STFC and The ESA Business Incubation Centre: A New Model in Business Acceleration

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– Commercialisation arm of STFC
1. Spin-out companies
2. Access to world-leading facilities and expertise
3. Manage the STFC IP portfolio
4. Business incubation
5. ESA TTN Partner in UK
6. ESA Business Incubation Centre
Major Facilities

- **Wholly owned facilities:**
  - Neutron - ISIS
  - Laser – Vulcan, Astra
  - Space Science

- **Shareholder in:**
  - Diamond (majority shareholder on behalf of the UK government)
  - ILL (33%) & ESRF (14%)
The National Science and Innovation Campuses
The Campus Vision

• Prime locations for the international R&D sector

• Environment in which scientists from a wide range of disciplines can work in a mutually supportive and cohesive manner

• Scientific and high technology commercial cluster in its own right

• Co-location of small, medium & large public and private organisations

• Common identity enhancing the identities of individual participants

• Major contributor to the UK’s internationally renowned scientific and high-technology skills base
International Space Innovation Centre (ISIC)

• **Research** (Government agencies (e.g. ESA), academics and commercial organisations)
• **Incubation** (Space Business Incubator Unit (BIC), funded by ESA, TSB and STFC)
• **Open Innovation and Commercialisation** (Including co-location of satellite operations, exploitation and visualisation infrastructure

ISIC will initially focus on three key areas:
• **Climate Change**
• **Security** of space systems and services
• **Earth Observation**

It will subsequently expand to include:
• **Robotics and Exploration**
• **Novel Power Sources**
• **Integrated Applications**
Innovations
Technology Access Centre

Providing flexible access to laboratory facilities on the Daresbury Science and Innovation Campus

www.stfc.ac.uk/itac
Overview

• A suite of exceptionally well equipped laboratories;

• More than £3 million of cutting edge equipment available for high end laboratory sample preparation and analysis;
• Support from STFCs highly skilled scientists;

• Recognised scientific environment at Daresbury Laboratory and with well-established links in both commercial and academic fields

• Well-established cluster of high-tech companies - provides opportunities for technological and commercial collaboration;

Commercial Research and Development at the Heart of Science
ESA Technology Transfer Network in the UK
Tech Transfer Programmes at ESA

• ESA Technology Transfer Programmes Office (TTPO)
  – Mainly interested in Space to non-space industry transfer
  – Specifically excludes Ground-based Astronomy (since ESO)
  – Headed by Frank Salzgeber, D/TEC

• Technology Transfer Network (TTN)
  – Brokering role contracted out to MST Aerospace & subcontractors through TTN

• Business Incubation Centres (BICs)
Main activities:
- Technology Scouting
- Market needs analysis
- Events
- Mediations
- Technical translation and marketing of ESA patent portfolio
Technology Forum

- Website operated by MST Aerospace for ESA TTPO
  - Fantastic source of opportunities
  - Check to see if someone else is doing something already

- Accessed at: www.technology-forum.com
Forum Contents

- Space technologies: 372
- Technology needs: 434
- Success stories: 31
- List of European-wide Space technology transfer events

10,000 hits per month
Funding and Support Mechanisms

• Ideally technology to straight sales

• If further aid required:
  – ESA Permanently Open Call for Tech Transfer
    • Up to 40 k€ ‘look-see’
  – ESA periodical initiatives (e.g. Harsh Environment, Oil & Gas)
  – ESA Special Applications Fund (start-up companies)
  – Collaboration with national (non-space) technology programmes

• For spin-in:
  – ESA Innovation Triangle Initiative (ITI)
business incubation centre
Harwell
managed by STFC Innovations
Rutherford Appleton Laboratory

- World’s first 3rd generation synchrotron
- World’s most intense laser
- World’s most powerful sources of pulsed neutrons

Rutherford

RAL Space

Science & Technology Facilities Council
The Location

• The Atlas Building
  - At the centre of the Harwell Space Cluster
  - Co-located with STFC I-TAC
  - Co-located with the ESA Centre
  - Adjacent to ISIC

• Facilities
  - 20 furnished offices
  - Meeting rooms including video conferencing
The Package

• 10 Companies per year for 3 years

• Intensive business support
  - STFC and ESA business support managers
  - Company champion from SIL
  - Business planning
  - Technical guidance
  - IP advice

• Incentive Scheme
  - £41.5k for IP protection, design, prototyping, market studies
• **Access to technology**
  - SIL runs the ESA TTN in the UK
  - RAL Space
  - Other STFC technologies
  - ISIC companies

• **Access to Funding**
  - Open Skies Technology Fund
  - Other ESA funding
  - SIL’s VC network
  - Angel Investors
  - Regional initiatives e.g SEEDA vouchers
  - STFC Proof of Concept Fund
  - Rainbow Seed Fund
Current Status

- Operational since March 2011
- 5 Applicants
  - 2 STFC spin-outs
  - 3 externals
- 3 Selected
- Pipeline of 6 companies