

The Harwell Space Gateway

A perspective from Airbus Defence and Space

December, 2014

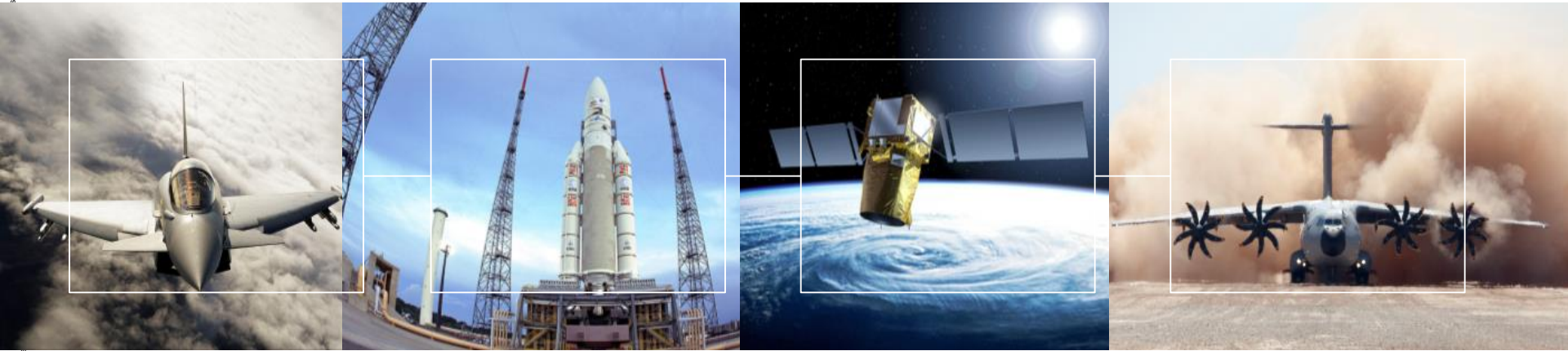
Airbus Defence and Space: an Airbus Group division



* in 2013

** estimate for 2014

Airbus Defence & Space



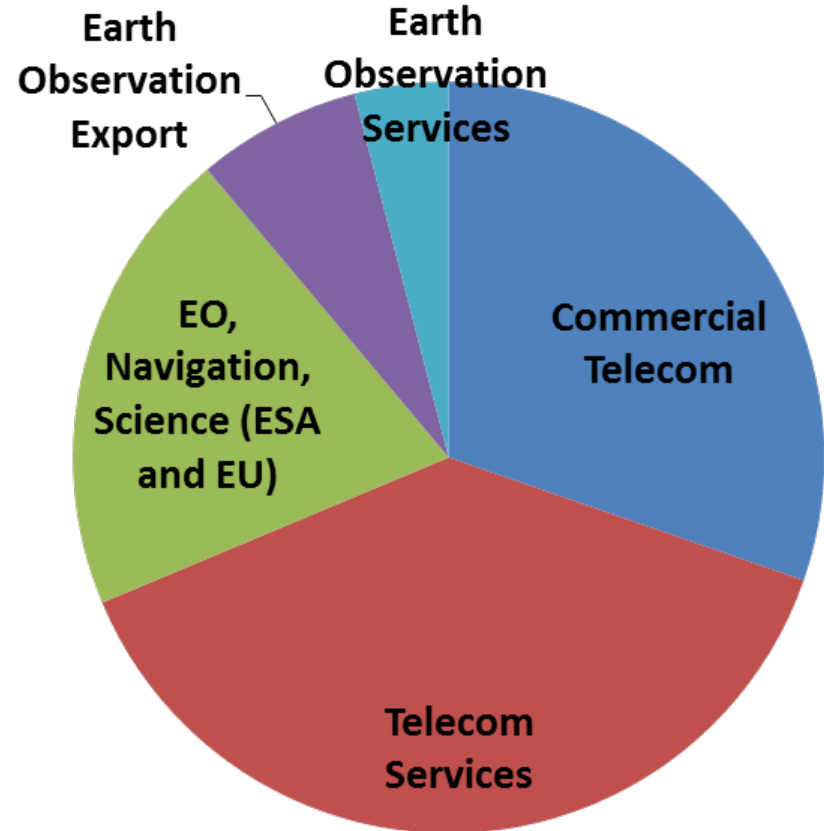
Nowhere are technology and engineering requirements more stringent and demanding than in the fields of defence, security and space exploitation.

Airbus Defence and Space unites a range of capabilities and skills unrivalled anywhere in the world.

- Europe's No.1 and world No. 2 in space
- Among the top 10 defence companies worldwide
- World-renowned range of products including Eurofighter, A400M and Ariane launcher

Airbus DS UK Space profile

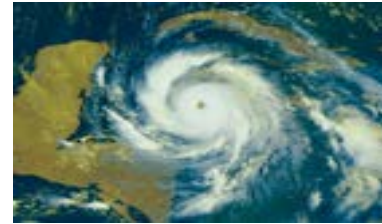
- Annual turnover c.£1bn
- 60% manufacturing and 40% service revenues
- ~3000 employees
- Balanced portfolio between commercial and governmental business
- 60% of turnover is export



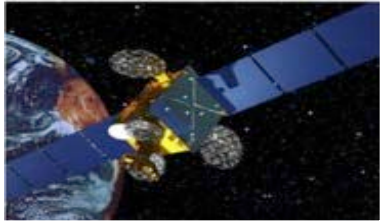
Airbus DS UK Space activities



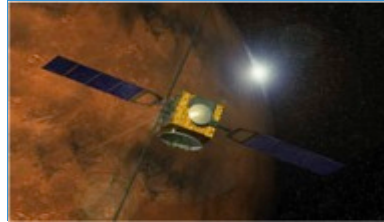
- Defence & Security



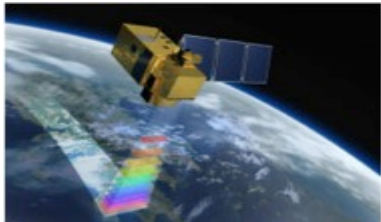
- Weather and EO instruments



- Telecom satellites



- Planetary science and exploration



- Earth science & climate missions



- Navigation payloads and ground systems

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Airbus DS History at Harwell

- Long history of working with RAL Space on ESA and other programmes
- Founding partner with STFC and others in creating ISIC – the International Space Innovation Centre
- Part of TSB (now Innovate UK) industry delivery team in making the case for and then realising the creation of the Satellite Applications Catapult centre
- Supported the integration of ISIC into the Sat Apps Catapult
- Worked with UKspace and other UK industry in making the case at the various ESA Ministerial Councils, culminating in ESA ECSAT establishing in UK
- Small offices maintained in the temporary prefab building behind the Catapult (highly unsatisfactory and the opposite to an open innovation environment)

Airbus DS Future engagement in Harwell - 1

SPACE INNOVATION & GROWTH STRATEGY:

- Airbus DS strongly supports the Space IGS and the growth ambitions
- £11bn to £40bn industrial growth by 2030
 - ❖ £3bn Upstream / £17bn downstream
 - ❖ £15bn domestic / £25bn exports
- How can Harwell help?
 - ❖ Cluster impact (open innovation, networking....)
 - ❖ Technology innovation
 - ❖ Applications development
 - ❖ Customer / end-user engagement
 - ❖ Business incubation
 - ❖ Public / education outreach

Airbus DS Future engagement in Harwell - 2

SATELLITE APPLICATIONS:

- Both ECSAT and Sat Apps Catapult have a strong mandate to support the development of applications and services
- To hit IGS targets, there is a need to create a handful of >>£100M companies, 100's of ~£100M companies and 1000's of SMEs
- Airbus intention is to maintain close linkages between space technology and space infrastructure with the developing applications market
- Need to work closely with ECSAT and Catapult to ensure balance of technology push, user pull, market engagement and business support
- It is in the interests of Airbus to see a thriving applications and services industry

Airbus DS Future engagement in Harwell - 3

SPACE TECHNOLOGY:

- The wider science campus has a lot to offer, with the potential for spin in (to space) and spin out
- RAL Space has been a leading space technology laboratory for many years
- Potential for disruptive technology centre to leverage the breadth of research taking place across the campus
- Also potential involvement from Catapult and ESA as partners
- Airbus considering its options to be an industrial partner in such a centre

Airbus DS Future engagement in Harwell - 4

BUSINESS SUPPORT:

- To help new companies start-up and small companies to grow, there should be a highly supportive business support and incubation service
- ESA BIC / STFC / UK Space Agency support network
- The Space Gateway must be designed to support collaborative working, networking and business incubation facilities
- Airbus ready to support through mentoring, due diligence, etc.

Conclusions:

- Exciting times ahead and plenty of potential for Harwell to play major role in the growth story of the UK space sector
- There is a big responsibility on STFC as the campus owner and the major partners on the campus to create the best environment for private sector investment, open innovation and business support
- STFC, UK Space Agency, ESA, Catapult and UK industry must work closely together to help create this environment: there is no room for empire building
- Airbus will continue to work with all parties to make Harwell a success