



STFC External Innovations

Impact Funding Schemes

Particle Accelerators for Medicine Workshop – 17 Feb 2015

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PRESENTATION

- ❑ **External Innovations Funding Schemes**
 - Helping Universities to Commercialise their STFC Funded Research in Collaboration with Industry
- ❑ **Innovations Club (Networking, Events & Newsletter)**



Funding Mechanism

HM Government (and HM Treasury)



BIS | Department for
Business Innovation & Skills



RCUK Executive Group



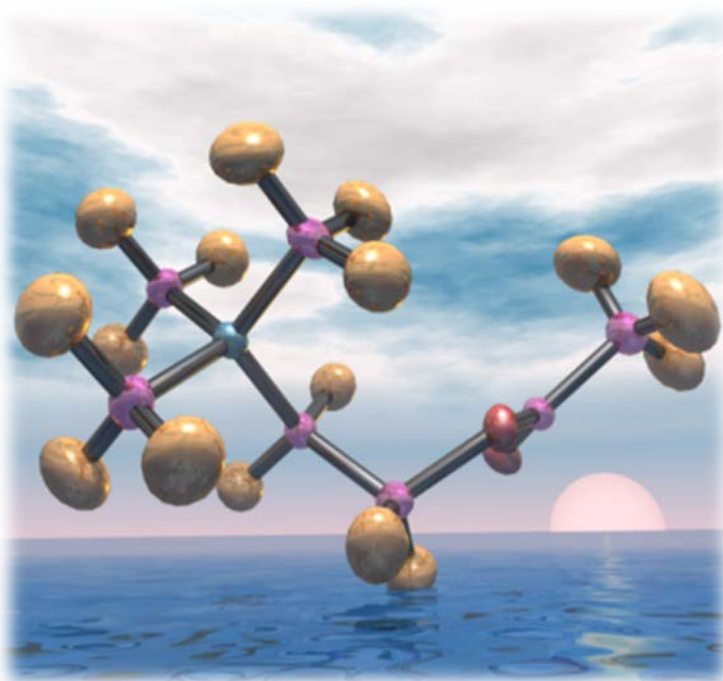
Arts & Humanities
Research Council



Science and Technology Facilities Council

STFC PD funds world class and world-leading research in

- **particle physics, astronomy, nuclear physics and space science**



- 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 40+ UK universities



Technology to underpin science

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

Key Technologies

- Accelerator technologies
- Instrumentation
- Detectors and Sensors
- Data Acquisition and Processing Systems
- Microelectronics design
- High power lasers
- High Performance Computing



- **Significant industrial applications**
- Collaborative efforts



STFC External Innovations: Objectives

- **To transfer knowledge to diverse technological sectors**
- **Promote interdisciplinary collaborative research with industry leading to commercialisation (schemes, networking, proposals)**



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



How do we do this

Work with our stakeholders to:

- Understand industry challenges
- Facilitate the building of partnerships
- Help to develop innovation projects with high economic potential / impact and provide funding
- Encourage sharing of best practice
- Support development of skills



External Innovations Team Toolkit

One size does not fit all



- **Responsive:** Follow-on Funding and IPS
- **User-led:** Global Challenge and CLASP
- **Empowering:** Impact Acceleration Account and Innovation Fellows



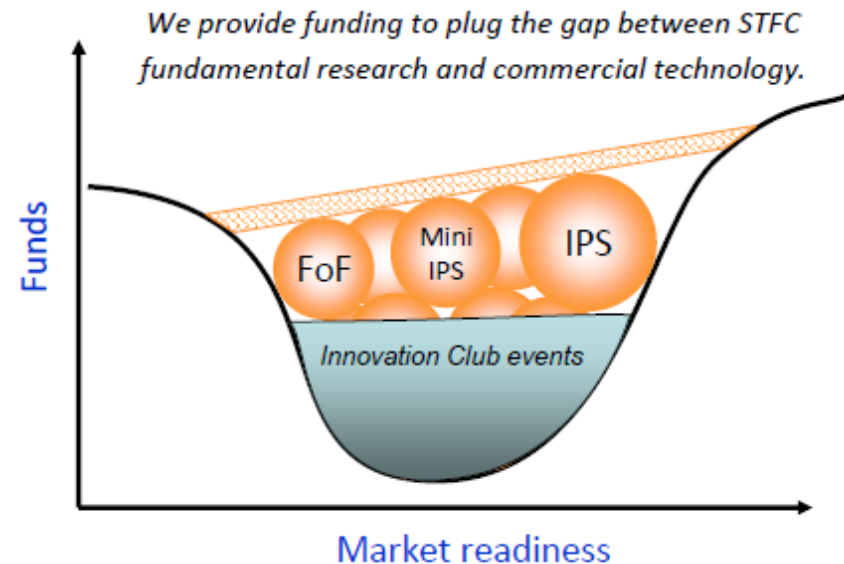
External Innovations Funding Schemes

□ Provide funding support to help to bridge the 'commercialisation gap'

□ Key aims

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

Innovative technologies, industrial/economic advances, new skills, societal benefits...



Impact through innovation

External Innovations Funding Schemes

- ❖ **IPS** - Innovations Partnerships Schemes – **next deadline 6 May 2015 - 3 calls/year**
 - Follow on Funding (FoF)
 - IPS and Mini-IPS
 - **IPS Fellowships** - dedicated technology transfer staff
- ❖ **IAA - Impact Acceleration Account** for TTO at universities
- ❖ **CLASP** - Challenge Led Applied Systems Programme
 - Aligned to STFC Futures Programme
Energy, Environment, Healthcare, **Security**
- ❖ **Global Challenge Programme**
- ❖ **KTP** - Knowledge Transfer Partnerships - TSB scheme
- ❖ **RSE Enterprise Fellowships**



Funding Programmes

- **Responsive:** Follow-on Funding and IPS
- **Challenge-led:** Global Challenge and CLASP
- **Delegated:** Impact Acceleration Account and Innovation Fellows

1

Technology Readiness Levels

6

Research

FoF

minIPS

Standard IPS

CLASP

IAA

Innovation Fellows

Global Challenge



Follow on Funding

Aim - To establish commercial feasibility on scientific and technical merit

- Proof of concept funding - £110k/year
- 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

Aim - Transfer technology and expertise to the marketplace in partnership with industry

Collaboration

- With industry or another academic discipline

Range of activity – up to £450 over 3 years (£150k/year)

- 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 KE/technology transfer role

- not a research fellowship

- Promote commercial exploitation and transfer of the technologies developed through STFC funding
- Host institution (or group of institutions) must be in receipt of substantial STFC funding
- Duration – up to 48 months
- STFC contribute 50% of cost – no maximum

www.stfc.ac.uk/ipsfellowships



STFC Impact Acceleration Account - Started Jan. 2015

- **Enable Technology Transfer Offices to support commercialisation of STFC science**
 - **£50k for 12 months to STFC academics via TTOs at top 22 universities**
 - Activities must support STFC-funded research outputs toward Impact
 - **Activities could include:**
 - Technology showcase to industry events
 - PoC funds
 - Technology audits / market surveys
 - Secondments to / from Industry
- www.stfc.ac.uk/IAA



CLASP

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

- ❑ **Two stage application process (Launch – 20 May 2015)**
 - **Two page technical outline** should include impact, timescales, markets and work plan (**Deadline Sept. 2015**)
- ❑ **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



Global Challenge Programme

Applying STFC-funded science to provide solutions to the Global Challenges in Energy, Environment, Healthcare, Security

- **Concepts:** call for **small scale demonstrator/proof of concept projects - (up to £50k)** – **previous deadline ~ October 2014 - £500k was available**
- **Networks:** creating new multidisciplinary research communities (**call: 2015**)
 - Advanced Radiotherapy Network – in development**
 - SEREN - Space Weather Network
 - GeoRepNet – Geological Repository Network
 - EnvRadNet – Environmental Radioactivity and the Environment
 - Network in Battery Science and Technology
 - Bioinformatics & Environmental Network
 - Network on Tropospheric Ozone
- **Studentships:** building capacity through interdisciplinary research training to support the transfer of research, science and technology

❖ www.stfc.ac.uk/2938.aspx



Science & Technology
Facilities Council

Global Challenge Programme - Funding Model (All funding at 80% fEC)

	Exploration and interdisciplinary community building	Research & early stage innovation	Consolidation	Commercialisation
Network Awards (Targeted or responsive)	Global Challenge Network 2 – 3 years, up to £80k per year Interdisciplinary activities at the STFC-Global Challenge interface e.g. workshops, short training courses, travel awards, case studies, fact sheets, position papers, market research			
	Global Challenge Network+ 3 – 4 years, up to £300k per year As for Global Challenge Network plus funding for proof of concept projects, scoping studies, discipline hopping activities, studentships, sandpits			
		Follow on Network 1 – 2 years, up to £200k per year Targeted projects to maximise the impact of earlier Network or Network+ activities		
Responsive Awards	Global Challenge Exploration Up to 3 months & £10k to £20k depending on activity (workshops, scoping studies) Exploration of STFC-Global Challenge interface (calls on a 3 monthly basis)			
		Global Challenge Concepts Up to 12 months & £50k Interdisciplinary proof of concept projects		
			CLASP Timescale and resources necessary for the work Development of technology demonstrators and industry-ready prototype systems	
RCUK Programmes	Global Challenge Partnerships Focus, funding and duration according to individual programmes			

RSE Enterprise Fellowships

The Royal Society of Edinburgh

- **Support to a researcher /entrepreneur to commercialise any STFC funded research – annual call**
- 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
- **Spin out companies formed with help from Fellows**
 - IKinema (Surrey)
 - Cella Energy (STFC)
 - KEIT (STFC)



STFC CASE Studentships

Collaborative Awards in Science and Engineering

Provide support for PhD students in collaboration with an industrial partner

- Collaborative training projects delivering research of value to the company
- **Knowledge exchange between commercial collaborators and academic research groups - not just access to data, samples and equipment**
- Enhanced training experience for students through spending time in different research environments and industry
- www.stfc.ac.uk/1468.aspx



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STFC Innovations Club

- **Set up to promote the opportunities for Knowledge Exchange** between STFC funded researchers, academics and industry
- **Organise workshops and events** (free to attend) to learn about recent developments and encourage networking and collaboration
- **Newsletter (monthly)** - provides organisations with information about funding calls and the opportunity to search for potential collaborative partners
- **Established business network** includes many sectors including defence, medical, security, aerospace, space sector...~ 1500 members
- **Membership is free**
- **www.stfc.ac.uk/innovationsclub**



STFC Innovations Club

- **Examples of events - audience academics and industry ~100**
 - Novel Magnetic Sensors and their Applications – 12 March 2015
 - Industrial Applications of Astrophysics/Astronomy - 25 June 2014
 - Cherenkov Telescope Array (CTA) Event - 20 March 2014
 - Nuclear Physics Technology Showcase – 26 September 2013
 - The Square Kilometre Array (SKA) Workshop - 20 March 2013
 - SpaceTech 2012 - 5 & 6 November 2012
 - **www.stfc.ac.uk/innovationsclub**



Working with our Innovation Partners



PraxisUnico.



Find Your Collaborative Partners

- **Website**
RCUK and TSB – [‘Gateway to research’](#)
- **Designed for companies to find**
 - potential collaborative partners and
 - new ideas
- **Contains details of all grants given by RCUK and TSB since 2007**
- ❖ <http://gtr.rcuk.ac.uk/>





www.stfc.ac.uk/commercialisation

www.stfc.ac.uk/workingwithindustry

Thank you