

ZEM Presentation slides



Zero Emission Marine

The four-year ZEM ecosystem programme (2022-2025) led by Wärtsilä is an opportunity to network and collaborate on decarbonisation of marine sector.

We are looking for ecosystem partners with

- Innovative ideas related to ZEM themes
- Shared vision for Zero Emission Marine future
- The dedication to execute projects matching the vision

ZEM offers you

- Collaboration with cross-discipline players on new innovative concepts
- End-to-end value chain cooperation and business opportunities.
- Opportunity to initiate research projects on ZEM themes and apply for funding from Business Finland
- Workshops, events, ideation and latest news from the ecosystem



Vision

A zero-emission marine future

Mission

Creating an economically compelling zero-emission marine ecosystem driving sustainable technology solutions and services

Visit ZEM website to learn more
www.zemecosystem.com

Technologies enabling introduction of green fuels

Main objective

Drive and develop operable engine technologies for engines running on green fuels like ammonia, hydrogen, and synthetic or biomethane. Explore and develop energy storage systems.

Wärtsilä is looking for organisations experienced especially in:

- Materials and components compliant to new fuels
- System integrators
- Control and automation experts
- Process and chemistry modelling

Have an idea for a project?

- ZEM offers a possibility for Business Finland funding
- Contact ZEM through the website and input your project idea! We will get back to you.

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Green fuel production

Main objective

Enable the production and infrastructure of new fuels.
Securing economically viable transition.

Wärtsilä is looking for organisations experienced especially in:

- Biofuel, ammonia and hydrogen production
- Hydrogen storage and compression
- Process and chemistry modelling
- Levelised cost calculations

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Automated and optimised operations – increased level of autonomy

Main objective

Develop and integrate systems to further optimize ship operations, including navigation and automation. Enable gradual transition from decision support to remote and autonomous operation.

Wärtsilä is looking for organisations experienced especially in:

- Situational awareness
- Data integration and connectivity between different marine stakeholders
- AI, machine learning and edge computing in the maritime context

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Outcome-based business models

Main objective

Develop new business models that enable commercially feasible adaptation of current and future decarbonization technologies across marine industry.

Wärtsilä is looking for organisations experienced especially in:

- Fuel efficiency technologies (e.g. hybrid power systems with batteries)
- Vessel energy management optimisation
- Emission compliance monitoring and optimisation
- Business modelling for shared benefits and incentives

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