

# Emission Analysis and Health Benefits of Introducing SOFCs in shipping – Nautilus Project

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## **Abstract** (4-6 lines, 500-700 letters incl. spaces)

The H2020-project NAUTILUS evaluates solid oxide fuel cells (SOFCs) operating in hybrid with batteries in the shipping sector. The vision is to achieve climate neutrality and decrease health-relevant emissions including particle matter and nitrogen oxides, to negligible amounts. The emission analysis task in the project consists of an ambitious approach that combines literature reviews of emissions and air pollution health effects, design of a set-up to quantify even very low emission levels at the NAUTILUS demonstrator unit, toxicology and finally a health impact assessment to quantify the health benefits of large-scale introduction of the new technology in major European port cities. Preliminary data suggests that the ambitious project goals of reducing emissions of SO<sub>2</sub>, NO<sub>x</sub> and PM<sub>2.5</sub> by 99% compared to baseline (HFO fuel) is achievable.

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