Optimization of a low speed, high torque, high pressure seawater pump design

Background
DOT is a start-up company grown out of the TU Delft. The goal of the company is to develop offshore wind energy at a competitive cost. This will be done using smart solutions, such as seawater hydraulics to replace conventional bulky and overly complex technologies. The office of DOT is presently at De oude Bibliotheek in Delft.

The most recent development is the development of a 500kW prototype wind turbine, already successfully tested onshore. At this moment a dedicated seawater pump for the next prototype is being developed.

Challenge
This dedicated seawater pump must be highly efficient and require as little maintenance as possible. Your challenge is to find ways to control the wear of selected components whilst minimizing friction losses and volumetric losses within the pump. Specific attention is paid to the study of the replacement of traditional lubricants with green, bio-degradable lubricants and (sea)water.

Opportunities
You will be working at a small, fast and dynamic company, within a highly motivated team that is result-driven. Your work will include both computational modeling and physical experiments.

Candidate requirements
Passionate about technology, highly motivated, pro-active.

How to apply
Please contact dr.ir. Ron van Ostayen via R.A.J.vanOstayen@tudelft.nl or dr.ir. Niels Diepeveen Niels@DOTpower.nl.