19-20.11.2026
Płock

BIOMASS

ENERGY FOR A RESPONSIBLE FUTURE
6TH SCIENTIFIC CONFERENCE

GUIDELINES FOR ABSTRACT SUBMISSION



TOPIC GROUPS
FOR THE POSTER SESSION

TOPIC 1: ADVANCED CONVERSION TECHNOLOGIES, BIOGAS, AND INDUSTRIAL INTEGRATION

- Thermochemical conversion processes and new transport fuels: pyrolysis, gasification, HVO, SAF.
- Biogas and biomethane development: innovations in anaerobic digestion, waste substrates, and digestate.
- Digitalization, artificial intelligence, and advanced system modeling: AI tools, digital twins, advanced simulation and analytical tools, process optimization.
- Integration of biomass into energy systems: use of bioenergy in district heating, power-to-gas systems, decarbonisation of gas networks, and hybrid energy systems.

TOPIC 2: BIOREFINERIES, GREEN PETROCHEMICALS, AND ADVANCED MATERIALS

- Biorefineries and cascade processing of lignocellulose: separation of cellulose, hemicellulose, and lignin; optimization of extraction and fractionation processes.
- Valorization of lignin as a chemical platform: isolation of lignin as a precursor for high-value chemicals, plastics, and monomers.
- Sustainable biomaterials and new petrochemicals: utilization of biochar, innovative biomaterials replacing fossil-based products.
- Processes for obtaining biochemicals from waste: production of high-value compounds, such as lactic acid, biomonomers, or 5-HMF from agricultural and industrial waste.

TOPIC 3: RESOURCES, SUPPLY CHAINS, AND SUSTAINABLE BIOMASS PROCUREMENT

- Availability, logistics, and supply chain optimization: modern models for collection, storage, and minimizing bottlenecks in large-scale supply chains.
- Energy crops and marginal lands: the potential of cellulosic and oilseed crops (e.g., camelina) and the use of degraded lands.
- Aquatic biomass and algae production systems: algae as feedstocks for energy, fuels, and bioproducts.
- Municipal and industrial waste as a feedstock: separation of municipal solid waste, sewage sludge, and waste from the pulp and paper industry.

TOPIC 4: REGULATORY AND MARKET CONDITIONS AND SUSTAINABILITY ASSESSMENT

- Policy, certification, and financing: implementation of RED II/RED III targets, biomass certification systems (KZR, SGS), and financial support instruments.
- Environmental impact and life cycle assessment (LCA): environmental aspects of biomass production, biodiversity conservation, LCA for products (e.g., biostimulants), and ecotoxicity.
- Carbon footprint and greenhouse gas (GHG) emissions accounting: climate impact, carbon footprint calculation (including for transport), carbon sequestration, and the impact of indirect land-use change (ILUC).

GUIDELINES FOR ABSTRACT SUBMISSION

We encourage you to present your work at the **6th ORLEN Scientific Conference** titled **"Biomass – Energy for a Responsible Future"**, which will take place on November 19–20, 2026, in Płock. The conference provides a platform for the exchange of knowledge and experience in the fields of bioenergy, advanced biofuels, and green chemistry. We invite doctoral students, researchers, industry experts, and technology developers to submit abstracts for the poster presentation session.

PLEASE SUBMIT AN ABSTRACT RELATED TO ONE OF THE CONFERENCE'S FOUR MAIN TOPIC GROUPS:

I. **Topic 1:** Advanced processing technologies, biogas, and system integration (including pyrolysis, SAF/HVO, artificial intelligence/digital twins, CFD modeling, and integration with the power grid).
II. **Topic 2:** Biorefineries, green petrochemicals, and advanced biomaterials (including lignin valorization, cascade use of lignocellulose, and biochemicals from waste).
III. **Topic 3:** Resources, supply chains, and sustainable biomass procurement (including logistics, marginal lands, aquatic biomass/algae, and waste streams).
IV. **Topic 4:** Regulatory frameworks, market dynamics, and sustainability assessment (including RED III, LCA, carbon footprint, and greenhouse gas accounting).

ABSTRACT should present original research findings, new industrial achievements, or innovative theoretical considerations. It must be written in English. Please use the official ORLEN abstract template (.docx). The document must fit on one A4 page.

KEY DATES:

- **October 30, 2026:** deadline for abstract submissions.
- **November 19–20, 2026:** 6th ORLEN Scientific Conference and poster session.

IMPORTANT INFORMATION FOR AUTHORS: Once your abstract has been accepted, you will receive a special ORLEN poster template (.pptx) to help you prepare the final version of your file. Use of this template is mandatory to ensure visual consistency across the session.

ADDITIONAL GUIDELINES FOR PREPARING POSTERS:

- **Format and template:** Posters must be prepared in English using the official ORLEN poster template (.pptx), which will be provided upon approval of the submission. The required physical format is A0 size in portrait orientation.
- **Printing and setup:** Authors are responsible for printing their posters in the required format (A0 size, portrait orientation) and delivering them directly to the conference venue. The organizer will provide display boards and all necessary setup materials on-site. Please ensure that the poster is ready before the designated presentation time on the first day.
- **Schedule and presentation time:** Posters will be displayed in the main hallway throughout the two-day conference (November 19–20, 2026). Authors are required to be present at their posters during the designated presentation time to answer questions and network.