



Persistent Surveillance for a Safer World.

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Pioneering Space Surveillance and Intelligence

Building Dual use Technology from India for the World to maximize the value of space,
with data driven insights and analysis!

- Outer space is a congested, contested, and competitive domain.
- There is a need to ease operations in this fourth operational domain of humankind.
- Increasing commercialization in outer space, along with the involvement of diverse space actors, has made it necessary to ensure the long-term safety, security, and sustainability of space operations.
- Space surveillance technologies help achieve these objectives.



Space Economy is transforming without an adequate infrastructure to support the growth



70,000+ SATELLITES
to enter the orbit in next few years

INCREASED MISSION COSTS
due to inaccurate
and incomplete SSA data



MERELY 4% OF SPACE OBJECTS
are tracked by existing solutions



Innovating across the value chain of SSA to provide accurate orbital insights with seamless experiences!

01

Sensor observations

Patented Space Based Sensors, complemented by a ground network to track objects with highest accuracy from LEO to GEO Belts.

02

Data fusion & Processing

Extracts data from sensors and converts it to orbital information using in-house data fusion engine.

03

Analytics & Intelligence

State vectors received from the orbital engine will be processed to provide tailored orbit insights. Applications may vary from defense to commercial space actors.





01

Sensor observations

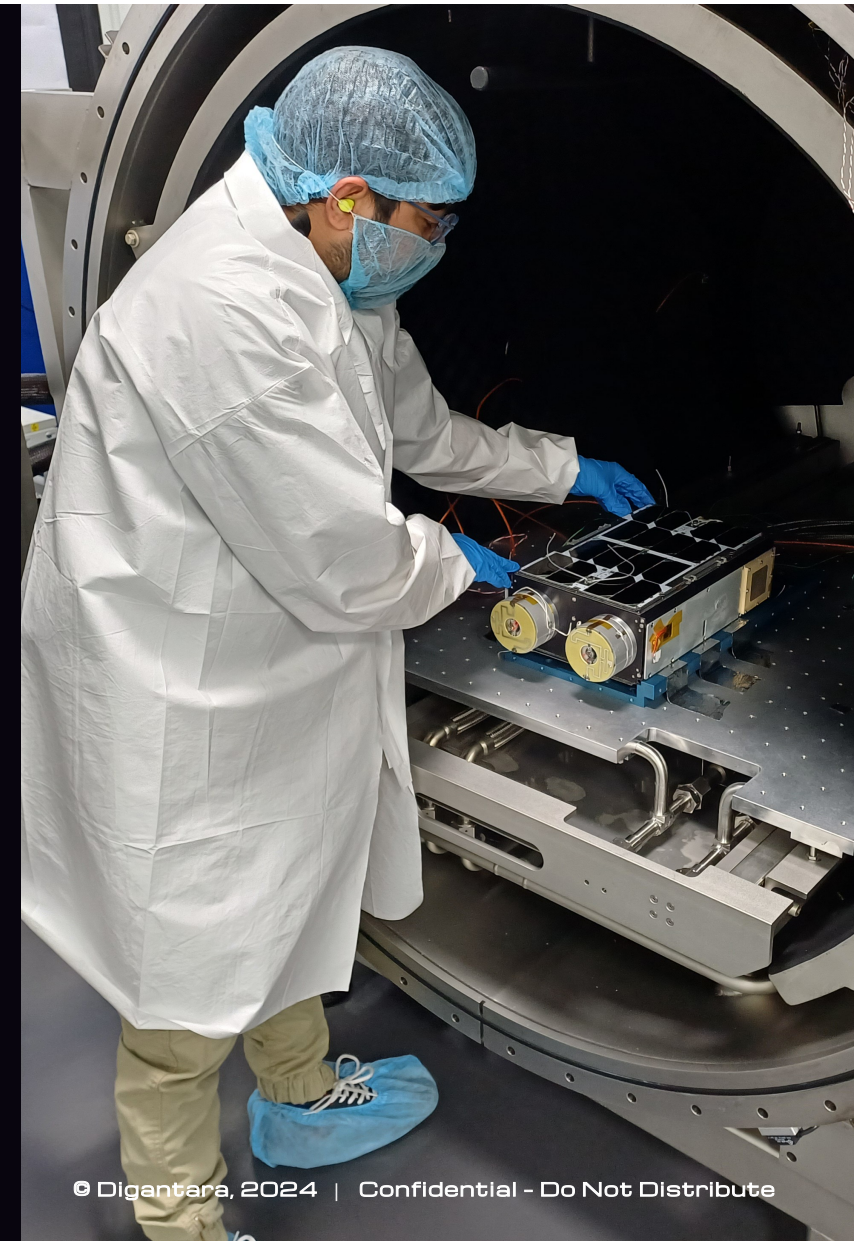
SCOT 6U – Gen 1

Space Camera for Object Tracking

Commercial space surveillance satellite with a focus on tracking space objects

Mission Objectives

- Flight demonstration of electro-optical sensor for space-based detection of Resident Space Objects (RSOs)
- Identification and correlation of catalogued objects
- Populate the proprietary catalogue of RSOs



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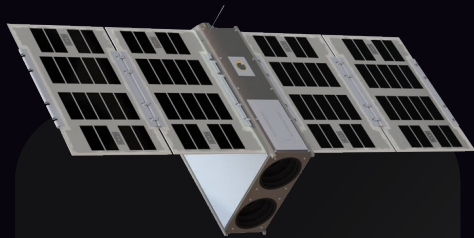


01

Sensor observations

Ground Sensors Tasking

Advanced 40 Satellite Space Surveillance Constellation

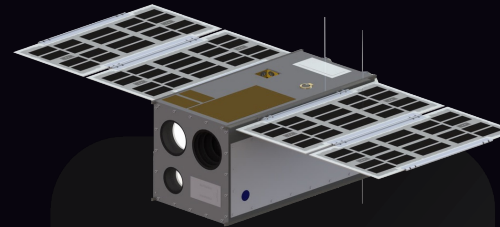
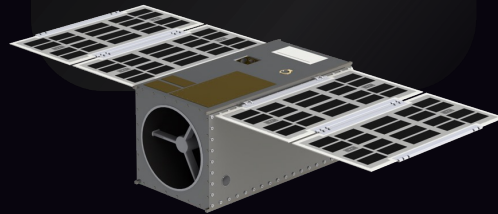


SCOT 6U – Gen 2

Building on the legacy of SCOT 6U – Gen 1, this sensor is optimized for coverage and revisit rate

SCOT 16U Gen 1 & Gen 2

Large format object tracker optimized for sensitivity and object characteristics respectively



SCOT 16U – Gen 1

The Space LiDAR for Object Tracking provides range along with angular observations for unprecedented accuracy

Complimented by a powerful grid of
Ground Telescopes





02

Analytics and Intelligence

Space Mission Assurance Platform™

Proven advanced Space Situational Awareness Services

01

Launch
and Early
Operations
Support

02

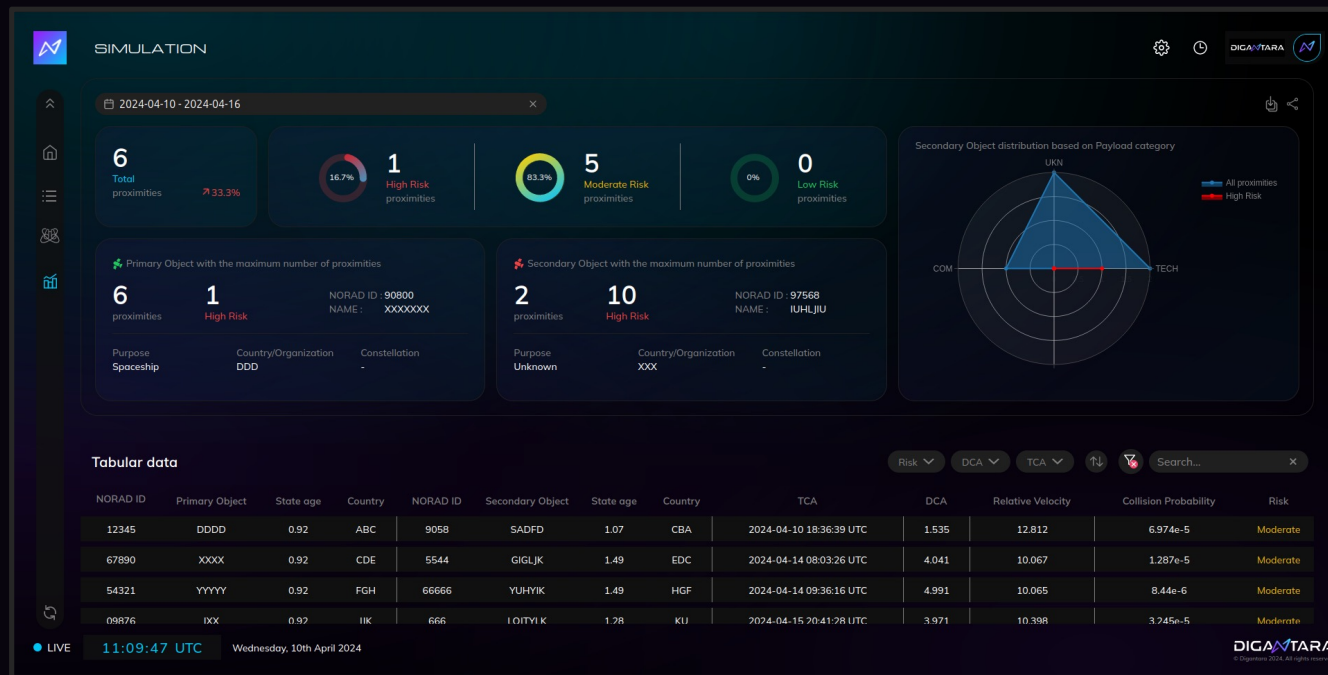
Lifecycle Pattern
Analysis

03

On-Demand SBSS
& Tracking
Systems

04

Manoeuvre
Processing
& Detections





02

Space Threat Assessment and Response Suite

Proprietary Military and Defense Suite delivering unmatched
Surveillance and Reconnaissance



Neighborhood Watch Screening

Safeguard your space assets effectively -monitor, prioritize, and analyse potential threats to your satellites with advanced, all-encompassing proximity screening system



Volumetric Screening

Delve into three- dimensional monitoring, employing advanced sensors and algorithms for precise object detection, tracking, and comprehensive analysis within designated space volumes



Behavior
Pattern
Analysis



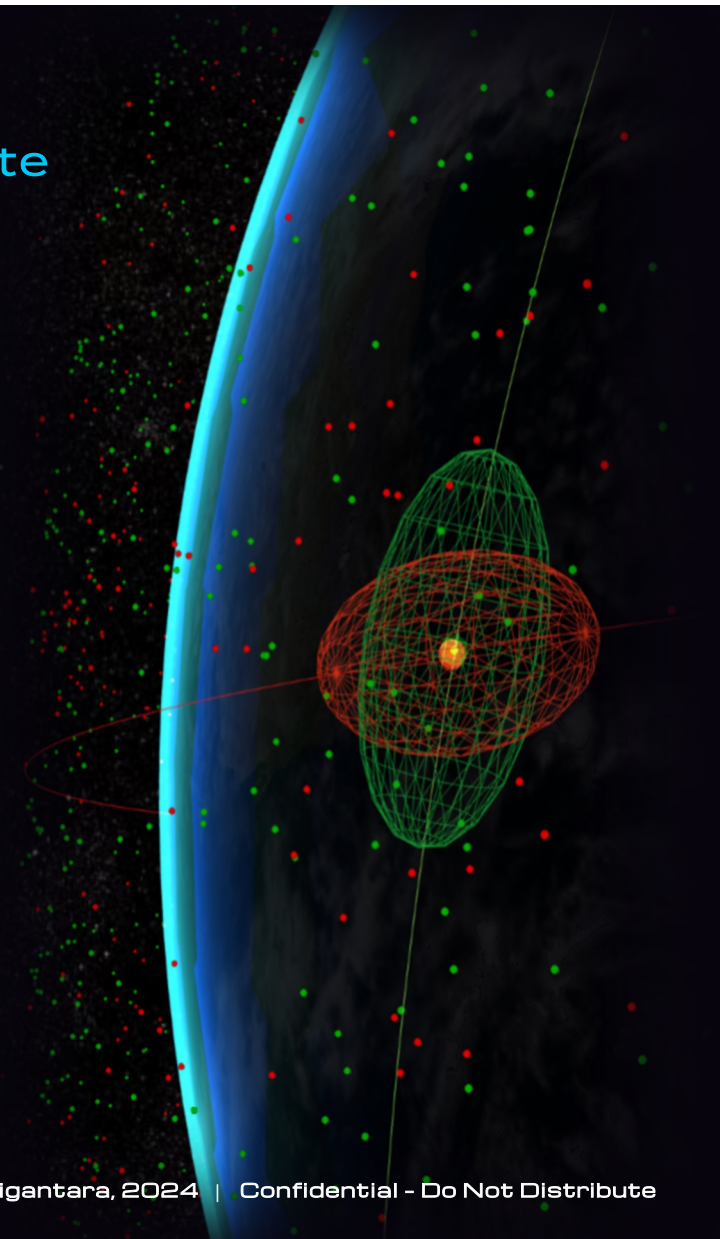
Conjunction
Screening &
Analysis



Event
Reconstruction
& Analysis



Mission
Operations
Suite

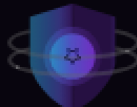




We provide space insights to stakeholders across the value chain



Commercial



Defense



Regulators



Insurance

Comprehensive support across the space value chain

Leveraging AI/ML to safeguard against threats in space and on land

Democratizing space usage by elevating space governance

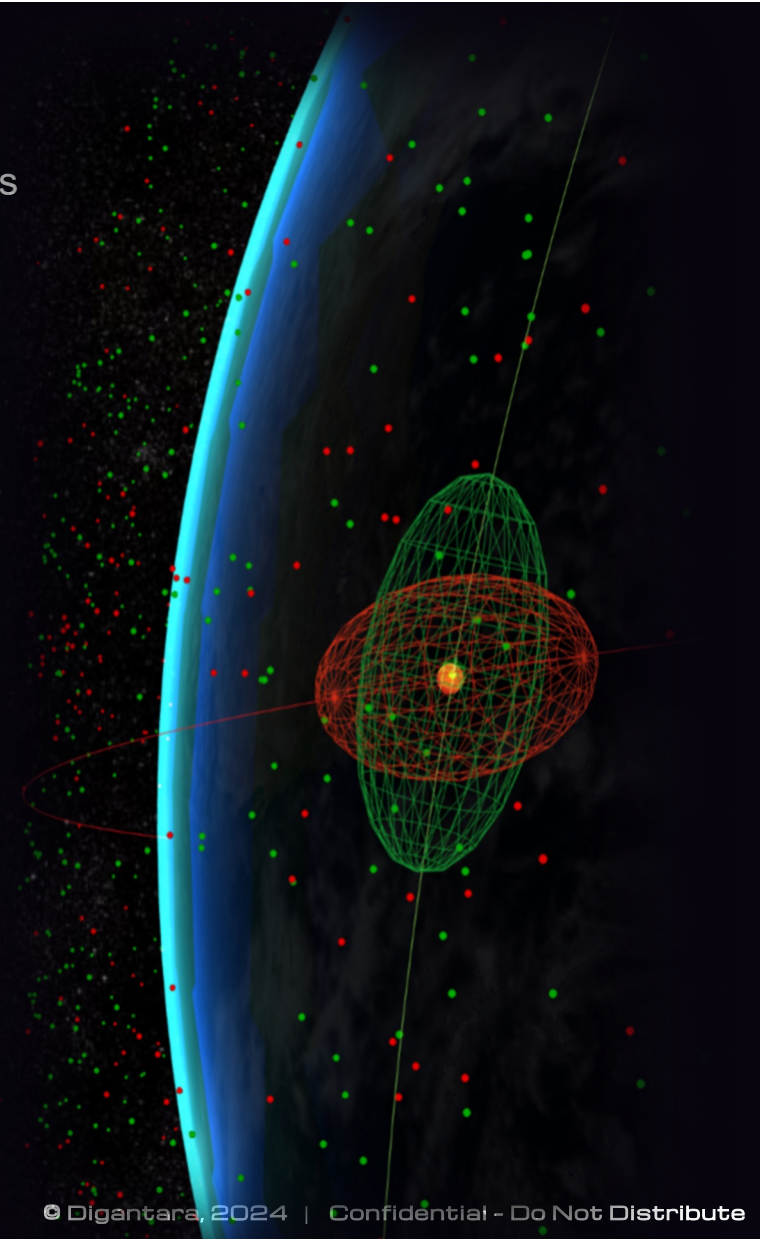
Mitigate risk with credible data points



Legal and Policy Aspects

SSA as an enabler for strengthening international commitments

- SSA enables States to effectively discharge international obligations under the UN Space Treaties. For example, SSA can help States discharge their obligation to “*continually supervise national space activities*” under Article VI of the Outer Space Treaty.
- Spacefaring countries have emphasised upon principles of cooperation, transparency, and collaboration for activities in outer space. SSA initiatives foster these principles.
- Guideline B.2 of the UN Long-term Sustainability Guidelines refers to “*Accuracy of orbital data and common standards for sharing orbital information.*” It is vital to prioritise data standardisation and interoperability for information sharing.

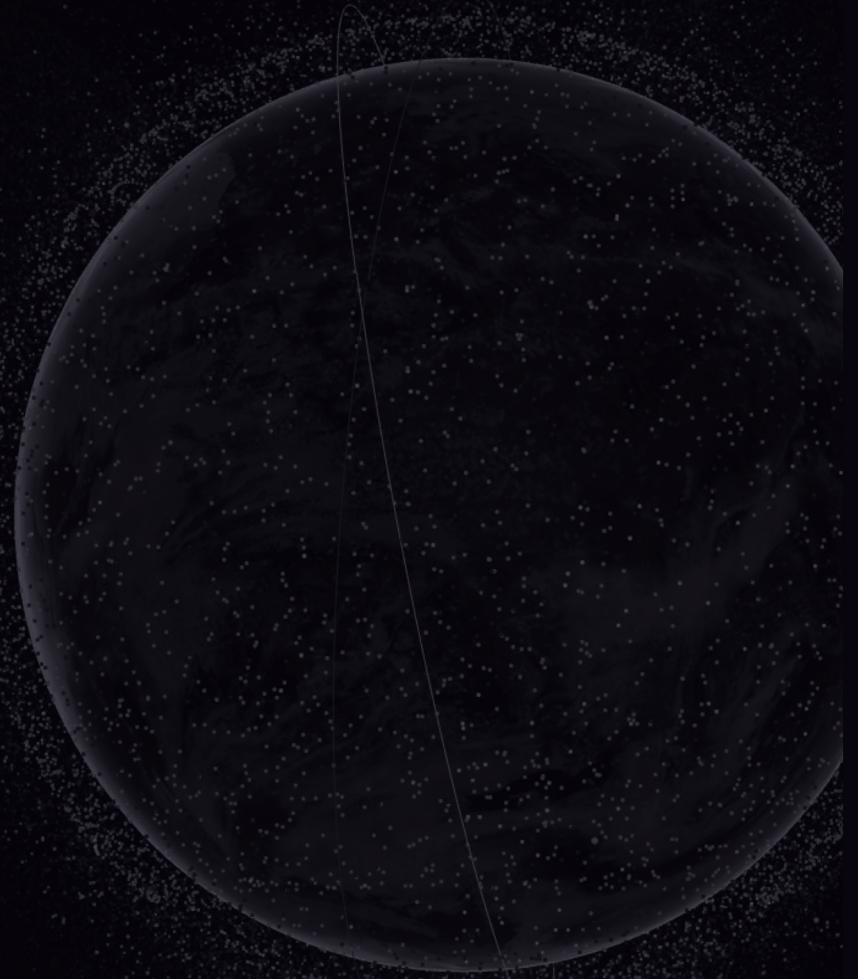




Legal and Policy Recommendations

Promoting the use of SSA among space actors

- Avoiding fragmentation in the process of developing regulatory frameworks for SSA.
- Encouraging bottom-up approach with active industry participation and engagement with relevant stakeholders.
- Need for regulatory clarity and transparency.
- Cross domain learnings from aviation and maritime sectors.
- Promote SSA use cases through adherence to soft law measures and industry best practices.
- Incentivising owners and operators of spacecraft to follow sustainability practices by agencies.





Digantara's commitment to industry standards

- CCSDS Compliant
- Member of the Net Zero Space Initiative (Paris Peace Forum)
- Signatory to SWF's Space Industry Statement in Support of International Commitments Not To Conduct Destructive Anti-Satellite Testing
- Signatory to ESA's Zero Debris Charter

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