

# GlaS - - Fuels

## Single-Atom Photocatalysts Enhanced by a Self-Powered Photonic Glass Reactor to Produce Advanced Biofuels

### 1<sup>st</sup> Press Release

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The Consortium of GlaS-A-Fuels convened on March 22nd for the kick-off meeting of the Horizon EU-funded project. Hosted at the Foundation for Research and Technology - Hellas (FORTH) in the charming city of Heraklion, Crete, Greece, this gathering marked the start of an ambitious journey.

With all partners gathered in person, the meeting commenced with vibrant presentations, allowing each organisation to showcase its expertise and vision. Moving on to the agenda, participants engaged in a fruitful discussion about the project's goals, work packages, and upcoming steps.

The kick-off meeting concluded with a visit to the Ultrafast Laser Micro-and Nano-processing Laboratory (ULMNP) of the Institute of Electronic Structure and Laser (IESL) within FORTH. Partners immersed themselves in the cutting-edge technologies and innovative research initiatives underway, igniting inspiration for the project ahead.

Following the visit to ULMNP, the consortium reconvened for a social dinner in Heraklion, forging bonds, and networking, laying the foundation for a journey of shared success and impactful innovation.



## About the project

The increasing energy demand and the depletion of fossil-fuel reserves, threatening our energy security and the environment, have aroused intense global concern. To mitigate this, the EU aims to become climate-neutral by 2050, by targeting at the next-generation of biofuels from non-land and non-food competing bio-wastes. GlaS-A-Fuels project envisions a holistic approach to transform bio-ethanol to advanced biofuels like Butanol (BuOH), heavier alcohols and hydrogen (H<sub>2</sub>), employing recyclable and cooperative catalysts from earth-abundant elements. The concept is based on the engineering of a light-trapping and light-tuning photonic glass reactor, self-powered by a thermoelectric module, and tailored to amplify the effectiveness of photo-amplified single-atom catalysts.

**Project title:** Single-Atom Photocatalysts Enhanced by a Self-Powered Photonic Glass Reactor to Produce Advanced Biofuels

**Project ID:** 101130717

**Start Date:** 01/03/2024

**Project Duration:** 42 months

**Project Consortium:**



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