

# Role of innovation & impact

**This talk written by Andy Kerr  
With some bits by Simon Mudd  
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Executive Director, ECCI**

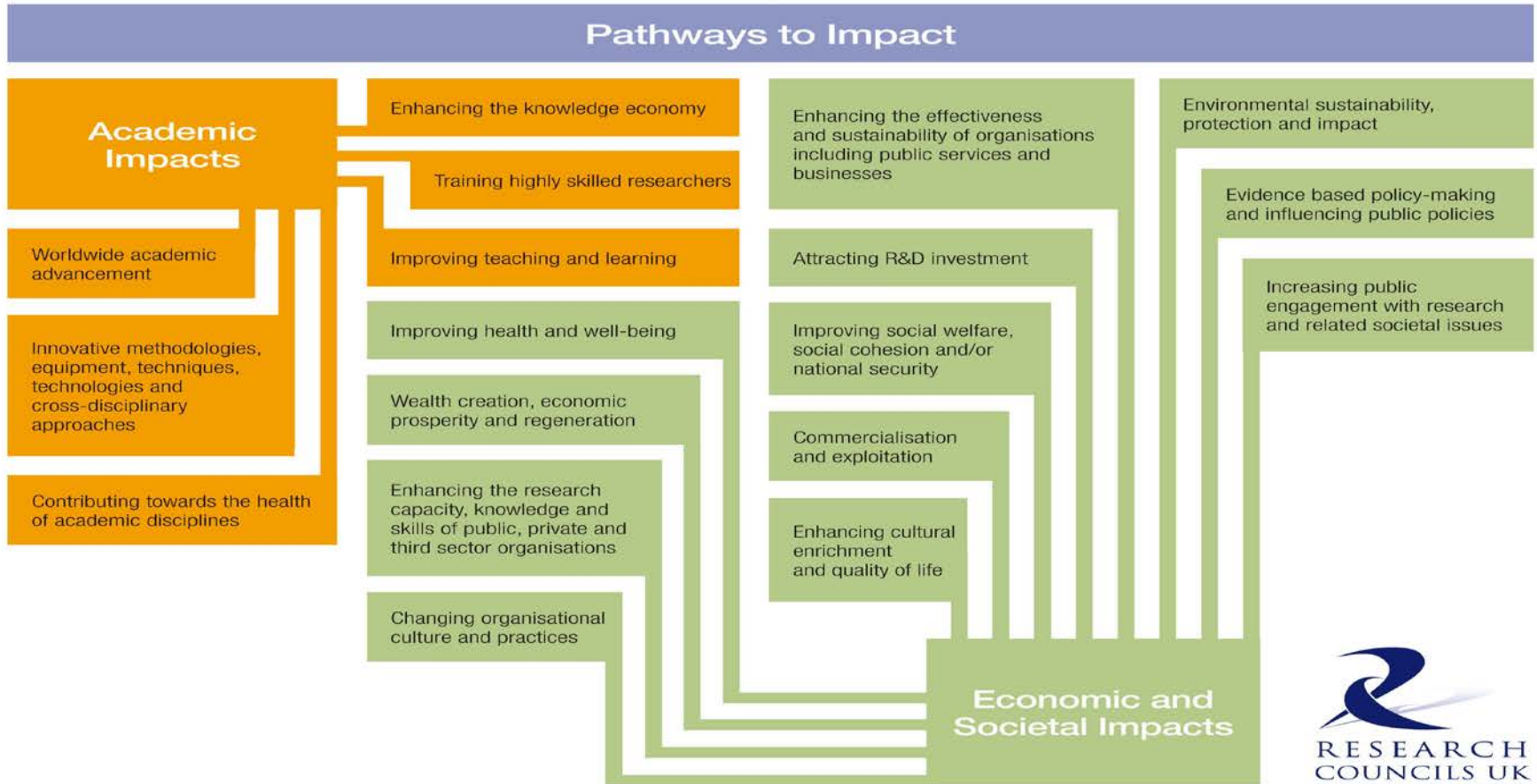
# Today

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## AIM:

- **Explain** the need for you to engage with research “impact” in your career
- **Understand** your interests
- **Introduce** you to opportunities for different experiences of working in business and social enterprise at the interface between ideas and practice
- **Offer** you the chance to ask questions about how we can help you.

# Definition of Impact (RCUK)

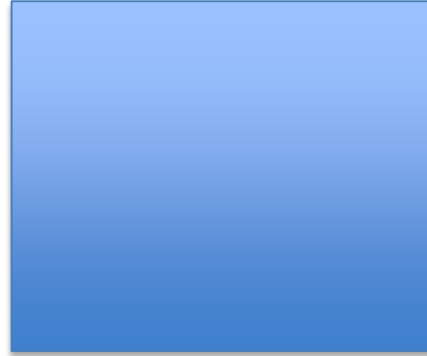


# Impact – Why?

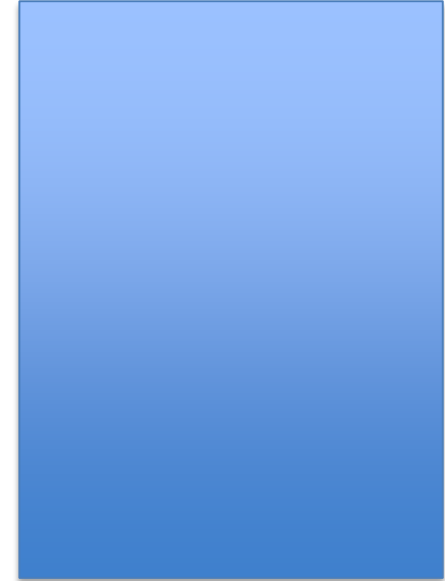
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20% block grant  
(REF)

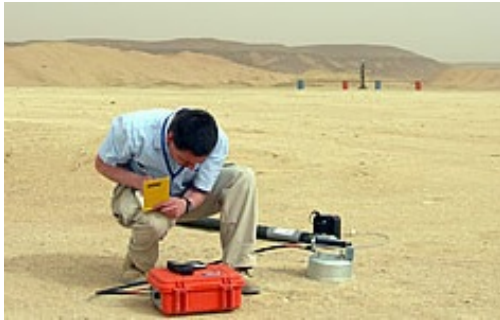


Up to 50% of  
RCUK funding  
aligned to UK  
industrial  
strategy



Two thirds of  
Horizon 2020  
funding requires  
innovation  
partners

# NERC supports



- 3,000 scientists and 1,000 PhD students
- 1,000 research projects and 60 UK or international programmes
- 55 universities and 20 research institutes
- UK national capability: 4 ships, 7 aircraft, 6 polar stations, 6 data centres, 32 community facilities



# NERC funding



**Discovery Science** Research driven by curiosity - asking fundamental questions about the planet we live on.

**Strategic Research** Providing the understanding to meeting the challenges faced by society.

**Innovation** Translating world-leading science and skills for industry, government and the third sector.

**Training & Fellowships** Developing outstanding scientists to become internationally recognised leaders in science, in academia, business, government, the public sector and civil society.

**Capital** Investing in new technologies, equipment, infrastructure, facilities and estates.

# The funding landscape



Benefiting from  
resources

Discovery  
PRC/SB

Resilience  
to hazards

Managing env.  
change

Large

Standard

Urgency

Strategic  
SB

SPAG

NERC Exec

Follow on  
fund

KE  
fellowships

HT

SPAs

Joint Strategic  
Response

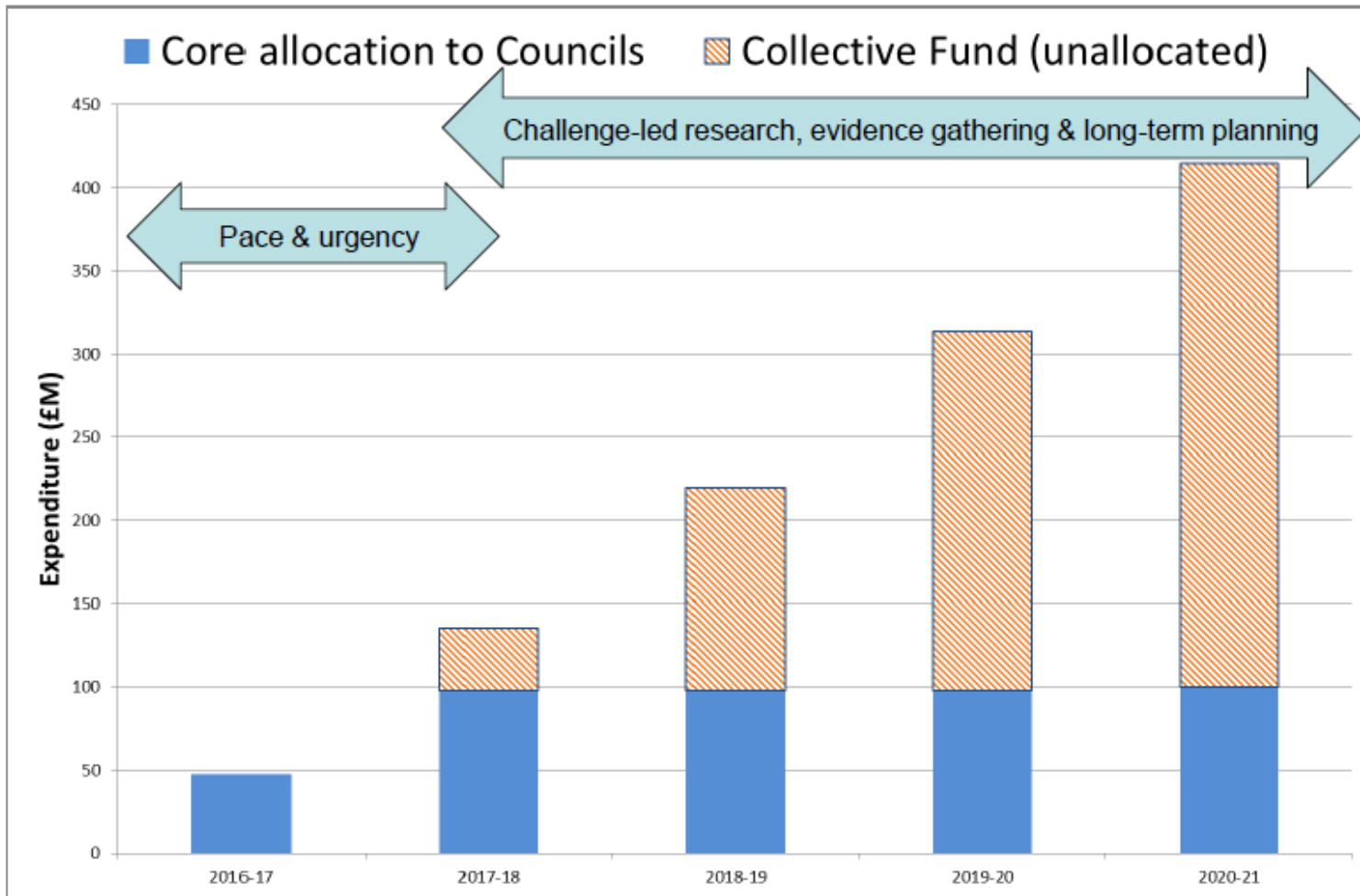
ESIP

Innovation  
IAB

Newton Fund  
& GCRF

Innovation  
projects

Industrial  
fellowship



NERC ~£10 M p.a.





# Main take home messages:



<i>Standard Grant Call</i>	<i>Number Lead Proposals</i>	<i>Success rate</i>	Number awarded
January 2015	250	12%	30
July 2014	333	11%	35
January 2014	305	10%	35
July 2013	310	12%	36
December 2012	254	20%	51
July 2012	241	24%	58*
December 2011	222	27%	60*
July 2011	239	23%	55*
December 2010	300	16%	48
June 2010	296	16%	47
December 2009	295	19%	56

Average grant has increased from ~£440K to ~£560

Large outline submission (~ 4 per year funded)  
 2011= 28 (11 invited for full submission)  
 2012 = 37 (8 invited for full submission)  
 2013 = 42 (8 invited for full submission)  
 2014 = 46 (8 invited for full submission)

New investigators

DEMAND MANGEMENT

## After demand management

### Discovery science grant applications and success rates

	2017-18	2016-17
Number of proposals	455	511
Number of grants	101	113
Total £k	45,733	47,301
Success rate %	22	22

### Success rates for grants by gender

	Men	Women
Number of proposals	820	256
Number of grants	234	64
Success rate %	29	25

### Success rates for fellowships by gender

	Men	Women
Number of proposals	93	44
Number of grants	6	7
Success rate %	6	16

### Staff, students and fellows

	2017-18	2016-17
Directly employed staff	2,494	2,496
Staff in research organisations <sup>2</sup>	3,808	3,501
Fellows	118	84
PhD <sup>3</sup>	1,549	1,346

1. NERC is committed to equality, diversity and inclusion as an employer, decision-maker and funder and in March 2018 published a report on the average hourly pay and bonuses of male and female employees, known as the 'gender pay gap'. The report includes our next steps to reduce the gender pay gap at NERC and is available at: <https://nerc.ukri.org/about/policy/foi/staff/gender-paygap-report/>
2. Headcount of all academic and research staff named on research grants that were active at the end of the financial year.
3. PhD data are based on number of students directly funded by NERC grants. These do not include co-funded studentships where another funder administers the award. PhD data are recast annually to include studentships that had not previously been entered into the system, by award holders, at the time of publication. The figures for 2017-18 are higher than those for previous years; this reflects the increased numbers of co-funded studentships following the adoption of the Doctoral Training Partnership and Centre for Doctoral Training models for delivering postgraduate training and the increasing number of students being funded through these mechanisms each year as old training schemes conclude.

## Analysis of net expenditure by funding stream 2016-17

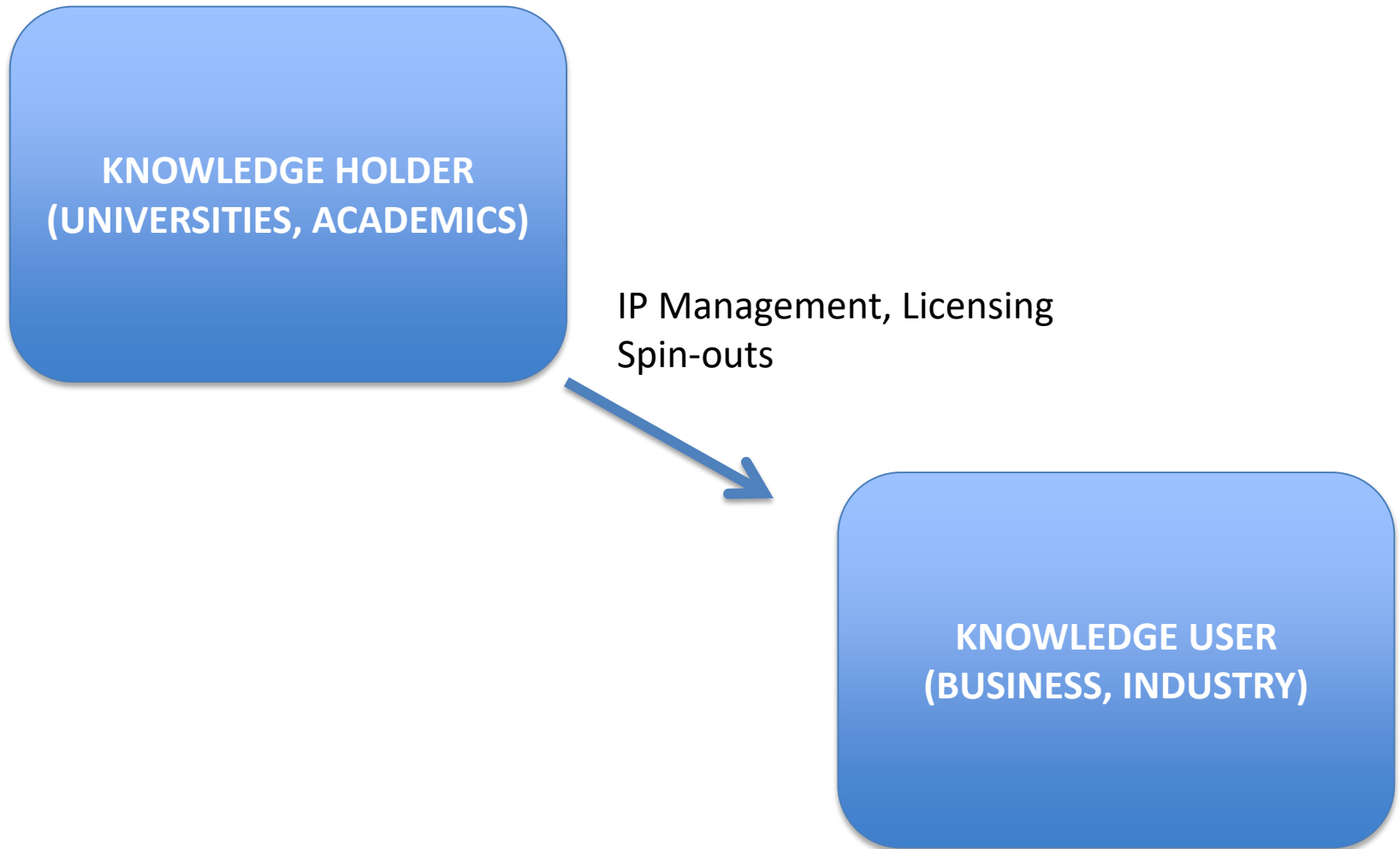
	National Capability	Antarctic Logistics and Infrastructure Partition	Discovery Science	Strategic Research	Post-Graduate Training	Fellowships	Innovation	Research Centres	Other	Total
	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000
<b>Operating income</b>	(3,080)	(2,448)	(346)	(14,818)	(233)	-	(1,101)	(48,378)	48	(70,356)
<b>Expenditure</b>										
Staff costs	2,275	15,084	106	570	3	-	877	86,386	7,660	112,961
Purchase of goods and services	13,140	19,591	22	539	55	7	489	48,211	2,732	84,786
Depreciation, amortisation and impairments	-	-	-	-	-	-	-	-	55,321	55,321
Provision expense	-	-	-	-	-	-	-	-	4,784	4,784
Grants and training awards	18,449	-	44,677	68,285	24,564	6,715	12,395	14,339	1,095	190,519
Notional service charge	-	-	-	-	-	-	-	-	5,950	5,950
Other operating expenditure	-	-	-	-	-	-	-	-	(1,869)	(1,869)
Internal transfers	66,223	13	7,787	14,630	543	176	6,054	(102,623)	7,197	-
<b>Total expenditure</b>	<b>100,087</b>	<b>34,688</b>	<b>52,592</b>	<b>84,024</b>	<b>25,165</b>	<b>6,898</b>	<b>19,815</b>	<b>46,313</b>	<b>82,870</b>	<b>452,452</b>

## Analysis of net expenditure by funding stream 2017-18

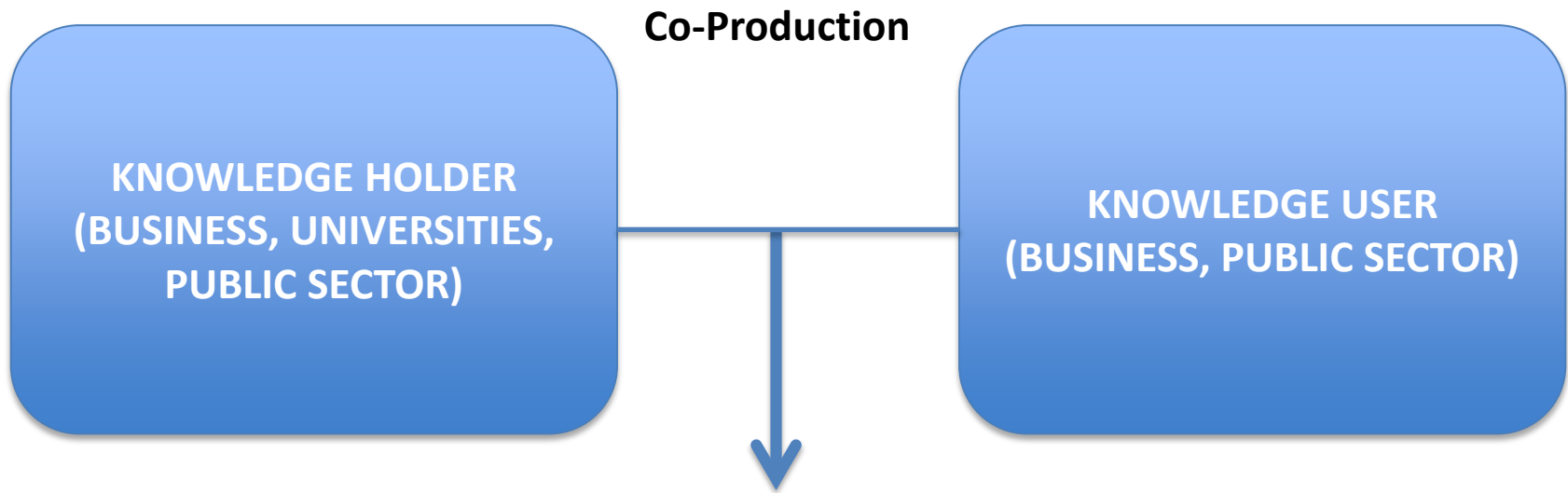
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	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000
<b>Operating Income <sup>i</sup></b>	(1,933)	(5,947)	(394)	(15,954)	(1,018)	-	(1,427)	(44,162)	(299)	(71,134)
<b>Expenditure</b>										
Staff costs	2,124	15,803	216	1,160	222	3	781	83,813	7,769	111,891
Purchase of goods and services	12,753	19,133	41	594	105	16	546	50,473	2,304	85,965
Depreciation, amortisation and impairments	-	-	-	-	-	-	-	-	39,025	39,025
Provision expense	-	-	-	-	-	-	-	-	229	229
Grants and training awards	44,188	-	45,542	67,114	26,571	8,354	13,624	14,741	484	220,618
Notional service charge	-	-	-	-	-	-	-	-	5,643	5,643
Other operating expenditure	-	-	-	-	-	-	-	-	32	32
Internal transfers <sup>ii</sup>	67,975	2,072	7,596	14,440	561	357	6,117	(105,676)	6,558	-
<b>Total expenditure</b>	<b>127,040</b>	<b>37,008</b>	<b>53,395</b>	<b>83,308</b>	<b>27,459</b>	<b>8,730</b>	<b>21,068</b>	<b>43,351</b>	<b>62,044</b>	<b>463,403</b>

# Traditional industry engagement

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# ... now increasingly...



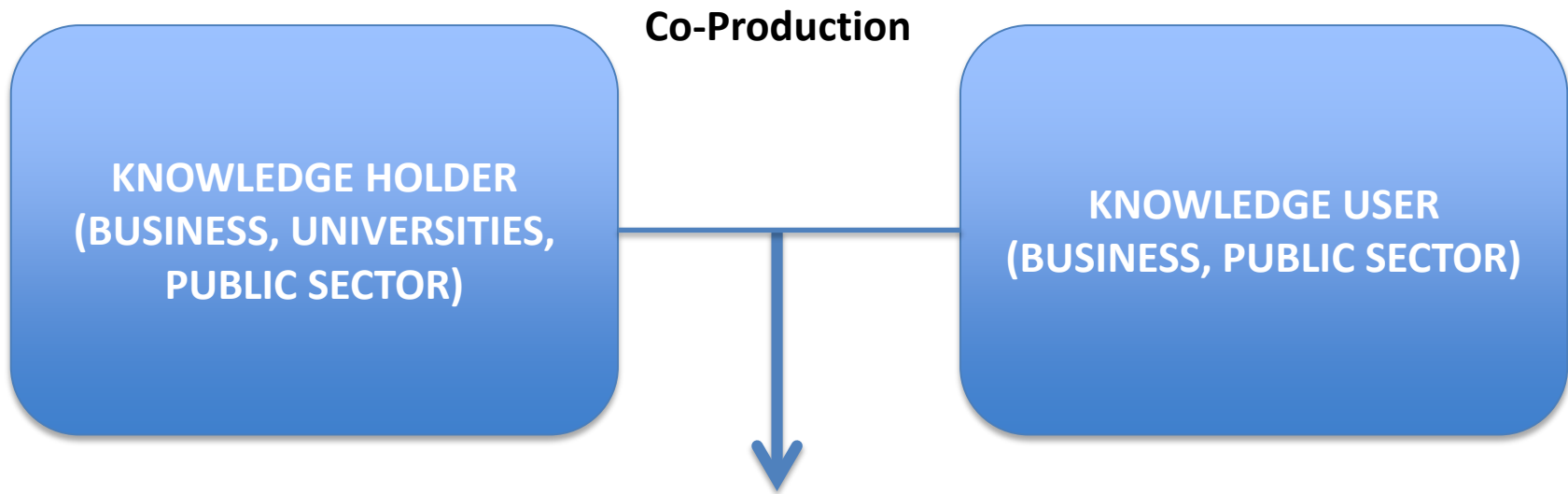
SFC Innovation Centres

Innovation Hubs (Innovate UK, KTPs, etc)

Enterprise Agency funding; EU structural funds (ERDF, etc)

Funding dependent on prior partnerships with industry/business

# What is in it for Universities?



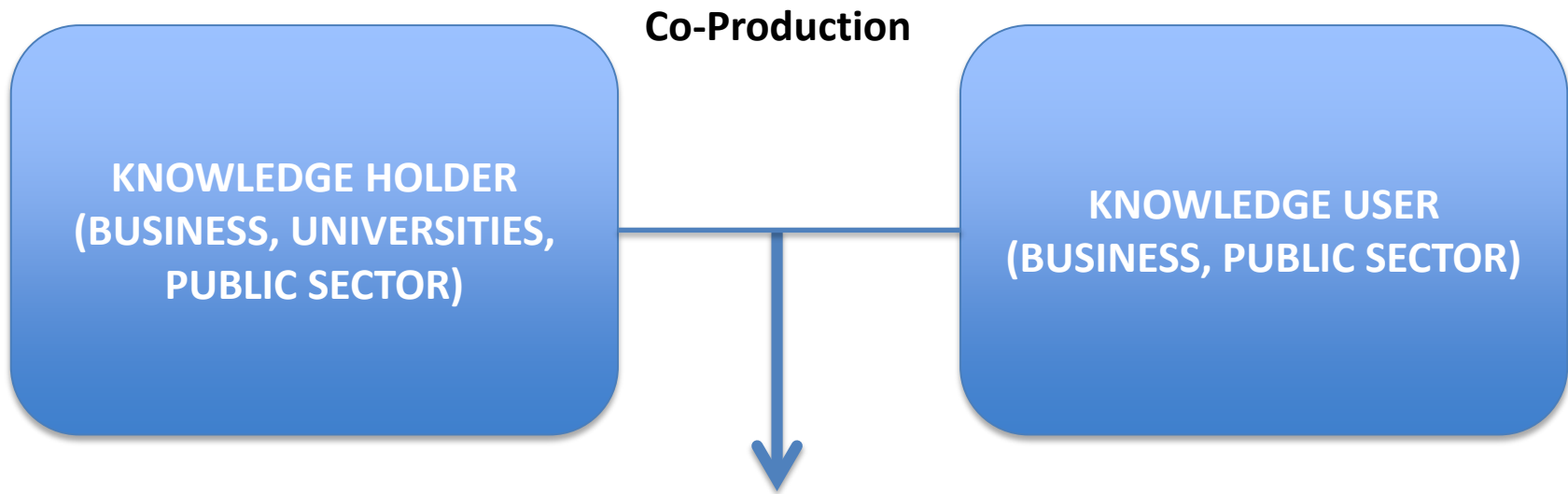
We have to in order to **secure future research funds**

We want to because we want to have a **positive impact on the world** (mission)

We want to **help our students** – and they want access to their future employers



# What is in it for industry/business?



Access to **ideas** (technology, test facilities, etc.)

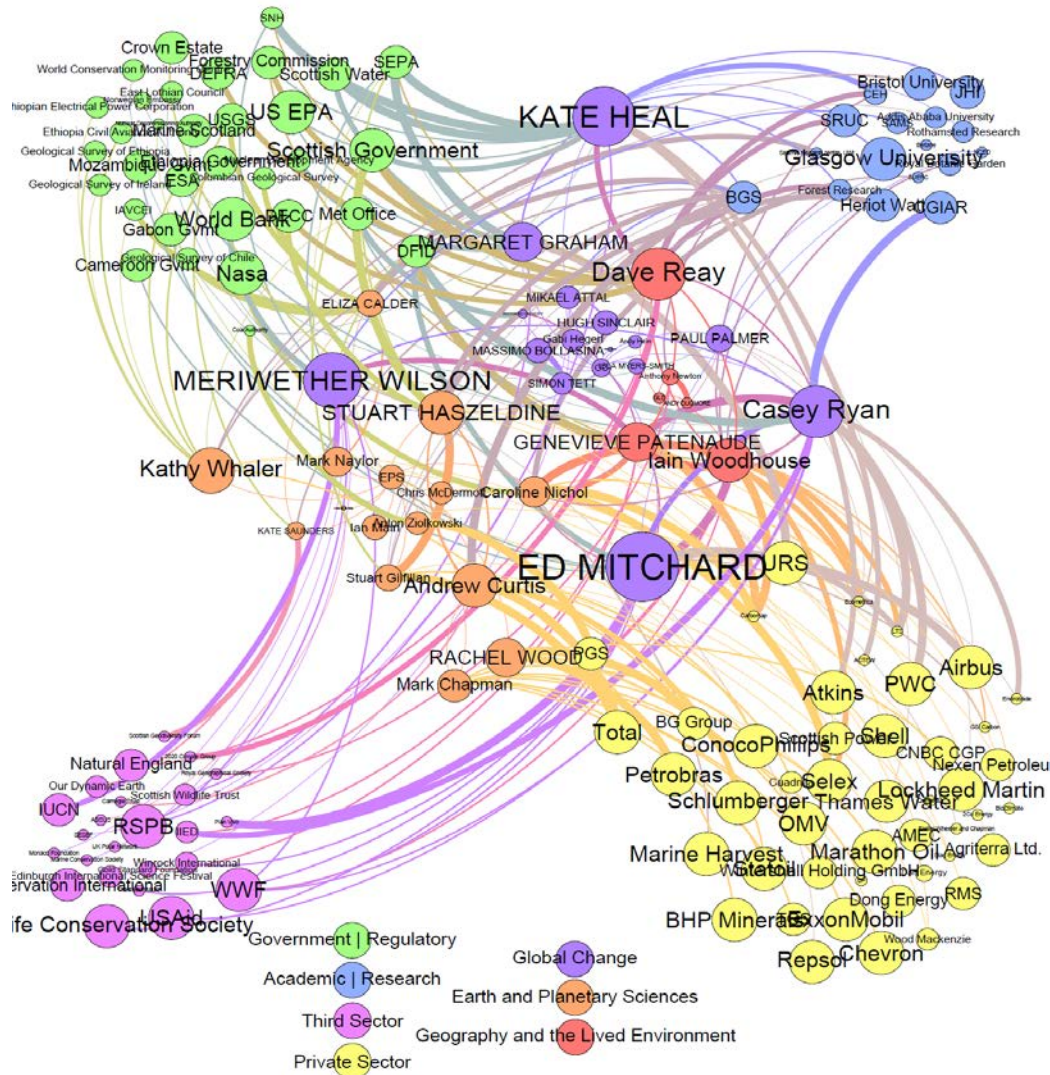
Access to **people** (consultants, students, future employees)

Access to **finance** (to test new ideas, develop new products/services)

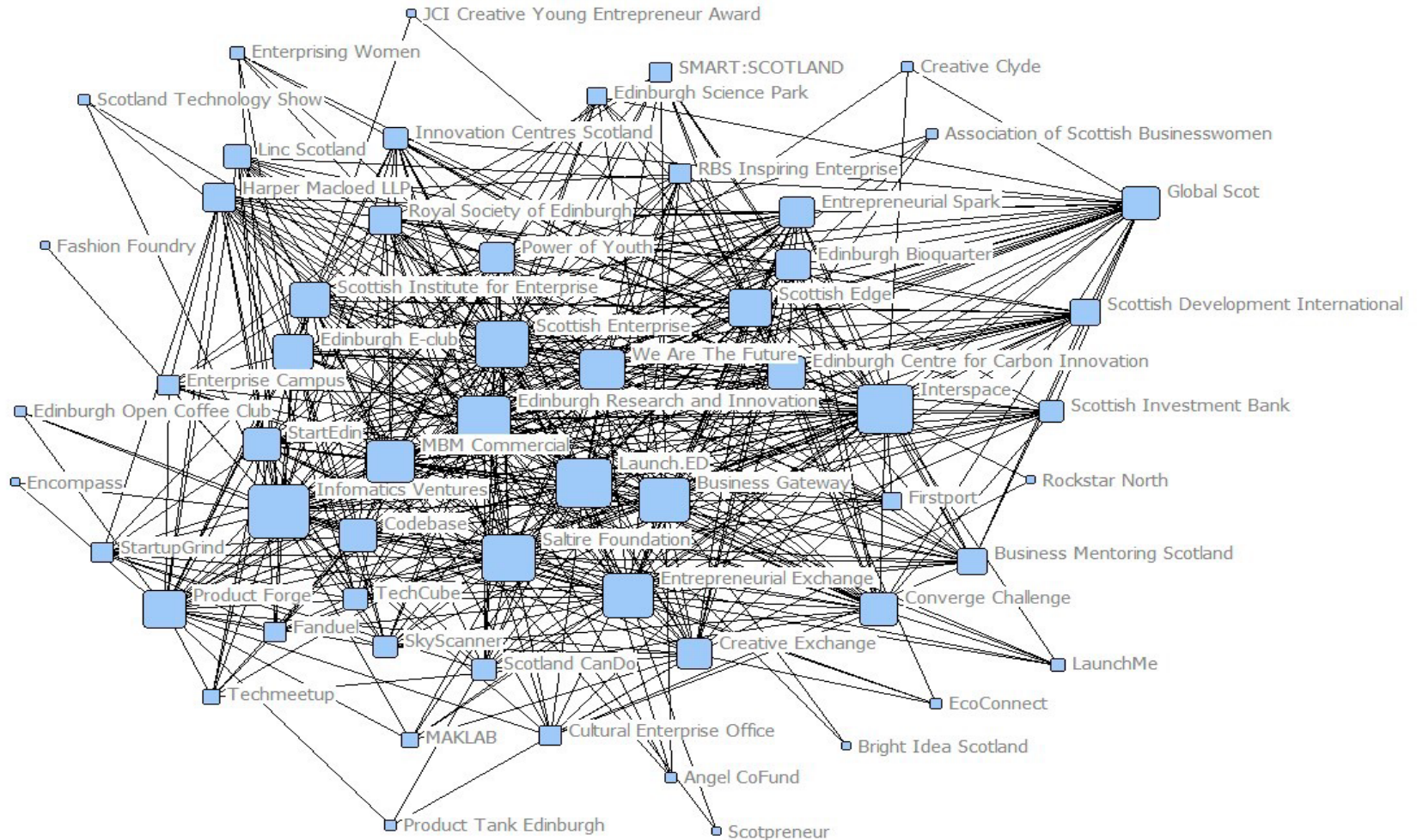
Access to **new markets** (partnering with local knowledge)



# Existing linkages?



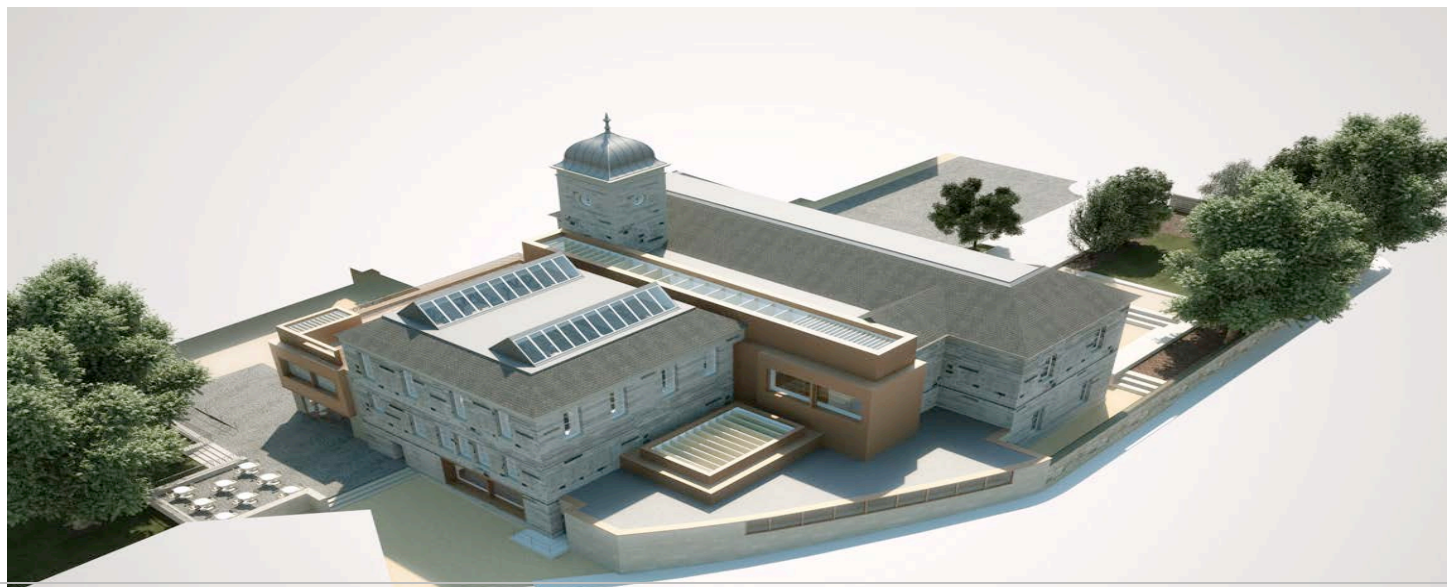
# Existing networks?





# ECCL: Low Carbon Hub

Hosted by University of Edinburgh, ECCL is designed as a **physical and virtual hub** to provide the place and space for **'low carbon' leaders** and **networks from business, Government, communities and academics** to **work together** to **implement** a resilient, low carbon future.



ECCL facilitates knowledge-exchange, co-operation and joint action. ECCL creates a physical space to incubate ideas, businesses and projects, host brokering events, round table discussions and debates; as well as the virtual space that connects networks of low carbon actors from across Scotland, UK, Europe and globally.