How well is a boat performing in relation to external conditions and its past performance? Is the boat following the best course? Anemomind, a startup that emerged from EPFL’s Computer Vision Lab (CVLab), markets a system that can measure performance in real time using different parameters to reflect external conditions. The relevant data is also logged to unlock performance gains over the long term.

Based on GPS, anemometer, accelerometer, magnetometer and gyroscope readings, the application calculates the boat’s position in space and time to determine how well it is performing in the external conditions. Wind and currents are also taken into account in the algorithm, and it should also be able to measure wave sizes in the future. The software can take photos of the sails and establish any correlation between performance levels and settings. The data analysis techniques developed by CVLab for image processing are applied here to sensors of an altogether different kind. Eventually, the product may be enhanced with the addition of sail shape recognition and analysis capabilities by harnessing the lab’s video imaging expertise.

The startup’s product is a box that performs measurements of various external parameters, automated location finding and data storage, and an application that analyzes these parameters to produce a performance percentile calculation. This easy-to-use interface is aimed at both amateur sailors keen to improve their performance over the long run, and professionals, who can save precious time. This project was supported by funding from Innogrant, EPFL’s entrepreneurship grant.