



# Making the UK the *Place for Space*

## Update for CEOS WGCV

Sept 2014

<http://www.bis.gov.uk/ukspaceagency>

# Agenda



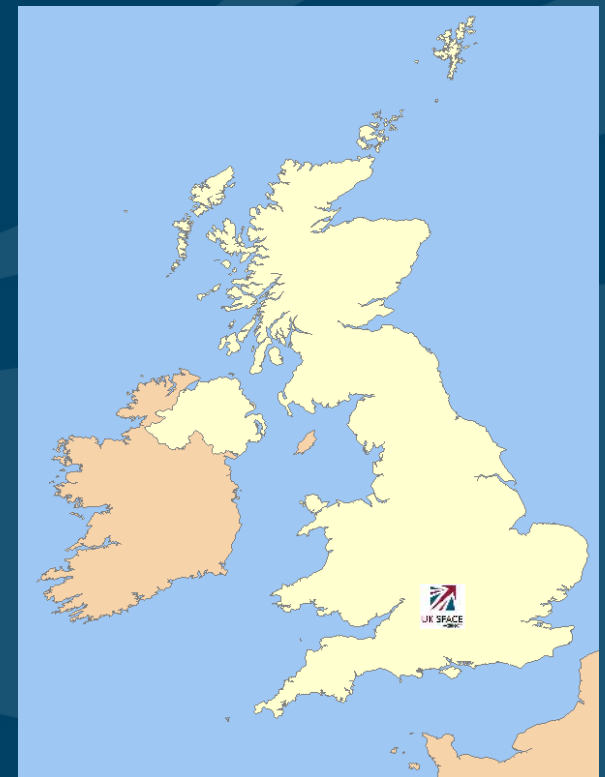
Agency strategy, policy and organisation

Recent developments and progress

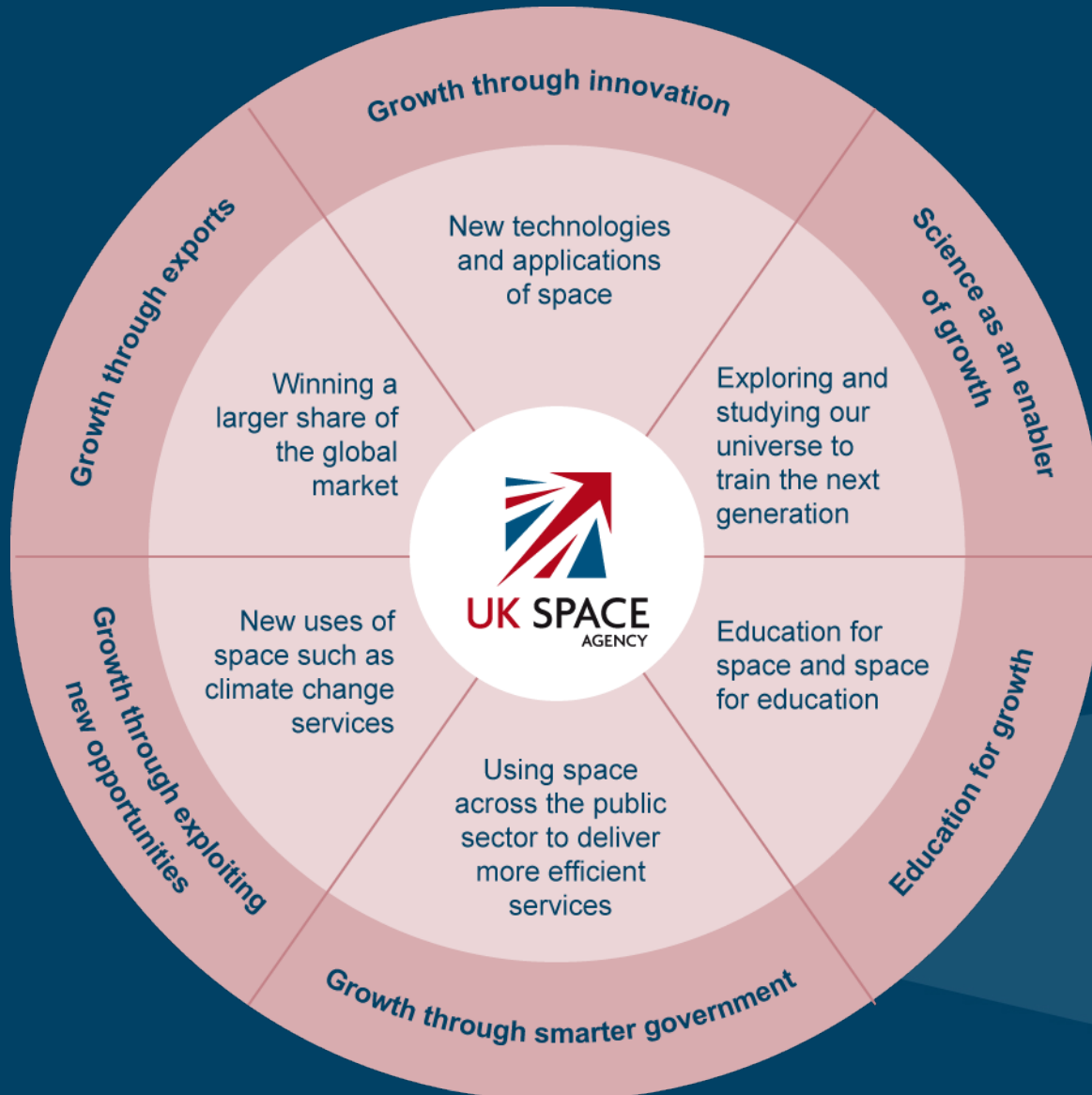
What's going on at the moment and what's on its way

# The UK and Space

- Over **50 years** involvement in space
  - As a **provider** of systems to the world
  - As a **user** of data services at home
- The **UK Space Agency** leads our civil space programme
  - Policy advice to Ministers
  - Regulation
  - Investment (>£300k p.a.)
  - 65 staff
- Our goals are achieved via national, European and international partnerships



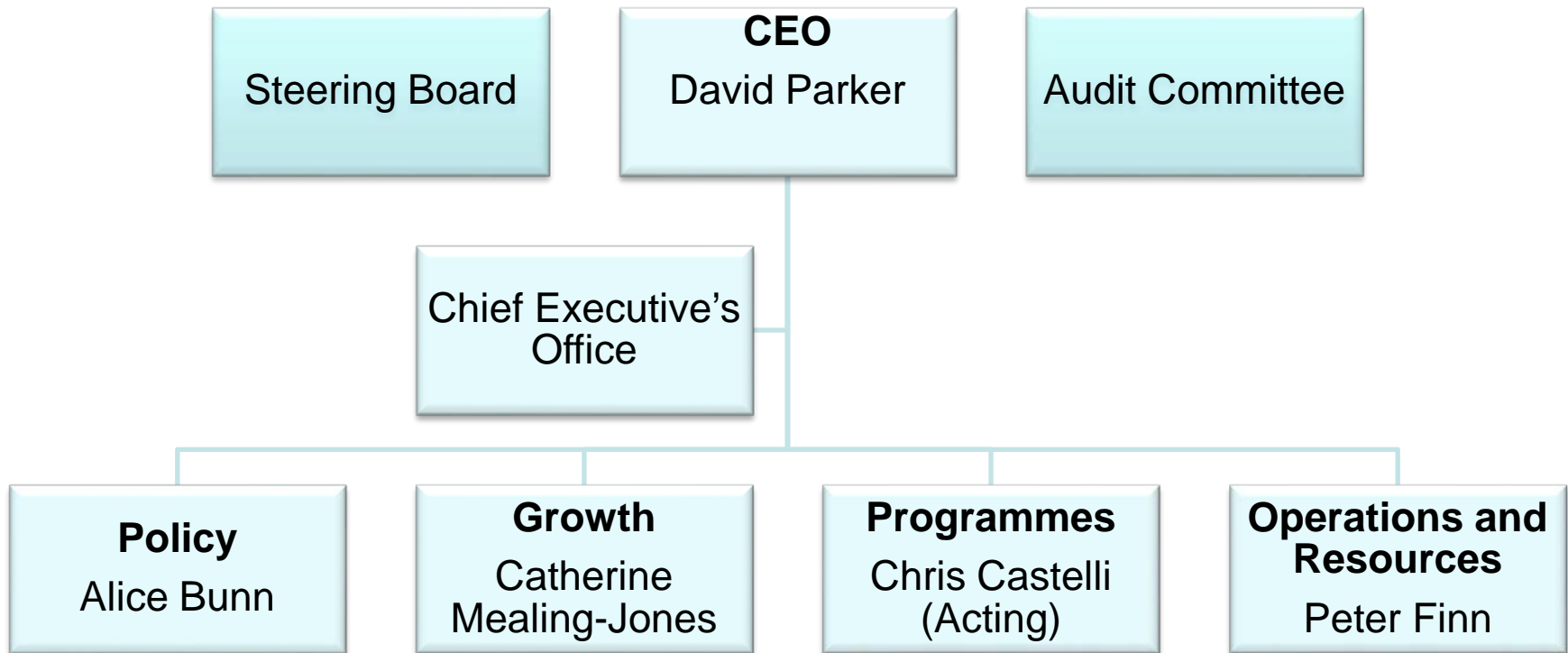
# Civil Space Strategy – six themes



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Goal:  
£40B sector  
by 2030

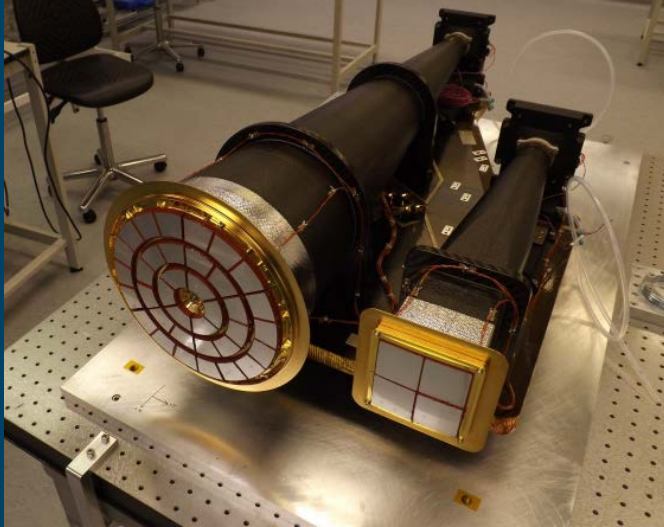
# Our organisation has evolved to meet our goals and responsibilities



# 2013 – A landmark year



# Progress: National Science & Exploration



*Integration of **MIRI** into JWST ISIM (top right)*

***Mercury Imaging X-ray Spectrometer** for BepiColombo mission to Mercury (top left)*

*'**SAFER**' – ESA/UK demonstration of Mars rover prototype undergoing trials in Atacama desert, Chile under control from Harwell (bottom left)*



***GAIA** – 20 Dec launch of the billion star surveyor with gigapixel camera from e2vLtd and data processing and archiving system at Cambridge University managed by UK Space Agency (bottom right)*



# Recent Developments

## Set out in Corporate Plan 14/15

1. Looking towards 2030: the Growth Action Plan of the space innovation and growth strategy
  - A industry-government partnership providing a roadmap of actions
2. Key space policy issues
  - Cross-government National Space Security Policy published 30 April
  - Reforming licensing regime for operators
3. Delivering on investments
  - Industrial R&D for commercial space sector
  - Major scientific programmes

➤ ***Everything we do is delivered through partnerships National, European, Global***





# Space for Smarter Government Programme

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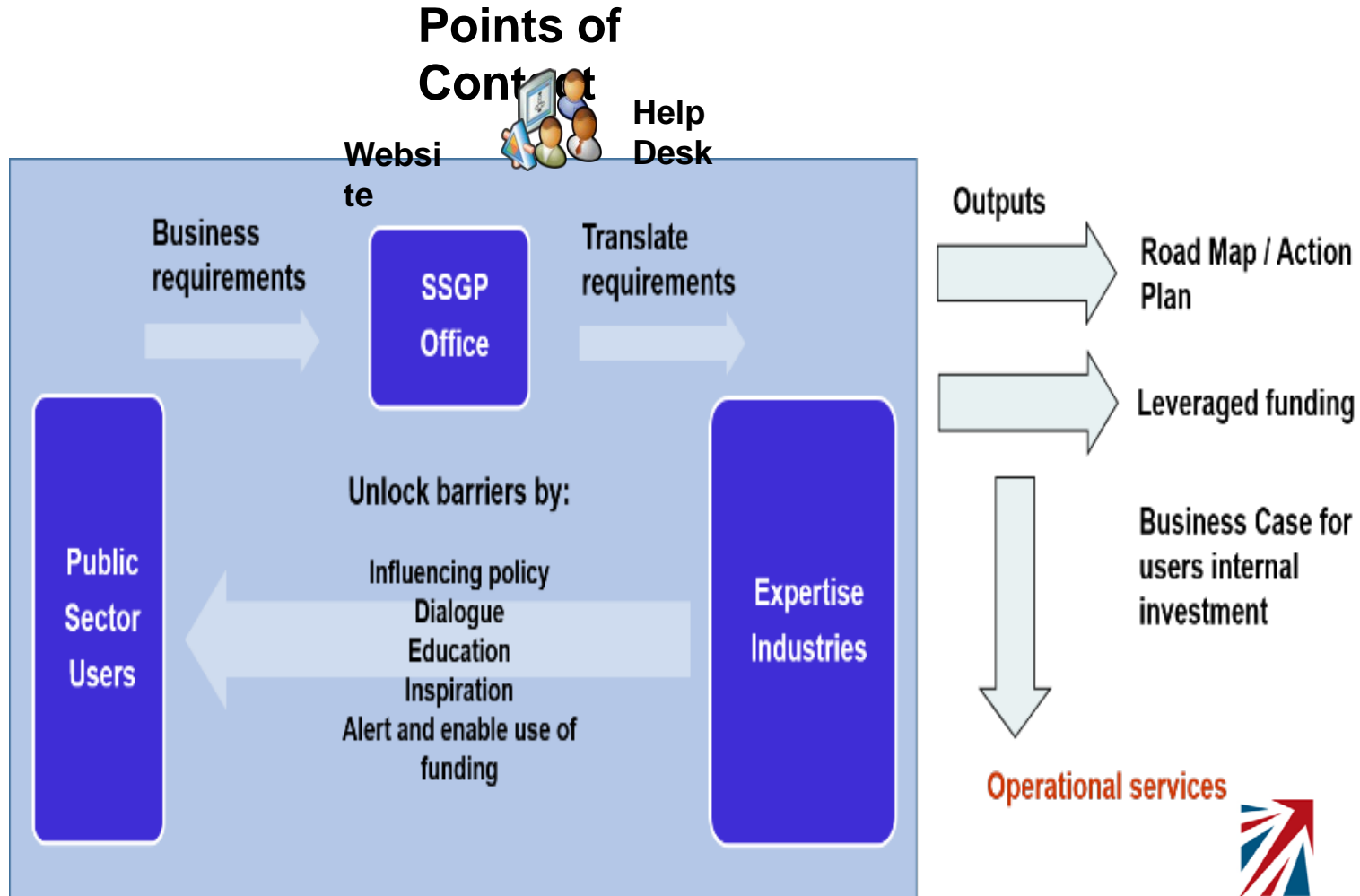
Space Growth Action Plan 2014 –2030  
Science and Technology Committee Report 2013



- Government itself uses space for smarter, more efficient operations and making use of existing investment
- Government is a first intelligent customer and drives growth through export of space products and services

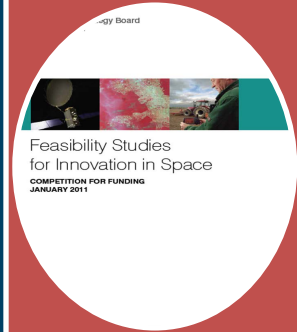
We want to help public sector save money, innovate  
and make more effective policy decisions

# Processes – Outputs – Outcomes

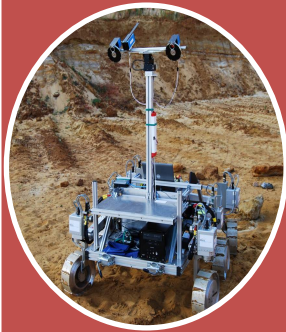


Led by the UK Space Agency  
Delivered in collaboration with the Satellite  
Applications Catapult

# Ongoing National Programmes



Feasibility  
Studies for  
Innovation in  
Space  
(TSB)



Exploration  
national  
programme  
(UKSA)



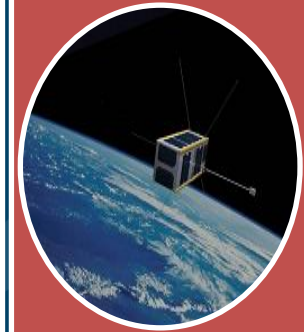
Cosmic Vision  
National  
(UKSA)



Centre for Earth  
Observation  
Instrumentation  
  
Space for  
Smarter  
Government  
(UKSA)



TechDemoSat-1  
microsat  
  
(TSB + UKSA)

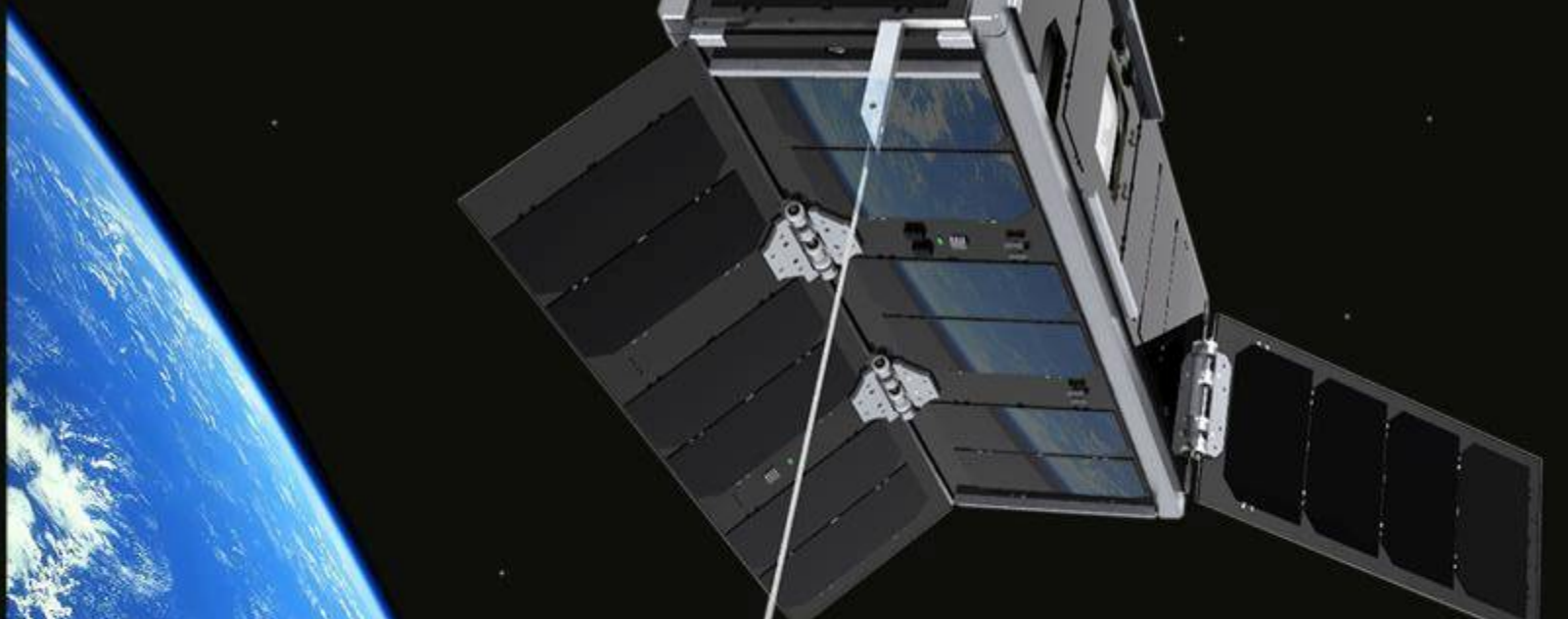


UKube-1  
cubesat  
  
(TSB + UKSA +  
STFC)

Basic R&D through to flight demonstrations and applications

# Launch of UKube-1: July 2014

- First UK national cubesat
- Fully functional 3-axis stabilised spacecraft weighing 3kg
- Built by SME Clydespace plus various universities and industries
- Success will underpin export opportunities



# Partnership with business: NovaSAR

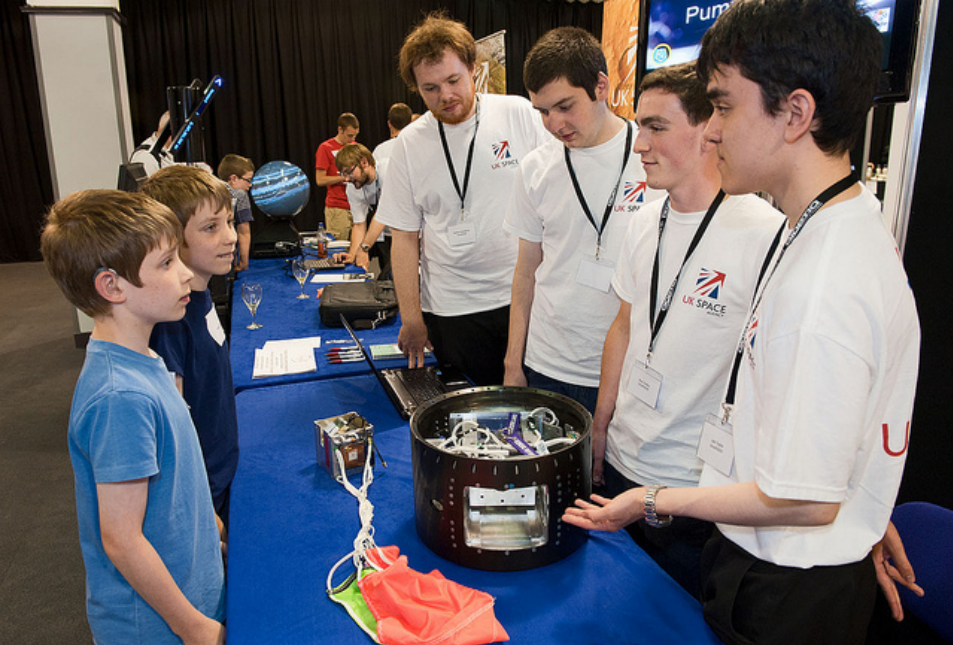


- **S-band (3.1-3.3GHz) Synthetic Aperture Radar**
- **Low cost, lightweight small satellite design**
- **Co-funded investment by UK Space Agency and industry to demonstrate NovaSAR in-orbit**

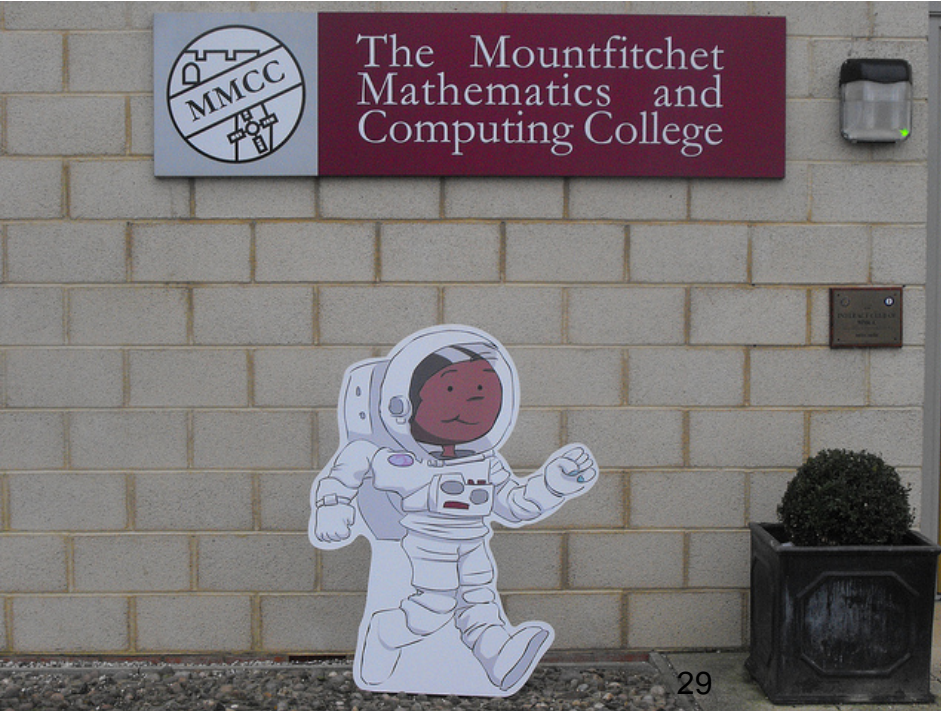
## **Example applications**

- **maritime security**
- **flood mapping**
- **forestry monitoring**

**First launch in FY 2015/16**



## Inspiring and Training the Next Generation





- Will lead ESA work on satcom technology and applications
- ESA climate office: space data to understand climate change
- A business incubator creating new space businesses
- Will grow to 100 staff by end of 2015
- Mission to drive growth through the exploitation of satellite data;
- link existing space organisations with new market sectors
- Government supported, private sector ethos
- A collaborative environment for industry, academics and government organisations

# A joined-up strategy attracts inward investment

- In July 2013, established Spanish space company Elecnor Deimos (300 staff, operates 2 spacecraft and supplies data and services worldwide) elected to establish a division in the UK at Harwell, targeting 50 staff within 3 years
- Why ? They said:
  - “Ambitious long term strategic plan for UK space sector”
  - “Creation of UK Space Agency”
  - “Important contribution by UK to ESA”
  - “Interest of UK in the space applications and downstream services”
  - “Potential of UK highly qualified engineers, universities and research institutions”
  - “New ESA centre at Harwell”





# Policy Issues: 2014/15

- National Space Policy
  - Capping document to civil space strategy and National Space Security Policy
- Implementation of Growth Action Plan
  - Joint Agency/industry/InnovateUK/Catapult team in place
- New Science and Innovation Strategy
  - To prepare the case for the next government and the Spending Review for 2016/17 onwards

# In Summary



We are using space to inform,  
educate and inspire

We provide coherence and  
leadership

We are promoting growth

twitter: @spacegovuk