CRITICAL INFRASTRUCTURE SAFETY & SECURITY

Ni NiDAR™

360° AIR, SURFACE & UNDERWATER PROTECTION

MARSS
SAFETY & SECURITY TECHNOLOGY
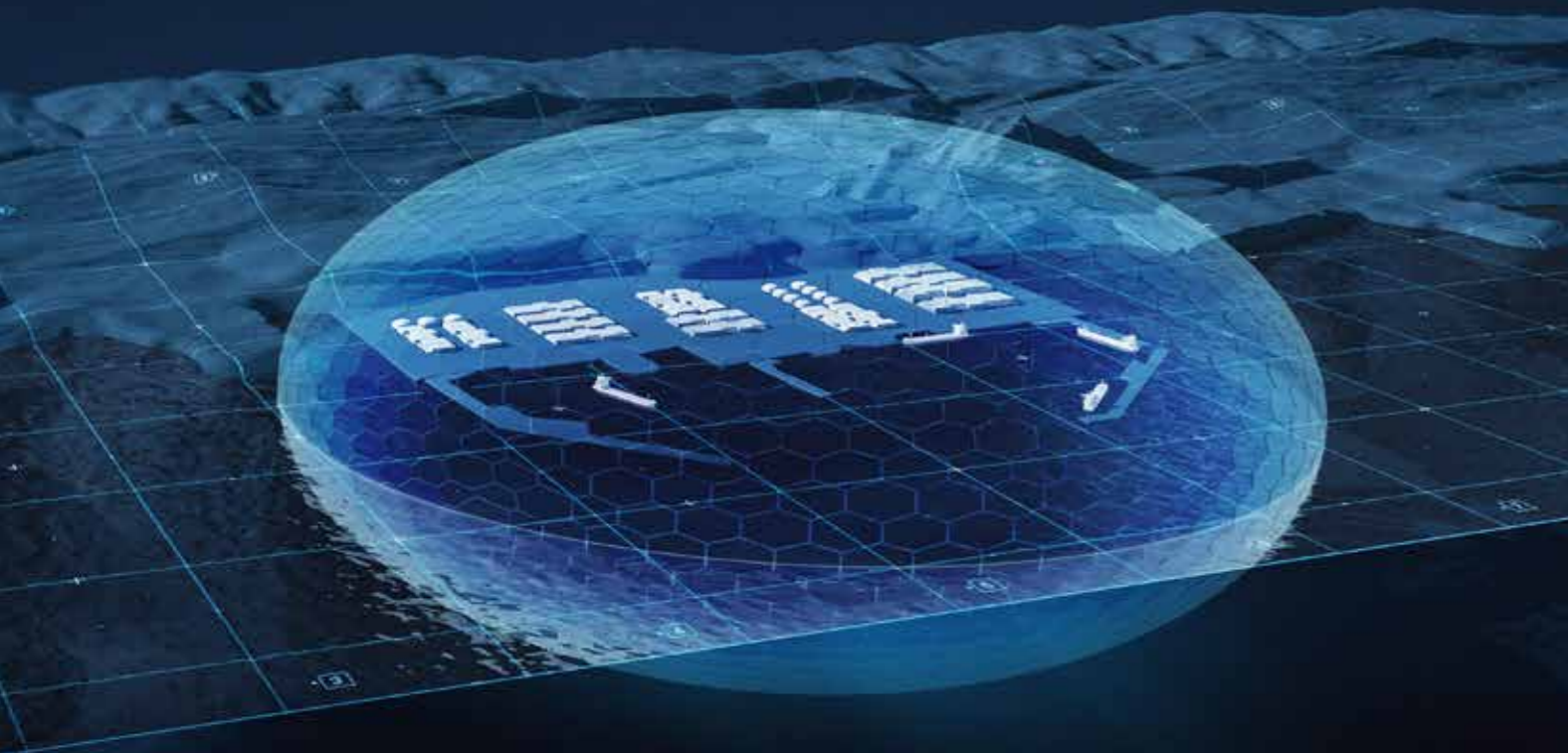
ⓝ NiDAR™

NIDAR PROTECTS CRITICAL INFRASTRUCTURE BY BUILDING A LONG-RANGE 360° SITUATIONAL AWARENESS PICTURE AND PERIMETER SECURITY SHIELD AROUND THE ASSET.

Operating autonomously and discreetly 24/7, NiDAR can automatically monitor, detect, track, classify and respond to multiple objects in the air, on the surface and underwater as required.

Smart software algorithms developed by MARSS intelligently analyse and rank unknown objects to determine potential threat levels and trigger alerts.

Security vehicles, vessels and personnel can easily be located and monitored within NiDAR for added safety and security.

NiDAR supports decision makers by linking multiple onboard sensors, improving the detection and tracking of objects around the asset, increasing reaction time, reducing workload and minimising false alarms.

The NiDAR system is modular, scaleable and fully customisable to a specific asset and the security requirements.

INTUITIVE COMMAND & CONTROL

The enhanced awareness picture created by NiDAR is clearly presented in real time through an intuitive touchscreen user interface.

Secure remote access available via smart mobile devices for crew & security teams, both onsite and offsite.

360° LONG RANGE SITUATIONAL AWARENESS & PERIMETER SECURITY
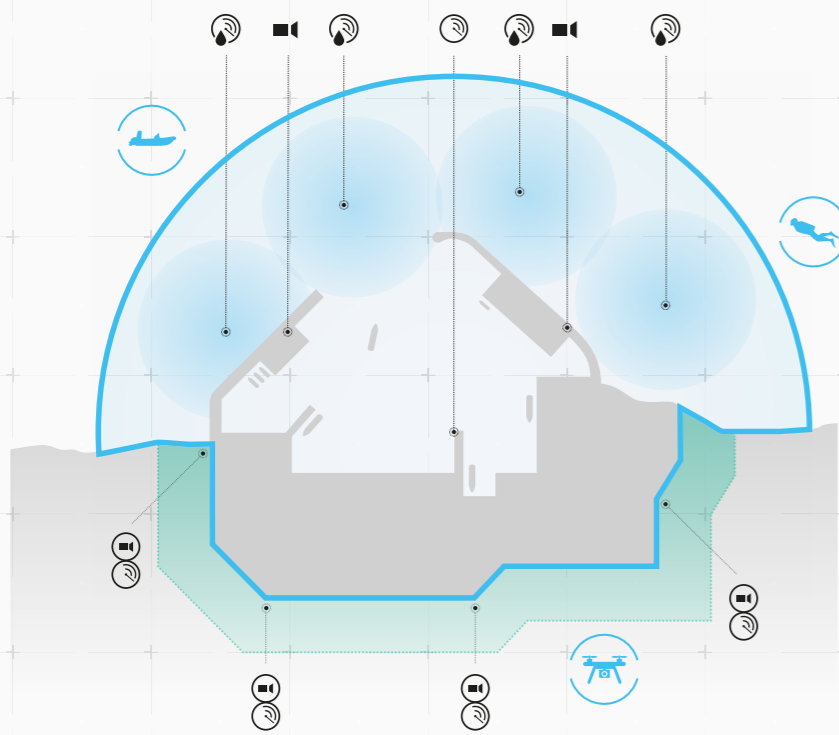
AIR DETECTION - UP TO 1KM

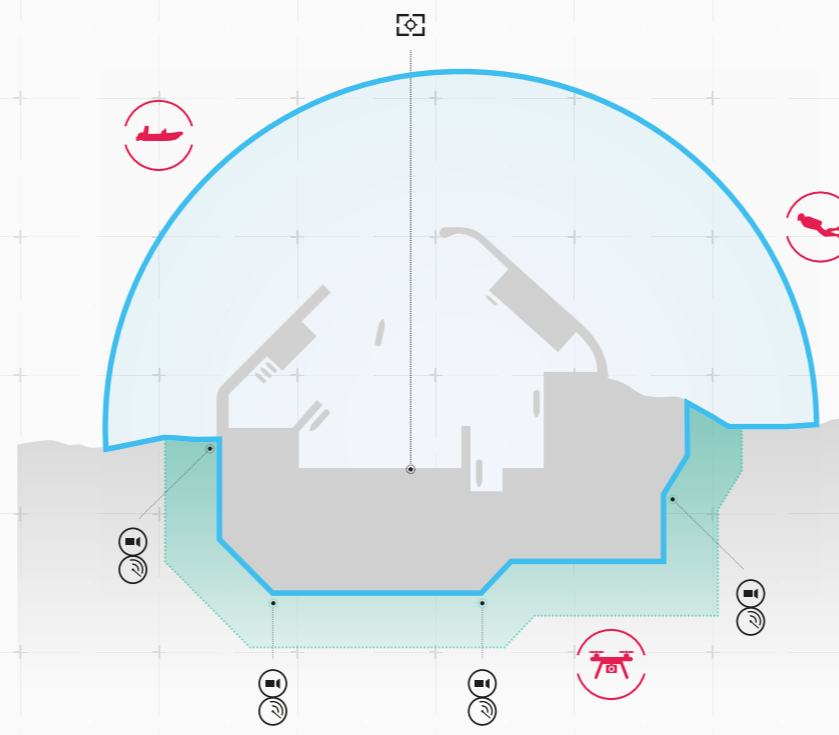**SURFACE DETECTION - UP TO 20KM**

UNDERWATER DETECTION - UP TO 1KM

NiDAR™

1. DETECT

▶

2. CLASSIFY

▶

3. RESPOND

INTEGRATION OF SENSOR & DATA FEEDS

CAMERA	NAV RADAR	PORT RADAR	TRACKERS / TRANSPONDERS	SONAR	FORWARD SONAR

SMART SOFTWARE ANALYSIS & ALERTS

COMMAND & CONTROL	MOBILE ACCESS

DECISION SUPPORT & COUNTERMEASURES

LASER DAZZLER	LOUDHAILER	UNDERWATER LOUDHAILER	SEARCHLIGHT

NiDAR integrates sensors including cameras, radar, sonar plus AIS,VHF, tracker and transponder inputs to detect and monitor unknown and known air, surface and underwater objects.

Air detection ~ up to1km
Surface detection ~ up to 20km
Underwater detection ~ up to 1km

Advanced software algorithms classify unknown objects in the vicinity by analysing behavior patterns, shape, size, history and external factors such as weather and location.

NiDAR intelligently ranks potential threat levels, automatically activating smart alerts when user determined warning and alarm zones are breached.

Seamless automated tracking or manual control of cameras within NiDAR aids observation and decision making.

Automated or manual deployment of integrated countermeasures such as searchlights and loud-hailers deter potential approaches and de-escalate threats.

COMMAND & CONTROL (C2) INTERFACE

NIDAR PRESENTS A CLEAR AWARENESS PICTURE SUPPORTING DECISION MAKING VIA AN INTUITIVE TOUCHCREEN USER INTERFACE

OVERVIEW
Satelite image and electronic map backdrop

REAL TIME TRACKING
Multiple (500+) known & unknown air, surface & underwater objects

MULTI-TOUCH CONTROL
Intuitive operation of cameras and deployment of countermeasures

ALARM ZONES
Customisable user defined warning and alarm zones around the asset

EVENT TIMELINES
Geo-located and time stamped data storage for playback and review

SMART ALERTS
Real time visual and sound alarms immediately notify crew and security teams

OBJECT DISPLAY
Live video feed and object speed, size, range, heading, risk level and AIS data

LIVE VIDEO FEEDS
Automated tracking of multiple objects & seamless handover between cameras

HARDWARE & SOFTWARE INTEGRATION

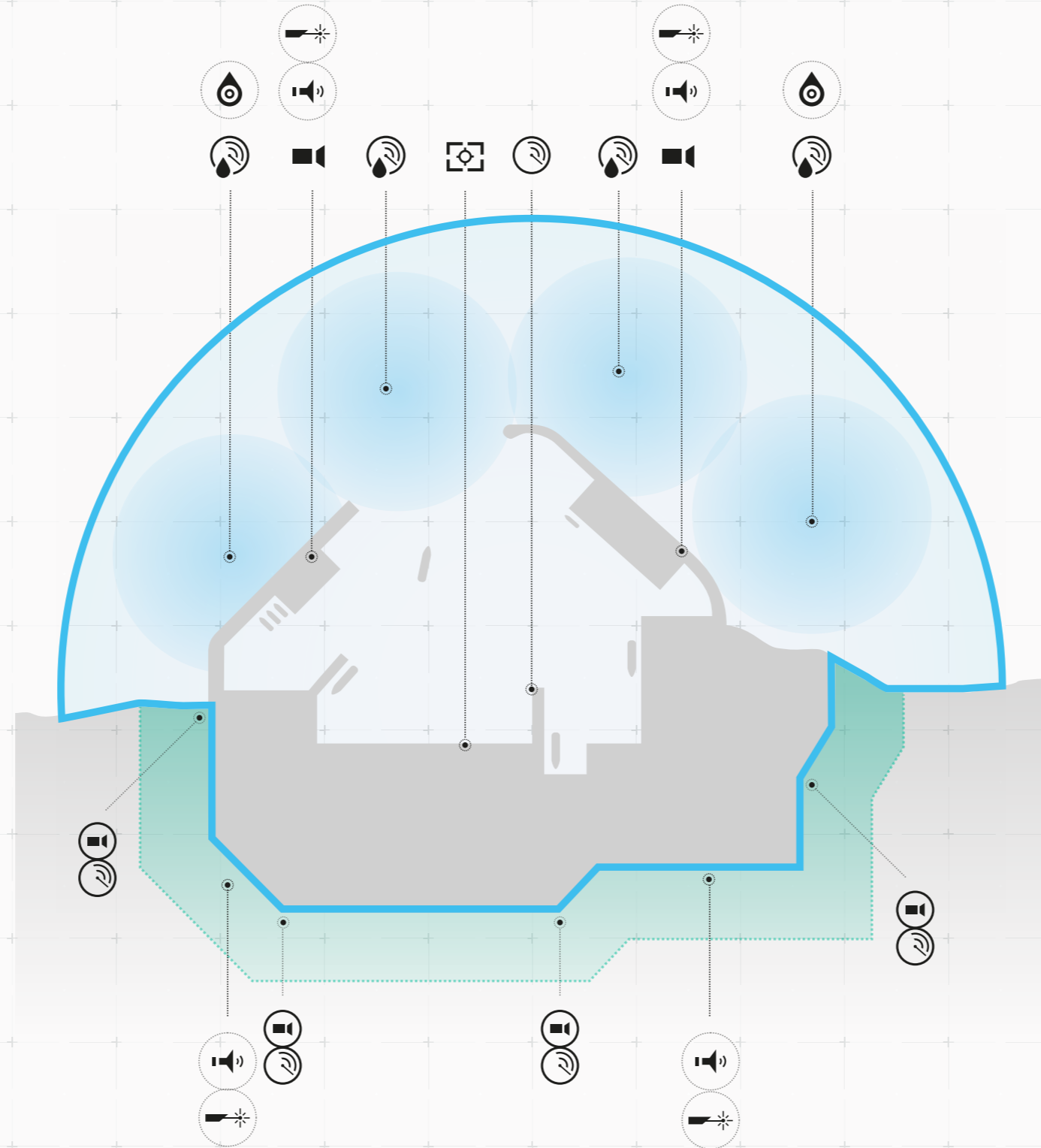## DETECT

**LONG RANGE
SURFACE NAVIGATION RADAR**

**MEDIUM RANGE
SURFACE SECURITY RADAR**

**SURFACE INFRARED
- OPTICAL CAMERAS**

**UNDERWATER DIVER
DETECTION SONAR**

BLUEFORCE TRACKERS / TRANSPONDERS

RADIRGUARD

CLASSIFY

**NIDAR SERVER
& DATA STORAGE**

**NIDAR COMMAND
& CONTROL STATION**

NIDAR MOBILE COMMAND

RESPOND

**SURFACE LOUDHAILER
& LASER DAZZLER**

SURFACE SEARCHLIGHT

**UNDERWATER
LOUDHAILER DETERRENT**

INFRASTRUCTURE SAFETY & SECURITY PROTECTION

THE NIDAR SYSTEM IS MODULAR, SCALEABLE AND FULLY CUSTOMISABLE TO THE ASSET AND SECURITY REQUIREMENTS

SYSTEM

LONG-RANGE 360° AWARENESS & PERIMETER SECURITY ☑

AIR, SURFACE & UNDERWATER PROTECTION AS REQUIRED ☑

INTEGRATION OF MULTIPLE DIFFERENT SENSORS & DATA INTO A SINGLE SYSTEM ☑

SMART ANALYSIS & CLASSIFICATION OF OBJECTS ☑

USABILITY

INTUITIVE MULTI-TOUCH COMMAND & CONTROL INTERFACE ☑

CUSTOMISABLE SURVEILLANCE & ALARM ZONES ☑

INTEGRATED BLUEFORCE TRACKING & PERSONNEL MONITORING ☑

AUTOMATED & MANUAL DEPLOYMENT OF COUNTERMEASURES ☑

SECURE REMOTE ACCESS VIA SMART MOBILE DEVICES ☑

BENEFITS

INCREASED DETECTION & REACTION TIME ☑

REDUCED WORKLOAD & LOW FALSE ALARMS ☑

EASE OF INSTALLATION WITH NEW OR EXISTING HARDWARE ☑

MINIMAL USER TRAINING & LOW MAINTENANCE ☑

GLOBAL AFTER-SALES SUPPORT ☑
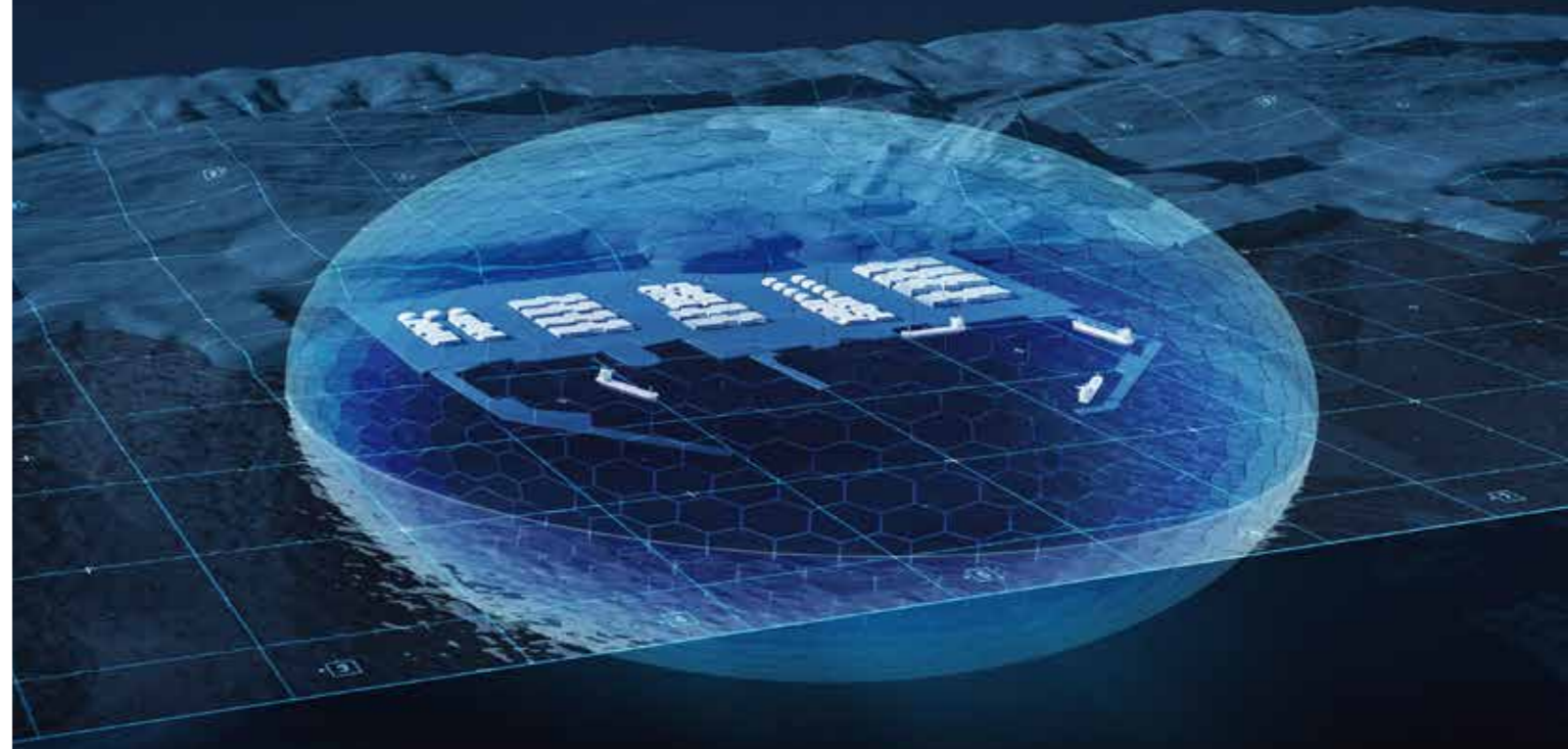
"OUR BRIEF TO MARSS WAS FOR THE MOST COMPLETE YACHT SECURITY PICTURE INCLUDING AUTOMATIC '360 DEGREE' INTRUDER DETECTION PROVIDING OUR VESSEL WITH THE HIGHEST LEVEL OF PROTECTION."

Chief Security Officer, 120m+ New Build Project