

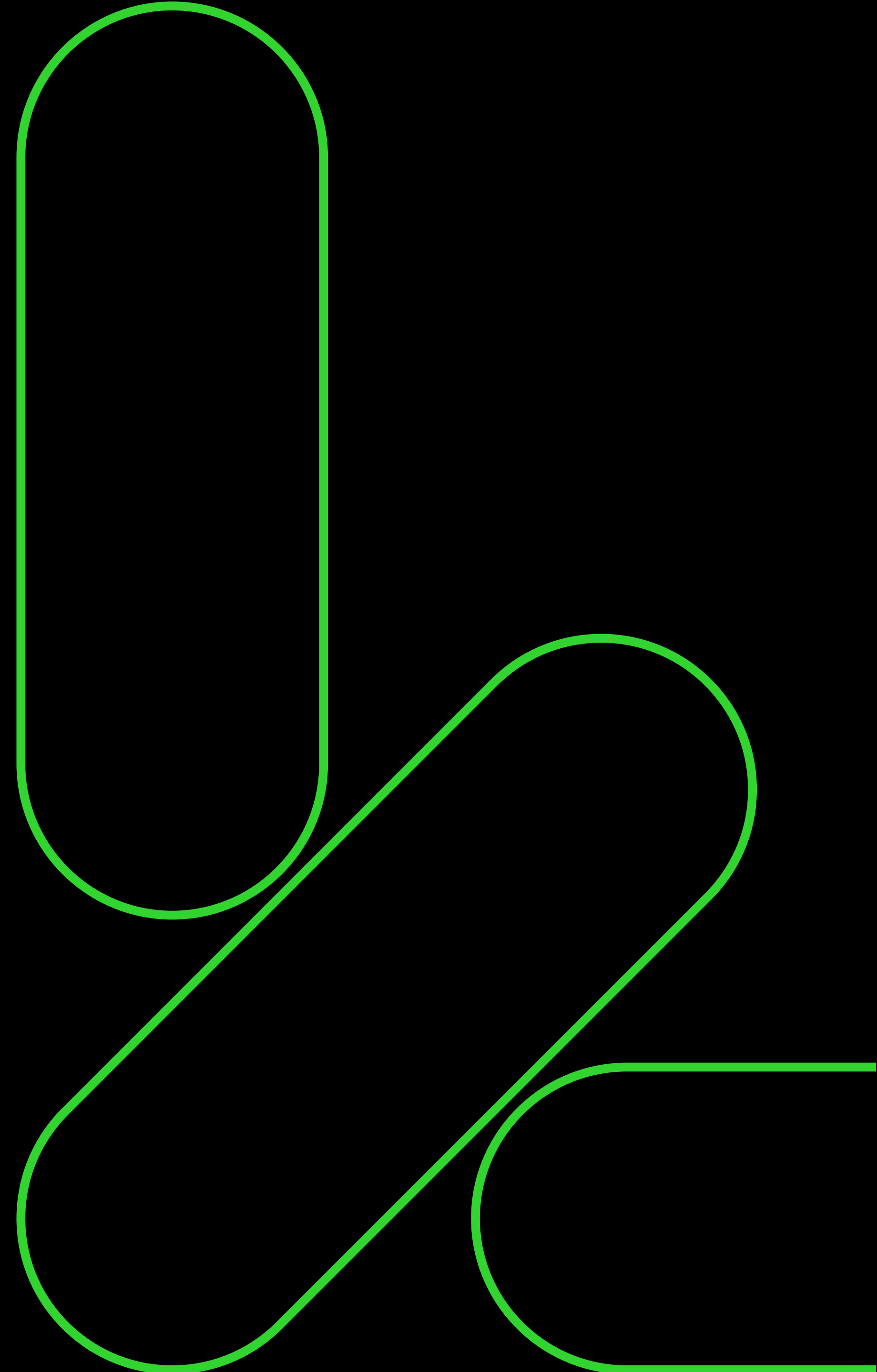
Łukasiewicz

Institute
of Ceramics
and Building
Materials

Fostering initiatives and supporting activities within the realm of industrial transformation to address the current challenges of the global economy

Karolina Dudek

Łukasiewicz Research Network – Institute of Ceramics and Building Materials, **Center of Refractory Materials**



TOPICS TO EXPLORE

1

H₂ as a promising fuel

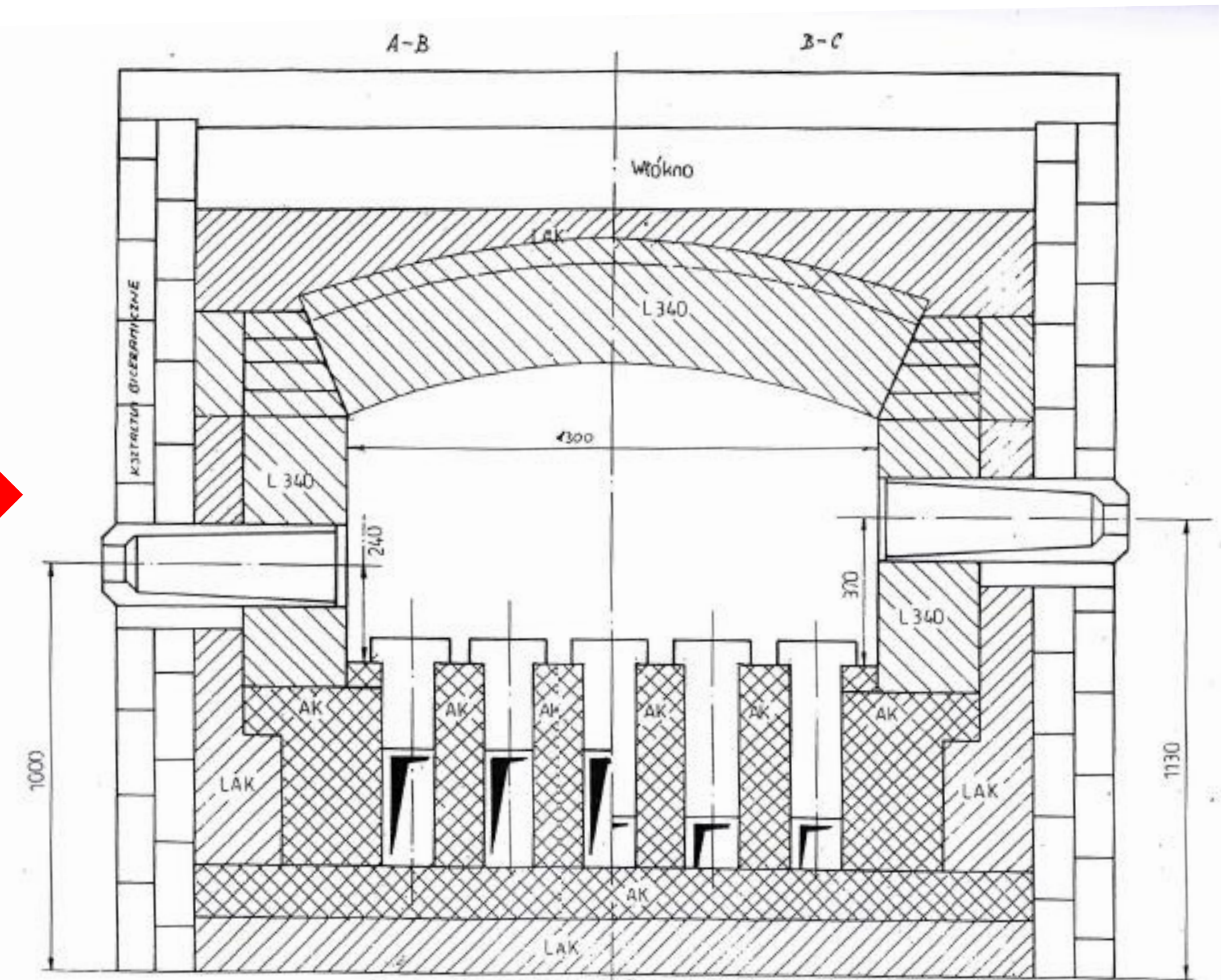
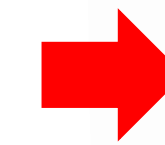
Behavior and corrosion of refractory linings in H₂-fired furnaces?



Hydrogen furnance, chamber work 1m³, 1700 °C, flexible H₂ concentration



Reducing of CO₂ emissions



2

2

TOPICS TO EXPLORE

Problem: Access to raw materials



Use waste raw materials

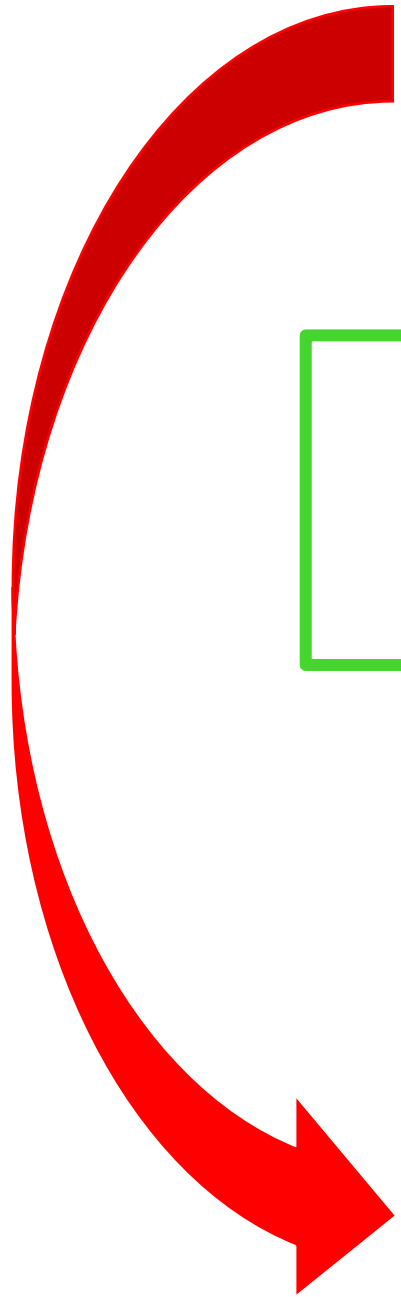


Development of innovative technologies



Reducing of CO₂ emissions

Reducing of waste storage



ROLE OF PARTNER

- We are looking for a leader experienced in overseeing large international projects.
- We are willing to cooperate with the consortium.

WE OFFER:

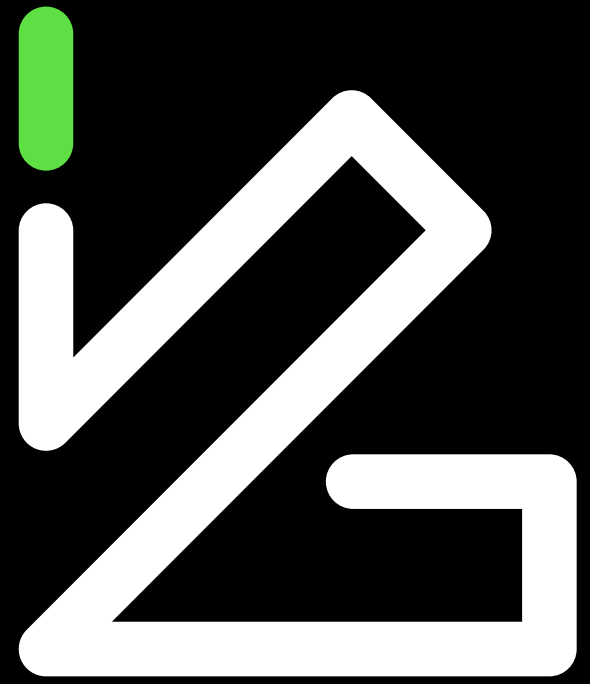
- Extensive experience,
- A well-equipped laboratory enabling research and development of ceramics,
- Accredited research methods,
- Experiments in the semi-technical scale,
- Production of ceramics in small series,
- Team of professionals.



EXPERIENCE IN EU R&D&I PROJECTS

- 2013-2015 - 7th Framework Programme (FP7) „Review and improvement of testing Standards for Refractory products”
- 2014-2016 - CORNET 16, „Optimisation of the water-to-cement-ratio to improve the setting, drying and high temperature behaviour of refractory castables”
- 2017-2018 - CORNET 20, „Changes in thermomechanical properties of monolithic materials during heating - optimization of the sintering process”
- 2021-2022 - CORNET 29, RefraPredict „Predictability of long-term refractoriness of refractory high alumina monolithics under high thermal load with special regard to impurities introduced by secondary raw materials”





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**Thank you for your
attention.**

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