



Low-cost, Circular, plug & play, off-grid Energy for remote Locations including Hydrogen

Co-funded by the European Union



LoCEL-H2 will create a **new energy solution** combining solar power, advanced lead batteries and green hydrogen to deliver clean, reliable, and sustainable energy for off-grid communities in Africa

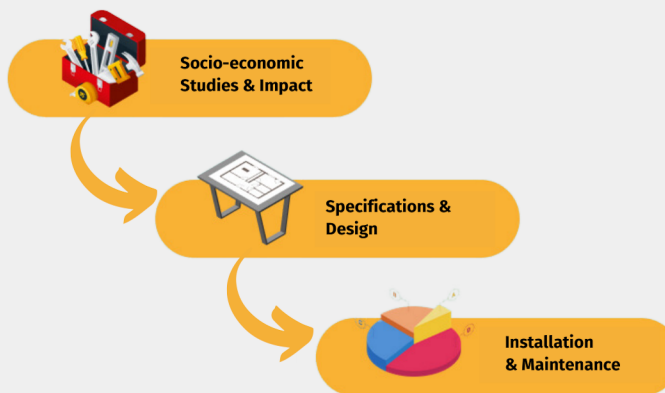


Awarded through **Horizon Europe**, this collaborative, four-year project combines the expertise of partners from academia and industry in Europe, North Africa, North America and South Asia



LoCEL-H2's new clean energy solution

Our team of social sciences and humanities experts will guide the energy system development and facilitate future rollout through a **methodical evaluation of the critical socioeconomic factors**



Our team of technical experts will develop the energy system with a focus on three **core technological innovations**



Scalable, decentralised, plug & play prosumer microgrid with 100% renewable solar energy production

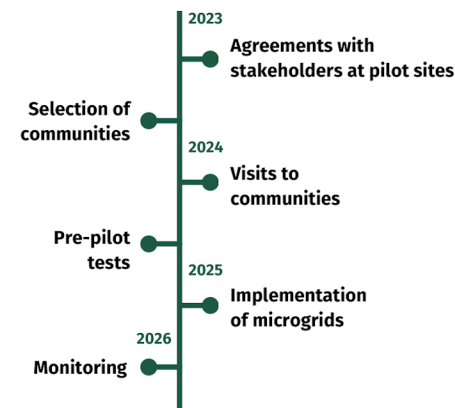


Optimised lead battery energy storage for households, small businesses and community buildings



Community-shared battery-electrolyser for multi-vector energy storage and green hydrogen production for cooking

LoCEL-H2 will conduct **two pilot programs**, one in Zambia and one in the Ivory Coast, implementing the energy solution for approximately 30 households and businesses per community



Being tailored to the needs of the communities, the LoCEL-H2 energy solution will efficiently help to **mitigate energy poverty**

Expected long-term impacts:

- Improvement in socio-economic conditions supported by the operation of appliances
- Lower environmental impact with less emissions and recyclable technology
- Improvement of indoor air quality and overall health by shifting to clean cooking fuel
- Increase in adaptive capacity by ensuring viable access to energy