



Satellite Applications

Earth Observation & AI

at Satellite Applications Catapult

Mina Syriou | Earth Observation

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We work with
Innovate UK

CATAPULT



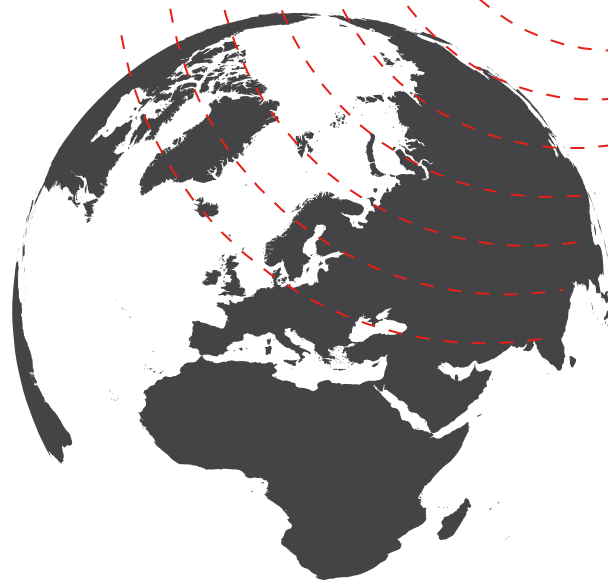


Our Mission

// To innovate for a better world, empowered by satellites.

SATELLITE APPLICATIONS CATAPULT

Who are **we**



We are a not-for-profit
innovation and
technology company
transforming the way
the world uses satellite
technology and data.



WE ARE INDEPENDENT.

We bring together industry, researchers, end-users and government to explore and develop new ideas.



WE ARE GOVERNMENT BACKED.

We are partly-funded by the Government and work closely with Innovate UK, UK Space Agency, UK Science & Innovation Network, and other public bodies.

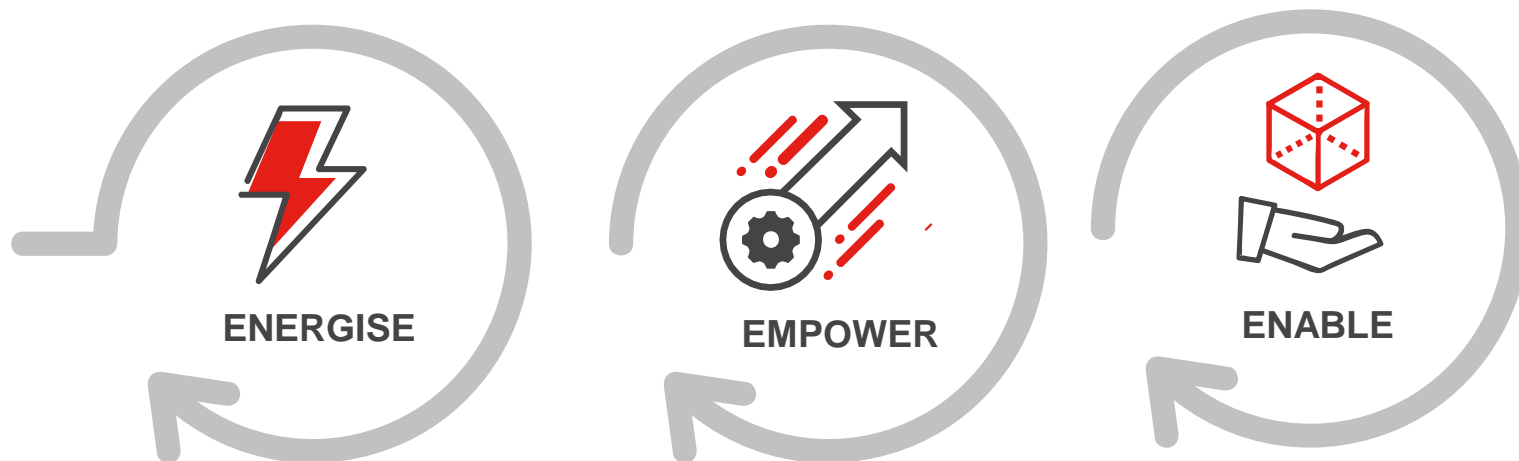


WE HELP ORGANISATIONS GROW THEIR BUSINESS.

We help organisations to use satellite applications to grow their business in the UK and internationally.

OUR APPROACH

**We do
3 things**



**Across Global
Markets**



INTELLIGENT
TRANSPORT



BLUE
ECONOMY



SUSTAINABLE
LIVING



GOVERNMENT
SERVICES

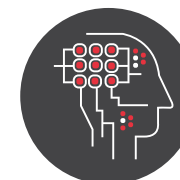
**Across key
Technologies**



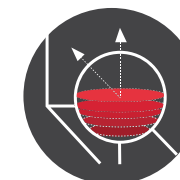
SMALLSAT
CONSTELLATIONS



MOBILE
COMMUNICATIONS



AUTONOMOUS
SYSTEMS



GEOSPATIAL
SYSTEMS

WE WERE SET-UP **5** YEARS AGO



Met **3500**
organisations



Engaged with
427 SME



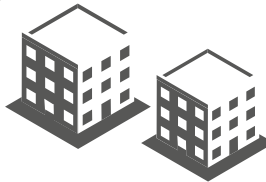
Delivered over
200 externally
funded projects



Worked in
22 countries



Built relationships with
with **118** universities



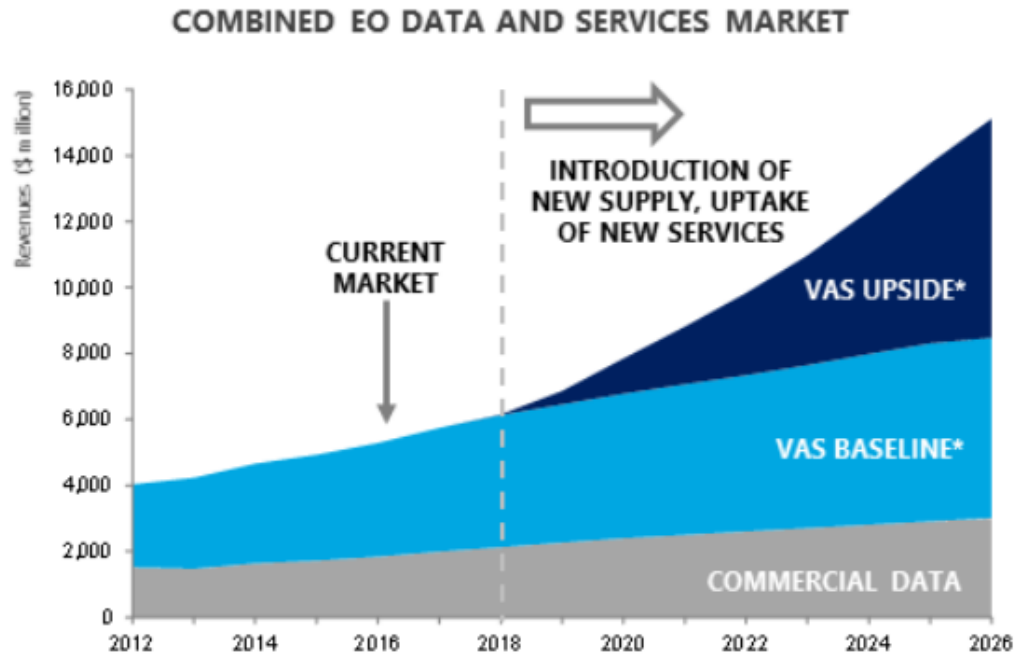
Including **66** university
departments



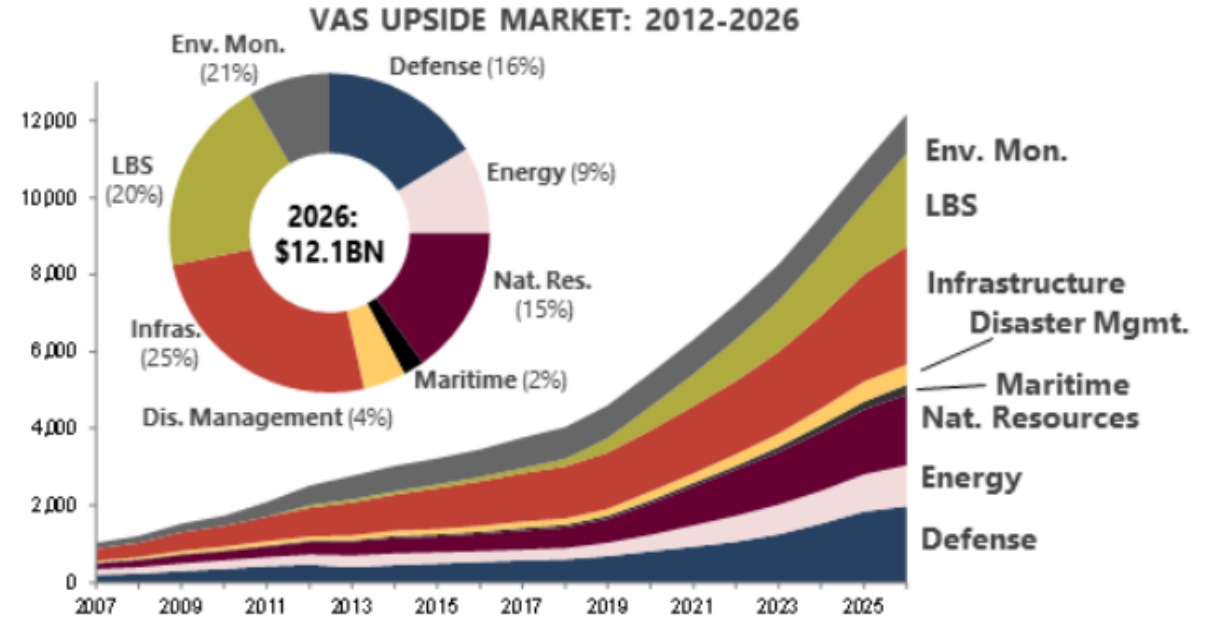
Invested **£19.7m**
in world-class facilities

Our
impact

WHAT SIZE IS THE MARKET?

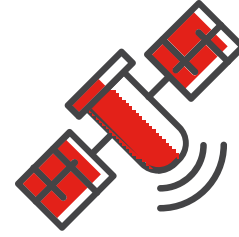


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15 \$Bn p.a. market by 2025

Industry Challenges



Flood of **Data**



Labour intensive
Processes

Opportunity: “To **accelerate** the **transformation** of the Earth Observation industry through the **adoption** of **Artificial Intelligence** technologies.”

CATAPULT'S PROGRAMME OF WORK – AI FOR EO

4 Key Activities



RAISE AWARENESS

Conferences
Competitions
Case-studies

BUILD ECOSYSTEM

User challenges
AI capabilities
EO capabilities

SHARE TOOLSET

Platforms
Open-source
Data sources

TRIGGER FUNDING

Commercial R&D
Public grants
Start-ups funding

Key blocker
Training Data

MARKET-LED USE-CASES

Challenges relevant to AI



AgriTech

Growth Disease, Logistics, Intelligence/ Compliance

BlueEconomy

Coastal Monitoring, Smart Ports, Maritime Domaine.

Extractive Ind.

Tailing Dams, Environmental impact, Illegal mining

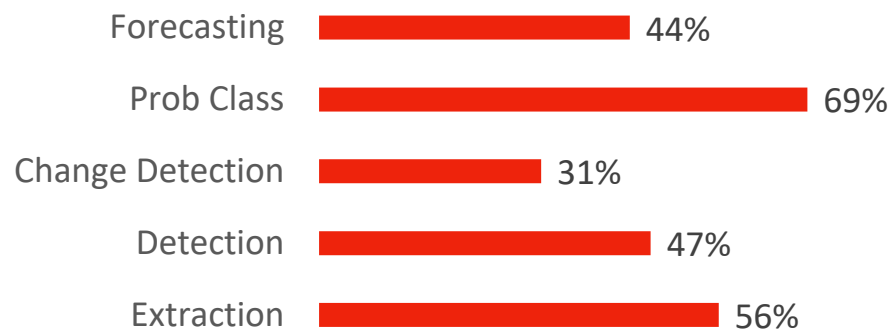
Intel. Transp.

Autonomous vehicles, Traffic management

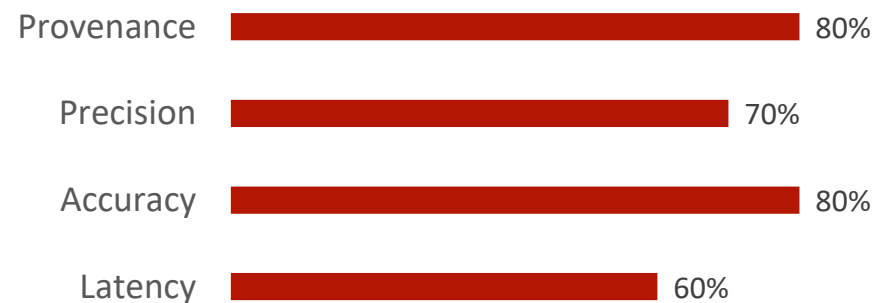
Governments

Urban development, Disaster management ...

Nature of technical challenges – % relevant



Business improvement opportunity – % relevant



LABELLING TOOL PROJECT: **USE CASES**

ATKINS



Classification of building types for land-use planning in developing countries.

Kenya

citi



Global monitoring of PV farms deployments to model commodities demand.

USA



Damage assessment of infrastructures to steer relieve effort post-disaster.

Dominica

Alcis™



Detection of household reservoirs as indicators of narcotics production sites.

Afghanistan



Assessment of infrastructures damages to
steer relief effort post-disaster.



WHAT'S NEXT?

AI4Space

activities



RAISE
AWARENESS

BUILD
ECOSYSTEM

SHARE
TOOLSET

TRIGGER
FUNDING

ENGAGE'18
conference

Constellation

Predictive maintenance &
capacity management

Cooperations
international scene

Intuitive Data Access
Data Discovery Portal

Oxford AIMS
Doctoral Training

FDL'18
AI accelerator

A satellite with solar panels and a dish antenna is shown in orbit above the Earth's horizon. The Earth's surface is visible with clouds and landmasses, and the bright blue glow of the atmosphere is prominent. The background is a deep blue space filled with stars.

Satellite Applications

Thank you.

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