carvalho-Lopes, Amir Mahan Ziae, Pedro L. Martins, Luís C. Duarte, Florbela Carvalheiro	<b>Florbela Carvalheiro</b> , National Laboratory of Energy and Geology (LNEG), Portugal
P18	IBBC2025_75	<b>The Role of the Ethanol-Based Organosolv Pretreatment on the Fractionation of Pulp Industry Eucalyptus Residues</b>	Pedro L. Martins, Catarina Silva, Lara Justino, Luísa B. Roseiro, Cristina Oliveira, Luís C. Duarte, Florbela Carvalheiro	<b>Florbela Carvalheiro</b> , National Laboratory of Energy and Geology (LNEG), Portugal
P19	IBBC2025_70	<b>Mild Alkaline Pretreatment of Eucalyptus biomass: Process optimization</b>	Pedro L. Martins, Catarina Martins, João M. Costa, Iván Costa-Trigo, Luísa B. Roseiro, Florbela Carvalheiro, Luís C. Duarte	<b>Luis C. Duarte</b> , National Laboratory of Energy and Geology (LNEG), Portugal
P20	IBBC2025_73	<b>Screening of <i>Bacillus</i> Strains to Produce SAF Precursor and Biosurfactants From Chestnut Burrs Hemicellulosic Hydrolysate</b>	Iván Costa-Trigo, María Guadalupe Morán-Aguilar, José Manuel Domínguez	<b>Iván Costa Trigo</b> , National Laboratory of Energy and Geology (LNEG), Portugal
P21	IBBC2025_41	<b>Remote Sensing of Agricultural Crop Residues in Baixo Mondego (Portugal): A Systematic Review on Bioenergy Potential and Limitations</b>	Luís Coelho, Hélder Viana	<b>Helder Viana</b> , Polytechnic Institute of Viseu, Portugal
P22	IBBC2025_99	<b>Seed to Fuel Initiative: Evaluating <i>Moringa oleifera</i> as a Sustainable Feedstock for Biodiesel and Aviation Biofuels</b>	Avni Gupta, Richard Webster, Baoxiu Qi, N Manikanda Boopathi, Vineet Munjal, Rachael Catherine Symonds	<b>Avni Gupta</b> , Liverpool John Moores University, United Kingdom

# Poster Session

P23	IBBC2025_103	<b>Experimental Study on the Upgrading of Synthetic CH<sub>4</sub>/CO<sub>2</sub> Biogas Mixtures Using a Carbon-Based Ceramic Membrane</b>	<i>Pedro Miguel Rodrigues, Tiago Mendes, A. Catarina Faria</i>	<b>Ana Catarina Faria, Fraunhofer Portugal AWAM, Portugal</b>
P24	IBBC2025_79	<b>Selective Electromigration of Acetate from Olive-Pomace Lignocellulosic Hydrolysate Using an Anion-Exchange Membrane</b>	<i>A. I. Arroyo-Escoto, S. de Souza Queiroz, B. Li, S. I. Mussatto, M. C. Fernandes, Y. Zhang</i>	<b>Alonso Israel Arroyo Escoto, CEBAL-Center for Agricultural and Agri-Food Biotechnology of Alentejo, Portugal</b>
P25	IBBC2025_72	<b>Improving Biodiesel Sustainability by Double-Cropping Oilseed and Oil-Less Seed Cake Recovery: A Field Approach in Northern Italy</b>	<i>Matteo Ceriani, Giuliana D'Imporzano, Patrizia De Nisi, Martina Ghidoli, Irene Rapone, Salvatore Pilu, Fabrizio Adani</i>	<b>Matteo Ceriani, University of Milan, Italy</b>
P26	IBBC2025_47	<b>Biotechnological Potential of Antarctic Yeast Strains for Xylose-to-Xylitol Conversion</b>	<i>Bárbara do Nascimento, Daiane Meneguzzi, Marília dos Santos Ferreira, Fanny Machado Jofre, Lara Durães Sette, Adalberto Pessoa Junior, Valker Araújo Feitosa, Maria das Graças de Almeida Felipe</i>	<b>Valker Araújo Feitosa, University of São Paulo( USP ), Brazil</b>
P27	IBBC2025_12	<b>The Biotechnological Production of HMFO (5-Hydroxymethylfurfural Oxidase) Enzyme Paves the Way for a Sustainable Bioplastics Industry</b>	<i>Aroa Carballido, Ana Arias, Juan Carro, Ángel T. Martínez, Francisco Javier Ruiz-Dueñas, Gloria Caminal, Gloria González, Marina Guillen, Oscar Romero, Kirian Bonet, Garazi Ortiz-Orruño, Darly Concha, Gumerindo Feijoo, María Teresa Moreira</i>	<b>Ana Arias Calvo, University of Santiago de Compostela, Spain</b>
P28	IBBC2025_123	<b>Small-Scale Biorefineries Based on Integral Use of Local Fruit in the Colombian Forests</b>	<i>Carlos Ariel Cardona, Carlos Eduardo Orrego, Arturo Samuel Gómez, Mariana Ortiz, Juan David Galvis, Natalia Salgado, Jaime Andres Carmona, Gineth Ismar De la Cruz, Johan Manuel Duran, Jose Vidal Castañeda, Olga Alexandra Mimalchi</i>	<b>Carlos Ariel Cardona, National University of Colombia, Colombia</b>
P29	IBBC2025_59	<b>Identification and Cloning of a Termite Endoglucanase for Sustainable Nanocellulose Production and Its Application in Advanced Materials</b>	<i>Lucía Feijoo-Siota, María Dolores Pejenaute-Ochoa, Xabier Roldán-Rodríguez, Noelia Loureiro, Julio Fierro Fernández and Cristina Martínez-García</i>	<b>Noelia Loureiro, CETIM Research Centre, Spain</b>
P30	IBBC2025_124	<b>Sustainable Analysis of Processes for Avocado Waste Through Life Cycle Assessment</b>	<i>Carolina João, Henrique A. Matos</i>	<b>Carolina João, University of Lisbon, Portugal</b>



# Day- 3, December 5<sup>th</sup>, 2025

---

## #IBBC2025 Technical Workshops@Main Hall(J, L)

**09:00-10:30      IBBC2025 Workshop: 1**

### **Decision Support Systems and Scenario Analysis for Biorefinery Development**

**Organizer: Marzouk Benali**, Natural Resources Canada, Canada

**10:30-11:00 - Coffee Break and Networking @MC**

**11:00-12:30      IBBC2025 Workshop: 2**

### **Management of Biomass Supply Chains: Stakeholders, Risks, and Value Creation**

**Organizer: Sebnem Yilmaz Balaman**, Chalmers Industrial Technology, Sweden

**12:30-13:00      Closing Keynote Remarks**

**Marzouk Benali**, Natural Resources Canada, Canada

**Tânia Carraquico**, President, ISEC Lisboa, Portugal

**Paulo Gil Martins**, Dean of the School of Business, Engineering and Aeronautics, ISEC Lisboa, Portugal

**13:00-14:00 - Lunch Break and Networking @MC**

**15:00-17:00      Technical Visit: The Navigator Company**

- Transportation from the conference venue to The Navigator Company facilities.
- Guided tour of the facilities, focusing on their bioenergy and sustainability practices.
- Q&A session with the company's technicians and managers.
- Return to the conference venue or another central point in Lisbon.

# Guidelines for Professional Conduct and Compliance at IBBC2025

- Professionalism and Respect:** Participants are expected to maintain a high level of professionalism and treat everyone with respect and dignity, regardless of their background, ethnicity, gender, age, or other factors.
- Intellectual Property:** Participants should respect the intellectual property rights of others, including copyrights, trademarks, and patents. Any unauthorized use of another person's intellectual property is strictly prohibited.
- Confidentiality:** Please beware that any information disclosed during the event, namely under public presentations, either oral or poster, cannot be treated as confidential.
- Compliance with Laws and Regulations:** Participants are required to comply with all applicable laws and regulations, including those related to data privacy, anti-discrimination, and anti-harassment.
- Safety and Security:** Participants should take reasonable measures to ensure their own safety and the safety of others, including reporting any suspicious behaviour or security concerns to the organizers or appropriate authorities.
- Code of Conduct:** Participants are expected to abide by the #IBBC2025 Code of Conduct, which prohibits discrimination, harassment, and any other inappropriate behaviour. Any violations of the Code of Conduct may result in disciplinary action, up to and including expulsion from the event.
- Photography and Videography:** Participants should obtain the consent of any individuals who may be photographed or recorded during the event. Participants should also respect the privacy of others and refrain from taking photos or videos in areas where photography or videography is prohibited.
- Compliance with Event Policies:** Participants should comply with all event policies, including those related to registration, attendance, and behaviour.

By participating in #IBBC2025, you agree to abide by these guidelines and any other applicable policies or regulations. Failure to comply with these guidelines or any other event.



### Organizing Partners



### Conference Venue

ISEC Lisboa - Instituto Superior de  
Educacao e Ciencias  
Address: Alameda das Linhas de Tor-  
res 179, 1750-142 Lisboa, Portugal

Please drop a message on WhatsApp (+91 7675083208) for any inquiries related to the program, logistics, venue, or to know any other important information. Immediate assistance will be provided.