



ATENA

FUTURE TECHNOLOGY

FuelSOME

Multifuel SOFC system with Maritime Energy vectors

Title

Implementing Fuel Cells and Hydrogen Technologies in Ports

Project

Shipping is responsible for the emission of about 1 billion tons of carbon dioxide (CO₂) and about 2.5% of global greenhouse gas (GHG) emissions worldwide. The drastic reduction of GHG emissions from ships has been set as one of the urgent targets to achieve the EU Green deal objectives. As a result, the maritime industry, which is a hard-to-decarbonize sector, is actively seeking for alternate solutions/technology which can make it more climate friendly but at the same time does not compromise on the current performance levels. Leveraging novel concepts as well as assets from former projects and initiatives, the project FuelSOME focuses on establishing the technological feasibility of a flexible, scalable, and multi-fuel capable energy generation system based on Solid Oxide Fuel Cells (SOFC) technology specially catered for long-distance maritime shipping. This system will be able to operate on Ammonia, Methanol and Hydrogen and their mixtures for which short and long-term sustainable supply pathways will be explored. Finally, on a broader level, an in-depth and detailed investigation on the environmental, social, and economic benefits of developing such a system for the European industry, the maritime sector and the citizens will be carried out. The future roadmap of the project is that the outcomes generated will not only benefit the maritime industry but can also serve as a blueprint/launchpad for implementing the same technology in other hard to abate emission sectors and/or, thereby enabling multi-fuel energy generators to become the norm in the future. The consortium comprises 8 partners: 7 partners from 6 European Member States and 1 partner from a non-associated third country (Switzerland). The FuelSOME consortium unites the necessary multidisciplinary knowledge, expertise, skills, and resources to constitute a representative value chain of actors, which together can achieve the project's ambitious objectives.



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Info:

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Website: to be defined

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Call: HORIZON-CL5-2021-D2-01

Funding



Cofinanziato dal meccanismo per collegare l'Europa dell'Unione europea

Coordinator

Avl List GmbH

Partner

AEE - INSTITUT FÜR NACHHALTIGE TECHNOLOGIEN

ATENA – DISTRETTO ALTA TECNOLOGIA ENERGIA AMBIENTE

EBOS TECHNOLOGIES LIMITED

ELCOGEN OY

POLITECHNIKA WARSZAWSKA

TEKNOLOGIAN TUTKIMUSKESKUS VTT OY

ZÜRCHER HOCHSCHULE FÜR ANGEWANDTE WISSENSCHAFTEN