

## Maritime DTU

Center for Maritime Activities

## Right tug to the right place - Predictive tool

Type of project: MSc

## Project description:

Svitzer is a 190 years towage provider operating approximatively 380 tugs and 100 other vessels, across 120 ports globally.
Our vessels are ranging from 1-60 years of age and different operating profiles.

With the ambitions to be carbon neutral by 2040 and have an increase of $50 \%$ in scope 1 carbon emission by 2030, we have developed a decarbonisation strategy built on 3 pillars to reach these goals:

- Fuel - Methanol as fuel of the future and Biofuel as drop-in fuels to enable the transition
- Equipment - new tug designs to drive efficiency and development with partner of new equipments
- Behaviour - focusing on what everyone in the company can do to support.

Having plans to introduce approximatively 10 new tugs per year, some using methanol as main fuel, Svitzer wants to develop a predictive tool to identify where to place these tugs to optimize the fuel efficiency gain and define a relocation pipeline of the older vessels.

Using the 4 Rs principles : Replace, Reduce, Redeploy and Recycle, this project should deliver an interactive roadmap of where to place, move, retire assets in the next 10-15 years to deliver the best decarbonisation results.

This project investigates the best allocation of vessels for the optimum fuel efficiency gain of the entire fleet over the next 15 years, using the existing operational profiles, fuel efficiency of the existing vessels, the growth opportunities as part of our BDV pipeline and the alternative fuel availability predictions.

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