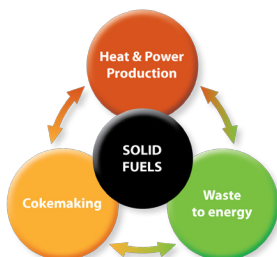




Institute for Chemical Processing of Coal (IChPW), as the leading research and development Centre in Poland participates in the realization of research projects of priority importance to economy, which are dedicated to the efficient use of fossil, renewable and alternative solid fuels.

COMPETENCES AND STRATEGIC RESEARCH AREAS

The prior strategy of the Institute is to gear its research field to the development of low- and zero-emission heat and electrical energy production technologies, including clean coal technologies, CO₂ capture and storage (CCS) and utilization (CCU) systems, as well as energy production from renewable resources. According to the Long-Term Research Program of the Institute the undertaken activities are focused on:



- Thermochemical conversion of solid fuels for energy and chemical industries
- Based on crude and processed solid fuels for emission elimination
- Municipal wastes management in the close cycle systems – waste to energy or waste to substrate
- Energy storage with the use of chemical processes and syntheses
- Effective and environmentally safe coke making and coal derivatives processing industries
- Perspective processes for energy production and environmental engineering

RESEARCH INFRASTRUCTURE CLEAN COAL TECHNOLOGY CENTRE (CCTW)

Clean Coal Technology Centre located in the IChPW is a modern and unique in the Poland and Europe research centre allowing for effective and comprehensive development of new solid fuels conversion processes. It might be used for complete research cycle from laboratory to pilot plant scale.

R&D infrastructure of CCTW includes:

- **Accredited laboratories** for analysis of solid fuels and their products from thermal conversion processes.
- **Modern Laboratory for Thermal Analysis** that allows the conversion of solid fuels at high temperatures and pressures (1600 °C, 50 bar)
- **Bench scale facilities** to test coal and biomass thermal treatment in periodic and continuous operation mode
- **Pilot plants** for testing the **atmospheric and pressurized gasification** of coal and biomass in the circulating fluidized bed reactor (200 kg/h of coal)
- **Pilot plant for biomass gasification in the fixed bed reactor** with capacity of 20 kg/h of fuel
- **Testing stands** for research on **syngas cleaning** and conversion (dedicated for various processes)
- **Pilot plants for CO₂ capture**, including **mobile system** for use on **real gases in power plant**
- Stand for testing **chemical looping** and **calcium looping processes**

RESEARCH AND COOPERATION OPPORTUNITIES

Clean Coal Technology Centre located in the IChPW is ready for cooperation in the research projects for po-wer generation and chemical industry. We provide knowledge, experience and the modern research facilities in the research projects in the full range of content from the conceptual studies, process analyzes up to the pilot-scale testing. We have long-term experience in the national and the international (EC research programs) projects, both realization and leading.

WE INVITE TO COOPERATION

