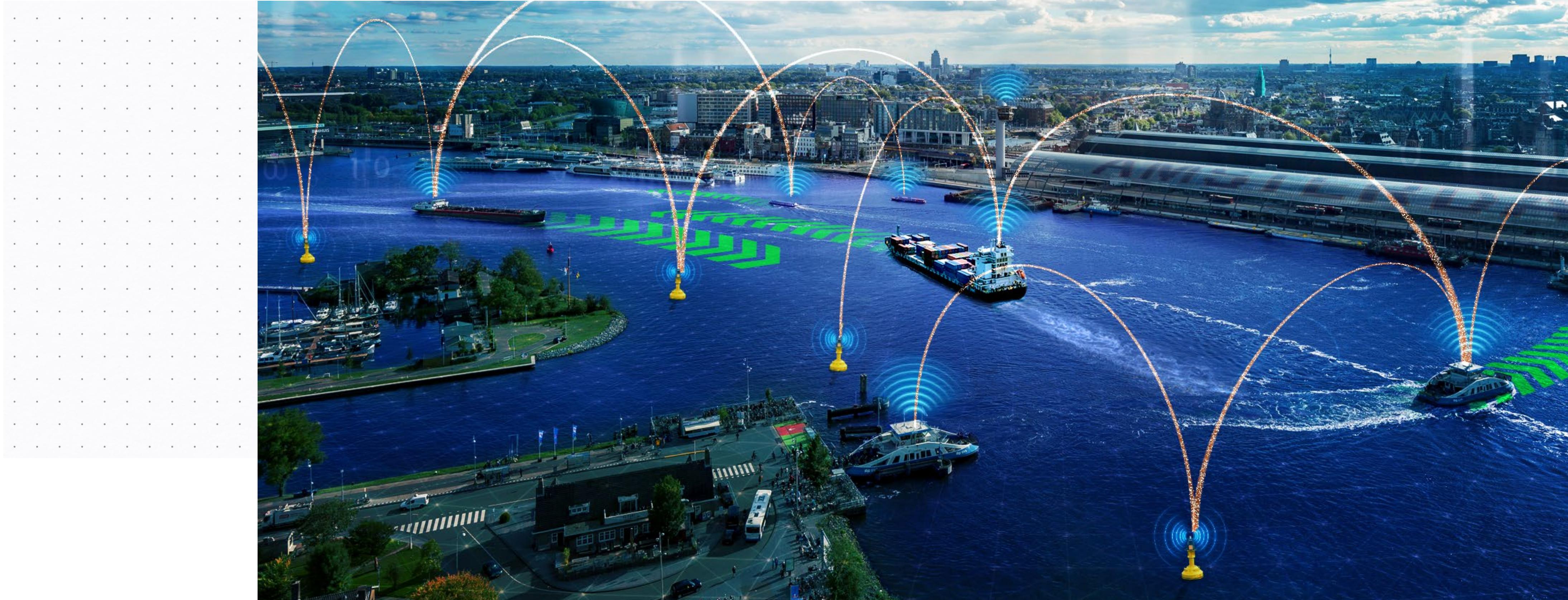# Digital Aids to Navigation Systems

A NEW GENERATION OF DIGITAL NAVIGATION SAFETY & EFFICIENCY FOR PORTS AND WATERWAYS

2023

About SRT

The global leaders in next generation digital navigation aids
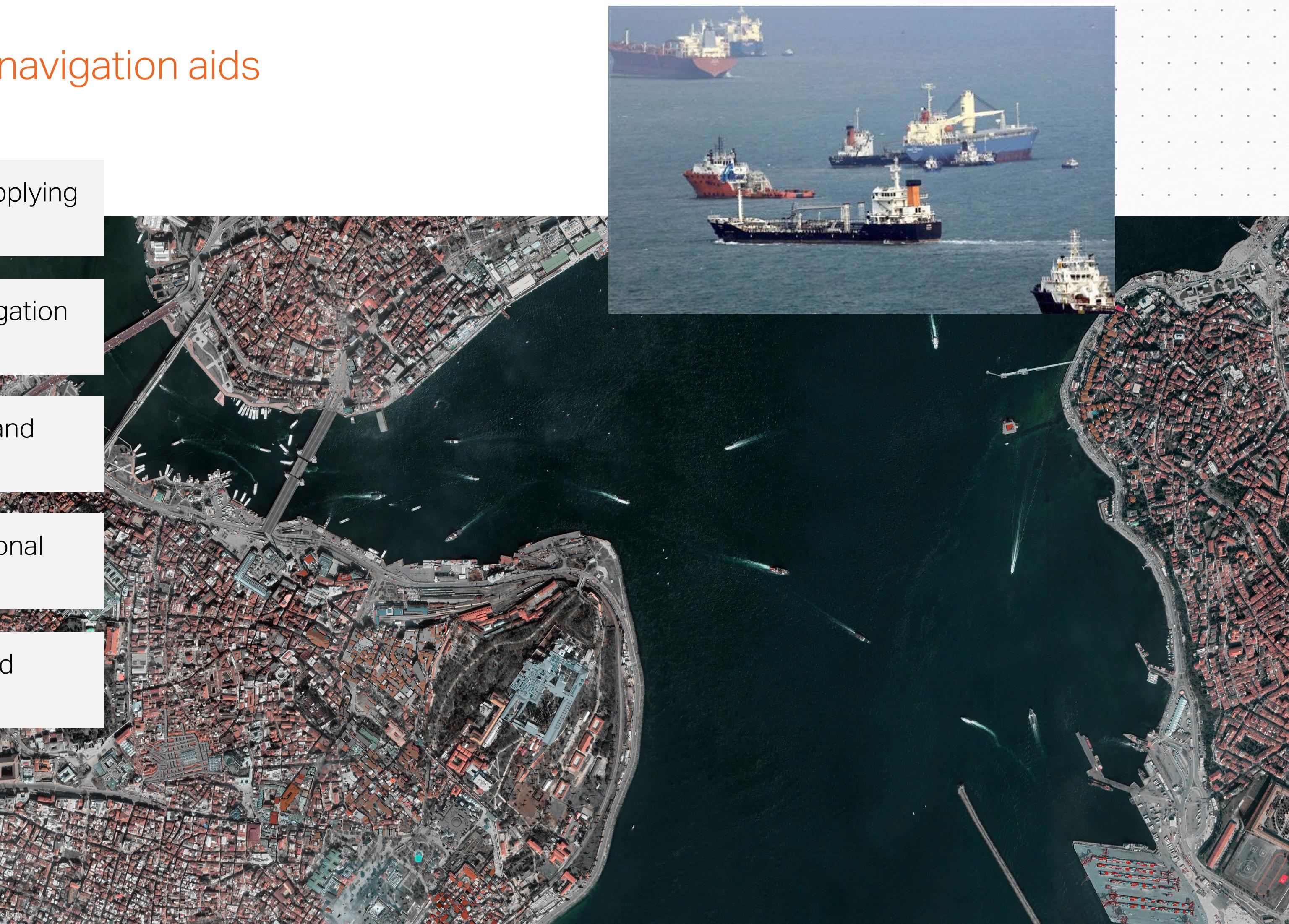
The global leader in digital navigation aids for over 20 years supplying customers around the world.

Specialists in the development of advanced digital aids to navigation technologies and solutions.

We work and consult with customers to deliver both standard and customised solutions.

SRT digital navigation aids are the preferred choice of professional and national agencies worldwide

Our products are proven to deliver superlative performance and functionality with unmatched reliability

What are Digital Aids to Navigation?

Real-time navigation information that improves navigation safety and efficiency.

DAS systems use real-time AIS to stream live real-time navigation information to vessels, VTS centres and authorities.

DAS delivers vital navigation information that significantly enhances vessel and infrastructure safety and efficiency.
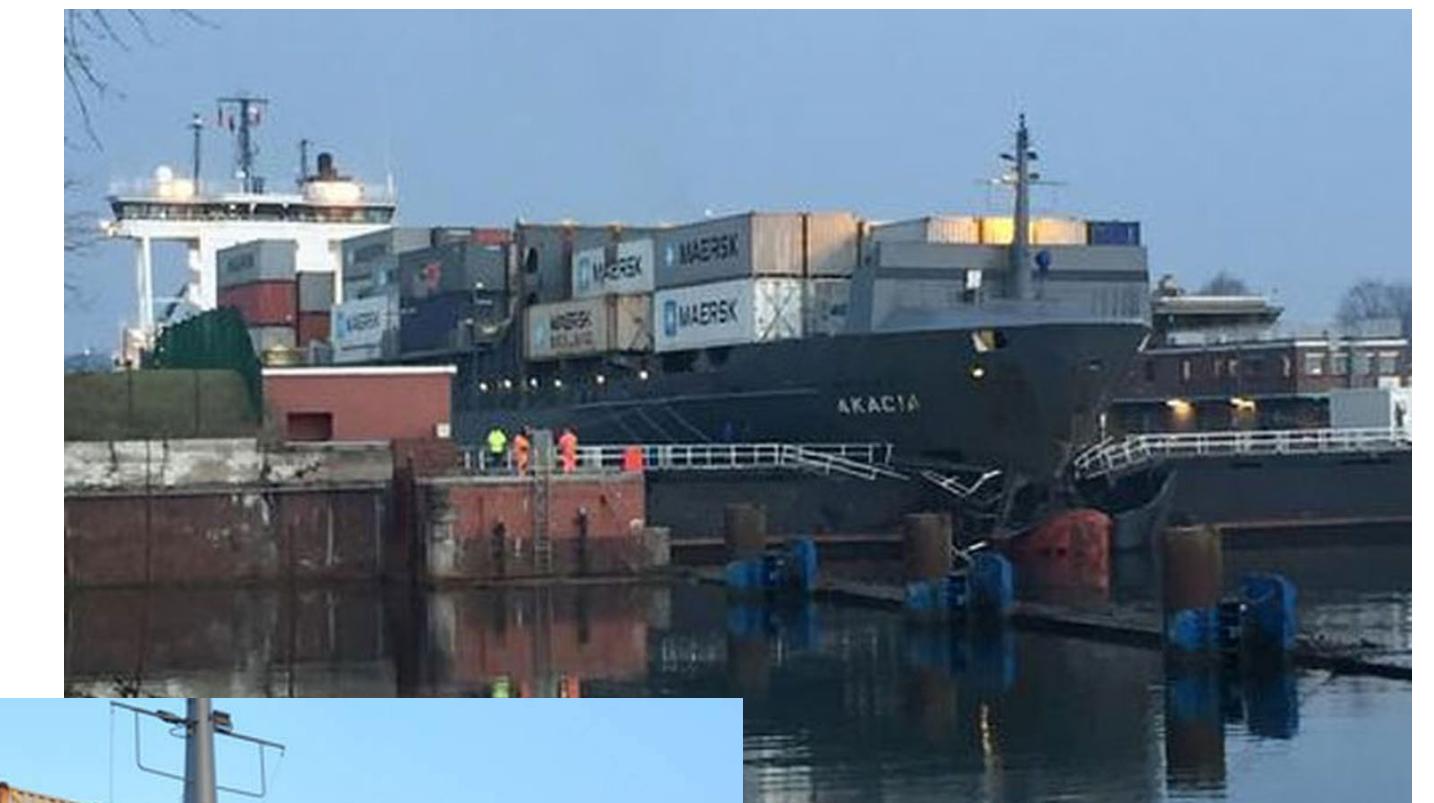
DAS systems are easily fitted onto existing physical infrastructure, such as buoys, to provide a seamless digital information overlay.

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Benefits of DAS

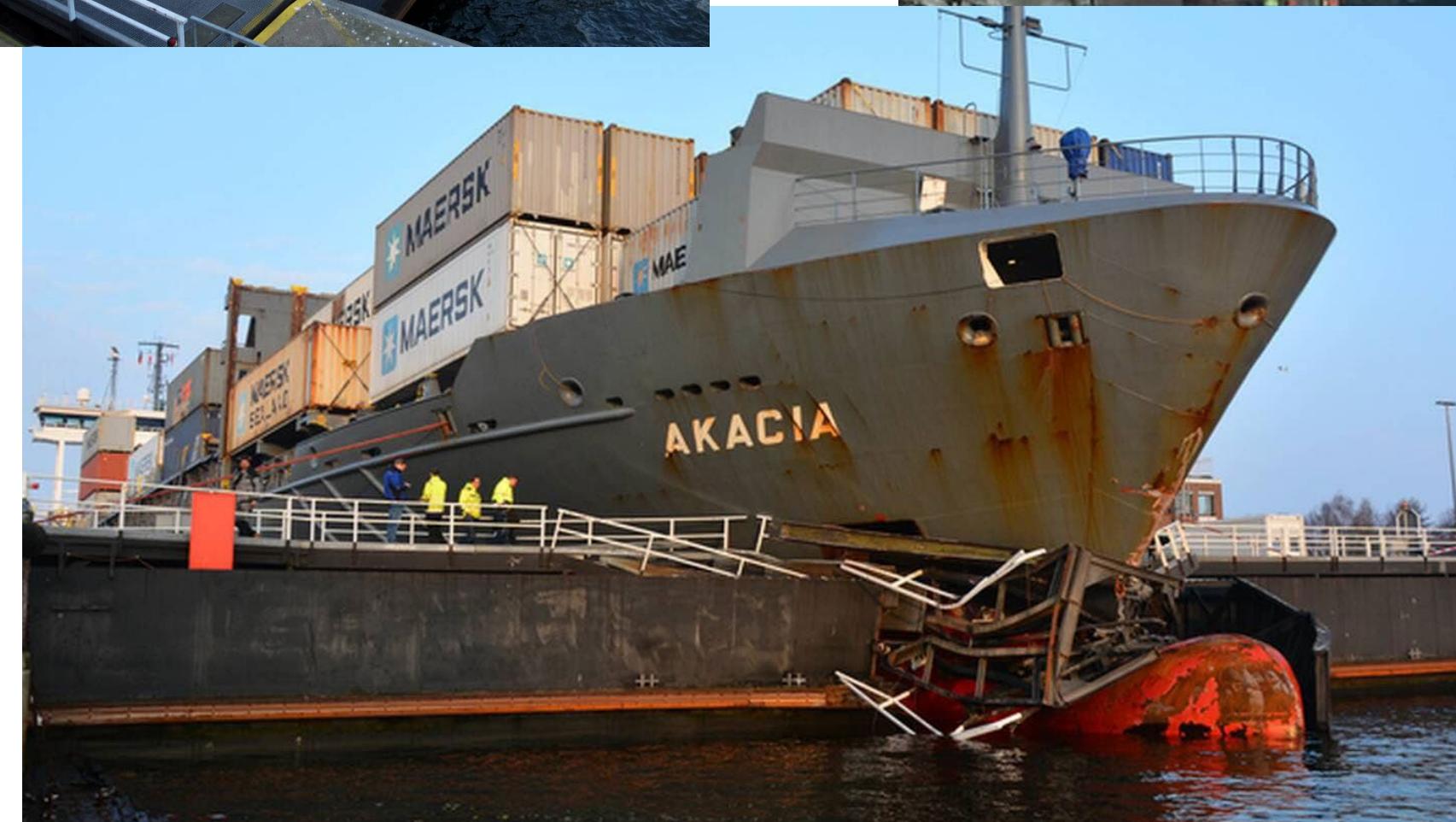## Improved navigation safety and efficiency reduces risk, costs and liability.

SAFETY
Digital marking of hazards, information on infrastructure status and lanes substantially increases safety of vessel activity.

ENVIRONMENT
Reduced accidents combined with active pollution & emissions monitoring help protect the environment.

EFFICIENCY
Improved vessel routing, docking and information on the status of relevant infrastructure such as tidal bridge clearances and lock status all improve operational efficiencies.

RISK
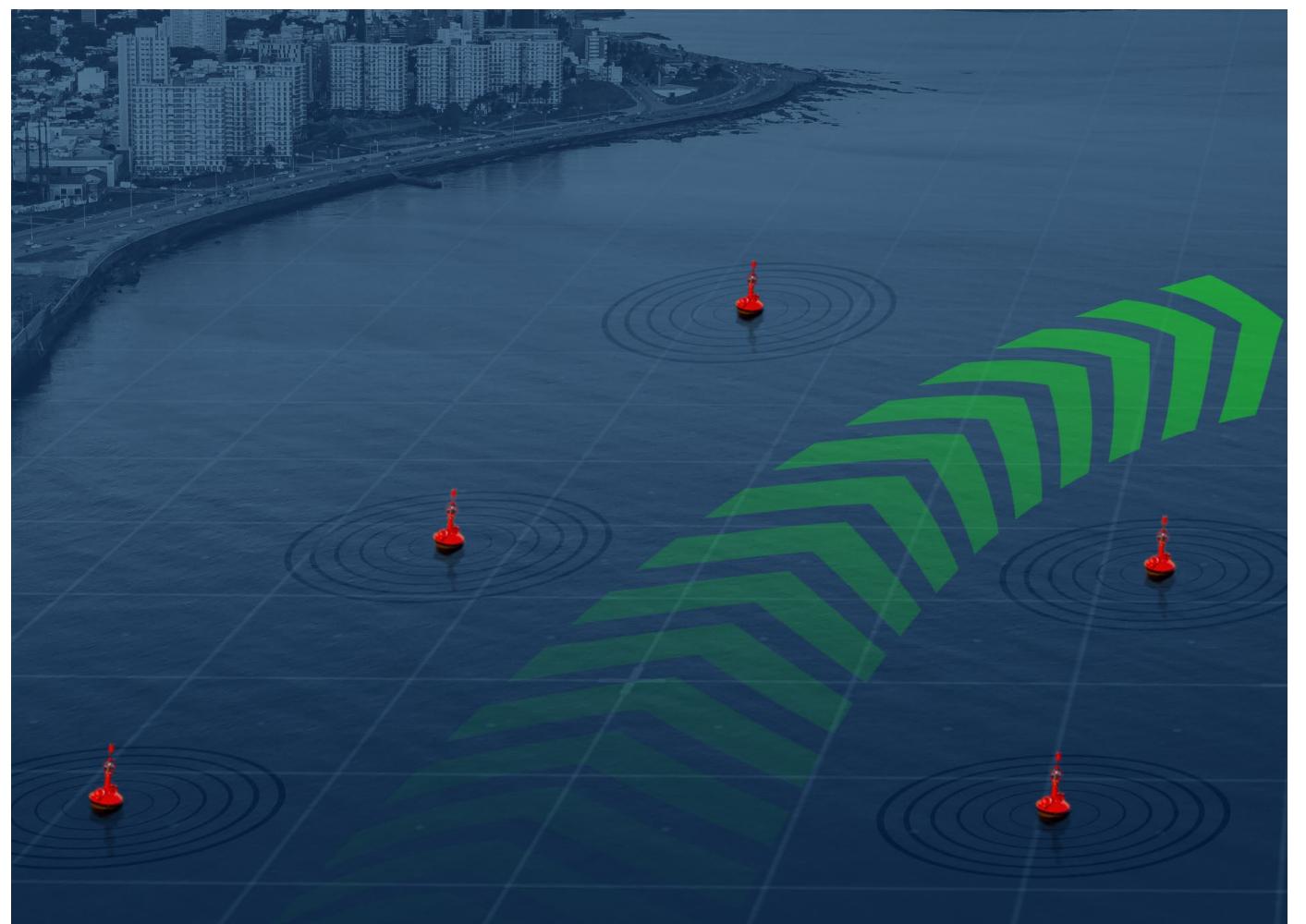The availability of high quality reliable navigation information significantly reduces risk as well as associated liabilities.

MV Akacia - hits closed lock. The ship and lock are severely damaged. DAS would help avoid this accident by transmitting the lock status in real time to the vessel, triggering alerts and allowing time to adjust speed to arrive at the right time.
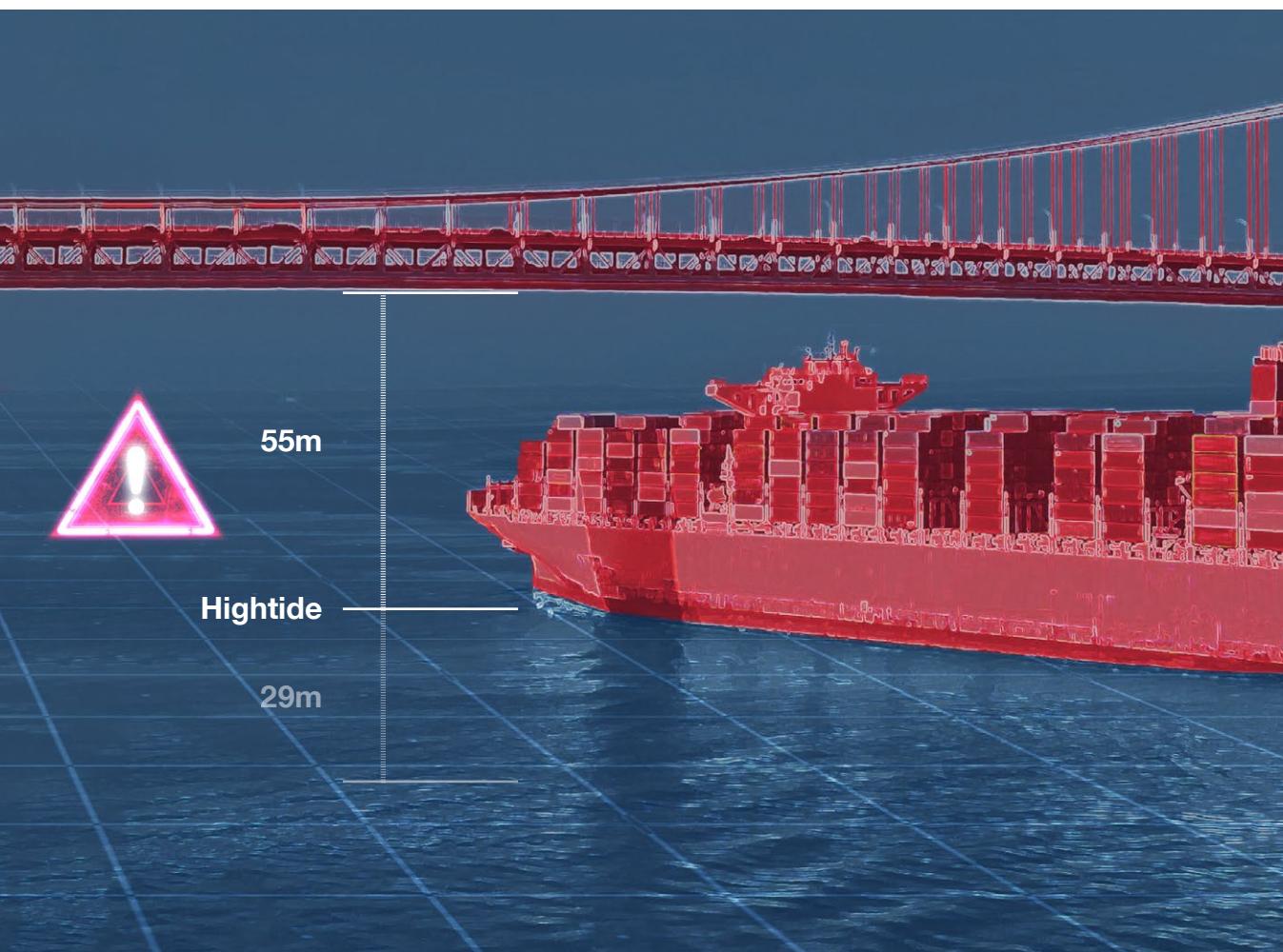
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DAS – Use Cases

DAS are flexible with multiple deployment and
use opportunities across any port or waterway.
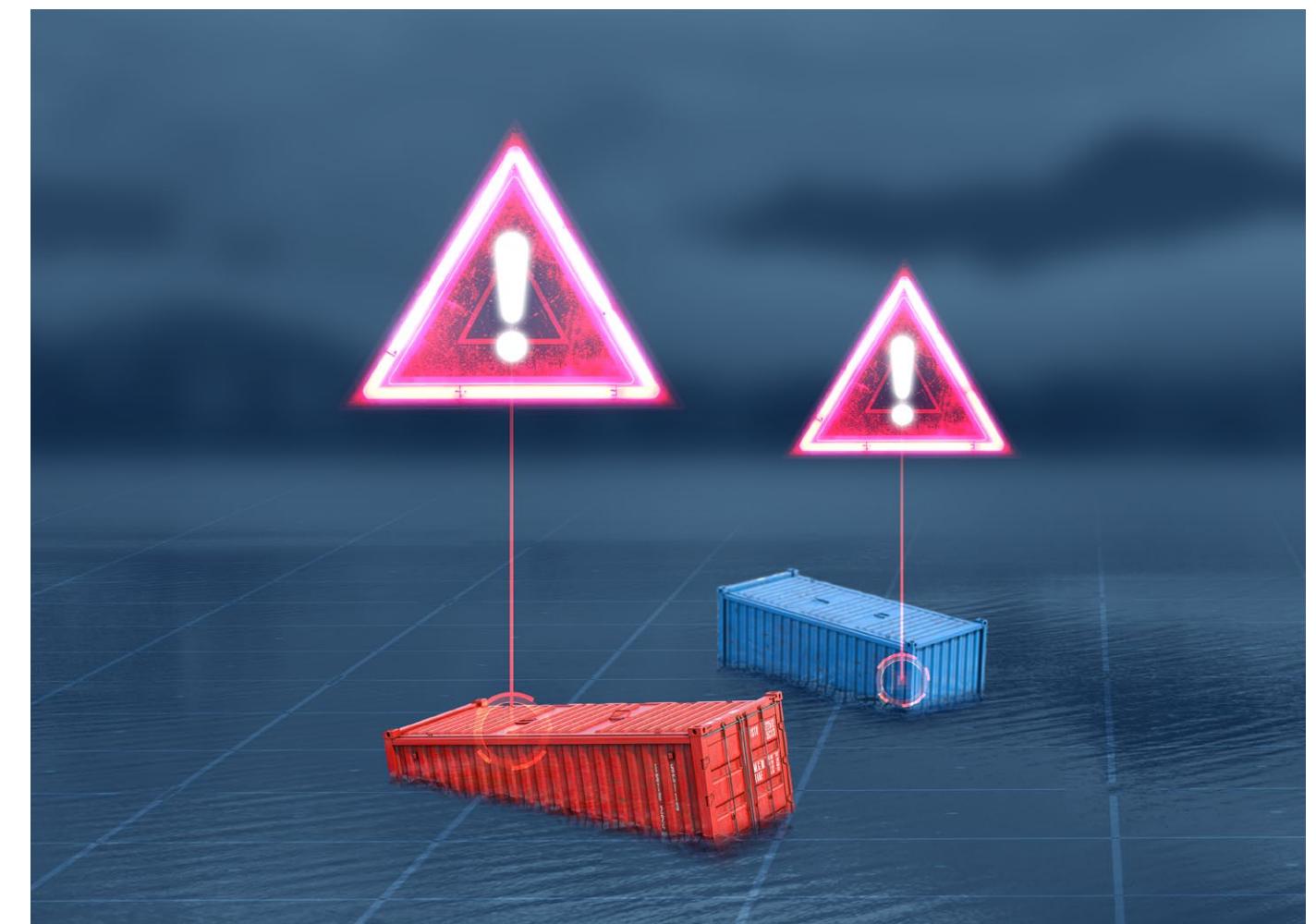
ELECTRONIC MARKING OF BUOYS

Electronically mark & monitor buoys and
other physical AtoN's as well as remotely
monitor performance and health of other
systems such as lanterns in real time.
Provide electronic guidance to vessels for
safer more efficient operation.

AIR BRIDGE GAP

Automatically provide navigation critical
information such local weather, depth
and tide, as well as more sophisticated
information such as bridge clearances and
lock or dock status.

TEMPORARY NAVIGATION HAZARD ALERT

Alert shipping to unexpected uncharted
hazards that are either permanent or
temporary.

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How DAS Works

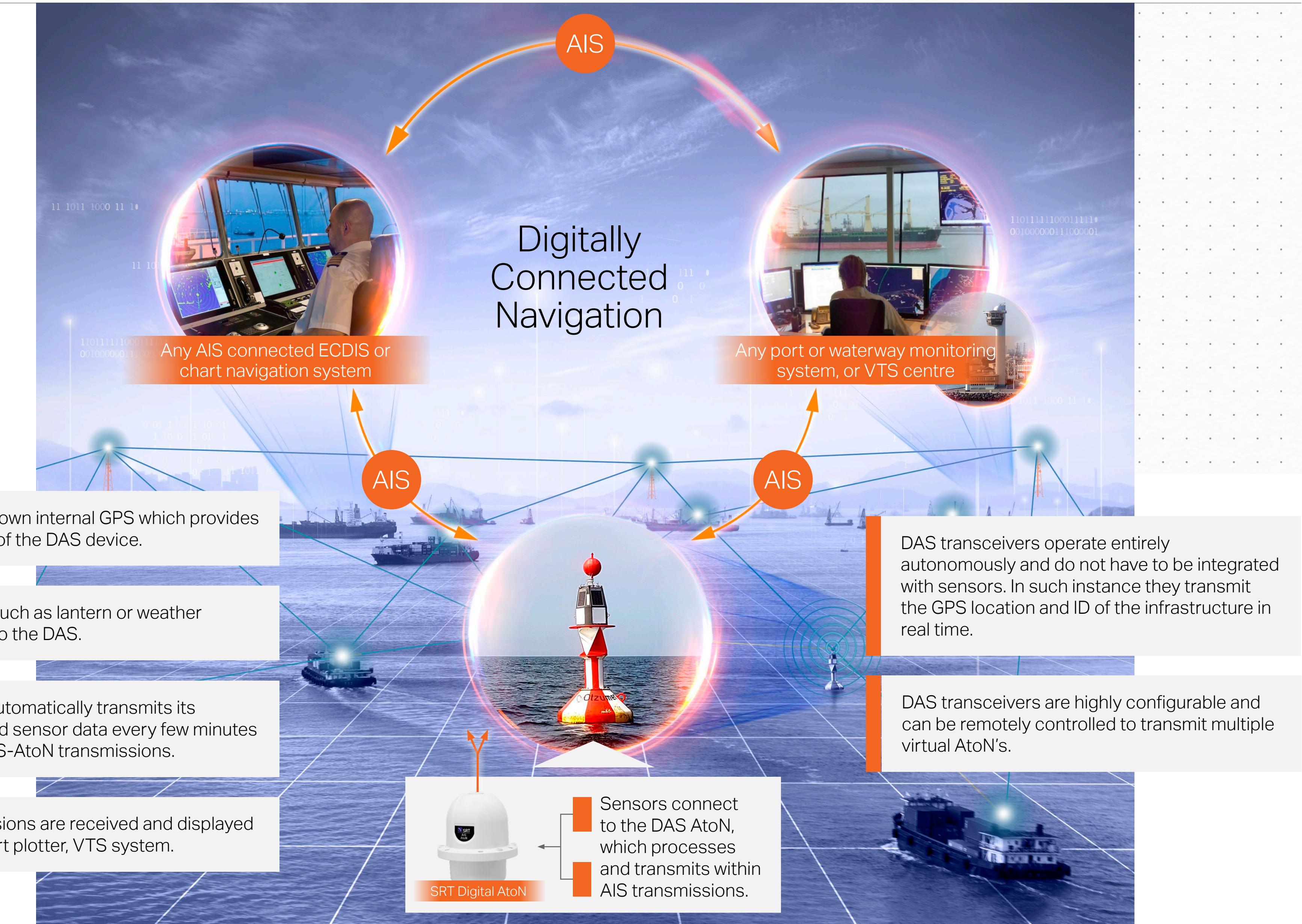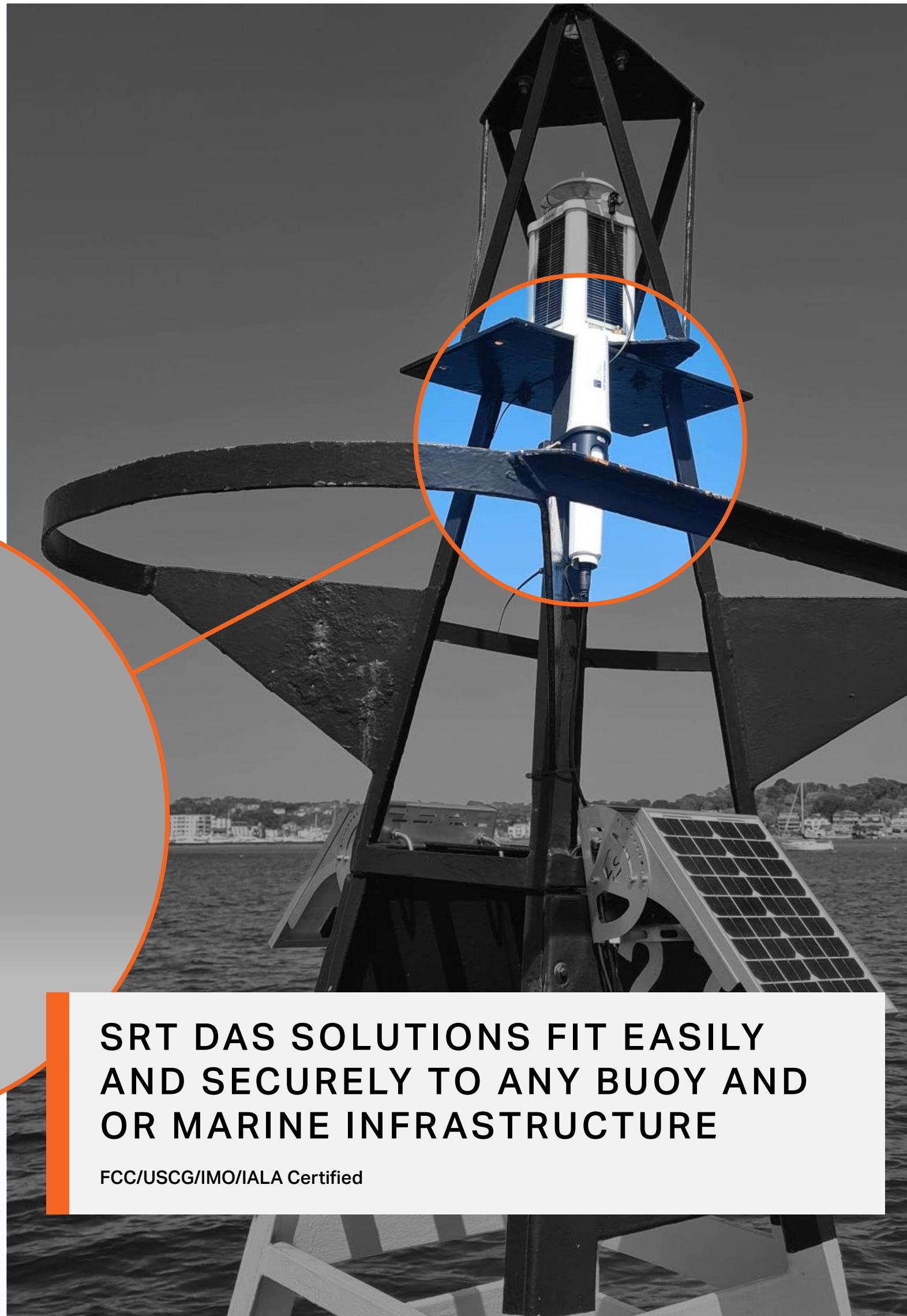DAS uses certified AIS transceivers connected to sensor systems to share real-time information with vessels, VTS centres, etc.

AIS

Digitally Connected Navigation

Any AIS connected ECDIS or chart navigation system

Any port or waterway monitoring system, or VTS centre

AIS

AIS

All DAS have their own internal GPS which provides accurate position of the DAS device.

External sensors such as lantern or weather sensors connect to the DAS.

DAS transceiver automatically transmits its position, status and sensor data every few minutes using specialist AIS-AtoN transmissions.

DAS AIS transmissions are received and displayed by any ECDIS, chart plotter, VTS system.

DAS transceivers operate entirely autonomously and do not have to be integrated with sensors. In such instance they transmit the GPS location and ID of the infrastructure in real time.

DAS transceivers are highly configurable and can be remotely controlled to transmit multiple virtual AtoN's.

Sensors connect to the DAS AtoN, which processes and transmits within AIS transmissions.
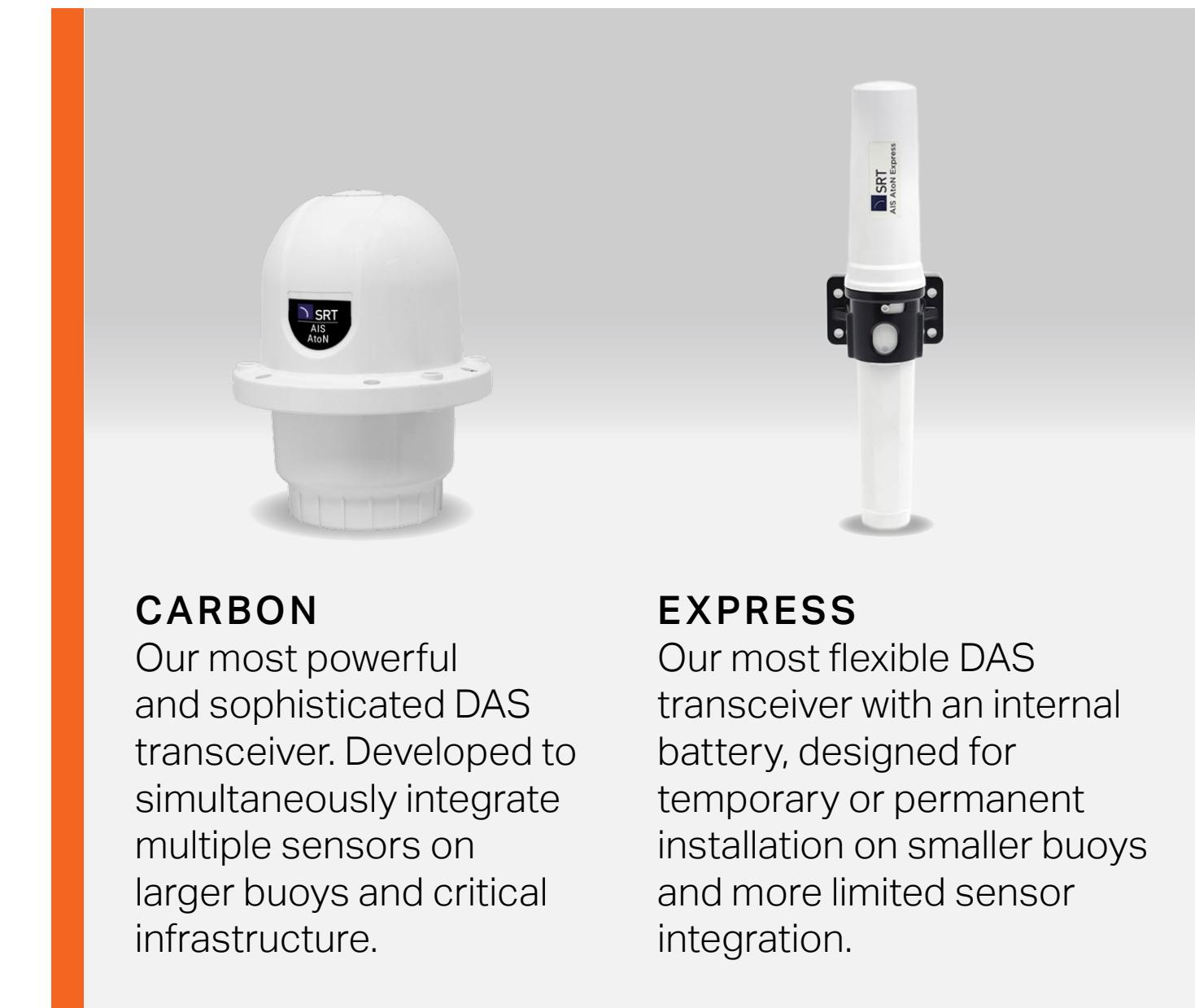
SRT Digital AtoN

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SRT DAS Products

A complete, flexible and highly customisable range of digital AtoN solutions for all applications.

SRT DAS SOLUTIONS FIT EASILY AND SECURELY TO ANY BUOY AND OR MARINE INFRASTRUCTURE

FCC/USCG/IMO/IALA Certified

SRT DAS solutions are built around a robust fully certified range of ultra sophisticated AIS AtoN transceivers, which can be configured and customised for your specific requirements.

CARBON
Our most powerful and sophisticated DAS transceiver. Developed to simultaneously integrate multiple sensors on larger buoys and critical infrastructure.

EXPRESS
Our most flexible DAS transceiver with an internal battery, designed for temporary or permanent installation on smaller buoys and more limited sensor integration.

DAS SOLUTION KITS

We have a growing range of off-the shelf kits which provide immediate turn-key easy to fit solutions problems such as buoy and lantern monitoring.

DAS - Solutions that Enhance Navigation Safety and Efficiency

Proven proprietary technology powering a full range of products, solutions and consultancy services that enables any port, infrastructure owner, or waterway authority to digitise navigation aids and improve navigation safety, and safety and remote monitoring.

Speak with the global source of Digital AtoN and with our specialist team to discuss and plan your requirements, and how we can help you achieve your objectives.

Contact our specialist team to discuss your requirements and how we can help.

das@srt-marine.com

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