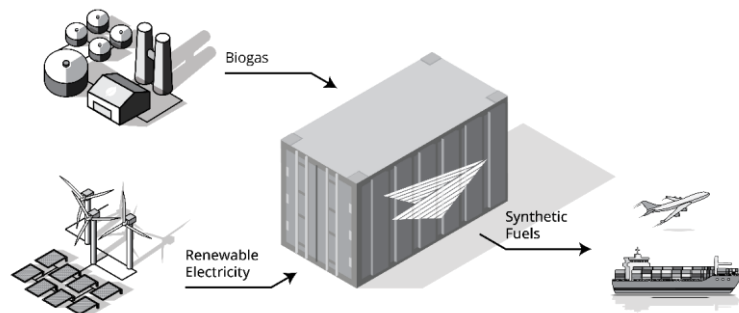


## About

Verdantia is a **startup** company founded in **2024** and based in **Porto (Portugal)**. We develop **cutting-edge technologies** in the field of renewable energy, specifically to **produce sustainable fuels** such as SAFs, biodiesel, bio-methanol or biomethane.

## Technology

Verdantia's patented process consists of a disruptive process to **produce green syngas with adjustable compositions from biogas** and renewable electricity. By **cyclically producing hydrogen and carbon monoxide in two separate stages** from methane (or other hydrocarbons) and carbon dioxide, it then becomes **possible to precisely adjust on-stream hydrogen to carbon monoxide ratios** that are crucial for efficient production of methanol and sustainable aviation fuels (SAFs). **Our modular container-based systems avoid the need to construct or adapt existing infrastructures.**



The technology is currently validated at lab-scale. The next steps are:

- **construct an indoor pilot system** that **integrates** all the hardware (catalytic reactor and peripheral units) with all necessary instrumentation and electronic components to enable a **fully automatic and stand-alone operation**.
- process numerical simulation (Aspen, DWSIM, etc.);
- deepen our **market intelligence** and perform **techno-economic analyses** under different scenarios, including the production of different synthetic fuels;