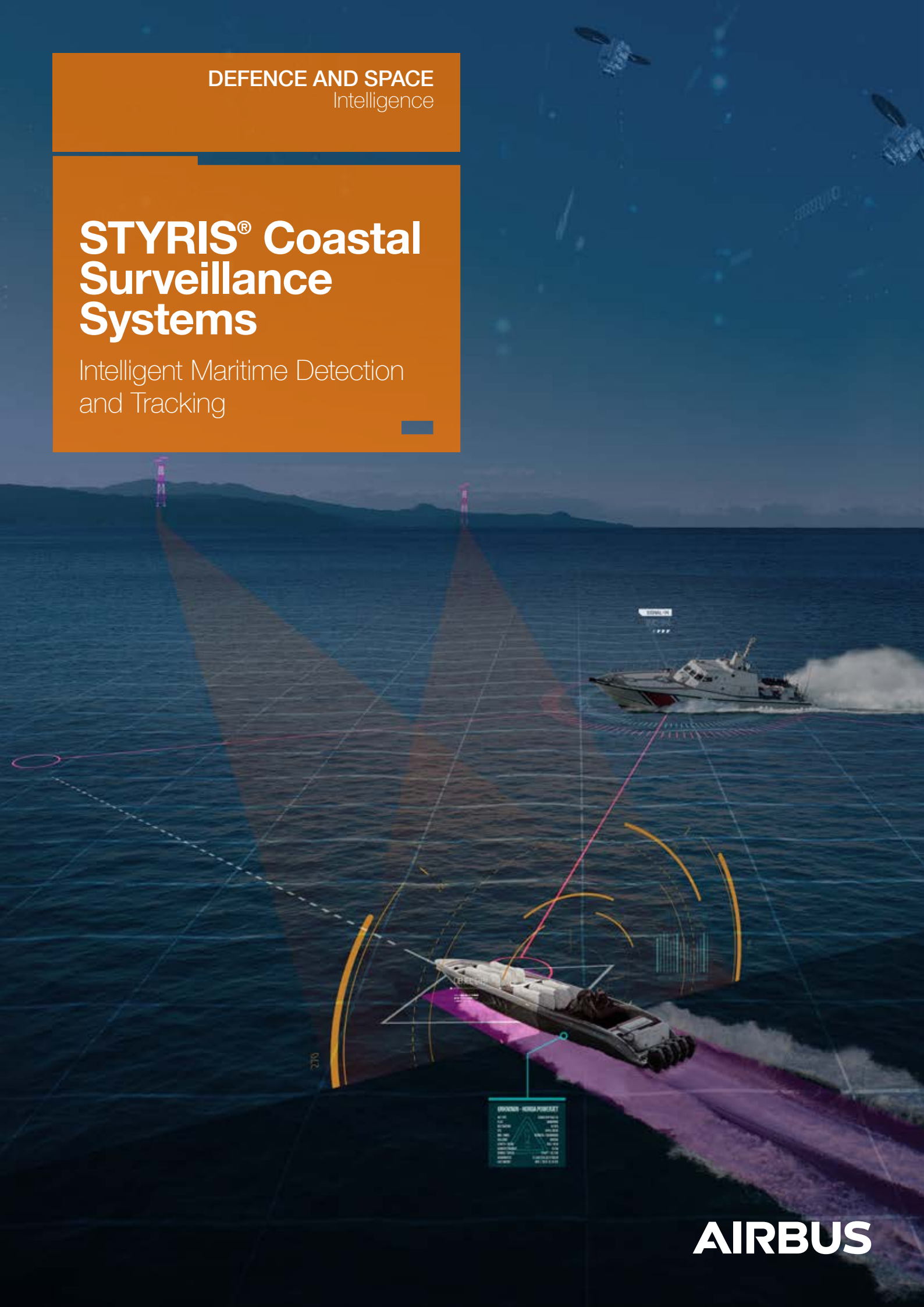


DEFENCE AND SPACE
Intelligence

STYRIS® Coastal Surveillance Systems

Intelligent Maritime Detection
and Tracking



AIRBUS

STYRIS®

Advanced Coastal Surveillance Systems

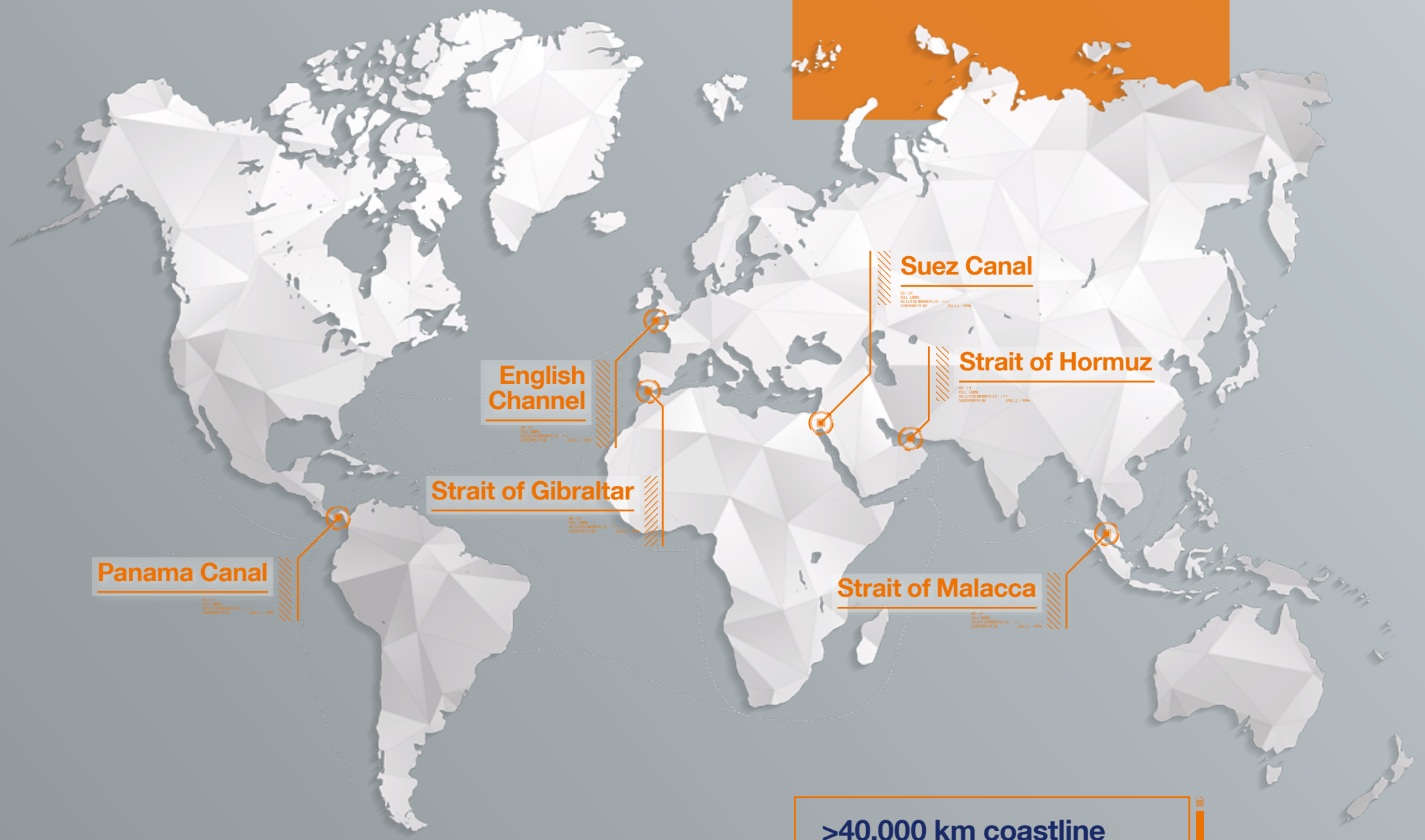
STYRIS represents the world's most advanced integrated blue border integrity and maritime domain awareness solution, supporting the full spectrum of safety and security requirements.

As one of the most advanced Coastal Surveillance Systems (CSS), STYRIS integrates the broadest range of relevant maritime sensors to deliver real-time tracking and data fusion – providing an accurate, recognised maritime picture at all times.

Developed by Airbus specifically for maritime applications, the unique software brings together the collection, processing, consolidation, distributing and visualisation of critical data into an intuitive platform for port authorities, defence ministries, navies, coastguards, police and commercial organisations.

STYRIS is highly flexible and designed to suit the highest level of customer requests to drive multi-agency coordination, accelerate decision-making and streamline workflows.

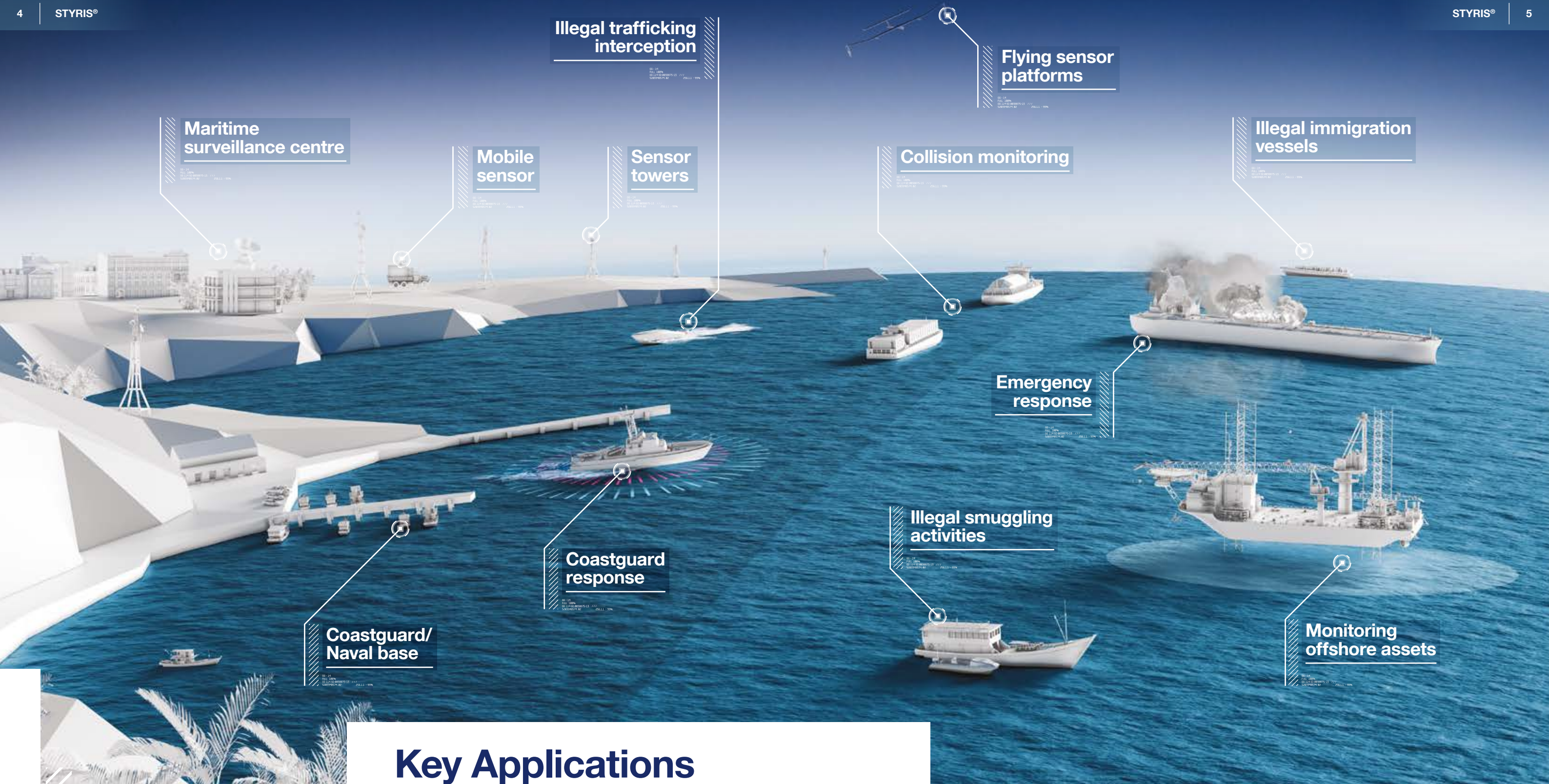
- A best-in-class solution for enforcing border integrity and navigation safety:**
- Advanced radar processing for small targets
 - Multi-sensor data fusion
 - Real-time recognised maritime picture
 - Tools to support decision-making
 - Automatic abnormal behaviour analysis
 - Multi-agency system support
 - Cyber security



Regional Maritime Traffic Monitoring

Airbus' real-time systems are already monitoring the main hot spots of maritime traffic around the globe.

- >40,000 km coastline
- >50% of the world's maritime trade is monitored by STYRIS
- >30+ years' expertise
- >250+ systems delivered



Key Applications

Blue Border Security Enforcement

- Protection of state jurisdiction and the security of maritime borders
- Mandatory ship reports
- Support to coastal defence

Detection of Illicit Activities

- Early detection and alerts of suspicious behaviour
- Fight against smuggling, trafficking, illegal immigration, piracy, and terrorism
- Control of fisheries

Navigational Safety

- Aid Search and Rescue operations (SAR)
- Traffic monitoring and warnings:
 - Collision
 - Traffic separation violation
 - Dangerous movements

Environmental Protection

- Alerting authorities to protect critical offshore assets: Oil platforms, wind farms
- Accident prevention
- Fight against pollution

Core Capabilities

Best-in-class core surveillance features as a foundation:

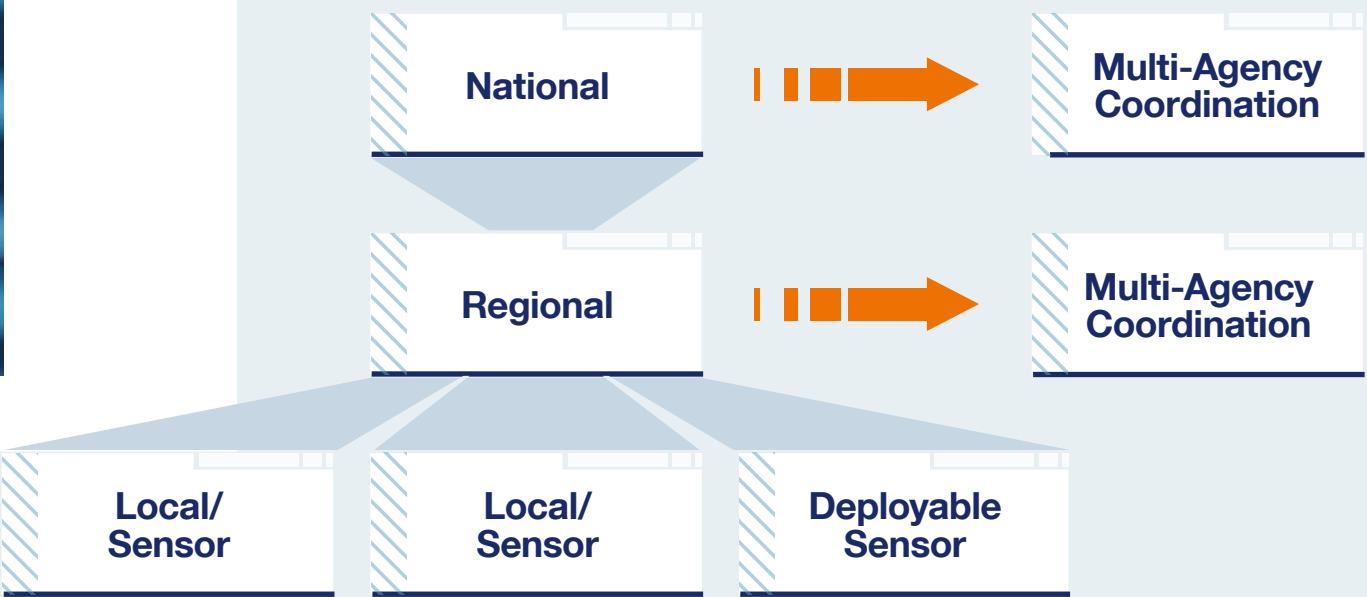
- Real-time advanced data processing
- Build and share Recognised Maritime Picture
- Automatic target behaviour analysis
- Automatically identify threats and anomalies
- Flexible Command and Control
- Decision aids tools
- Enhanced traffic pattern analysis
- Database management system
- Mobile sensors/units
- Military and civilian track symbology
- Electronic Nautical Chart (ENC) management
- Blue Force tracking
- Threat Focus
- Recording and Replay
- Sensor Management and System Health monitoring



Multi-Centre

- Interconnected and consistent Recognised Maritime Picture (RMP) through all levels and multiple agencies
- Unique system identifier for tracked objects
- Autonomous regional centre with fallback option during degraded operation
- Multi-nodes architecture by design
- Cyber security – design, solutions and services

STYRIS provides multi-sensor information for multi-collaborative operations.



Key Features



Automatic Target Behaviour Analysis

Suspicious behaviour detection based on a powerful alert rules engine

STYRIS' behaviour analysis capabilities are fully configurable according to each customer's needs and include detection of vessels stopping whilst at sea, abnormal routing, change of speed or direction and blacklisted vessels already involved in previous incidents. This functionality is complemented by an alert management tool to help operators prioritise alerts that may arise concurrently, ranking threats by priority level.



Recognised Maritime Picture

'At a glance' a maritime picture for rapid visibility

STYRIS leverages the full breadth of data acquired by the number of sensors situated along a coastline to provide an instant overview of the complete maritime picture,

displayed on electronic charts (S-57/S-63, Tiff, Raster, etc.). Radar tracks are 'recognised' automatically by correlating AIS and other data sources or manually by the operator tagging a target after radio or electro-optic identification.



Database Integration

Combine data sources for greater value

STYRIS provides a fully integrated, modular database system that includes the ability to integrate various sources of information. Users can layer their own knowledge with existing databases, such as Lloyd's. All relevant vessel

database information is accessible in one click (incl. last voyage owner, certificates, inspection, change history, blacklists, etc.) STYRIS also provides the means to integrate with external databases such as live sources of information or proprietary and intelligence databases.

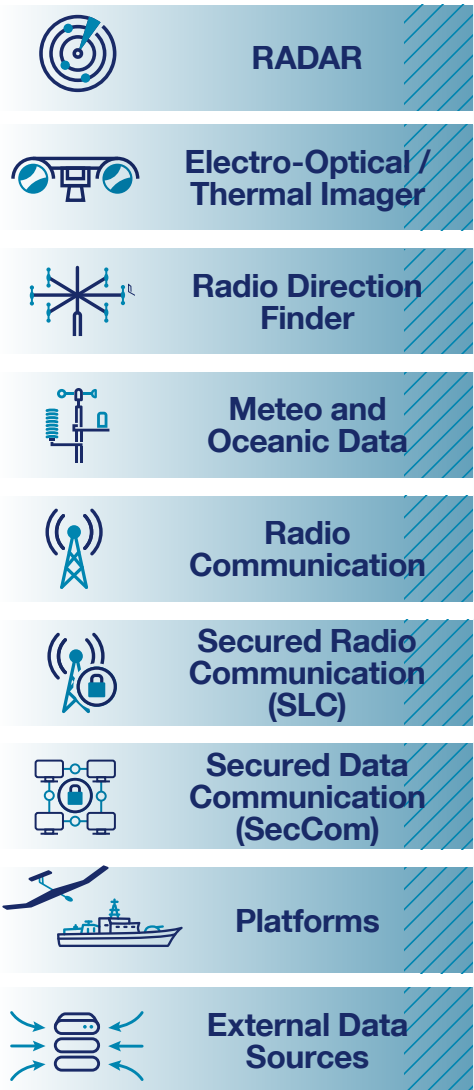


Focus on Threats

Filtering module for a concise view of targets of interest

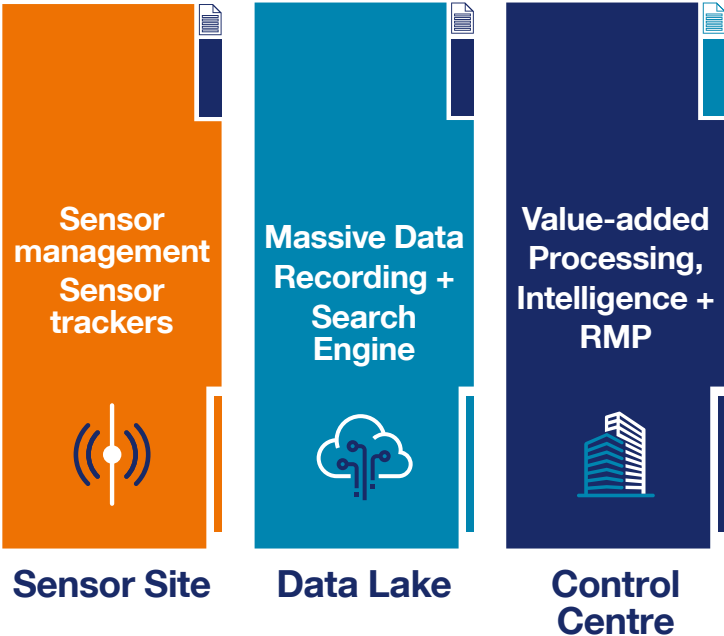
STYRIS' CSS filtering module provides operators with a clear view of relevant targets. Filtering is an ideal function

to categorise targets, focusing on those of interest, with the ability to adapt responses to the operator's mission and clearance. Targets can be filtered according to various criteria such as threat level, origin, attention level, sensor source, etc.



Sensors Coverage & Data Collection

Each sensor and data network is geared to the specific needs of the customer for that area.



STYRIS brings maritime surveillance into the digital era with integration into a data lake, which can easily collect and exchange data with external and open sources systems through API's. This digital data management provides a search engine and enabling application development to enhance intelligence.

Key Features

Enhanced Pattern Analysis

Learn from past events and threats

STYRIS CSS permanently archives all data to enable recorded events to be replayed. When using this functionality, the operator can access all relevant data in a synchronised mode to reproduce the maritime situation at a given time during a specific event. This feature is especially valuable to support operator training.

The number of sensors and data sources in large CSS systems also makes real-time analysis nearly impossible, especially for events that require a longer observation time. With STYRIS, traffic analysis tool, it provides another layer of educational insight, allowing a greater understanding of the maritime activity within a given area over an extended period to determine patterns and identify trends.

Integration of Mobile Surveillance Data

Augment standard data sources

STYRIS offers a specific module to interface and display data feeds from sensors on board of surveillance units (authority's vehicles, aircraft and vessels deployed in an Area of Interest). STYRIS also offers a specific module for deployable truck-mounted sensor sites to fill any gaps in the coastal surveillance coverage of a fixed deployed system.

Via its maritime group, STYRIS users can also take advantage of Airbus' airborne Intelligence Surveillance Reconnaissance (ISR) capabilities, integrating helicopters, maritime patrol aircraft and unmanned aerial vehicles as required by the end-user. STYRIS can also compile an accurate maritime picture that can be accessed remotely, significantly increasing the protection of critical areas and response time when dealing with threats.

Flexible Command and Control

STYRIS has been designed so that the same user interface can be deployed from a stand-alone laptop through to multiple Command and Control centres with multiple layers of authority. It can be accessed and controlled at various levels:

- **Local console**, where the operator is in charge of a specific sector and receives tasks issued by a higher level to respond to incidents and activities.

- **Regional centre**, where missions are planned, and 24/7 operations are conducted. These sites are typically equipped with several operator and supervisor consoles working together with a large display.
- **National control centres**, where high-level information is gathered and strategic decisions are taken. These sites are mainly equipped with large displays with specific functions for briefing, debriefing or crisis management.

Secure Web and Remote Access

STYRIS Web gives access to unclassified - tent or filtered view of the maritime picture via an intranet or the internet for allied services (customs, police, pilots, etc.). It can be accessed from any web browser or mobile device such as a laptop through a simplified HMI.

Providing Support and 24/7 Services

- Maintenance 24/7, 365
- Training
 - ILS & after sales
 - System life cycle management

Why Airbus?

Airbus is the market leader in coastal surveillance with a thorough understanding of threats, environmental conditions and operational challenges.

Thanks to more than 30 years of experience and over 250 systems delivered to fully satisfied customers, Airbus is well placed to provide tailored solutions and services to meet specific customer needs.

End-to-End Solutions

- Airbus is a system integrator and prime contractor
- Delivering turnkey and proven solutions
- Compliant with international standards and local environment factors
- Fully scalable systems with growth potential
- Design to cost
- Commitment on performances
- Long-term support

In-House Integration Capabilities

- Unique platform to challenge our product against real-time sea conditions
- Outdoor platform representative of a coastal station
- Live trials at sea on cooperative and non-cooperative targets tests
- Innovation and new technology evaluation
- Benchmark of sensors
- Optimisation of software processing in real-time/life conditions



In addition to STYRIS' border integrity and maritime sovereignty capabilities, Airbus offers a complete range of complementary imagery and analytics-based services for the maritime industry:

I4D Explorer

GEOINT Data Management Systems

I4D product (Intelligence for Decision) suite is a powerful set of systems for multi-source data management, visualisation, analysis and fusion, allowing smart decision making across land and sea.

Fortion® MediaMining

An intelligence, exploitation and media-mining solution to collect, process and analyse huge amounts of heterogeneous data, through dedicated exploitation and analysis capabilities.

Imagery Services

Data is at the heart of everything today. Our approach has always been to offer multisensor, multi-resolution, multi-source data. We provide you with proprietary access to the largest commercial satellite constellation, as well as a broad range of elevation products and precise layers and grids.

Direct Receiving Station

Process your own products in full security and confidentiality

The Direct Receiving Station (DRS) enables a direct access to Airbus Defence and Space's complete Earth Observation satellite constellation.

Cyber Security

We protect governments, defence, critical infrastructure and enterprise from increasingly complex cyber threats with bespoke solutions that are tailored to our customer's specific needs and operational constraints.



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