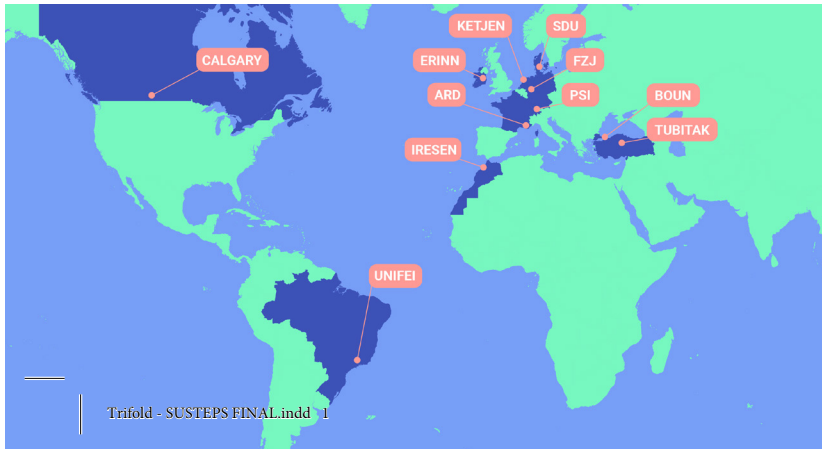
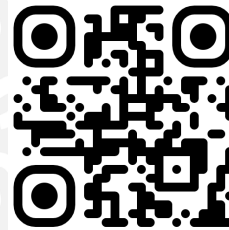


PROJECT PARTNERS



Funded by
the European Union

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SUSTEPS aims to revolutionize renewable fuel technologies by advancing the algae-based biofuels value chain. The project's goal is to create technologies that meet the market's specifications for replacing fossil fuels in targeted sectors. This will pave the way for a cleaner and more sustainable energy future.

PROJECT DETAILS

Start Date: September 2023

Duration: 48 months

Estimated Project Cost: €3,000,000

SUSTEPS

The project's goal is to create technologies that meet the market's specifications for replacing fossil fuels in targeted sectors. This will pave the way for a cleaner and more sustainable energy future. By incorporating waste stream valorization and utilizing green hydrogen and biologically captured process flue gas (carbon capture), the integrated bio-thermo-chemical process is designed to be more efficient. The production of biofuels using microalgae as a raw material and CO₂ as a feedstock holds significant potential for positive environmental impact as well, consequently mitigating greenhouse gas levels in the atmosphere.

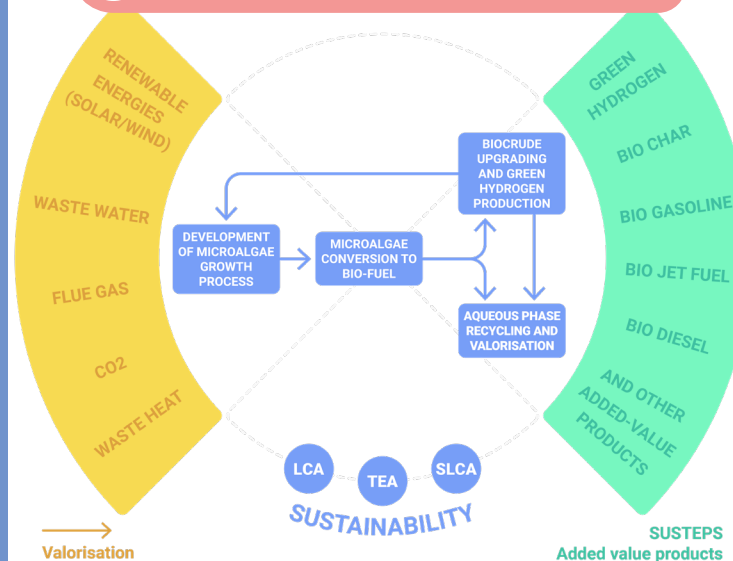
PROJECT WORK PLAN

- WP1 Project coordination and management
- WP2 Fostering international cooperation
- WP3 Process evaluation and sustainable assessment
- WP4 Development of microalgae growth process
- WP5 Microalgae conversion to crude bio-fuel
- WP6 Biocrude upgrading and green hydrogen production
- WP7 Aqueous phase recycling and valorisation
- WP8 Dissemination, exploitation and communication

PROJECT OBJECTIVES

- To foster international cooperation
- To design a cost-effective, sustainable and safe integrated process
- To develop advanced microalgal bio-production systems supported by system biology tools
- To develop a high-oil-yield biocrude generation process
- To develop a biofuel upgrading process that meets the fuel market specifications
- To establish circular/valorisation pathways along the value chain
- To develop a biofuel production process at TRL 4 level
- To engage with key target groups & effectively communicate, disseminate and exploit SUSTEPS outputs

PROJECT METHODOLOGY



PROJECT IMPACT



ENVIRONMENTAL : SUSTEPS strengthens the scientific foundation for renewable energy technologies in Europe through international collaboration. This collaboration also aligns with the European Green Deal priorities, emphasizing sustainability and environmental responsibility.



SOCIAL : SUSTEPS prioritizes sustainability by assessing the environmental, economic, and social impacts throughout the entire algae-to-biofuel production value chain. This holistic approach ensures that any solutions developed strike an appropriate balance, considering the societal implications. By addressing these social factors, SUSTEPS aims to contribute to a sustainable and socially responsible biofuel industry.



ECONOMIC : Increased economic viability is a key driver for the market uptake of biofuels produced by SUSTEPS. The project's use of algae as a feedstock, coupled with its carbon-neutral nature, makes biofuels more appealing to policymakers, regulators, industry stakeholders, and the general public.

