



# SitAwS-V

## Situational Awareness System - Vessel

DEVELOPED TO PROTECT AND SECURE THE CREW AND THE VESSEL

Crew and autonomous assistance system for collision avoidance and surveillance

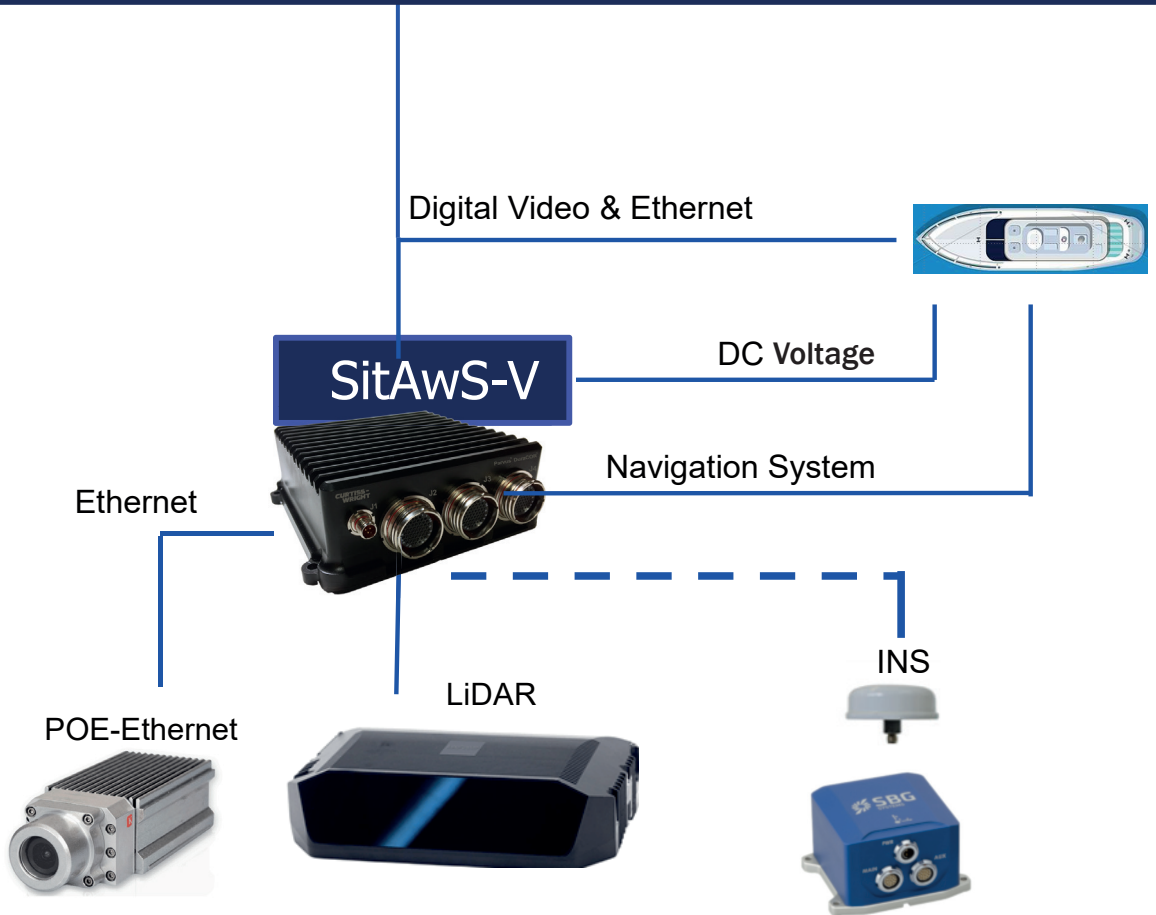
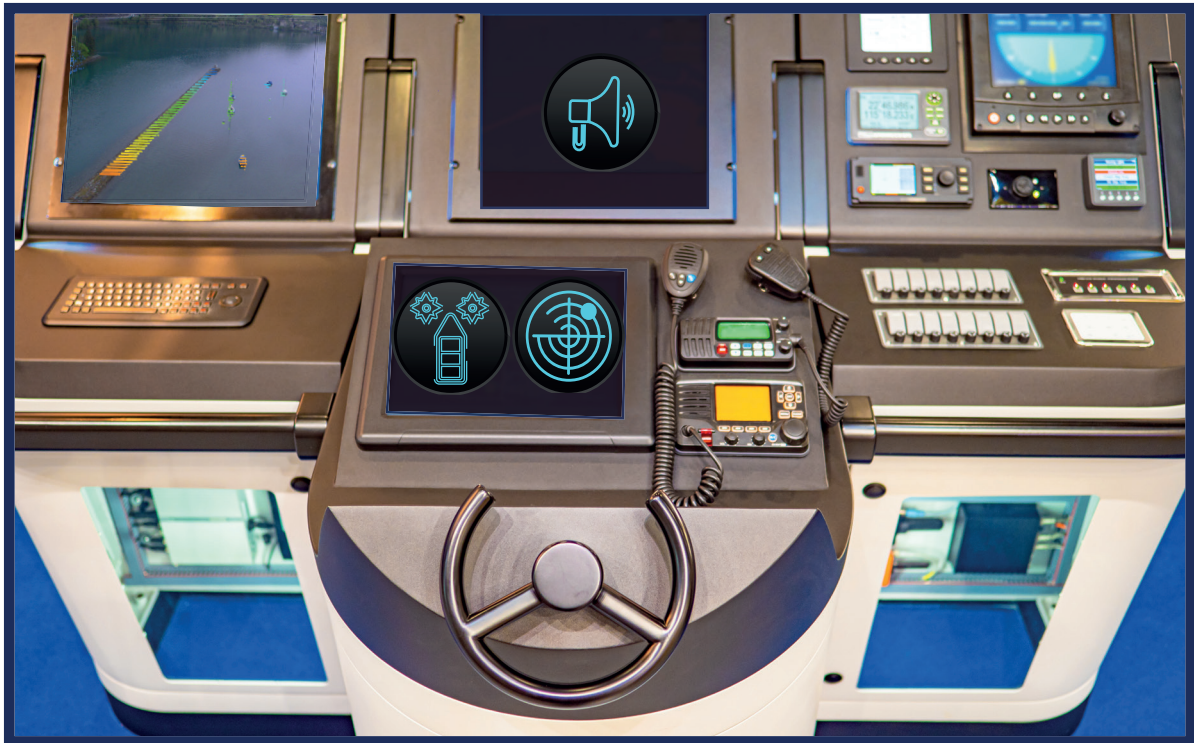
### About SitAwS - V

SitAwS-V is a 3D sensor system based on LiDAR (light detection and ranging). As a crew assistance system SitAwS detects objects on the water surface, assists to avoid collision and increases the operability in severe weather conditions with a high detection probability. SitAwS-V warns the crew of critical situations and helps to avoid incidents and accidents. During anchoring, SitAwS-V scans the ship's surroundings 24/7 and thus recognises any approaching objects.

### Our Services

- ✓ Alerts crew for potential obstacles in the vicinity of the vessel
- ✓ Supports crew for operation in degraded visibility such as heavy rain or fog
- ✓ Reduces the risk collision with obstacles or other craft at high speed
- ✓ Provides information about objects on water surface for search and rescue operation
- ✓ Alerts crew of approaching and threatening surface objects while stationary or anchoring
- ✓ Complements other sensors such radar and camera

# Product Solution \_\_\_\_\_



# Advantages • Solutions • Benefits

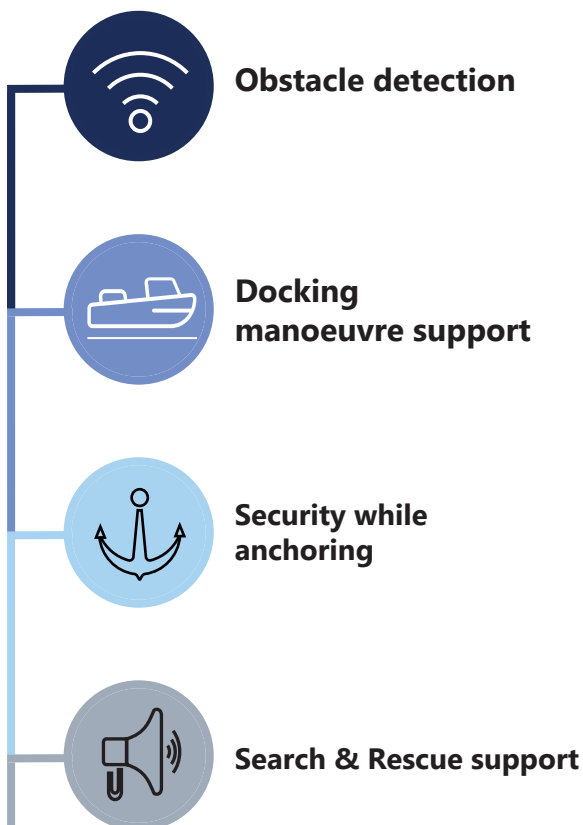
Operational advantages when piloting a vessel or as assistance system to Unmanned Surface Vehicles (USVs).

## Solutions

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SitAwS-V is based on special Software algorithms that collect and process active 3D LiDAR sensor information in combination with data and navigation information to screen the water surface and detect floating as well as fixed objects quickly and reliably with a high probability of detection.

## KPIs



## Benefits

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- Assistance for the crew during high-speed operations
- Provides the necessary information on the HMI to reduce crew workload
- Provides information about relevant objects and classify the objects for improved recognition
- Provides full view of surrounding while stationary and anchoring
- Detects obstacles on the course of the vessel
- Capable of integration with different sensor systems
- Compact, light-weight, low power consumption and easy to install
- Cost effective solution

## SitAwS - V target performance

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- ✓ Early warning for critical objects (use of active eye safe LiDAR scanning)
- ✓ CPU unit for data accumulation and processing
- ✓ Performs artefact filtering and ground segmentation to avoid false alarms by different weather conditions
- ✓ Classifies obstacles on the vessels' route
- ✓ Monitors the sensors
- ✓ Typical warning range: 500m (10% target reflectivity)
- ✓ System weight and power consumption:
  - Computer: 2kg/100W
  - LiDAR Sensor: 4kg/100W
- ✓ Detection Field of View (FoV):
  - Standard 60° expandable up to 360° round view (depending on LiDAR quantity)
- ✓ Standard typical 30° vertical FoV
- ✓ HMI obstacle and collision alerting:
  - View on bridge display or stand alone additional monitor
  - 2D view of safety zone while anchoring
  - Audio alerting
- ✓ Crew assistance day and night under bad weather conditions
- ✓ IP-ratings 65/67

### Contact Us

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