Center for Development, Demonstrations and Training for Carbon-Free Technologies

until 06/2026

32.559.359 EUR

JTF & cohesions funds & NIC cofinancing

KEMIJSKI INŠTITUT

Center za razvoj, demonstracije in usposabljanje za brezogljične tehnologije

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Vision

To create conditions for the development of modern technologies for energy conversion and storage

To contribute to the development of the region and beyond in the field of green transition technologies

To become a globally recognized center as a technology transfer bridge

Source: Museum Zagorje

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What

Modern and top tier research center, part of the National Institute of Chemistry

Two independent labs will operate within the center.

More than 2.000 m^2 advanced research infrastructure linked to the research environment of the National Institute of Chemistry

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Goals

Pilot testing for industrial innovation

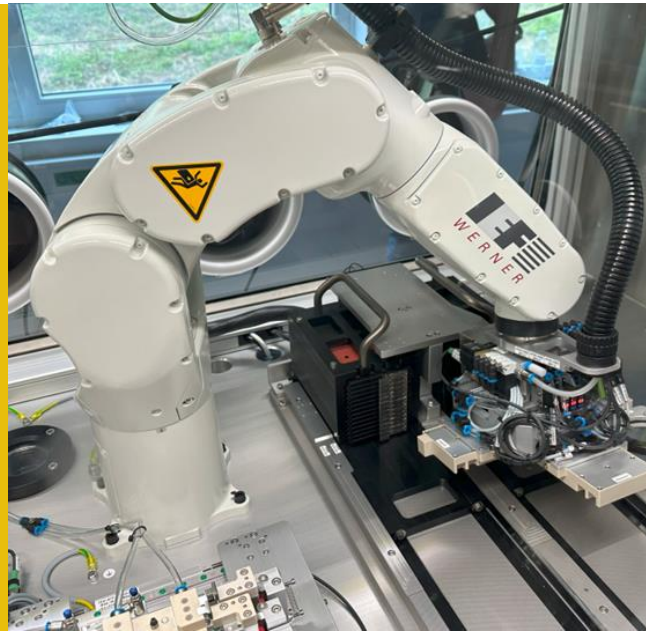
Education and training on zero carbon technologies

Linking with international research communities

Linking with the economy

Setting up novel research infrastructure in Slovenia and the wider region

Accelerating transfer of knowledge from research units into industry and commercial use



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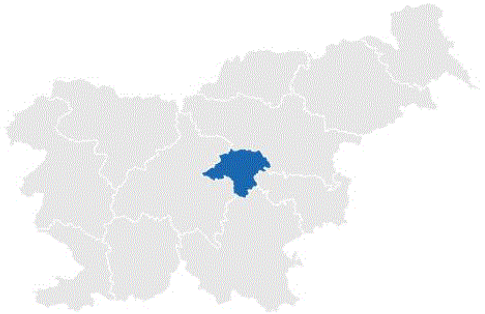
Where

Kisovec
Zasavje region

Fast access to
Ljubljana in Maribor
(University cities) and other
important cities (Graz,
Zagreb, Munchen, Budapest
Northern Italy,…..)



Zasavje region

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Structure

Laboratory for battery development and testing

Laboratory for demonstration of H_2 in CO_2 technologies

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Laboratory for battery testing and development

- Pilot-scale production of prismatic and pouch cells (10 Ah);
- Risk reduction for battery manufacturers through advanced materials evaluation;
- Faster commercialization of novel battery chemistries from academia to prototypes;
- Validation of cell lifetime, ageing, and degradation performance;
- Matching battery chemistry and performance to targeted market applications;

Addapted from https://liplanet.eu/

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Laboratory for demonstration of H_2 and CO_2 technologies

- Development, synthesis, preparation and characterization of materials, especially catalysts, sorbents, electrodes and membranes
- Electro –chemical/ -catalytic production of hydrogen
- Processes for the transformation of hydrogen and carbon dioxide
- Including support to cross-cutting topics of renewable energy use and challenges of waste valorization.

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