OCIANA AI Platform
Maritime Risk and GEOINT Capability Overview

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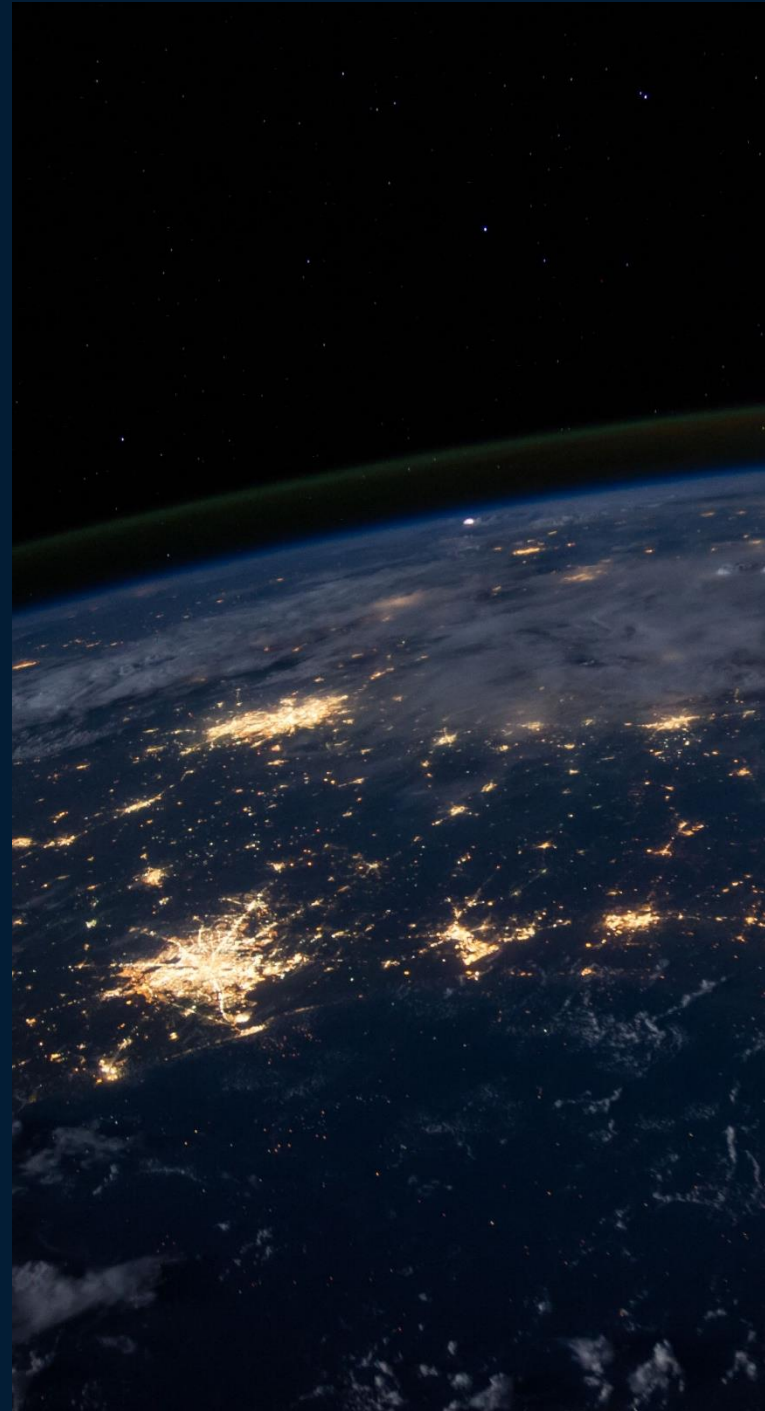
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Introduction

- 100% Canadian owned

- Offices in Halifax and Ottawa

- An AI maritime company

- 35 AI data scientists, engineers

Overview

- What is OCIANA?

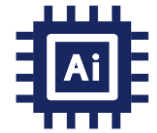- Sample Capabilities

- Application Demo

What is OCIANA?

- What is OCIANA?
- Capability Modules
- Sample Use Cases

OCIANA: Maritime AI Platform

- Integrates multiple streaming data sources
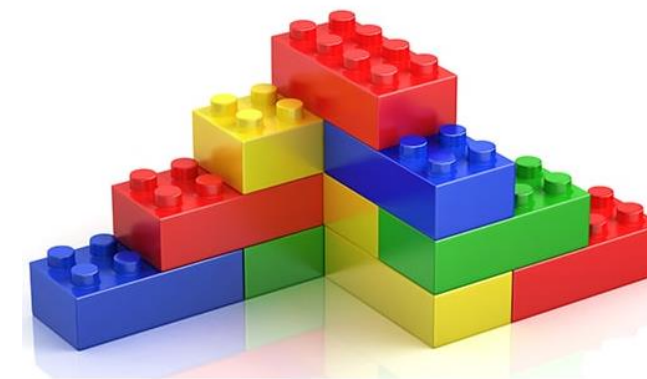- Extracts patterns
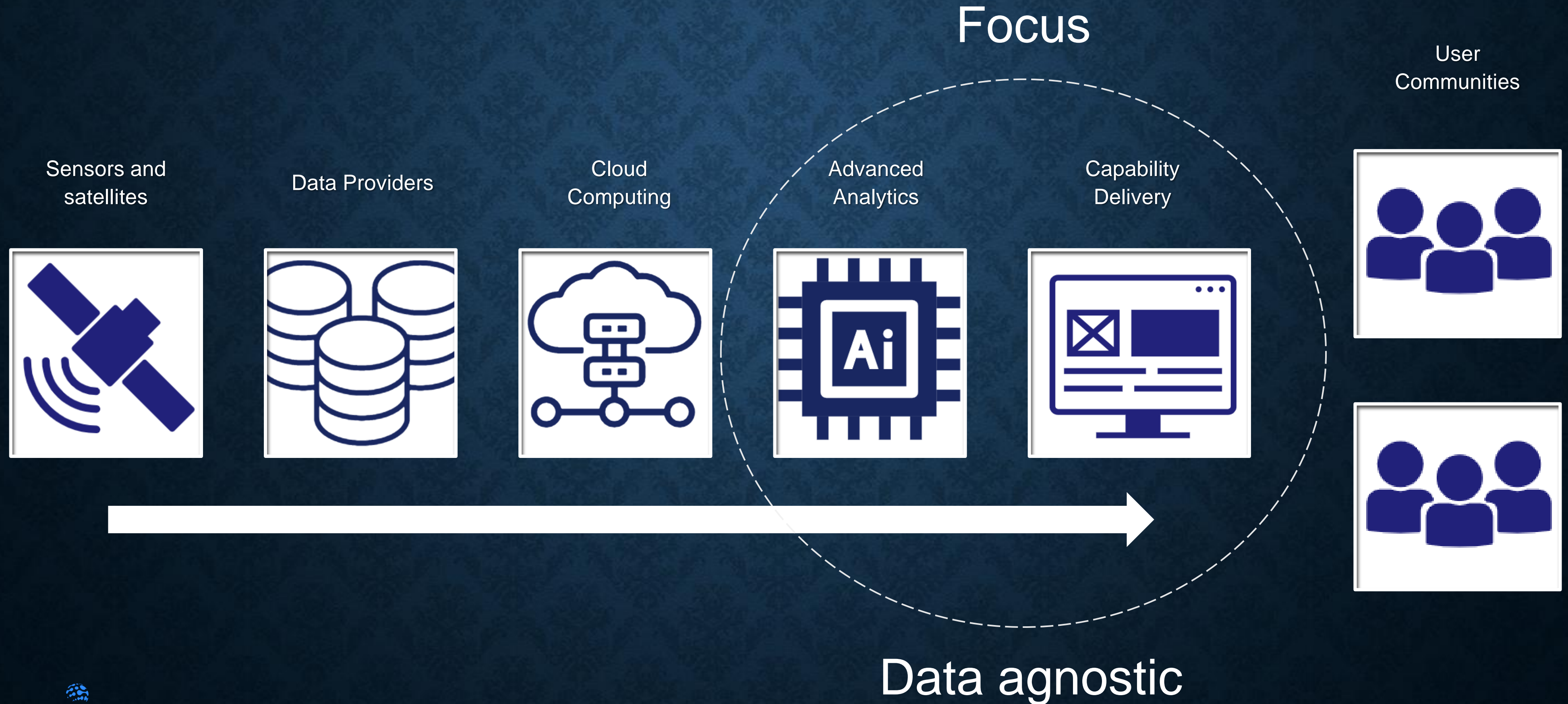- Provides domain awareness and intelligence
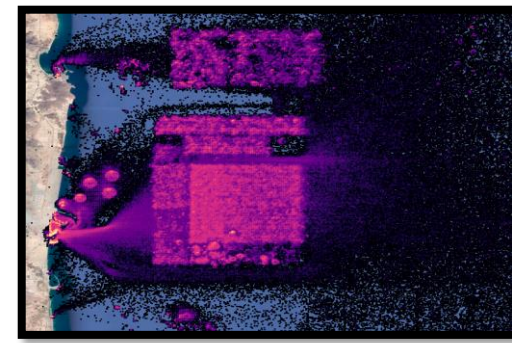- Supports response and coordination

→ Modular

DATA value chain

Focus

User Communities

Sensors and satellites

Data Providers

Cloud Computing

Advanced Analytics

Capability Delivery

Data agnostic

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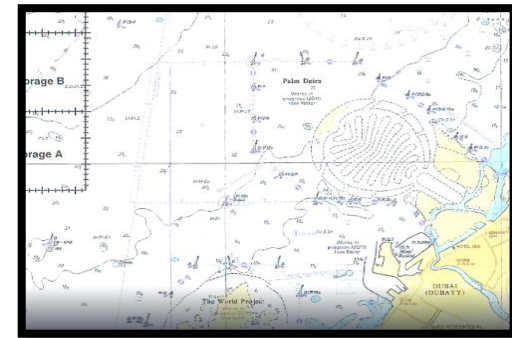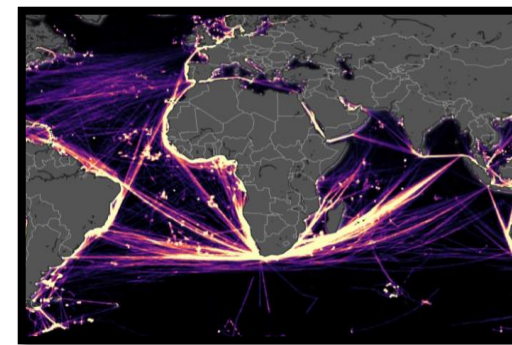# OCIANA™

- What is OCIANA?
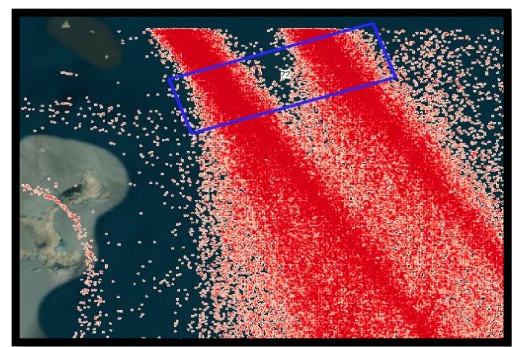- Capability Modules
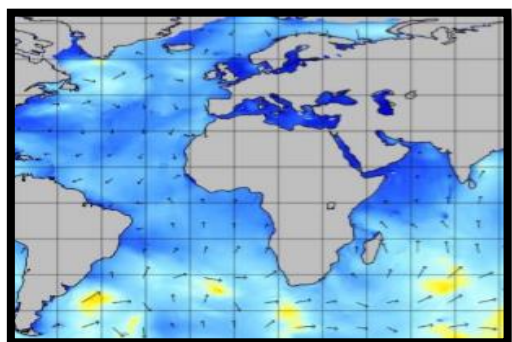- Sample Use Cases

In-shore and port patterns

Regulatory Environments

Real-Time Global Data

Vessel Routes and Speeds over time
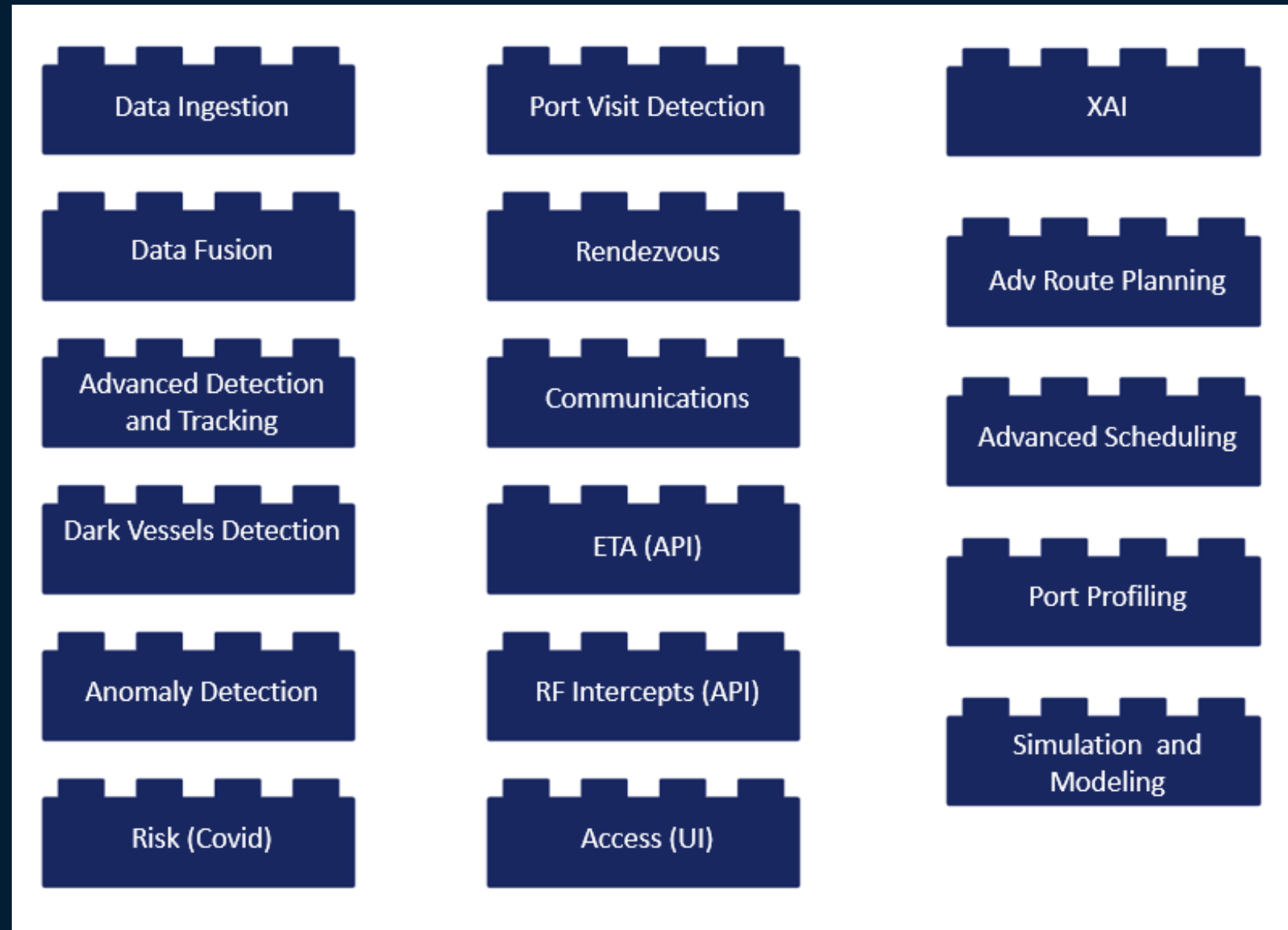
Meteorological Data

Algorithms extract patterns and actionable intelligence

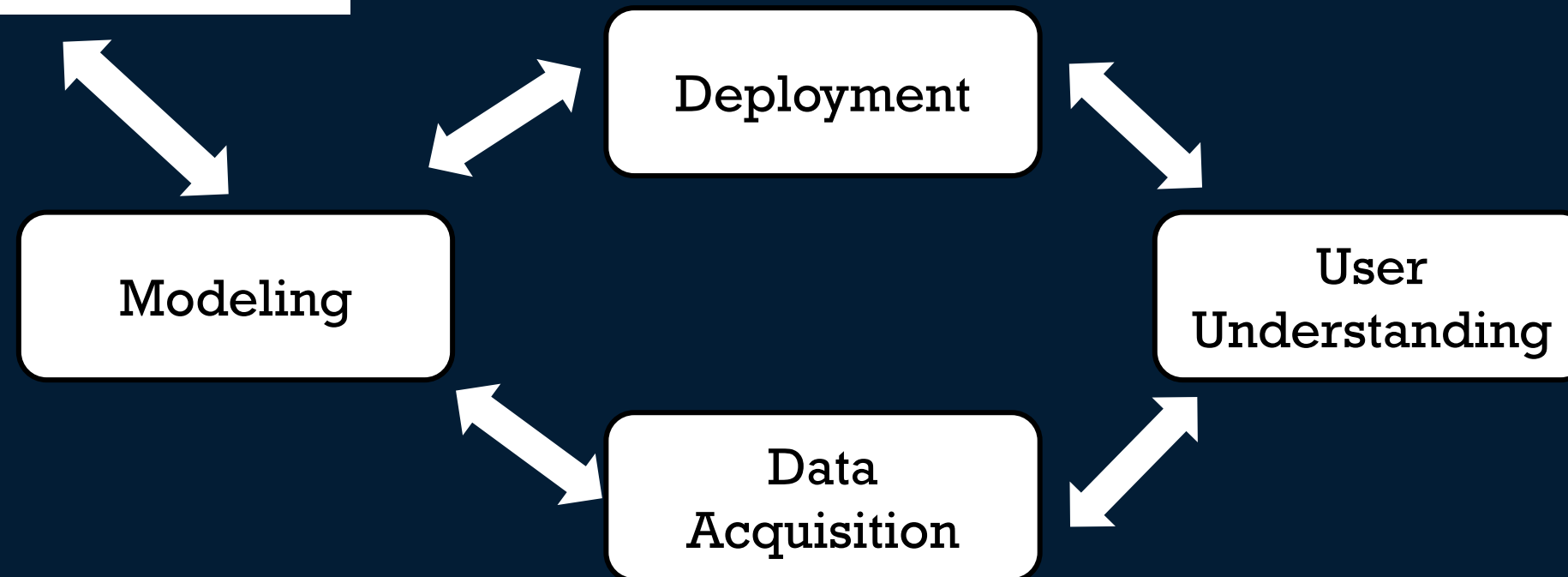Risk Management

Vessel Management

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Navigate Tomorrow Today

OCIANA™

CONFIGURABLE
MODULES

Configurable Modules:
- Data Ingestion
- Data Fusion
- Advanced Detection and Tracking
- Dark Vessels Detection
- Anomaly Detection
- Risk (Covid)
- Port Visit Detection
- Rendezvous
- Communications
- ETA (API)
- RF Intercepts (API)
- Access (UI)
- XAI
- Adv Route Planning
- Advanced Scheduling
- Port Profiling
- Simulation and Modeling

USER engagements

UI/UX Design

Deployment
Modeling
User Understanding
Data Acquisition

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User Contributions to OCIANA

>40 User Sessions

>300 User Feedback Elements

COLLABORATIVE DEVELOPMENT

Evolving Risk Environment

Users

Engagement Process

Agile Development
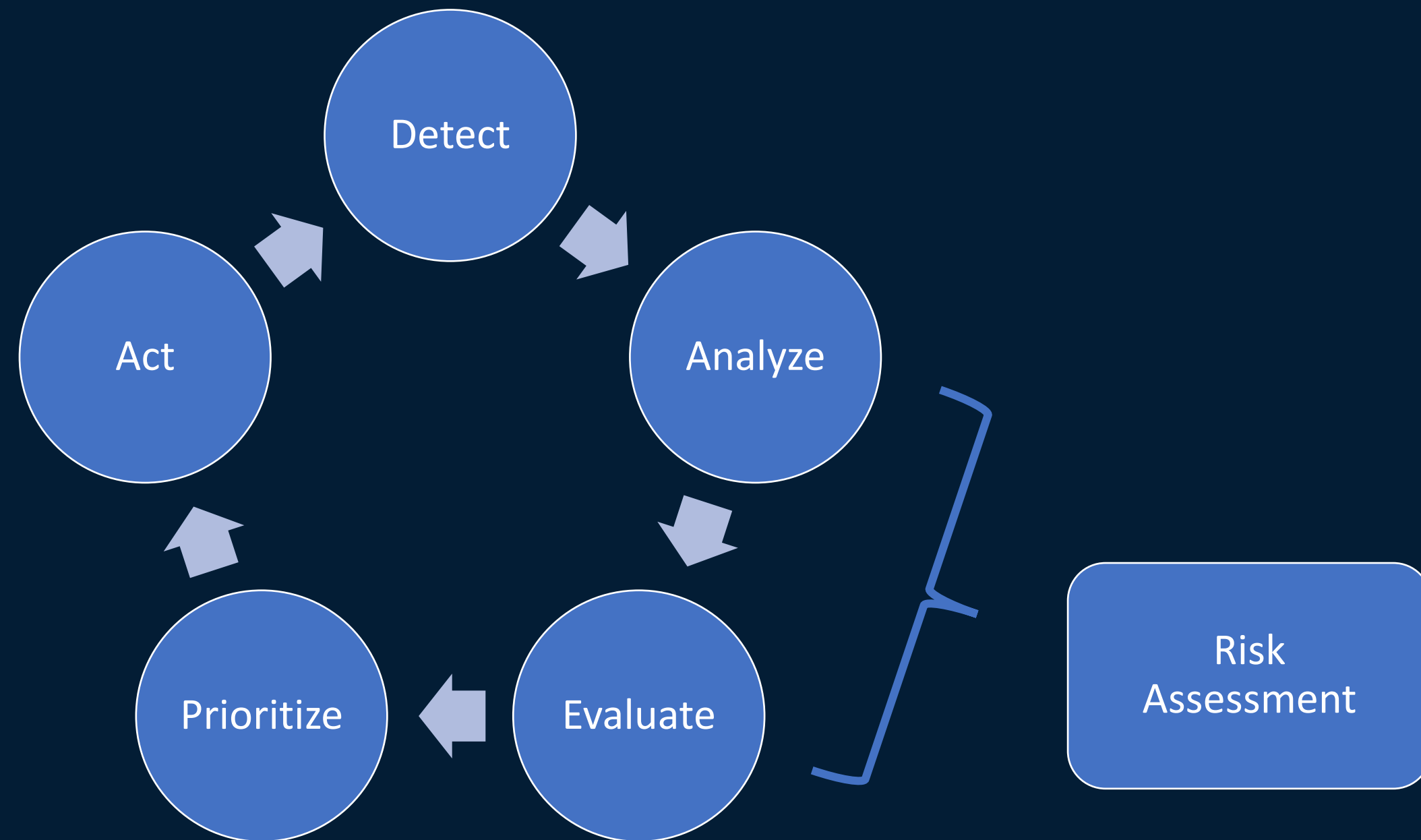
Evolving Technology + Data Landscape
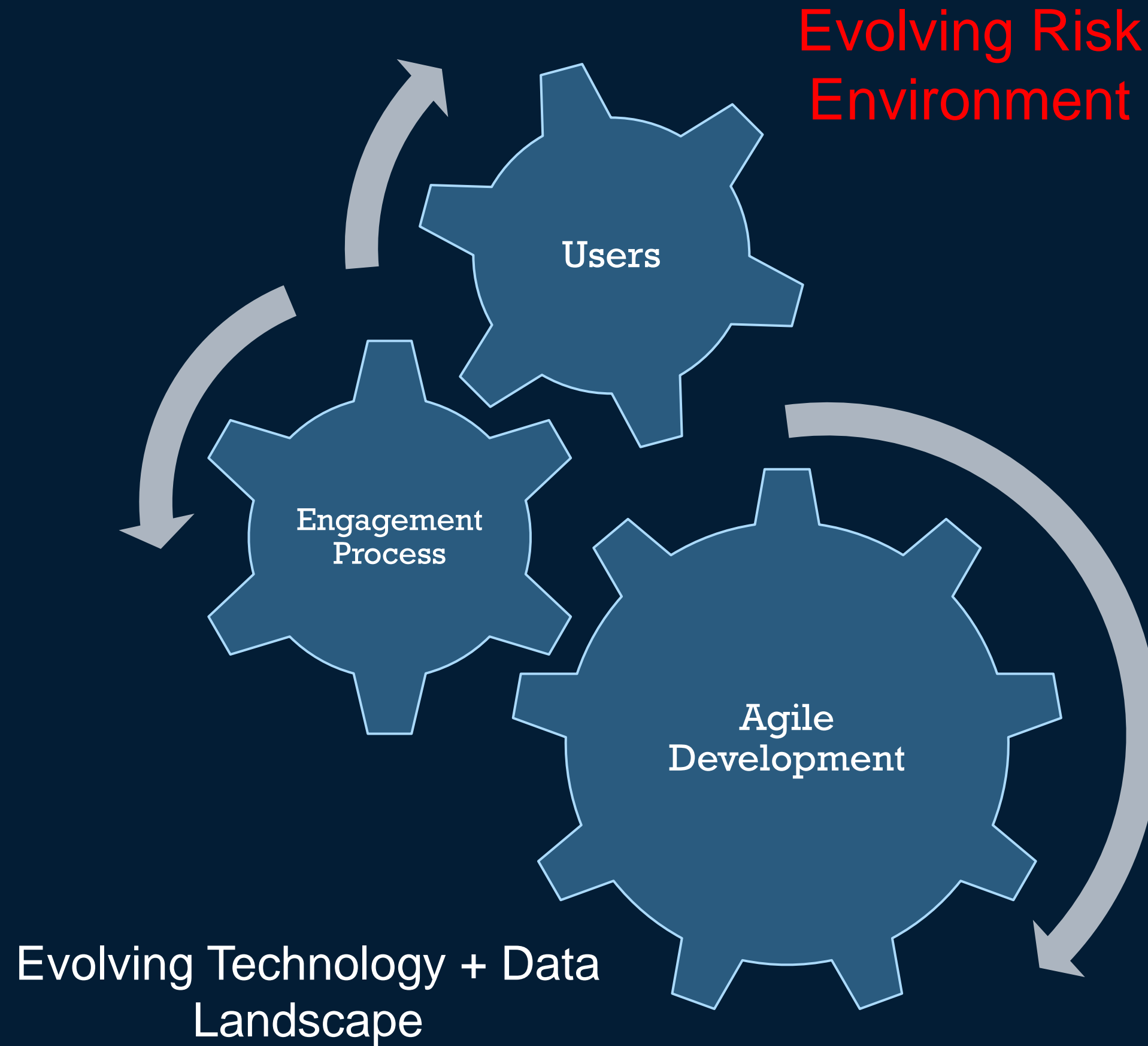
User-centric data engineering:
- Trustable data → actionable intelligence
- Modular + Scalable
- Match data to the changing needs
- User Engagement teams

RISK: How might we effectively handle risk?

- What is OCIANA?
- (Capability Modules)
- Sample Use Cases

Detect

Analyze

Evaluate

Prioritize

Act

Risk Assessment

G

Maritime Domain Awareness with Intelligent Risk Detection

Sample module capability

Risk

- What is OCIANA?
- Capability Modules
- Sample Use Cases

National Security Risks

- Illegal cargo
- Criminal crew or passengers
- Espionage or illegal acts

Regulatory Risks

- Vessel Flag State, ownership, port visits
- History of non-compliance
- Dangerous cargo

Legal and Commercial Risks

- Prohibited imports
- Organized criminal activity
- Illegal fishing or mining

RISK: How can we effectively assess risk?

- What is OCIANA?
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Data Space

Anomalies

Behavioural Pattern Anomalies

Risks

In the eye of the beholder

G
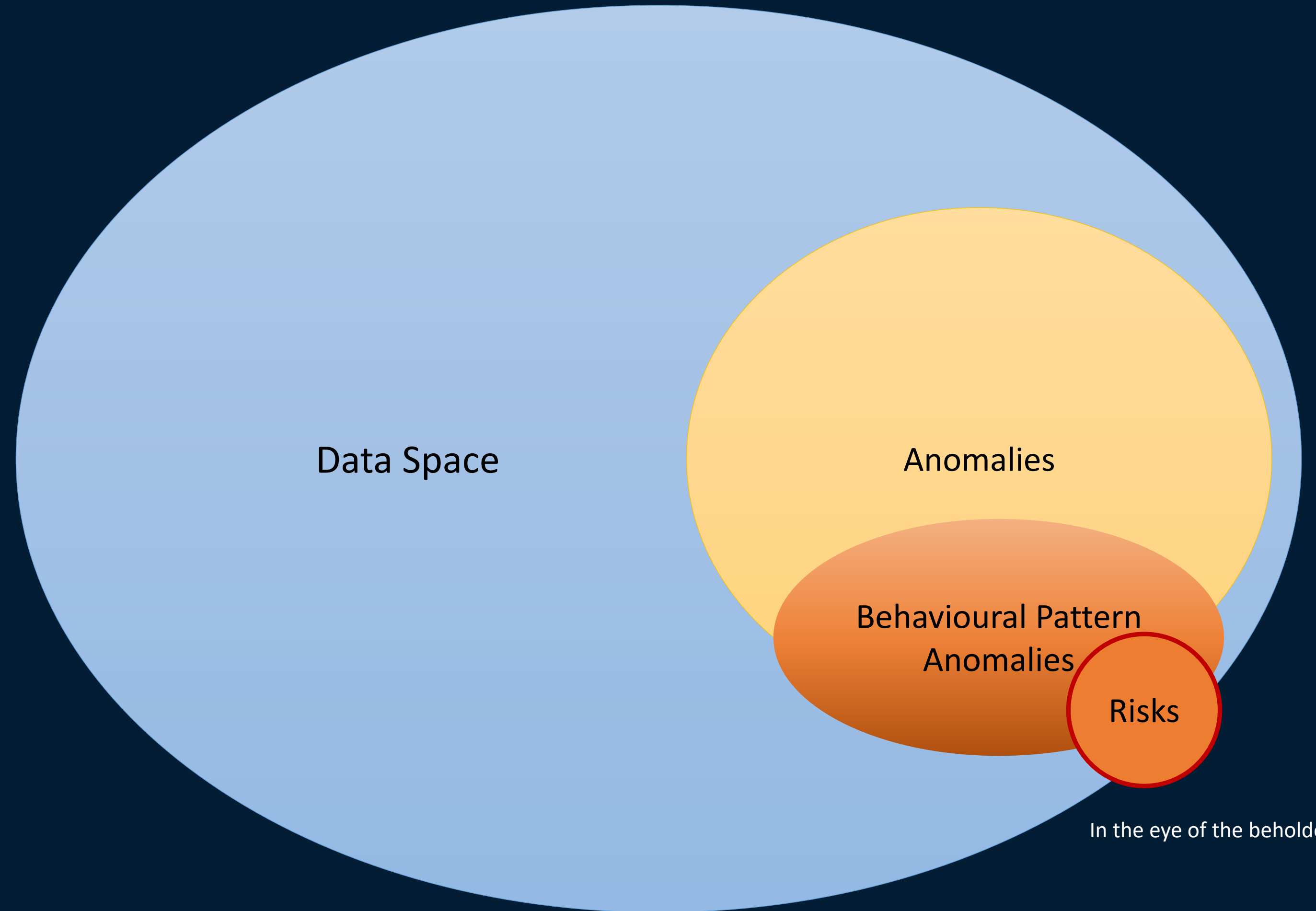
Data Darkness - the "unknown unknowns"

When it looks like you can see everything..

but you're not seeing 7336 Dark Vessels
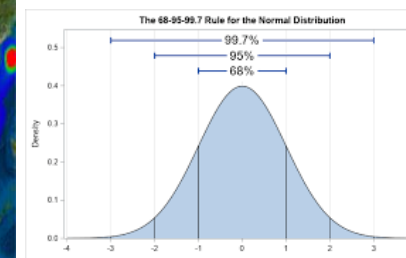

GSTS
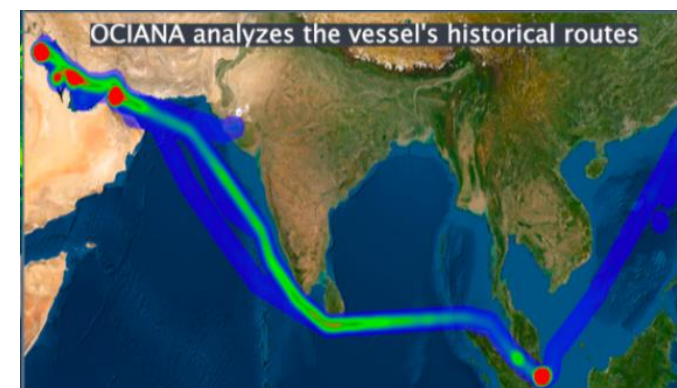
USE CASE:

Dark ship

DATA DIVERSITY

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Use Case:
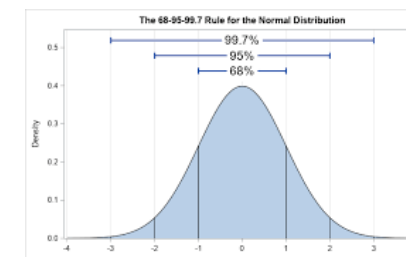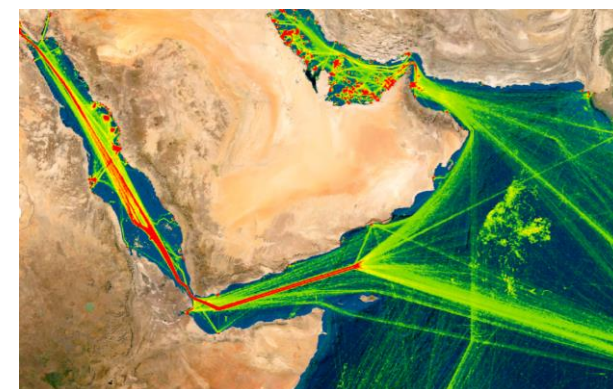**Analyzes "*Patterns of Life*" to reveal risk probabilities**

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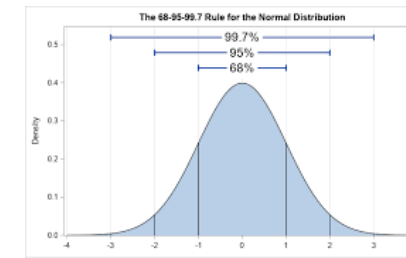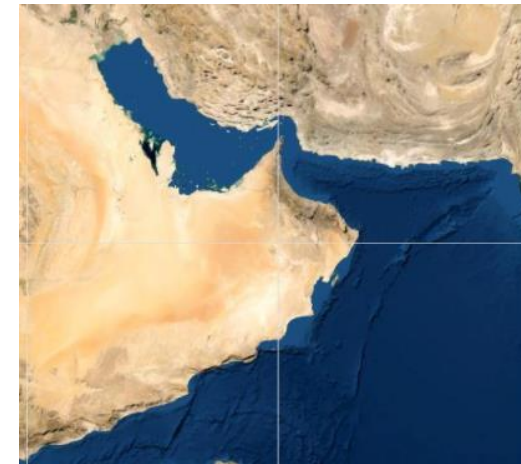
Analyzes all vessels in the region of interest

Analyzes each vessel historically in every region

Analyzes the vessel of interest in the region

Intelligence and RISK Alerts

Communication and Collaboration

Sample module capability

Communication

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CHAT:
Communicate with own or other organization; send and receive files

CASE FILES:
Create Cases or "Incidents" ; contribute to common picture
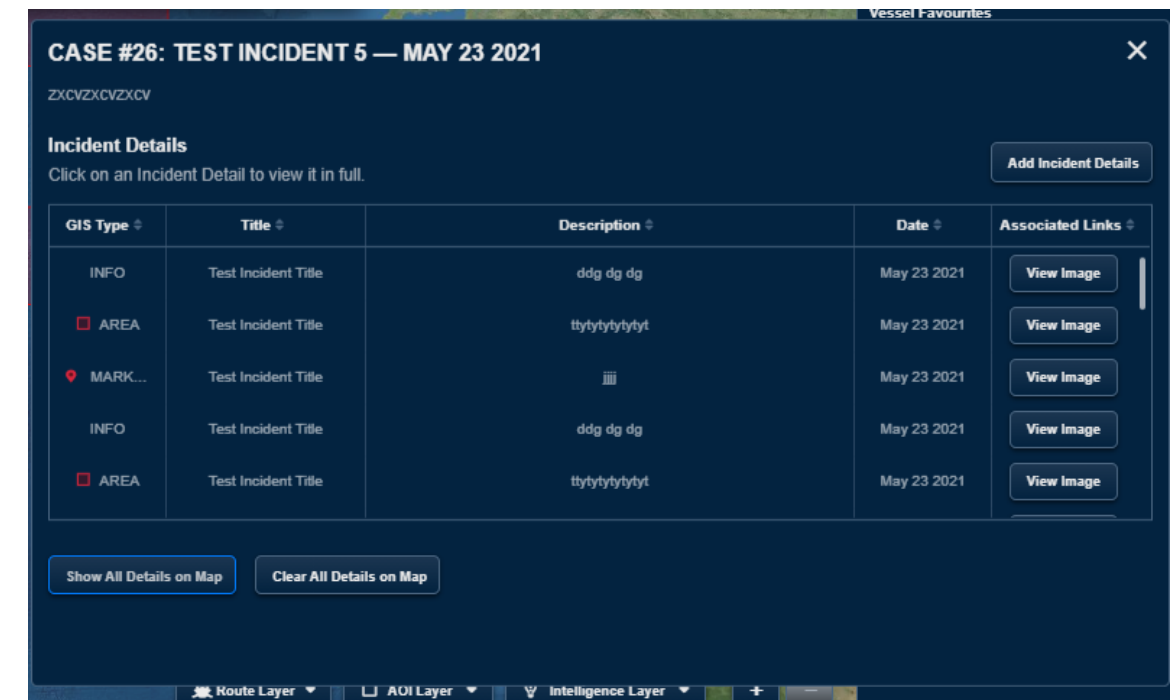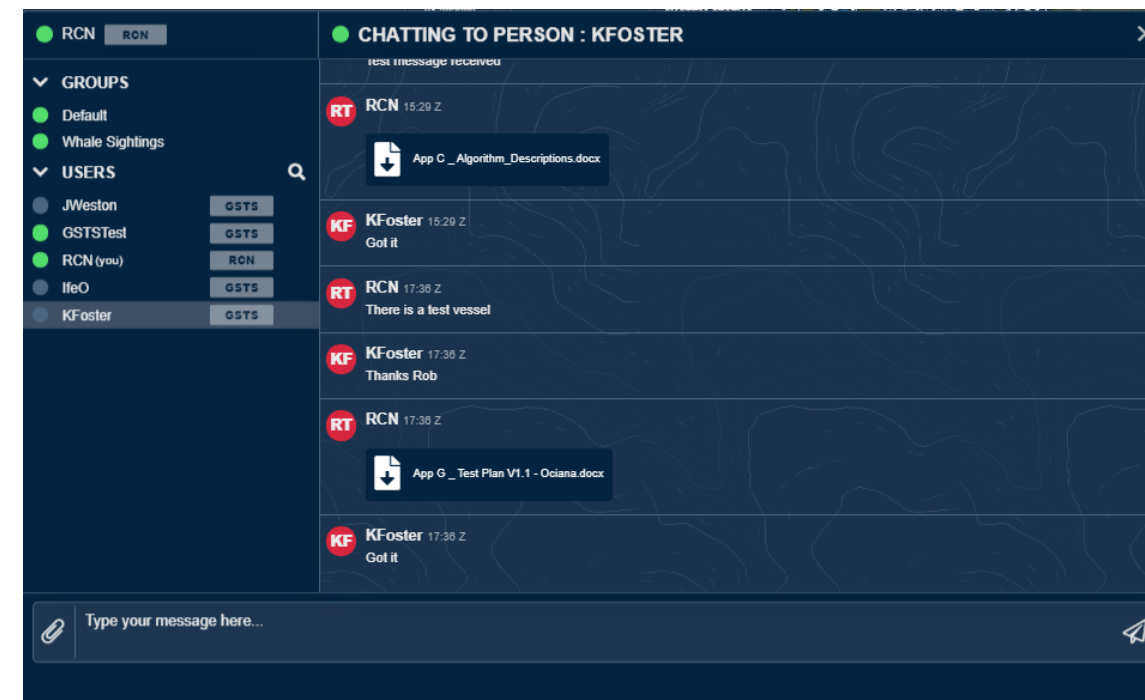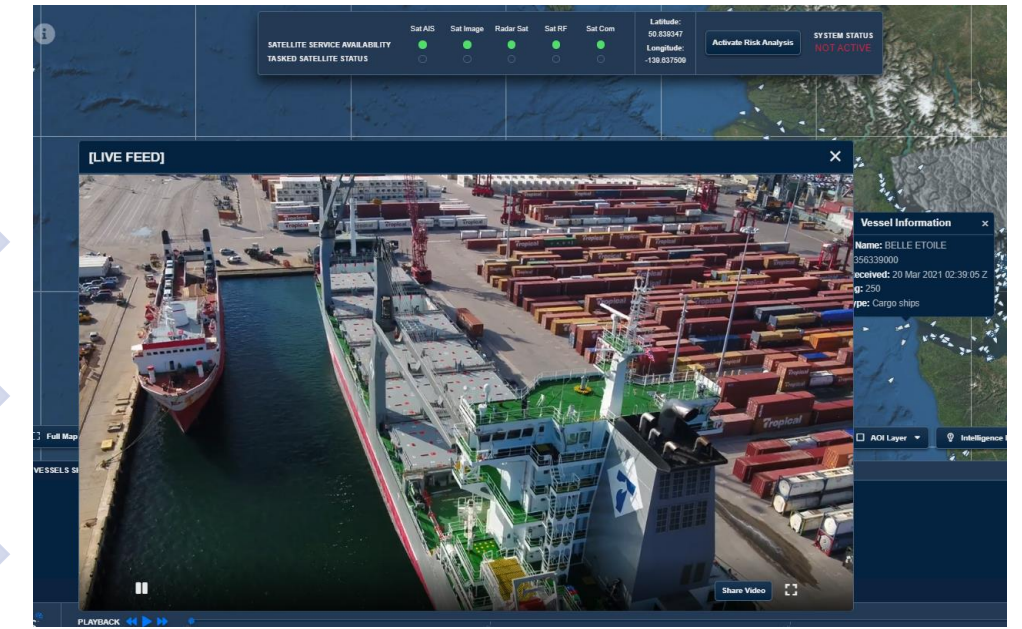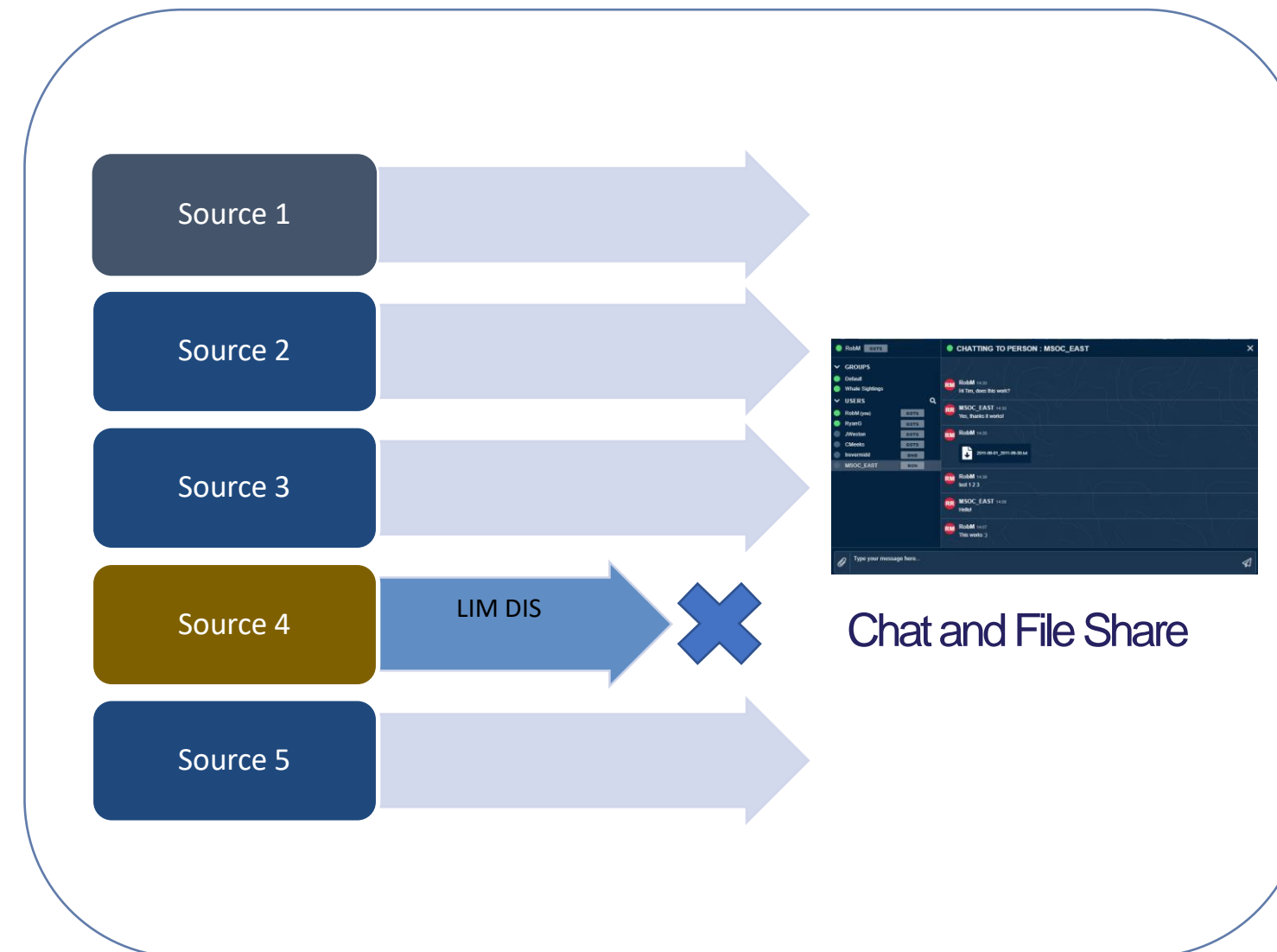
![OCIANA™]

Coordinate Responses
With National Partners

- What is OCIANA?

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Built-in communication and data sharing, including video
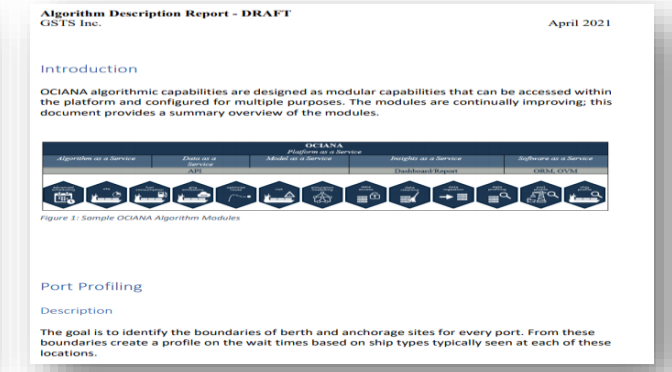

Chat and File Share

Drone Video Share

![GSTS Navigate Tomorrow Today]

Access (UI)

Sample module capability

Access (UI)

- What is OCIANA?
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Application
Maritime situational awareness tool that provides analytical, communication, scenario, and visualization capabilities

Dashboard
Interactive visual information tool that provides insights to assist with informed decision making

Intel
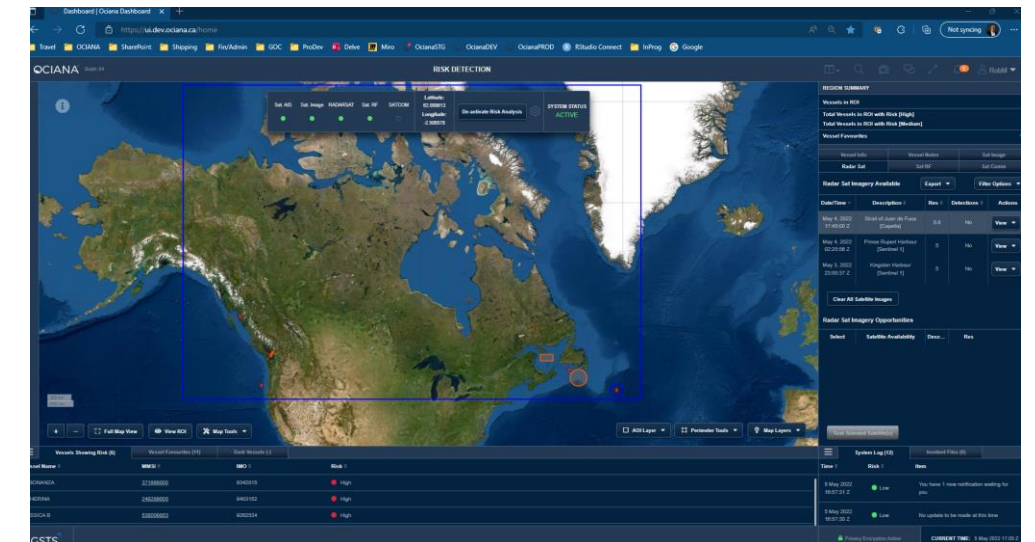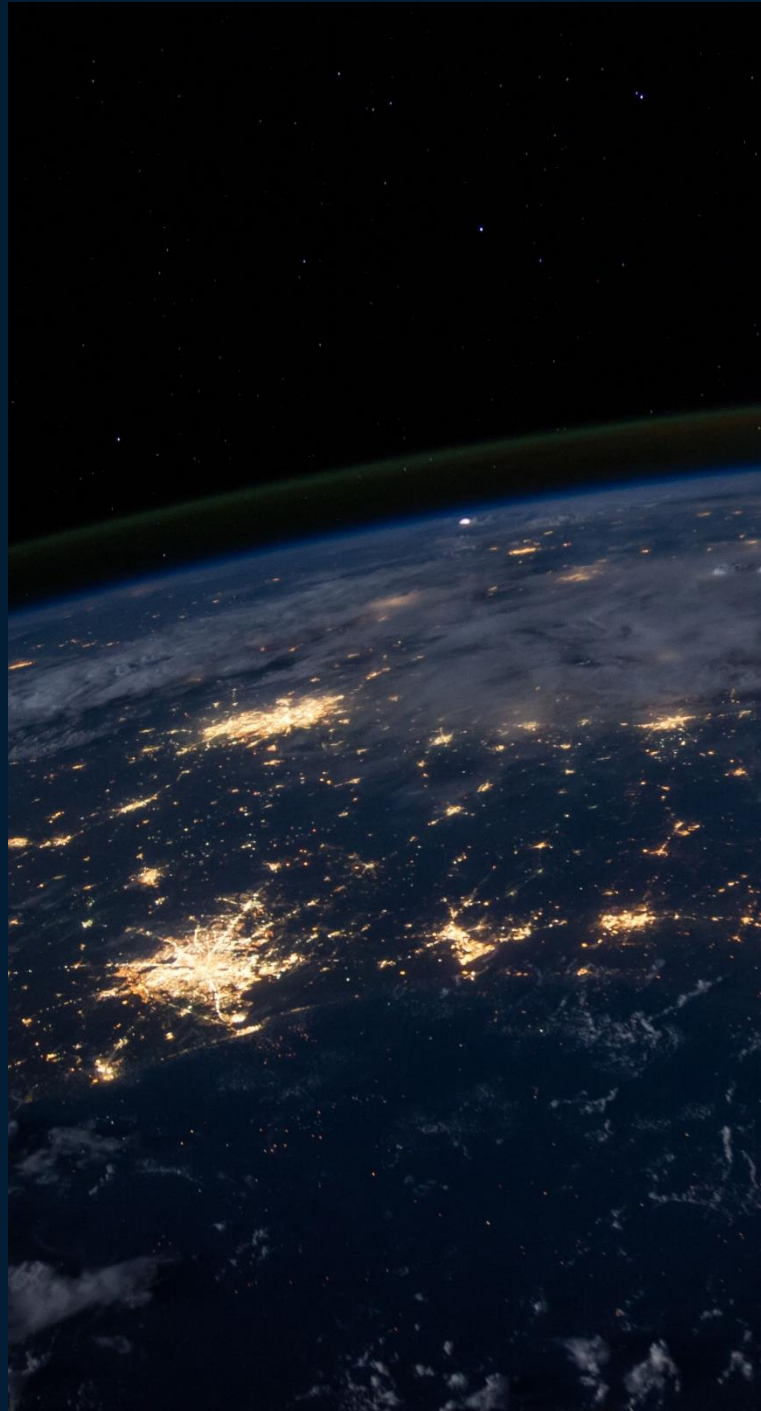Intel Data for the use in DBs, analytical modelling and situational analysis (via API)

Report
Static visual information artifact that provides insights to assist with informed decision making

OCIANA Platform

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