

# **3rd International Conference on Biomass Utilization and Sustainable Energy 2023 (ICoBiomassSE 2023)**

**Monday, 4 September 2023 - Tuesday, 5 September 2023**

**World Trade Centre (WTC)**

## **Topics**

## **SUSTAINABLE BIOMASS RESOURCES FOR DECARBONISING THE ECONOMY**

Biomass potentials and biomass production system  
Novel crops and energy grasses  
Biomass residues to products and food  
Algae and aquatic biomass production systems  
Crops from marginal land  
Postharvest technology for biomass storage system  
Phyto-remediation solutions for contaminated lands

## **BIOMASS CONVERSION TECHNOLOGIES FOR BIOENERGY**

Production and supply of solid fuels and intermediates  
Oil-based and renewable hydrocarbon biofuels  
Biofuels (biogasoline, renewable diesel, renewable jet fuel) from lipids  
Cellulosic biofuel production  
Biomass to electricity generation  
Biomass chipping, pelletising, briquetting  
Production and characterisation of solid fuels from biomass feedstocks  
Advanced combustion systems  
Artificial intelligence in biomass conversion  
Anaerobic digestion for biogas and biomethane production  
Advanced plant and fermenter concepts

## **BIOMASS CONVERSION TO INTERMEDIATES AND PRODUCTS**

Biomass to Advanced Biomaterials  
Production of thermally treated solid fuels and products  
Production of bio-based chemicals and materials  
Hydrothermal processing of biomass  
Value-added compounds extraction  
Biomass for Wastewater Treatment  
Energy balance and techno-economic analysis.  
Hydrotreating, Biological sugar upgrading, biocatalytic processes,  
FT-liquids / Biomass to Liquids (BtL), Hydrothermal processing. Hydrotreated  
Vegetable Oil (HVO) / Hydroprocessed Esters and Fatty Acids (HEFA);

Biorefineries

## **BIOECONOMY SUSTAINABILITY, IMPACTS AND POLICIES**

National and international sustainability standards  
Competition and risk mitigation of the increased use of biomass  
Bioenergy, food security and local, traditional use of biomass  
Impacts on land, agricultural intensification, water and air emissions from biomass production and conversion;  
Land use and land governance;  
Life Cycle Assessment.  
Climate impacts and GHG performance  
Biomass utilisation concepts for bioenergy and biobased products  
Strategies for the integration of bioenergy into a bio-based economy.  
Approaches for efficient management of natural resources (land and water)

## **BIOENERGY INTEGRATION**

Strategies for biomass integrated into energy systems  
National strategies for the integration of bioenergy and high share of renewables  
Integrated bioenergy planning  
Concepts and approaches for flexible bioenergy integration  
Renewable energy communities and buildings  
Bioenergy and off-grid systems  
Bioenergy in integrated systems  
Sustainable bioenergy solutions for local communities  
Bioenergy in rural electrification concepts  
Hydrogen production, storage and use;  
e-fuel production and use.  
Market uptake initiatives and policies;  
Initiatives for decarbonisation of the economy;  
Challenges of scale-up and market implementation of new technologies;  
Risk assessment of financing;  
Biomass trade, contracting and logistics;  
Innovative business models.  
R&D strategies for international cooperation;  
Partnerships programmes for supply security.