



# Imperial Space Lab Event

1 July 2013 London

## STFC External Innovations Programme Funding Schemes

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**External Innovations**

Science and Technology Facilities Council

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# Funding Mechanism

HM Government (and HM Treasury)



**BIS** | Department for  
Business Innovation & Skills



**RCUK Executive Group**

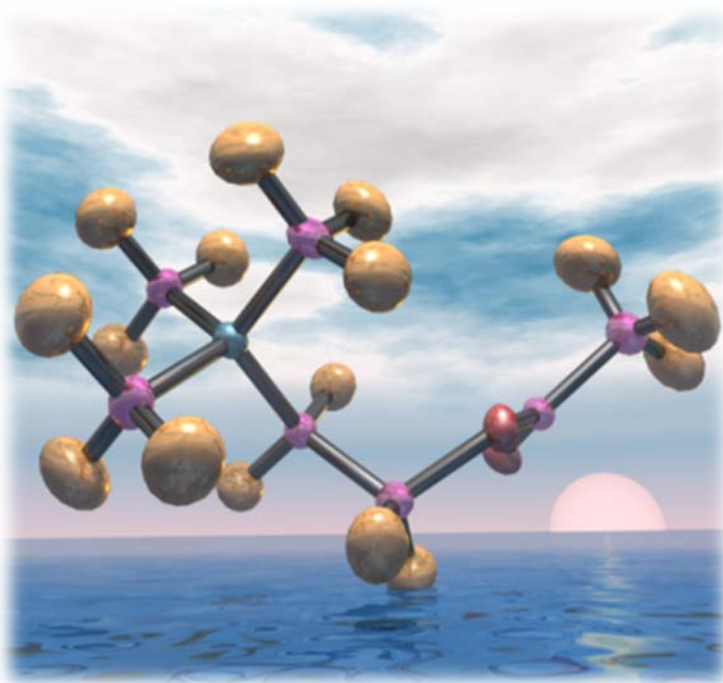


Arts & Humanities  
Research Council



# Science and Technology Facilities Council

STFC funds world class and world-leading research in **astronomy, particle physics, space science and nuclear physics**



- This research takes place in
  - **university groups**
  - **STFC sites/laboratories**
  - **international organisations**
- Providing access to world class **UK facilities and overseas facilities**
- **Funding university researchers**  
1,700 academic staff in UK universities



**UK Astronomy Technology Centre**  
Edinburgh, Scotland



**Polaris House**  
Swindon, Wiltshire



**Chilbolton Observatory**  
Stockbridge, Hampshire



**Isaac Newton Group  
of Telescopes**  
La Palma

**Daresbury Laboratory**  
Daresbury Science and Innovation Campus  
Warrington, Cheshire



**Rutherford Appleton Laboratory**  
Harwell Science and Innovation Campus  
Didcot, Oxfordshire



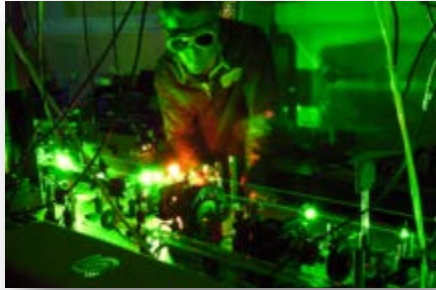
**Joint Astronomy  
Centre**  
Hawaii



# STFC Facilities – driving scientific research

## Neutron Sources

Providing powerful insights into key areas of energy, biomedical research, climate, environment and security



## High Power Lasers

Providing applications on bioscience and nanotechnology and demonstrating laser driven fusion as a future source of sustainable, clean energy



## Light Sources

Providing new breakthroughs in medicine, environmental and materials science, engineering, electronics and cultural heritage



# International Partnerships



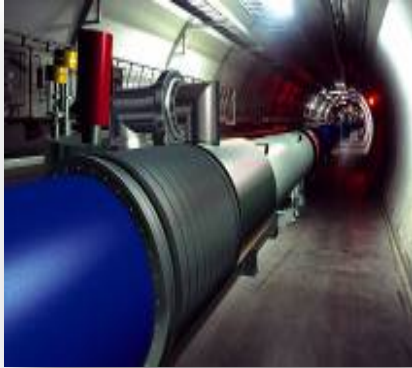
- CERN
- European Southern Observatory (ESO)
- European Space Agency (ESA)

- European Synchrotron Radiation Facility (ESRF)
- Institute Laue-Langevin (ILL)



# STFC's Science Programme

## Understanding our Universe



### Particle Physics/Particle Astrophysics

- Revealing the structure and forces of nature - Large Hadron Collider, CERN
- Advanced LIGO will observe and study Gravitational Waves, opening a new window on the universe



### Ground based Astronomy

- European Southern Observatory, Chile
- Very Large Telescope
- Atacama Large Millimetre Array
- European Extremely Large Telescope



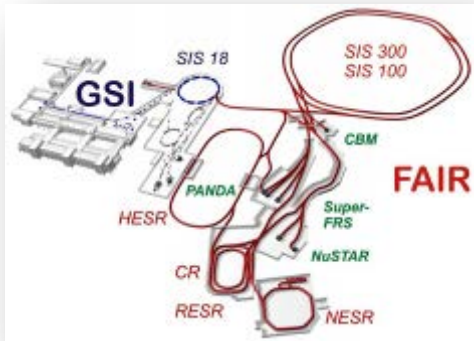
# STFC's Science Programme

## Understanding our Universe



### Space based Astronomy

- European Space Agency
- Herschel/Planck/GAIA/James Webb Space Telescope
- Bilaterals – NASA, JAXA, etc.
- STFC Space Science Technology Department



### Nuclear Physics

- Facility for Anti-proton and Ion Research, Germany
- Nuclear Skills for - medicine, energy and environmental applications





# Technology to underpin science

Developing and delivering innovative technologies in STFC laboratories and in collaboration with University groups

## Key Technology Strengths

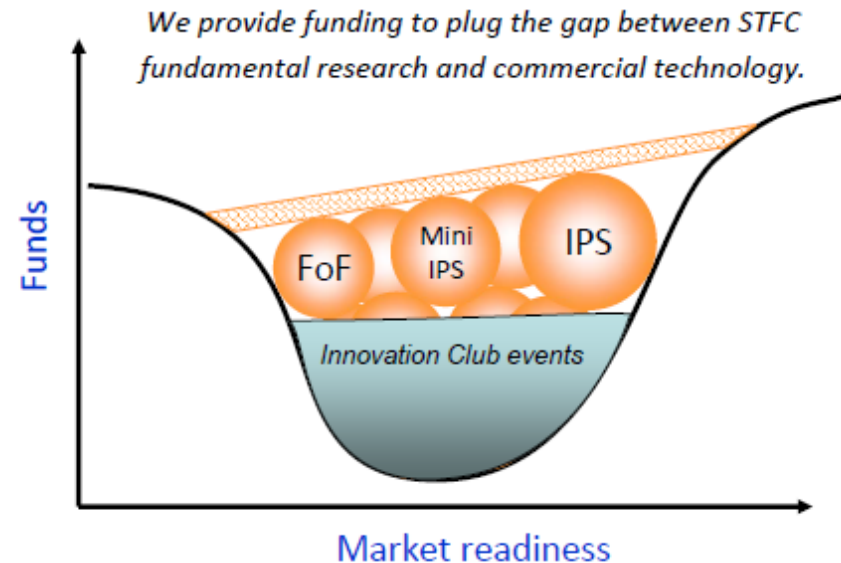
- Accelerator technologies
- Instrumentation
- Detectors and Sensors
- Data Acquisition and Processing Systems
- Microelectronics design
- High power lasers
- High Performance Computing
- Engineering technology centres based at Harwell and Daresbury Science and Innovation Campuses
- Collaborative efforts



# External Innovations Funding Programme

- ❑ **Generate impact** by providing funding support to help bridge the ‘commercialisation gap’
- ❑ **Key aims**

- ❖ Transfer
- ❖ Exploitation
- ❖ Partnership & Collaboration
- ❖ Economic Impact



*Impact through innovation*

# STFC External Innovations Objectives

- To transfer knowledge to diverse technological sectors
- Promote interdisciplinary collaborative research with industry leading to commercialisation



## Eligibility for STFC External Innovations Funding

- **Eligibility arises from STFC funded research as the source of knowledge (academic lead)**
- Funding schemes open to STFC Labs, HEIs and international subscriptions (CERN, ESO)
- **Other Universities or industry can participate** provided that they collaborate with STFC funded partner



# External Innovations Funding Schemes

- ❖ **IPS - Innovations Partnerships Schemes – next deadline**  
11 September 2013
  - **Follow on Funding**
  - **IPS and Mini-IPS**
  - **IPS Fellowships** - dedicated technology transfer staff
- ❖ **CLASP – Challenge Led Applied Systems Programme**
  - Aligned to STFC Futures Programme  
Energy, Environment, Healthcare, Security
  - **Energy call**
- ❖ **Knowledge Transfer Partnerships**
- ❖ **RSE Enterprise Fellowships**



# Follow on Funding

## Aim - To establish commercial feasibility on scientific and technical merit

- Proof of concept funding
- Undertaking further scientific and technical development of an idea
- Improving an intellectual property (IP) position
- Gaining further information about the market for the new products or process
- Identifying potential licensees or opportunities for joint ventures

Not in partnership with industry



# IPS / Mini - IPS

## Collaboration

- With industry
- With another academic discipline

## Range of activity

- Feasibility studies to prototyping
- Route to market must be considered

## IPS is a State Aid Notified Scheme

- Funding can be given to industry partners in line with State Aid rules



# IPS Fellowships

- This is a dedicated technology transfer role - not a research fellowship
- Duration – up to 48 months
- Host institution must be in receipt of substantial STFC funding
- Promoting commercial exploitation
- Transferring the technologies developed through STFC



# Scheme features – 3 calls/year

PROJECTS	IPS ACADEMIC / INDUSTRY	IPS ACADEMIC / ACADEMIC	MINI-IPS	FOLLOW ON FUNDING	IPS FELLOWSHIPS
Eligibility of non STFC organisations	Industry as supporter or co-recipient	Academic groups not funded by the STFC as supporter or co-recipient	Industry and/or academic groups not funded by the STFC as supporter or co-recipient	None	None
Maximum duration	36 months	36 months	12 months	12 months	48 months
Maximum project values	£450K	£450K	£150K	£110K	No maximum
Maximum %	80 % Full economic cost STFC or academic partner % contribution to industry dependent on size of business see Table 3			80% Full economic cost	80% (fEC limit) of 50% of costs
Maximum STFC contribution	£360K	£360K	£120K	£88K	No maximum





# CLASP

Annual calls in one of the STFC Futures Programme areas:  
**Energy**, Environment, Healthcare and Security

- ❑ **Two stage application process**
  - **two page technical outline** should include impact, timescales, markets and work plan – **deadline 10/09/2013**
- ❑ **Shortlisted applicants**
  - **will be invited to develop full proposals** with assistance and advice from STFC Innovations staff and panel members.
  - **will be required to present** their final proposals to the Evaluation Panel
- ❑ **Typically £1.5M STFC funding available per call**
  - any size of project
- ❑ **Industry can be included** in a project offering in-kind support or as a subcontractor for key tasks



# Knowledge Transfer Partnership (KTP)

- **Collaborative project between business and knowledge base (KB)**
  - developing new products or processes
  - improving existing products or processes
- **KTP Associate employed by the KB to enable**
  - business to increase profitability and embed knowledge
  - knowledge base to transfer research to users
  - opportunity for post-graduates to bridge the gap to industry
- **Projects last 1 – 3 years**
- **Programme run by TSB, sponsored by STFC + others**
  - support available from TSB during application

[www.ktponline.org.uk](http://www.ktponline.org.uk) to find local KTP adviser



# RSE Enterprise Fellowships

- **Support to commercialise any STFC funded research**
- A year's salary to develop your commercial proposition
- Business training to help you to prepare a viable business plan
- Access to networks of mentors, business experts and professional advisors



# STFC Innovations Club

- **Set up to promote the opportunities for Knowledge Exchange**
- Membership is free, provides organisations with information about the calls and the opportunity to search for potential collaborative partners
- **Runs an active programme of workshops and events and monthly Newsletter** for the benefit of academics, industrialists and other interested research and technology organisations.
- **Our events are free to attend and are primarily for companies and academics** to learn about recent developments and encourage collaboration while promoting funding opportunities
- **Established business network** includes many sectors including defence, medical, security, aerospace, space sector...





**[www.stfc.ac.uk/1788.aspx](http://www.stfc.ac.uk/1788.aspx)**

**Thank you**