The TrAM project

- and the successful delivery of the world's first fully electric fast ferry

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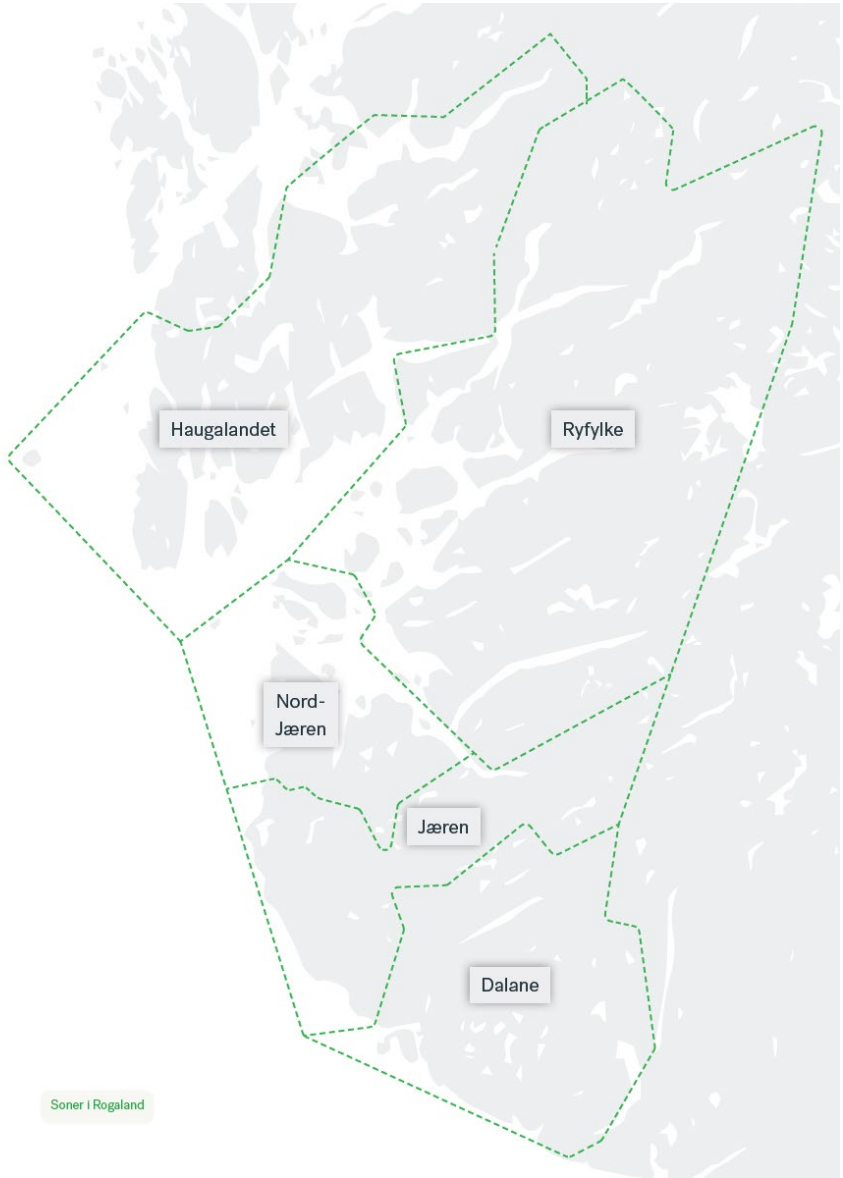
Project Manager - TrAM

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 769303

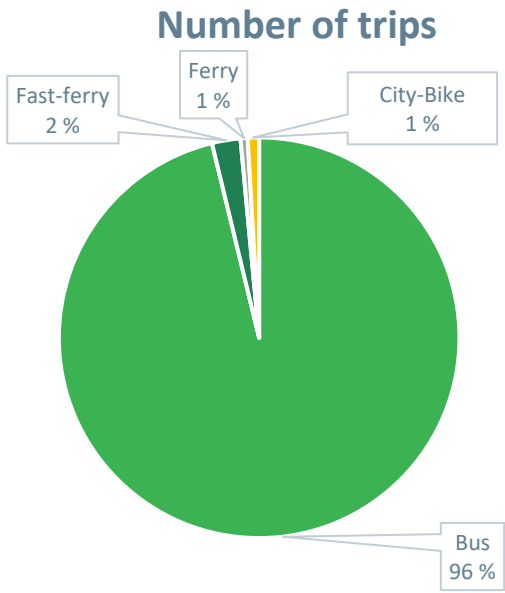
Kolumbus

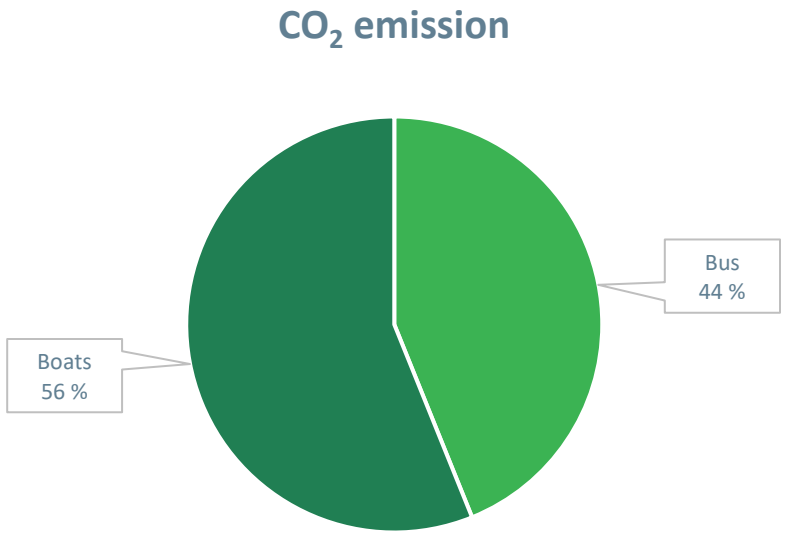


Public mobility company operating public transport in Rogaland county

Why do we focus on high-speed ferries…?

Kolumbus operations and emissions in 2021:





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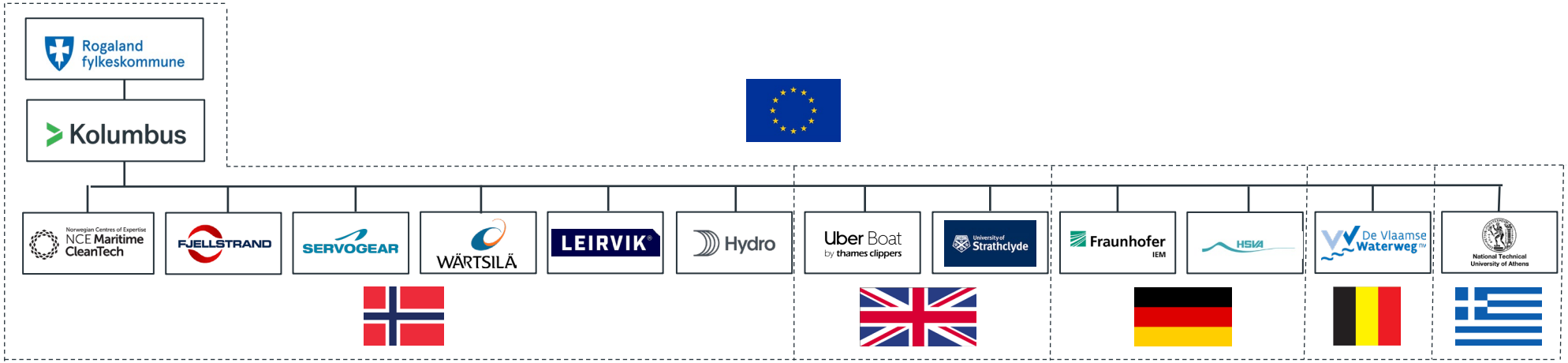
Reduced CO_2 footprint from « Medstraum »

Overview – TrAM

EU H2020 project:

- 13 European partners
- Budget is 15 mEUR, and 11 mEUR is funded by EU
  - «Medstraum» is funded with 3-4 mEUR
  - Rogaland county council is funding the remaining costs for «Medstraum»
- Main goal to develop modularized methodology for design and production
  - Target to reduce total costs for similar vessels by 25%



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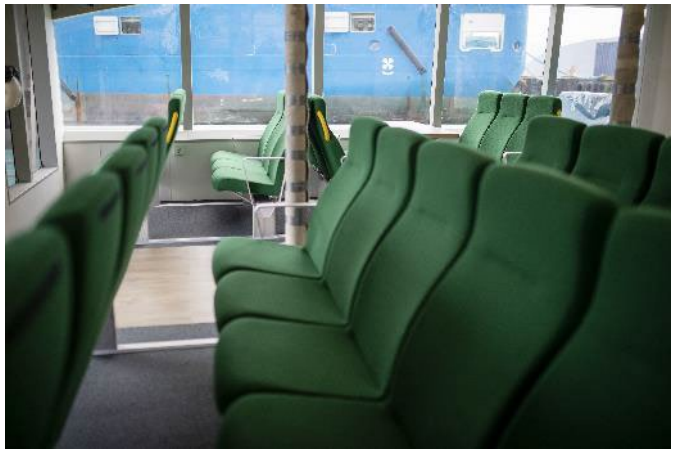
«Medstraum»

Main achievements:

- Proved that electric fast-ferries are possible
- Optimised weight and efficiency through both design and production
  - Extremely high propulsive efficiency achieved (~80%)
- Battery rooms placed on deck level:
  - Allows for full optimization of the hull shape for propulsive efficiency
  - Meets all new operational and safety requirements for battery rooms

«Medstraum» sailing from yard



Passenger area

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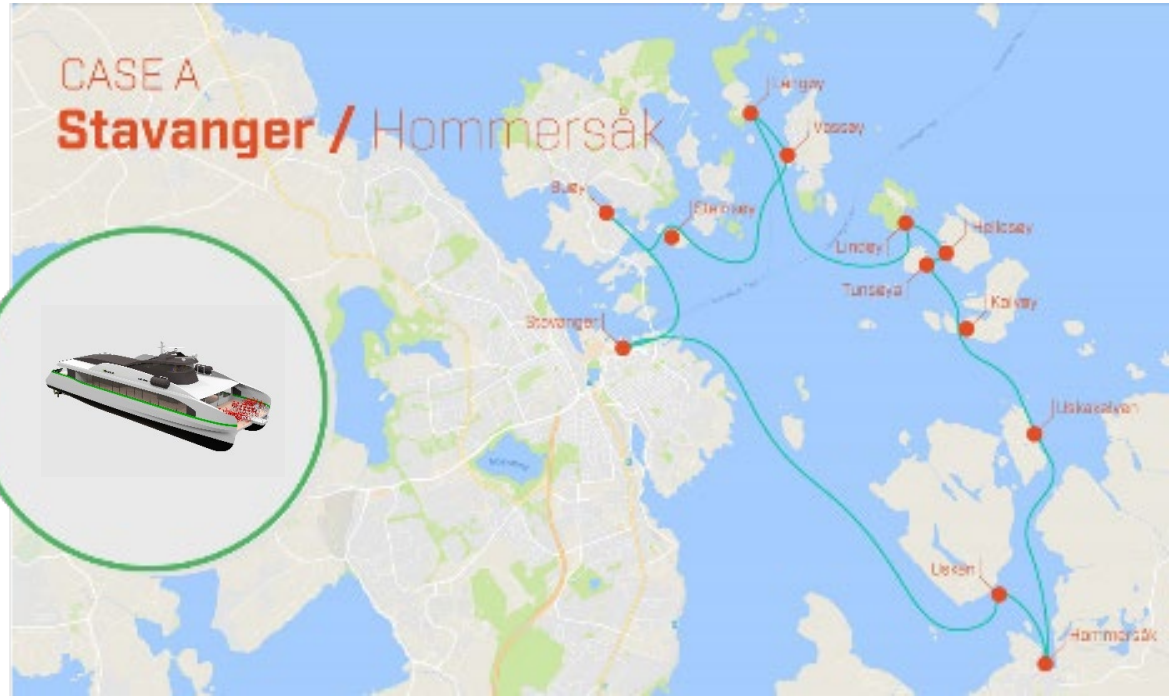
«Medstraum»

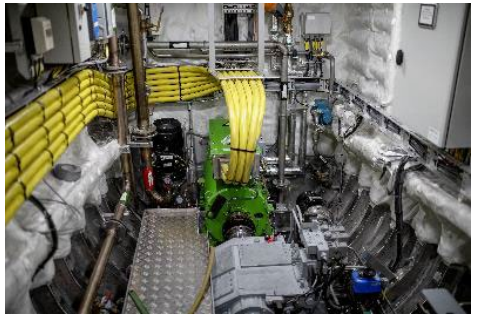


«Medstraum» route

Key data:

- Length = 30 m
- Pax = 147 (+20 bikes)
- Service speed = 23 kn
- Maximum speed = 27 kn
- Engine capacity= 2 x 550 kW
- Battery capacity = 1524 kWh
- Classed to DNV X 1A - HSLC Passenger, Battery Power, Shore Power – R5-NOR
  - In accordance with HSC code 2000 category A vessel
- Total route lengths = 10 – 22 nm

Battery room



Engine room

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Charging infrastructure

Charger:

- Flexible and scalable charging infrastructure
- Total capacity of 8 MW
- Standard CCS2 plugs used to increase flexibility

New trafo- and converter building

Wartsila converters

«Medstraum» charging pod at quayside

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