VSB TUO | CEET | INSTITUTE OF ENVIRONMENTAL TECHNOLOGY

LARGE RESEARCH INFRASTRUCTURES

BULLETIN2025

WHAT HAPPENED IN LARGE RESEARCH INFRASTRUCTURE ENREGAT - ENERGY WASTE RECOVERY AND GAS TREATMENT IN 2025

The documentation was submitted for the international peer-review evaluation of large research infrastructures of the Czech Republic in 2026. In 2026, several key research projects focused on sustainable energy technologies were launched and are currently underway.


Incineration unit

Project **26-19910L** – Investigation of the Mechanisms and Efficiency of Green Hydrogen Production as a By-product of CO_2 Photoreduction in Aqueous and Gaseous Phases exploring the mechanisms and efficiency of green hydrogen generation as a by-product of CO_2 photoreduction.

Project **TQ26000025** -Advanced Processing of Condensate from the Combustion of Gaseous Fuels with Increased Hydrogen Content (HyCoBox) on advanced treatment of condensates from hydrogen-rich gaseous fuel combustion, aiming to improve environmental performance and resource utilization.

Project **TQ06000004** – New Integration of Gasification and Electrolysis for the Production of Sustainable Fuels (GeniusFuels) with international involvement integrates advanced solid oxide electrolysis (SOEC) with biomass gasification, enabling the production of clean syngas.

FUNDED BY GAČR CZECH SCIENCE FOUNDATION

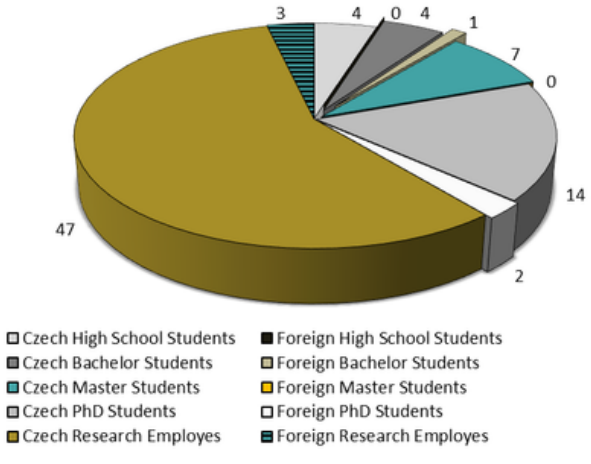
GeniusFuels

cet Partnership

TA ČR Technology Agency of the Czech Republic

Use of LRI ENREGAT within open access

LRI ENREGAT was provided to **82** users in the open access mode (72 users from VSB-TUO).



Cooperation with industry/ business community

The ENREGAT infrastructure was used for **42** projects of contractual and **11** projects of collaborative research.

Scientific outputs

ENREGAT operators and users published **36** excellent articles in journals with Q1 and Q2 ranking (WoS).

11 students finished their theses using ENREGAT.

1 professional conference was organized to share knowledge and experience. Additionally, **1** verified technology, **3** functioning samples and **1** prototype were created.

MINISTRY OF EDUCATION, YOUTH AND SPORTS

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Further information

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