Navigational Buoy serving a dual purpose: Navigational safety and water exchange data between two seas

After almost three years in the water, the “current measuring buoy” of the port of Helsingborg in Sweden was recently serviced. It took one day to complete the cleaning and system check, add new sacrificial anodes, change a GSM modem, upgrade the SmartGuard logger software, and replace a lantern with a Solamax-65 lantern with stronger light and better energy capacity.

The buoy reports temperature and currents every 10 minutes from the surface to 18 meters and internally records currents, acoustic backscatter and other useful information from the surface to the bottom at approximately 30 meters depth.

Real-time data are openly available and reported directly to the electronic charts on-board ships over AIS. The stored data are downloaded separately and contain information about the water exchange between the Baltic Sea and the North Sea through the straight, the mixing in the water column, the migration of zooplankton, quality control and more.