



ORC4SHIP focuses on the development and optimal design of a heat-to-power system based on the organic Rankine cycle (ORC) technology, for recovering the waste heat from the cooling circuit of ships' engines and converting it into electricity

The benefit of the shipping companies that will adopt this technology is to reduce the fuel consumption of their fleet by 3-4%.

Project Duration	36 Months (28/7/20-27/7/23)
Project Framework	RESEARCH – CREATE – INNOVATE, 2 nd round
Partners	DANAOS, PSYCTOTHERM

At the same time, this new solution contributes to the enhancement of the ship's energy efficiency and to the reduction of pollutant emissions, which are subjected to strict regulations by the IMO.

OBJECTIVES

- ✚ **Development** of a 10-150kWe ORC4SHIP design methodology that will suit the requirements of different ships (in terms of type and size), while all possible parameters and limitations will be taken into consideration.
- ✚ **Optimum control** and full incorporation of the innovative technology in the ship's energy management system.
- ✚ **Development of a prototype** ORC with power 15kWe for laboratory testing to confirm the reliability and the control system for automated operation.
- ✚ **Pilot deployment** of ORC4Ship onboard, where significant conclusions will be drawn relevant to its operation and the expected fuel savings.
- ✚ **Business plan development** and wide dissemination of the project's results.

...For more visit <https://www.orc4ship.com/>

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