The UK space sector has changed

- Formation of UK Space Agency
- Industry-led strategy to grow the sector over ten years (‘Space IGS’)
  - Goal to win 10% of £400B market in 2030
- Establishment of an ESA presence in the UK
- Creation of the International Space Innovation Centre at Harwell
- New businesses exploiting space
Who is the UK Space Agency?

- Fully operational in April 2011
- Replaced the British National Space Centre (BNSC)
- Integrates space budgets from four organisations and policy responsibilities from others
  → more coherence and efficiency
  → a sweep of activities from basic science, through technology and on to applications
- An executive agency of the Department of Business Innovation and Skills (BIS)
- HQ in Swindon, Wiltshire
- Offices in London and Harwell, Oxford
Purpose of UK Space Agency

• To meet national needs, the Agency is responsible for ensuring that the UK retains and grows a strategic capability in space-based systems, technologies, science and applications.

• The UK Space Agency will therefore enable sustained economic growth, scientific excellence and societal benefits from the UK civil space sector.
Our strategy ‘To lead and sustain the growth of the UK Space Sector’

Growth through exports
- Winning a larger share of the global market

Growth through innovation
- New technologies and applications of space

Growth through exploiting new opportunities
- New uses of space such as climate change services

Growth through smarter government
- Using space across the public sector to deliver more efficient services

Education for growth
- Education for space (the skills the industry needs to grow) and space for education (using space to attract young people into STEM)

Science as an enabler of growth
- Exploring space to gain new knowledge, train the next generation and create new technology
Policy and Programme priorities

- European space policy
- Global partnerships
- Technology
- Education, Skills & Outreach

- ESA’s Cosmic Vision
- Mars exploration for science, technology and inspiration
- UK in a global framework

- Telecoms and navigation
- New applications for Government and business

- science using Earth observation techniques
- Global Monitoring for Environment and Security (GMES)
- UK in a global framework
Governance and Advice

Agency Advisory Bodies:
- Telecoms/Nav
- Science
- Technology
- Exploration
- Earth Observation
- Exports/Trade
- Projects Review/Selection
- Industrial Policy at ESA etc.

Minister

Director General Knowledge & Innovation

Director General Knowledge & Innovation

UK Space Agency Chief Executive

UK Space Agency Executive Team

Agency Steering Board

Agency Audit Committee

Governance and Advice

Strategic Advice

Advice to Chief Exec.

Formal oversight

Policy and Programme Advice
Working with our Partners: the Technology Strategy Board

Formal agreement defines TSB role:

- Delivery partner of the UK Space Agency for telecommunications and navigation programmes
- Promoting business opportunities for the UK Space industry across other growth sectors
- Providing Technology Demonstration opportunities
- Knowledge Transfer to drive growth
- Open Innovation to accelerate R&D into business use
National Space Technology Programme

A set of National Space Technology Roadmaps issued on April 8th 2011

Will inform a new National Space Technology Programme (new funding announced in March 2011)

Programme will be augmented by industrial funding

Plus partnership with Technology Strategy Board and the Research Councils

ISIC will be a key delivery mechanism

Five NSTP Roadmaps
- Telecommunications
- Sensing
- Position, Navigation & Timing
- Exploration and Robotics
- Access to Space
Harwell and the wider UK space sector

- ESA
- EU space programme
- International Space Agencies
- Industry, universities and research organisations
- Agency partners (TSB, research councils, MoD…)
- RAL Space: Including existing facilities
- International Space Innovation Centre Ltd.
- ESA Business Incubator creating new space businesses
- ESA Centre: Applications, Climate Change, Exploration
- Co-located universities and industry: Supporting and exploiting the campus environment

International Space Agencies

EU space programme
International Space Innovation Centre

• A new hub for the UK’s space programme
• Located in Harwell alongside ESA
• UK Government, universities and industry can work alongside each other to create new space technologies, applications, businesses
• Access UK, European and global space programmes
• Links regional, national and international partners and stimulate further growth in the UK’s space economy.
What is ISIC?

- ISIC is an independent entity
  - A not for profit company limited by guarantee

- It is owned and operated by its member organizations
  - Mixture of private and public sector

- A delivery mechanism to provide long-lead technology development and innovative applications
  - Intellectual property normally held by the relevant member
• ISIC provides an open innovation environment supported by…

- an Earth observation hub for national & international missions
- A visualisation facility to help understand and use EO and science data
- A Concurrent Design Facility
- A space data Security and Resilience Unit to support critical national use of space
Agency – Industry – Academia Partnership

Agency / National Labs

Industry

Academia
ISIC Hub and National Spokes

Links to International Centres of Excellence
ESA at Harwell

opened 22nd July 2009
The Vision for ESA Harwell

1. Home of ESA ‘Innovation and Applications Centre’ working on telecoms, navigation and EO applications as well as IAP
2. Home of Climate Change Initiative programme
3. Home of space exploration facilities and competences not available elsewhere in ESA
4. Infrastructure and tools to promote innovation across ESA
Technology & Innovation Centres

Business-focused centres that makes world-leading technical capability available to businesses to solve their technical challenges. Provides access to world-leading technical expertise, infrastructure, skills and equipment.

- Access to world-leading technology & expertise
- Reach into the knowledge base for world-class science
- Capability to undertake collaborative R&D projects with business
- Capability to undertake contract research for business
- Strongly business focused with a professional delivery ethos
- Create a critical mass of activity
- Skills development at all levels
UK Landscape & Context

Technology Strategy Board
Driving Innovation
In summary

The UK’s approach to space is lean, agile and commercial

Manage the UK civil programme to explore and exploit space.

Provide international representation

Invest in the UK space industry.

Harwell is a new focus for delivering our goals.

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