



## STORAGE RESEARCH INFRASTRUCTURE ECO-SYSTEM

### RI Information sheet 2022

LUT University, LUT P2X  
electrochemical and chemical

Contact person 1:

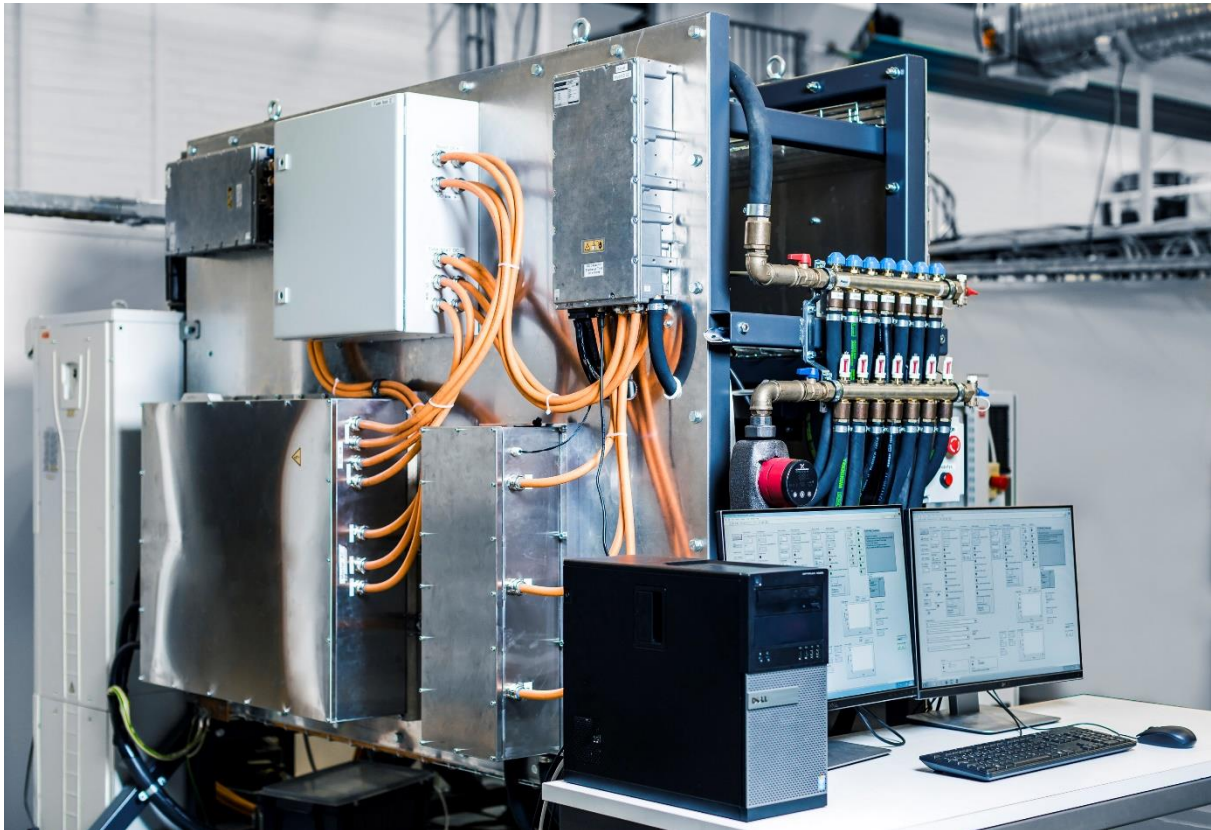
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Project Acronym	StoRIES
Call	H2020-LC-GD-2020
Grant Agreement No.	101036910
Project Start Date	01-11-2021
Project End Date	31-10-2025
Duration	48 months

## 1. Photo



## 2. Geographical coordinates (°, ′, ″ ... N/S, E/W)

61°03′54.7″N 28°05′42.0″E (61.06518, 28.09500)

## 3. Description of the research infrastructure for the webpage

Electrochemical infrastructure includes water electrolyzer test facility (alkaline water electrolyzer (AWE)/ proton-exchange membrane water electrolyzer (PEMWE) stacks and cells with extensive measurement systems. In addition, power hardware-in-the-loop (PHIL) test setup is included that can emulate WE properties as a load for power electronics. Synthesis infrastructure includes fixed bed reactor system for studies of methanol, FT-fuels and methane synthesis. 2D gas chromatograph, mass spectrometer, and FTIR are available as analytical instruments for synthesis studies. In addition, carbon capture, electro dialysis and molten salt electrolysis are included.

## 4. Availability of the research infrastructure



(Please indicate time periods in which infrastructure will not be available for StoRIES in the next 2 years – if already known)

July 2022, July 2023

5. Special considerations (confidentiality / NDA agreements, insurance requirement, special training, HSE training)

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6. Energy storage technology that can be analysed/studied by using the research infrastructure

- Electrochemical
- Chemical
- Thermal
- Mechanical
- Superconducting Magnetic
- Cross-cutting  (Specifically: ... )

7. Key words for the webpage

Water electrolysis, electrochemistry, synthesis, PtX, hydrogen, methanol, carbon dioxide

8. TRL level (if applicable):

- 1-3
- 4-6
- Above