



2021PORTUGAL.EU

Summit

European Regions

for Smart Communities








SESSION: STRATEGY

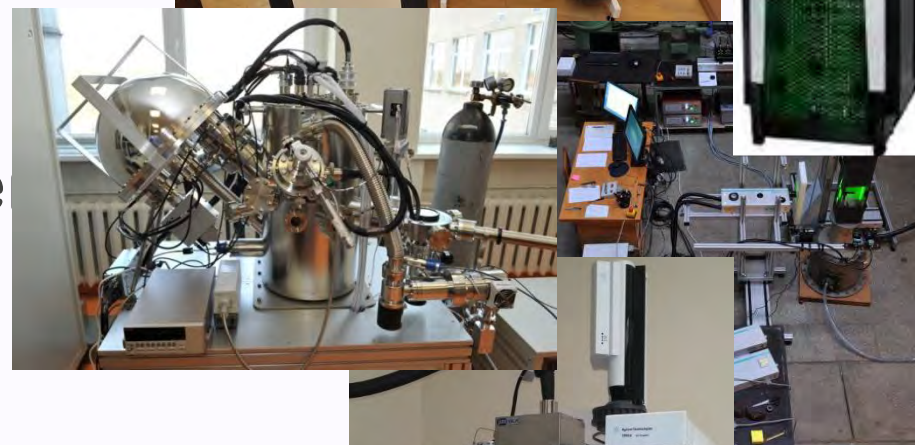
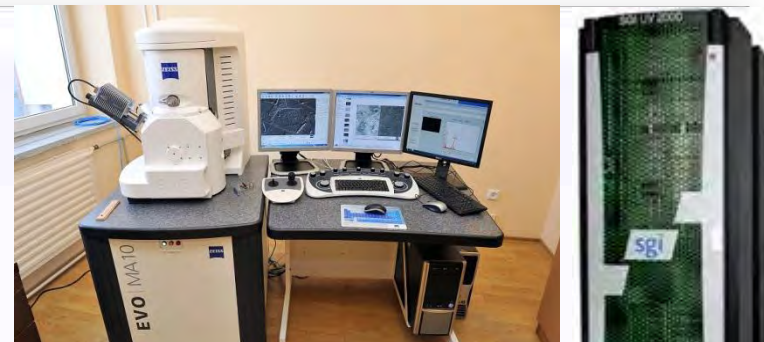
GREEN DEAL AND DIGITALISATION INITIATIVES IN LITHUANIA

ROLANDAS URBONAS

LITHUANIAN ENERGY
INSTITUTE
DEPUTY DIRECTOR

Lithuanian Energy Institute in brief

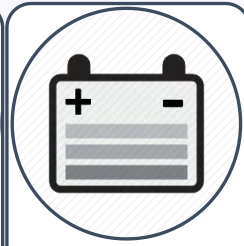
-  Established in **1956**
-  **230+** Employees
-  **130+** Scientists & researchers
-  **30+** PhD students
-  **10** scientific laboratories
-  **12.700 m²** of lab facilities



Lithuanian Energy Institute strategic R&D topics



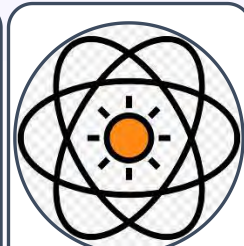
Energy and biofuels from biomass and waste; Research in development and upgrade of associated technologies



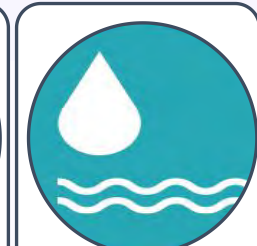
Energy storage technologies



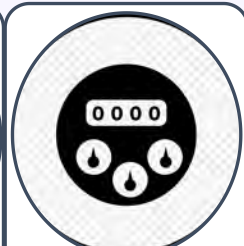
Smart energy grids



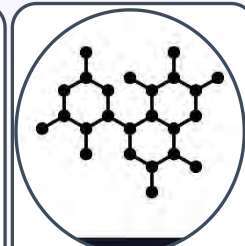
Nuclear energy
 (Safety analysis, Decommissioning, Radioactive waste management, New generation nuclear reactors, Fusion energy)



Environmental engineering and climate change influence on water resources



Metrology research related with development and maintenance of national liquid and gas flow standards (etalons).



Materials science for energy generation technologies



Energy economy and social impact research
 (Energy policy, Energy strategy, Social and macroeconomic impact assessment, Energy market research, Energy Efficiency)



Targets

One of the “Horizon Europe” missions – Climate-neutral and smart cities:

- 100 Climate-neutral Cities by 2030 – by and for the Citizens

One of the goals of the current Government of the Republic of Lithuania:

- The Climate-neutral and wasteless city/municipality by 2030



Initiatives

Kaunas city HE institutions collaborative R&D initiatives:

- Example: Possibility evaluation of sustainable modernisation and energy supply for city block using digital twin.

RTO.Lithuania <https://rtolithuania.com/> Green Deal collaborative R&D initiatives:

- Example: Development of biodegradable biofuel cells.

Smart Energy DIH <https://smartenergydih.eu/> – as smart energy innovation ecosystem.

eDIH: Digital transformation of industry, agriculture and energy sectors in Lithuania (EDIH4IAE.LT)

Initiatives

Initiation of **Green Municipality** implementation together with Smart Energy DIH, appropriate ministries and interested municipalities in due time.

Initiation of the **Municipalities Smart Data Hub** at LEI with support of industry (Confederation of Industrialists) and governance (Municipalities).

Lithuanian Hydrogen Energy Association
<https://www.h2lt.eu/> activities on initiating R&D projects and disseminating information on H2 technologies.

Lithuanian hydrogen platform, consolidating industry, governing institution and academia.



Vision Municipalities Smart Data Hub

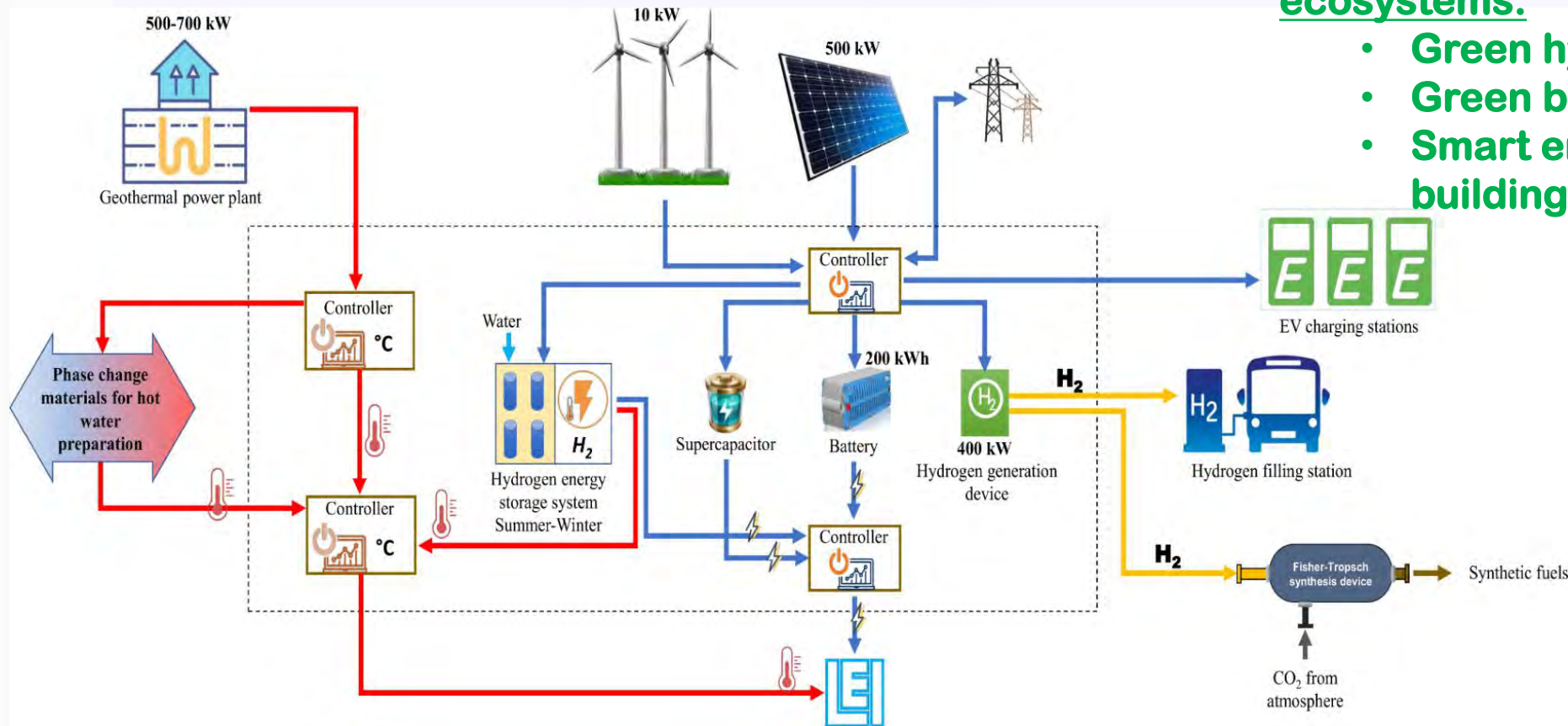




LEI Campus vision – the model of the smart green city

Three integrated energy ecosystems:

- Green hydrogen,
- Green biofuel,
- Smart energy system for buildings.



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