



The  
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Research &  
Innovation  
Services.

# Doctoral Times.

Issue 14 | Winter 2016



## Research Impact

The Newsletter for  
Doctoral Researchers

# WELCOME TO THE DOCTORAL TIMES

## IMPACT EDITION

It is increasingly valuable for researchers to be able to understand and describe the potential non-academic benefits, or 'impact', that arises from their research. In this issue of the Doctoral Times, we aim to give you a range of perspectives on impact, from the institutional to the personal. We will look at the rich and broad variety of impact journeys our Early Career Researchers are already undertaking, and introduce you to some of the support available to help you get involved too.

Impact is not one-sided. Your research can benefit from engaging with external organisations or communities - to help inform and shape your research questions, or to provide access to facilities, expertise, materials or data.

Early engagement can make impact more likely to happen by including in the research journey those organisations, groups or individuals who will use your research to address the real world issues that affect everyone.

It can be difficult to understand how to get started but Early Career Researchers can develop communication and networking skills through support offered by the Think Ahead Programme and Research Partnerships and Engagement team.

We hope you find the articles included in this edition illuminating and useful. Please get in touch if you would like to find out more about any area.



John Derrick, Deputy Pro-Vice-Chancellor for Research & Innovation

## Editorial Team

Content: Sarah Geere, Impact Consultant, Research & Innovation Services

Layout: Cara Hammond - Katie Cahill

Cover: Fozia Yasmin

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# IMPACT

## But what IS it?

The word 'impact' is ubiquitous in academia these days. From grant applications to annual performance reviews to REF case studies to job adverts, the term pops up in almost every aspect of a researcher's professional life. But there is still confusion around what exactly impact is, and how to approach it.

A lot of this confusion stems from a tendency to view impact as an exam question, a persistent but mistaken belief that there is a list of 'acceptable' impacts somewhere and the purpose of the pathways to impact section of a grant proposal is to test how well you know this list, or how well you can cram your research into one of the 'right' impact categories.

### **This is not the case.**

The reality is that Research Councils and other funding bodies are under intense pressure to demonstrate what benefits they are delivering for society, the environment, the economy, with the money they receive from the taxpayer, and they desperately need your help. They cannot know all of the impacts from every research project they fund. They are relying on you to tell them what the impacts might be, and what you could do to foster them. There are no 'wrong' answers if you engage fully and meaningfully with the question.

I often get asked "What is the impact of my research?". The simple answer is, I don't know. But I do know that no-one would ever ask me about their research question or methods in this way, and impact is just as specific to, and embedded in, your particular research project as either of those. You own it, and it's up to you to claim it.

Your research might help change the way people think about themselves or others, where they live or where they come from; it might help people as passionate



as you are about your subject to understand it better or increase their knowledge; it can give individuals and organisations better information on which to base their behaviour and decisions; it may prevent them from doing something that would have caused harm; it can create new products, or make existing ones cheaper or less environmentally damaging; it might allow organisations to provide more useful services more efficiently to their users; it can dispel myths and challenge attitudes; it can help new or established companies to thrive and spread prosperity. The possibilities are almost endless.



Sarah Geere, Impact Consultant,  
Research & Innovation Services

## So how do you know which to pursue?

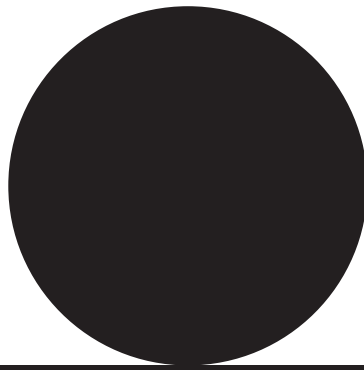
A lot will depend on the kind of researcher you are, and what motivates you personally. Ask yourself why you are doing your research? Why do you think it is important? What would you most like to be remembered for outside of your immediate discipline? Use the answers to these questions as a starting point in thinking through your research impact.

Remember too that impact activities can benefit you and your research. As well as considering how your research may benefit others, think about what you can gain from engaging with the world outside academia. Your research can benefit: different perspectives on your research question can bring fresh insights and lead to more relevant work; external organisations may have expertise, equipment, data or facilities that you would not be able to access otherwise; they can give you the opportunity to test your ideas on a bigger scale, in a real-world context; they

can bring your research to a wider audience and use greater influence to apply your findings. You can benefit from new personal and professional skills in communication, negotiation, event management, stakeholder relations, public engagement, lobbying, web design... Look for the gaps in your CV and fill them.

And lastly, impact activities can build the foundations for the future you wish to pursue. The networks, contacts and relationships you develop as part of impact-related activities can lead to new collaborative research projects and consultancy work, or stand you in good stead if you decide to seek a career outside academia.

Whichever path you decide to follow, make sure it flows naturally from the research you do and the researcher you are, and make full use of the support on offer across the University, and you can't go far wrong.



# Bring on the Bou

It's been a year of upheaval for the UK research community. The government's Higher Education and Research Bill – currently making its way through Parliament – will draw all seven research councils, Innovate UK and HEFCE's quality-related funding under the new strategic umbrella of UK Research and Innovation (UKRI).

Impact and interdisciplinarity lie at the heart of the vision for UKRI. But there has been nervousness in some quarters about such radical reform against the backdrop of largely static budgets (with the welcome exception of the new £1.5 billion Global Challenges Research Fund). The grinding uncertainties of Brexit have added to the downbeat mood, casting a shadow over the prospects for EU-funded research (which last year brought £836 million into UK universities).

However, the context for these debates was shifted by November's autumn statement, with its unexpected £4.7 billion pound boost to R&D funding – the largest increase in any Parliament since 1979. This new funding will flow through two

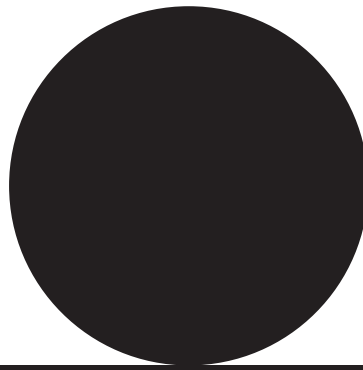
streams: a new Industrial Strategy Challenge Fund for collaborative research between industry and academia; and a broader boost to UK capacity for research and innovation through the research councils.

There are details still to be worked out, and more will become clear when the government publishes its industrial strategy. But there's little doubt that the autumn statement represents a transformative statement of intent. The prospects for UKRI to deliver a step-change in the UK's research and innovation performance now look genuinely exciting.

Some challenges still lie ahead. To date, debates about UKRI have been characterised by an enthusiastic yet fuzzy commitment to enhanced collaboration and impact – across disciplines, across sectors and between researchers and users in business, government or civil society.

Now we have to get serious about new ways of working. As Gillian Tett reminds us in her recent book *The Silo Effect*:

James Wilsdon, Professor of Research Policy and Director of Impact and Engagement, Faculty of Social Science



# Boundary-Spanners

*“Silos exist in structures. But they exist in our minds too.”*

Genuinely interdisciplinary research takes us out of our theoretical and methodological comfort zones, and highlights the diversity of ways to understand problems. Getting users involved as coproducers in the design of research projects can further expand our horizons.

Working in these ways isn't easy. Academic reward systems still tend to privilege mono-disciplinary work. Metrics and evaluation systems are underdeveloped. Career paths are less predictable and more risky. In recent months, there have been various efforts to address these challenges. Work by the Academy of Medical Sciences on “team science” and the British Academy’s “Crossing Paths” report stand out as particularly helpful.

Such issues need more attention as UKRI moves from idealised blueprint

to operational reality. And our focus needs to turn to the people who can make collaborations and impact meaningful; and the skills and training that they will need.

*The current generation of PhD and postdoctoral researchers in our universities are crucial to this agenda. We have to equip them to become boundary-spanners – the “T-shaped people” on whom the success and impact of UK research will ultimately rest.*

Follow James on twitter  
@jameswilsdon

I have been asked to put a few words together for the Doctoral Times about Knowledge Exchange (KE) and Innovation, why I believe it is important and how researchers can access support for KE and Innovation here in Sheffield.

I thought I would start by saying a little bit about my role as KE and Innovation Coordinator for our University. When I talk to people about what I do for a living, I tend not to use the term 'Knowledge Exchange' because not many people have heard of it or understand what it means. I prefer to talk about how I help to link researchers from within the University to others who can add value to, and benefit from, their research with a view to making our world a better place.

This is what KE means to me, it's about talking to people, sharing ideas and making good things happen. Making good things happen is the 'innovation' bit of my job title. In my view, innovation should only ever be about activity that improves the health and wellbeing of humanity and/or our environment. If neither benefit, where is the justification for doing it?

The importance of both KE and Innovation is evident in that they are enshrined in our **University's Strategic Plan** as "the goal of changing the world for better through the power and application of ideas and knowledge". Effective KE and Innovation will give you a more well-rounded approach to your research. It will feed your curiosity, supporting research excellence.



**Exchange**



**Knowledge**

## **WANT TO KNOW MORE?**

Are you interested in the issues discussed in this article? Would you like to know more? Do you have ideas you'd like to discuss?

Then come along to Brood Café at ROCO, 342 Glossop Road, S10 2HW, from 10.30-11.30am on Tuesday 24th January to meet Chris Baker (Knowledge Exchange and Innovation Coordinator) and Sarah Geere (Impact Consultant) for a Doctoral Times Impact and Knowledge Exchange drop-in session (and some really nice coffee).

See you there.



## So what support is available and how can you gain access to it?

We provide support for both you and your research. Support for you may be in the form of a training programme for example (you can find details of some current opportunities [here](#), there may be others on offer within your department). Support for your research may include cash or advice to help build partnerships and take ideas forward.

In order to access this support simply get in touch with your Faculty KE contact. You can find all the details you need [here](#).

There are no deadlines and there are no limits to what you can ask for. Our aim is to direct the best of our resource to the best of our KE activity. The most compelling cases for support are those that demonstrate the greatest potential to secure

follow-on opportunities. For example, you may be working on an idea that you think will be of interest to an industrial partner. You can ask for support to help run a pilot project with the partner, to share ideas and build trust. The outcome could be a joint application to [Innovate UK](#) to secure follow-on funding.

I would also like to make myself available to provide help and support wherever I can, and to learn from you how we can improve the support we offer. For those who are interested, I will be in Brood Cafe at ROCO on Glossop Road, together with the University's Impact Consultant Sarah Geere, from 10.30-11.30am on Tuesday 24th January. It would be great to meet you and discuss these opportunities further. You may also be interested in joining a community of people from across the University who meet four times a year to have lunch and discuss our KE and Innovation activity. Our next get together will be on 14th February from 12.30 in the Council Room in Firth Court. Click [here](#) to see the types of things that were discussed at our last meeting.

&

Chris Baker, Knowledge Exchange and Innovation Coordinator, Research & Innovation Services




# Innovation

## As a researcher, do you think you have enterprising or entrepreneurial skills?

Your initial reaction might be 'no', but think a little deeper. As a researcher, you've been creative and innovative in finding an original contribution to research. Chances are, you're an effective project manager. You'll be working within constraints (budgets and resources). You'll be persuading others of the value of your ideas. You might even be working with an external partner to explore the impact of your ideas on their businesses or industries. Of course you have enterprise skills, you just might not have thought of them in this way before!



Ali Riley, Enterprise Education Manager, University of Sheffield Enterprise

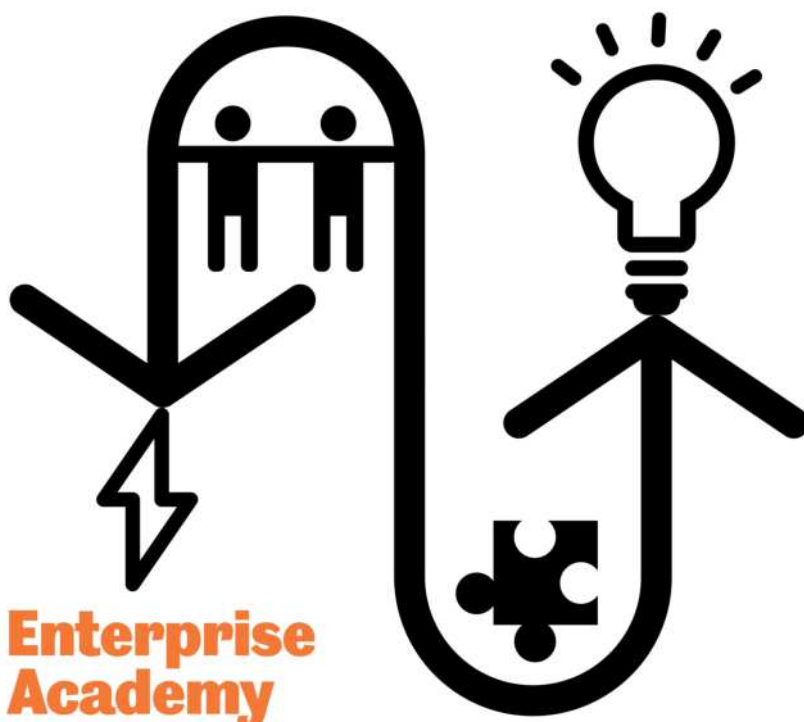
*Enterprise can be defined as a 'set of capabilities and attitudes that can enable a culture of innovation, creativity, risk taking and opportunism that underpins employability, enables entrepreneurship [...] and facilitates knowledge transfer'* 

## So, why do you need enterprising skills?

Enterprise skills are relevant whichever path you choose to take after your doctoral research is complete. If you continue to work within academia you might be responsible for research projects, including aspects of finance, project management, impact assessment and communication with other stakeholders such as research funders. Using enterprise skills, you'll also be able to spot opportunities to create and increase the impact of your ideas, and perhaps identify ideas that can make a real difference.

If you choose to work outside academia, enterprise skills can help set you apart in a competitive job market. You'll be able to demonstrate to employers that you can take measured risks in order to create innovative solutions to the problems they face, and that you can lead and manage change.

And of course, you could develop these skills to the point where you take entrepreneurial action by creating a commercial spin-out, or an innovative start up.



## WANT TO KNOW MORE?

University of Sheffield Enterprise (USE) helps all students to develop their enterprise and entrepreneurial capabilities. We run a number of programmes and events that can help you to explore your enterprising potential. Visit our website ([enterprise.shef.ac.uk](http://enterprise.shef.ac.uk)) to begin your journey.

Since 2014/15, as well as in-house support, our USE Academy team has been helping a number of Doctoral Training Centres to embed enterprise capability development firmly within doctoral training, to further add value to the doctoral research experience. One of these DTCs is the Polymer Centre.

USE has been working with the Business Development Manager for the Polymer Centre, Dr. Joe Gaunt, to design and deliver a bespoke Business Enterprise course for students in the second year of study within the centre. Students have a full day of training once a month, and this training is designed around the whole entrepreneurial process, starting with ideas generation and leading all the way to production, scale-up and product marketing. Along the way, students explore customer development, pitching, IP and commercialisation, and finance. Each student is sponsored by an industrial partner, and the course is designed so that students can see the potential impact of their enterprise skills within industry.

## The students on the course have valued the chance to develop their skills:

*"I think the variety of topics was one of the highlights of the business and enterprise module. The number of different areas covered and discussed, helped, in my opinion, to cultivate a more broad understanding of business and enterprise as a whole."*

*"Every course thus far has been interesting, engaging and Informative. It was enjoyable to learn from people with a passion for what they do."*

**So, if you're in a DTC, look out for enterprise development in your training, and if not, visit us (physically or virtually!) at USE and see how we can help you explore enterprise...**

<http://enterprise.shef.ac.uk/>

**USE:  
Fostering  
Entrepreneurial  
IMPACT**

# Public Engagement Training,

I work in the Public Engagement & Impact Team at the University where we support our researchers in sharing their work with the wider world and engaging the public with their research. This support takes many forms, from organising large-scale festivals like Festival of the Mind and Sheffield Festival of Science and Engineering, to helping write the public engagement sections of funding applications, to holding monthly training sessions.

You may have heard of the team and about some of the events we organise, but you may not know that all of this support and most of the opportunities that we provide are open to PGRs as well as staff. Furthermore, we run a number of programmes aimed specifically at early-career researchers and PGRs that offer an introduction to the world of public engagement and help you to develop your public communication, organisational and practical skills.

However, before we get into how we can support you with your public engagement, let's look at what public engagement is. The National Co-ordinating Centre for Public Engagement (NCCPE) define public engagement as:

*"The myriad of ways in which the activity and benefits of higher education and research can be shared with the public. Engagement is by definition a two-way process, involving interaction and listening, with the goal of generating mutual benefit."*

Essentially, public engagement is not just about disseminating your research; it is about creating understanding and dialogue between yourself as the researcher and the public, often involving collaboration with people, groups and organisations outside of the University. The holy grail of public engagement is co-created research - in-depth work with a non-academic

group where the research participants and the researcher work together to produce some new findings or research.

So, why should you do it? One of the most obvious reasons is to secure funding. As you will be aware, many funding bodies now require researchers to incorporate public engagement into their research proposals in order to qualify for funding. There are also specific pots of money available to support researchers with new and innovative public engagement activity.

Aside from the monetary incentives, public engagement can enhance your research in a variety of ways; it can help you better understand your subject, help you see things from a different perspective, and can ensure that your work has relevance in the wider world. Academics who have taken part in our festivals often say that their research has been enriched as a result.



# Opportunities and Support

Public engagement can also facilitate your professional development and progression by helping you develop important professional and interpersonal skills, and by raising the profile of your research. Moreover, achievements in public engagement can, in and of themselves, lead to professional accolades and in some cases promotion.

Perhaps most importantly, though, public engagement can help you to generate impact by changing public understanding of, and attitudes towards, the subject of your research.

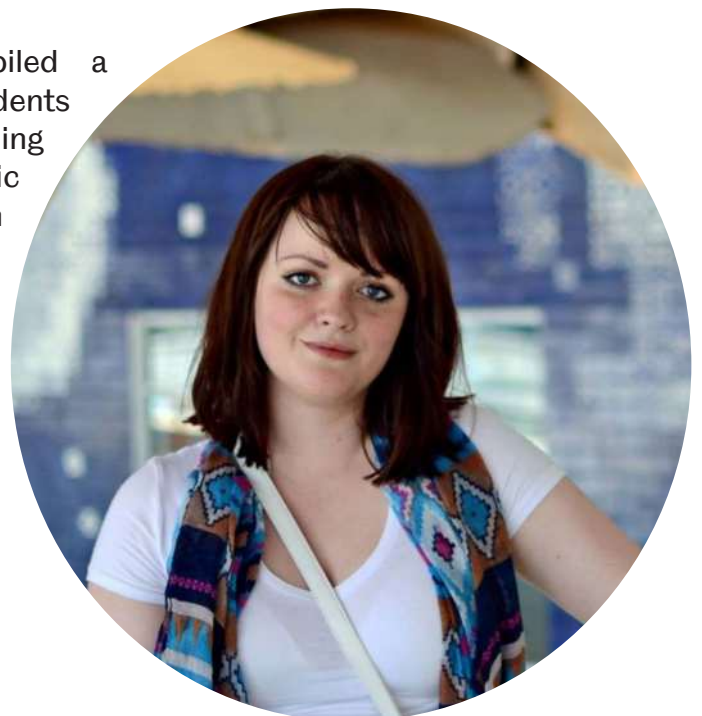
## HOW CAN WE SUPPORT YOU?

**FESTIVALS AND PLATFORMS:** one of the main ways in which we can support you is through our programme of public engagement festivals. We organise and run festivals throughout the year, providing researchers with a platform to communicate their research and engage with the public. We also support some of the major city festivals, such as Off the Shelf and Sheffield Doc/Fest, so that we can showcase the University's research and reach a wider audience.

**PUBLIC ENGAGEMENT MASTERCLASSES:** we run monthly public engagement masterclasses on practical topics such as how to work with communities, costing an event, measuring impact, working with the media, and creating and utilising film for maximum public engagement. We bring you the experts in the subject area, from internal academics to external partners such as Sheffield City Council or Museums Sheffield, as well as local industry specialists such as festival organisers and freelancers.

**PUBLIC ENGAGEMENT:** we have compiled a comprehensive web resource for staff and students looking for public engagement support, including a suite of 'toolkits'- how-to guides for public engagement. Topics include how to organise an event, communicating with non-specialists and conducting risk assessments.

Lynette Hodges, Public Engagement & Impact  
Team, Research & Innovation Services



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## PGR SPECIFIC SUPPORT

**MOBILE UNIVERSITY** is our primary public engagement platform for PGRs and early-career researchers. The festival takes place every other September in Sheffield city centre, where 20-minute talks are presented on a vintage double-decker bus. The Mobile University programme supports the academic development of the University's PGRs and early-career researchers by providing a mentoring programme with senior academics and a low-risk opportunity for engagement with the public. The call for speakers for the next Mobile University will go out in February 2017.

**PINT OF SCIENCE** is a student-led festival that takes place every May in pubs across the country. The wider festival is co-ordinated centrally by a Pint of Science team based in London, and locally led by PhD students and the University's Public Engagement & Impact Team. During the festival researchers present their work to adults in a fun format in the city's pubs. PGRs can get involved as speakers or they can volunteer to act as an Event Manager, taking on the organisation of events and gaining 'behind the scenes' experience. The call for Pint of Science speakers will go out in January 2017. The Event Managers for 2017 have already been recruited.

If you need guidance, support, or answers to your questions about public engagement, please email us at:

[engage@sheffield.ac.uk](mailto:engage@sheffield.ac.uk)

or call on:  
0114 222 0563

For upcoming public engagement opportunities, check our Festivals and other opportunities webpage which is updated regularly.



# Research Collaboration Finder

CONNECTING DOCTORAL RESEARCH STUDENTS AT  
THE UNIVERSITY OF SHEFFIELD

## What is it?

This tool allows you to find doctoral research students and academic staff who may be able to collaborate or provide input for your research.

As a doctoral researcher you are part of our vibrant research community. If you want to make contacts, or find a collaborator within your field or from a different discipline, then the research finder is a quick and easy tool to help you get in touch.



## What can the Collaboration Finder do for me?

It can help you to:

- find expertise on a specific topic or technique
- find people working in the same field and potential collaborators
- make interdisciplinary connections to refresh your work
- improve the visibility of your research across the doctoral research community
- Share, promote and discuss your research
- develop networks with your peers

## How does it work?

Sign up and create a short profile with your collaboration interests, research areas and methodologies. You can also add links to external sites where other users can find out more about you, such as your LinkedIn, your blog or Facebook. The Research Collaboration Finder is accessible through MUSE and via this direct link :


[goo.gl/nRRmVF](http://goo.gl/nRRmVF)



## Have you joined the Conversation?

The Conversation is an independent, internationally recognised news agency set up to bring the latest academic research to bear on public debate and the media. They are looking for contributors at PhD level and above from recognised research institutions who can contribute stories about the latest research that can offer new insights on current events or on long-standing issues of broad interest.

They offer academics a great opportunity to work with skilled editors to hone their skills in writing for a lay audience and bring their research to a broad and international audience, and contributing an article grants you inclusion in their fully-searchable database of experts, allowing you to raise your profile worldwide in your area of expertise beyond the research community.

If you have an idea for a piece and want to find out how to pitch, why not register through their webpage, or learn more in this Prezi presentation (please open in Internet Explorer or Mozilla to view). 

Arts

Enterprise

## Arts Enterprise

Arts Enterprise is the umbrella for all public engagement activity in the Faculty of Arts and Humanities. Overseen by Dr Jane Hodson, Faculty Director of Impact and External Engagement and Amy Ryall, External Engagement Projects Manager, Arts Enterprise provides advice and support for all staff and students undertaking research impact and engagement activity, as well as managing the Arts Enterprise funding schemes.

Having some funding at our disposal, as well as a wealth of experience of developing partnerships and projects means that we are well placed to see opportunities and support staff and students in developing them.

# impact through partnerships in the A

## Strategic Partners

Our current strategic partners, those organisations with appeal across the Faculty and who are open to discussion about the development of long-term projects, include Chatsworth, Sheffield Archives and Newark Museums. Developing partnerships include the National Railway Museum and English Heritage. Strategic partnerships can involve employing post-doctoral students to work with partners to investigate the potential that they have for further projects. In the initial stages of the relationship with Sheffield Archives, Adam Smith, PhD in the School of English, investigated the scope of the material held by the Archives and its potential for further partnership work with academics in the Faculty. As a result of this work, there have been several MA work placements, a project on Sheffield in the 1980s carried out by MA Public Humanities students and an Academic-in-Residence

project looking at material from Sheffield's Pen and Pencil Society and some further scoping and cataloguing of an oral history archive. Work carried out by Adam also led to interest from the University's Special Collections and he did a similar scoping study for them.

Faculty Showcase, Festival of Arts and Humanities, May 2016





## Individual Projects

Academics are encouraged to apply for funding to develop the impact of their research. Casey Strine in the Department of History received an Arts Enterprise grant to work with ceramic artist [Emilie Taylor](#) which enabled a period of project development as well as supporting the project itself. Through this grant, Casey has been able to leverage further funding from other sources and is now developing this work for a REF impact case study. Further examples of projects that have been supported by Arts Enterprise are on the [webpage](#).

Lucy Dearn (Music PhD) tells her story at the Tales from the Ivory Tower event, Festival of Arts and Humanities, 2015



# Arts and Humanities

## PhD Student Training and Development

Arts Enterprise provides opportunities for PhD students across the Faculty to gain experience of public engagement. The Image Speaks photography project is now in its fourth year and pairs 10 PhD students from across the Faculty with professional photographer [Andy Brown](#). Through a short series of seminars and by working individually with Andy, the students produce an exhibition of photographs representing their research in some way. This is displayed in Jessop West Foyer. The exhibition catalogues that each student contributes to are [here](#).

Storytelling and poster design workshops are offered each year. The storytelling project enables students to work with professional storyteller [Tim Ralphs](#) to develop a short story based on an aspect of their research for telling at an event during the Festival of Arts and Humanities. Students taking part report that it helps them to think through aspects of their research and communicate them to those outside the academy. It also supports development of teaching practice and confidence in speaking to a public audience.

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# CASE STUDY: THE NATIONAL RAILWAY MUSEUM

Anna P.H. Geurts is a post-doc at the Centre for Nineteenth Century Studies and a teacher in the Department of Germanic Studies. Her research interests lie in space, time and travel in modern Europe. This interest led her to become involved in the Faculty collaboration with the Yorkshire Country House Partnership. The YCHP is a network of country houses, all open to the public,

who come together as a collective to share good practice and work together. In recent years they have had funding to stage joint exhibitions, with displays at each of their sites on the same theme. Their most recent theme is Travel and Transport, and academics in the Faculty of Arts and Humanities, along with colleagues at York and Leeds were involved in providing academic support for this project. This work formed part of a White Rose College of Arts and Humanities (WROCAH) project. Anna played a key part in the planning workshops for this exhibition at which she met Oliver Betts, a Research Associate at the National Railway Museum (NRM). Her research focus and that of the NRM were closely linked and Anna applied for some WROCAH funding to support some initial research with the NRM on a topic of great interest to them both. The Faculty, through our Arts Enterprise funding scheme, were keen to develop the NRM as a strategic partner and so we provided additional funding to support her project. Anna has now put forward a developmental research project to be completed with the NRM, and Arts Enterprise will fund her to do some of this work and to carry out a further scoping exercise with NRM and the Faculty to ascertain where their research interests align. This will be used to develop further partnership work with the NRM, and could lead to an external funding bid to support Anna's research.

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### Festival of Arts and Humanities

Opportunities for student and staff to get involved in impact and engagement are provided by the annual Festival of Arts and Humanities. As well as the storytelling event, the Faculty Showcase, a day-long event in the Millennium Galleries in Sheffield City Centre aims to showcase research through short talks and exhibition stands enabling researchers to chat to the public about their research. Many PhD students took part in this event in 2016 and we hope more will want to do so again in 2017.

As well as the formal ways to get involved in public engagement, we also provide advice and support for all staff and students who want to incorporate it into their research. Whether it's through the regular drop in sessions (look out for the next one in February 2017) or through individual meetings, we're always happy to meet people and talk about their plans.

Anna P.H. Geurts, Post-Doctoral Researcher, Centre for Nineteenth Century Studies



© National Railway Museum and SSPL



# Language Matters

Ruth Little,  
ESRC Research  
Fellow, Department of  
Geography



As a PhD student, it's more than likely that you are crafting a thesis that is rigorous, evidence-based and fully recognises its limitations and contribution to the field. For the social sciences and humanities, this may take a good 100,000 words. Maybe 30,000 for the sciences. But, here's the test: if you had 30 seconds in an elevator with a politician, would you be able to convey what your research is about, why they should care and what they should do with the findings?

Being able to clearly and concisely convey 'what's the point' is a difficult, but important skill. Try it out on your friends and family. If they can't understand where you're coming from and where you're going to, then try again. This might make you unpopular at parties, but it's important to be able to distil your work into something digestible for an interested, but uninformed audience.

In an academic environment that is increasingly concerned with 'impact', we need to make our research as accessible as possible to as many people as possible – for this to happen, it matters what language we use. For example, for a general audience, do we need to go into the complex theoretical underpinnings of our work or use terms such as the 'non-human' when we are principally referring to 'animals'? Probably not. Do we need to go into the intricacies of social practice theory to explain how this helps to improve our understanding of complex social processes? Again, probably not.

I use these examples because they have influenced my academic thinking and my policy work with the Department for Environment, Food and Rural Affairs (Defra). Since 2012, I have worked as a research fellow within the department to better integrate research from the social sciences into policy making on animal health and welfare. If I reflect back on my time in the department, my principal role has been one of translation – translating and distilling 6000 word journal articles into policy recommendations. This has made me feel uneasy at times. As every academic

knows, there is rarely a simple, incontrovertible answer. But we can use our analytical skills to say that the evidence points in a certain direction. Once we've engaged the decision-makers, then we can get into the caveats and make sure that any new policy direction is evidence-based and evaluated to assess how it is working in practice.

As an embedded researcher at Defra, I have had the privilege of both observing policy making and actively participating in it. I've been able to understand how policies fit together and enjoyed constructive arguments with stakeholders about what is and isn't possible. In short, I've learned that policy making is more evolution than revolution. If we're taking lessons from the social sciences, 'starting where people are' is a good guiding principle to engage policy makers in cultivating change. Starting the conversation is nine tenths of the battle.

So, my top tip for engaging with policy makers is pretty simple – we need to speak the same language. We should be able to articulate our research in an accessible way and be prepared to explain how this complements or conflicts with current and future policy directions. As PhD students, your research is an important contribution to knowledge. Conveying that importance in 30 seconds could be your route to elevating the impact of your research.

# Towards an end to Forced Labour

Dr Genevieve LeBaron,  
Senior Lecturer,  
Department of Politics,  
and ESRC Future  
Research Leader



Genevieve LeBaron describes public engagement and impact as an “ethical imperative” from the nature of the research she does. Her research on the causes, economics and human cost of forced labour has been instrumental in increasing public understanding and stimulating debate at both national policy level and on the world stage.

Genevieve’s particular research area is the business of forced labour, and especially, the question of why forced labour emerges and thrives today in legitimate industry. Forced labour can be a tricky field to investigate because of its illegal nature and the reluctance of governments to grant access to necessary data and people. This means that accurate, research based evidence on the topic of forced labour is at a premium. When The Joseph Rowntree Foundation published a report co-authored by Genevieve in autumn 2013, at the same time as the Modern Slavery Bill (enacted in 2015) was being debated in Parliament and generating a great deal of public and media interest, she found herself one of the go-to experts in her field. Her experience writing for national and international publications like the Guardian and The Economist and being invited to talk at a wide range of events gave Genevieve an abiding interest (and top skills) in talking about her research to the public and the media, which she continues to pursue.

When she moved to the University of Sheffield in 2013 (drawn in large part, she admits, by inspirational colleagues like Professor Nicola Phillips) Genevieve and her colleague Neil Howard (European University Institute) became acutely aware of a serious disjuncture between the facts of forced working (as evidenced by their research) and its presentation in the media and understanding by the public. Believing that they had a duty as experts to help change working practice and make life better and fairer for thousands of people, Genevieve and Neil felt there was a need for scholars working to identify and understand the real root causes of modern slavery to better communicate





their research with policymakers and the public. Only by engaging decision makers, the media and the public in a conversation based on fact could effective policy be developed to combat forced labour.

And so the [Beyond Trafficking and Slavery forum](#) of OpenDemocracy.net came into being. Started with a little seedcorn funding, the media platform is now funded through major grants from the Ford Foundation and ESRC Global Challenges Fund and has over half a million readers around the globe. It reaches key policy makers, and has created a network of key figures including representatives of national governments and NGOs of all sizes, including the UN. A recent commissioned debate (involving two rounds of written articles), funded by Ford and co-hosted by Yale University, brought together groups of stakeholders on a number of subjects around slavery. Three follow up workshops are planned in India, Mexico and South Africa involving academics, international labour organisations, and policymakers.

Rightly proud of what has been achieved so far, Genevieve continues to edit the forum with a handful of colleagues, and attributes its success in delivering impact to their realistic expectations and strategic focus on areas they could really change. She is under no illusions about how far there is to go. The challenge is now to leverage the change in perceptions, understanding and policy into improvements in the lives of people on the ground, and projects in 2017 will focus on that, in close alignment to the UN's Sustainable Development Goal 8.7 – the eradication of forced labour, modern slavery and trafficking.

Genevieve's advice to researchers just beginning their impact journey? Make full use of the support and resources available across the University. She cannot speak highly enough of the support and encouragement she has received from a whole range of teams within her faculty (SSPIKE, International Partnerships, Communications) and centrally (Public Engagement, Corporate Communications, Impact). Working out what the impact of your research might be and how to unleash it can be overwhelming, she says – but Sheffield's teams are excellent, and they are here to help.

# University of Sheffield PhD Students Boost Skills with Industrial Placements



Karen Wilkinson, Business Manager,  
Sheffield Healthcare Gateway

In 2013, the University of Sheffield was awarded a Catalyst fund from the Higher Education Funding Council for England for projects that enhanced higher education's contribution to economic growth. This fund has facilitated a programme of activities which are designed to stimulate employment and entrepreneurship, and support innovation-led growth.

One of these activities was the Industrial Postgraduate Student Placement Programme, or "HEFCE Catalyst Studentships", and since the scheme has been in place, 16 PhD students have undertaken short (6-12 months) collaborative projects with external business and industrial partners from a variety of sectors.

The scheme's aims were to embed the University of Sheffield as an economic anchor in the Sheffield City Region, stimulating employment and supporting innovation-led growth, whilst providing the students with an opportunity to gain a better understanding of the world outside of academia. In addition the placements were intended to increase the employability options for the students, and provide them with an understanding of the innovation pathway and other factors that influence decision-making in business.

The placements have been a valuable enterprise for both the students and the companies they have been placed with. Two of the students are now employed by the companies they were placed with, and all the students that have entered the workplace have used the placements as a step towards employment. Several of the placements have resulted in further research collaborations, and the majority of partner organisations have experienced developments of their processes and products, with one company rapidly advancing their product from concept to testing the device in healthy volunteers within 18 months.

Ceramisys, a Sheffield-based developer of synthetic bioceramic implant products for orthopaedic repair and soft tissue enhancement, hosted Biomaterials PhD student, Caroline Wilcox for 12 months, during which time Caroline helped develop a cement for use as a bone augmentation material. Take a look at the video link to see how the placement benefited Caroline and her hosts at Ceramisys.



*If you'd like to know more about how the scheme was implemented, please contact Karen Wilkinson at the Sheffield Healthcare Gateway.*

## International collaboration: *Khymeia Group, Italy and Neuroscience*

The Italian company, Khymeia Group, required expertise on virtual reality, robotics, and telerehabilitation of neurological diseases. Therefore, SiTRAN, one of the world leading centres for research into Motor Neurone Disease, Alzheimer's and Parkinson's Disease, based within the University of Sheffield was the ideal choice for a collaborator. The Higher Education Funding Council for England (HEFCE) catalyst studentship would enable PhD student, Andrea Turolla to use research expertise to enhance Khymeia's new products for Stroke rehabilitation.

The company was developing a virtual avatar which mimics the fine movements of the hand after stroke. The HEFCE catalyst studentship provided a collaboration opportunity for both Khymeia and SiTRAN. Andrea gained valuable industry experience from collaborating on product development and presenting to stakeholders and new clients.

The studentship was successful, with a new commercial prototype being launched at the European Night for Research in Venice 2015. *"The quality level of this student has improved our skills in approaching the translational aspects from science to practice."* said Dr Piron Federico, CEO Khymeia Group Ltd.

Building on this experience, Khymeia plans to increase its collaboration with clinical researchers. Along with the experience of product development, Andrea gained insights into the dynamics of commercial operators, "The HEFCE catalyst studentship has been the best opportunity to step out in the real world and make my academic knowledge concrete" added Andrea Turolla.

[www.khymeia.com](http://www.khymeia.com)



## International collaboration: *DermTreat, Denmark and Clinical Dentistry*

New Danish SME, DermTreat ApS, are developing novel intra-oral adhesive patches for sustained topical steroid delivery directly to oral lesions. They needed biomaterial expertise to test the effectiveness of the patches on different tissue systems. "The Higher Education Funding Council for England (HEFCE) catalyst studentship was an ideal opportunity to interact with the researchers at the University of Sheffield." says Jens Hansen, Director DermTreat ApS.

PhD student Lucy Hadley examined the properties of the different patches using physical and mechanical laboratory tests during the placement in Copenhagen. She also performed adhesion tests on a range of tissue types including engineered human mucosal tissues to determine which patch was formulated the best.

The studentship delivered well beyond expectations. Jens says "We were very pleased with this data and it allowed us to make informed decisions about which formulations would be taken forward and which formulations would not". The patches with better mechanical and adherence properties were trialed in the first patient study in November 2015.

The HEFCE catalyst studentship exceeded Lucy's expectations also:

*"it was an invaluable experience to discover both industry and a new area of research."*

DermTreat APS plans to continue the collaboration by applying for funding for research to be continued at the School of Clinical Dentistry.

# What counts as impact in social media?

Research Councils UK define impact as “the demonstrable contribution that excellent research makes to society and the economy”. Often research doesn’t immediately or serendipitously lead to impact. Sarah Morton has written about this; articulating how to achieve impact through three key stages or milestones: research uptake; research use; and research impact. For Morton, research uptake is where your work is known to others and they have engaged with it in some way, such as reading it, attending a conference or seminar or involved in some other activity that shows they know it exists. Research use builds on this, and users act upon this research by discussing it, passing on to others, can adapt it to other contexts and use it to inform policy and practice developments. Research impact, however, is where your research changes awareness, knowledge or understanding of particular ideas (which can include perceptions and attitudes towards something or demonstrable changes to policy or practice).

Gareth Young  
PhD Student, Department of Urban Studies and Planning



Developing impact through research is an important and sometimes complex process and is something that all researchers should be mindful of, including those doing PhD research. Building strong impact from research needs to go through each of the stages that Morton identifies. It needs to have uptake and be used in order to have impact. One way to maximise the accessibility and reach of your research is to share and disseminate your work more widely online.

The last edition of Doctoral Times focused specifically on the benefits for academics to engage with social media to develop your career, to test and share ideas and to help build networks and partnerships. It also had some very good tips about how to build online profiles and successfully disseminate your work, as well as some warnings about how to avoid the pitfalls. Others, such as Phil Ward (aka @frootle) tweets and blogs prolifically about the advantages and opportunities of developing impact through social media on his blog [Researcher Fundamentals](#).



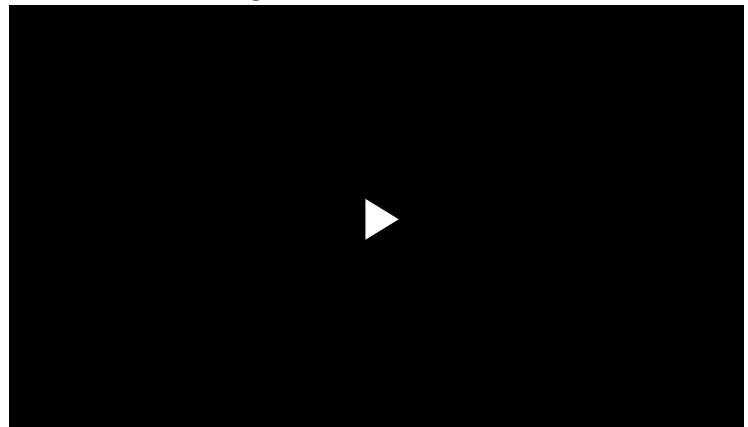
## Post Graduate Wellbeing Matters

### Counselling Service



<https://vimeo.com/109680597>

### New Self-Help Advice



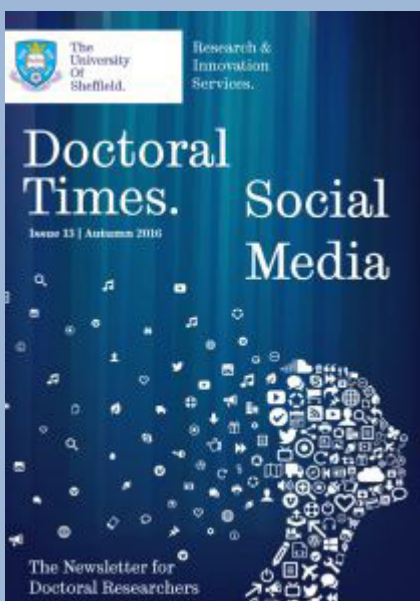
<https://vimeo.com/188660980>

**There are a wide range of events available as part of the Healthy Campus and Counselling Service:**

<https://www.sheffield.ac.uk/ssid/healthycampus/mental-health-events>

Whilst sharing research through social media and blogging may not be impact per se, it is certainly one way of leading up to impactful research by extending your arguments, thoughts and recommendations beyond the academic world and focusing it towards those who will be most likely to use it, leading to potentially highly impactful research. The Faculty of Social Sciences have put together a concise Top Ten Tips for sharing your research and boosting its impact and much of this is through engaging with 'new media' sources. Doing so can help you to test your ideas, build partnerships and networks, help identify individuals and groups who would benefit from your research and ultimately increase your chances of making a difference through the work that you do.

*If you want more information about Social Media in the context of your PhD and future plans why not check out the last issue of the Doctoral Times, which was focussed on this subject:*



<http://doctoralacademy.group.shef.ac.uk/wp2/wp-content/uploads/2016/01/Doctoral-Times-A4-20pp-Autumn-13-1-FINAL.pdf>

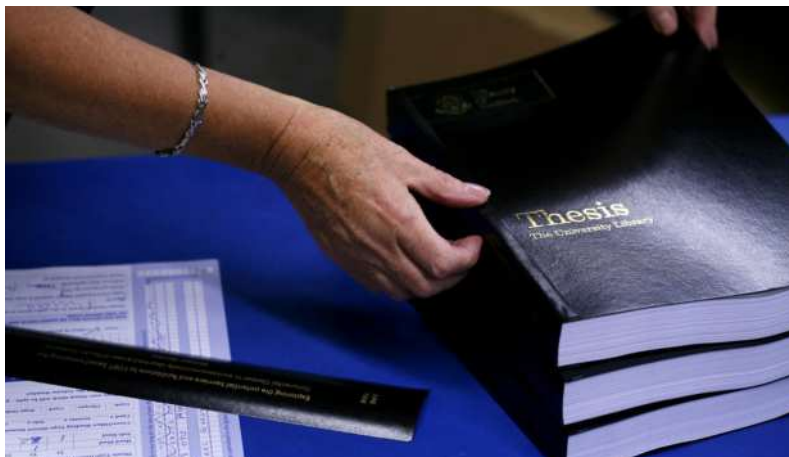


# What is REF Impact?

The Research Excellence Framework (REF) is a means by which HEFCE assess the quality of the research undertaken by Universities and Institutes. It is also the process HEFCE use to distribute Quality Related (QR) or 'block grant' funding to Universities in England. The REF2014 assessment introduced a new area for assessment, Impact, in addition to Outputs and Environment. For REF2014 impact was defined as 'an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia' and was assessed using Impact Case Studies.



Cliona Boyle  
Institutional Impact Coordinator  
Research & Development Section  
Research & Innovation Services



The impact case studies described the internationally significant research that contributed to the impact, and the reach and significance of the change, benefit or effect outside academia that occurred between 2008 and 2014. The case study format was used, as it is agreed that many of the significant benefits that come from research cannot be fully described, demonstrated or evidenced using metrics.

## RANKINGS:

**Four star - Outstanding impacts in terms of their reach and significance.**

**Three Star - Very considerable impacts in terms of their reach and significance.**

**Two Star - Considerable impacts in terms of their reach and significance.**

**One Star - Recognised but modest impacts in terms of their reach and significance.**

So should early career researchers care about impact if their research cannot be used in the REF? Absolutely. REF impact is only a narrow strand of the potential impact from your research. Our researchers do not do what they do for REF, their research and engagement with individuals, communities, policymakers and businesses are a natural part of their journey towards making a difference. Occasionally that difference fits the narrow definition of the REF – but only one REF case study is submitted for about every 10 Full Time Equivalent staff, so you can see that many real and powerful impact stories never go to the REF. Take the opportunity during your PhD to consider what the potential benefits of your research and expertise could be to the world, and where you would like that journey to take you, and then pursue that path.

## KEY FACTS

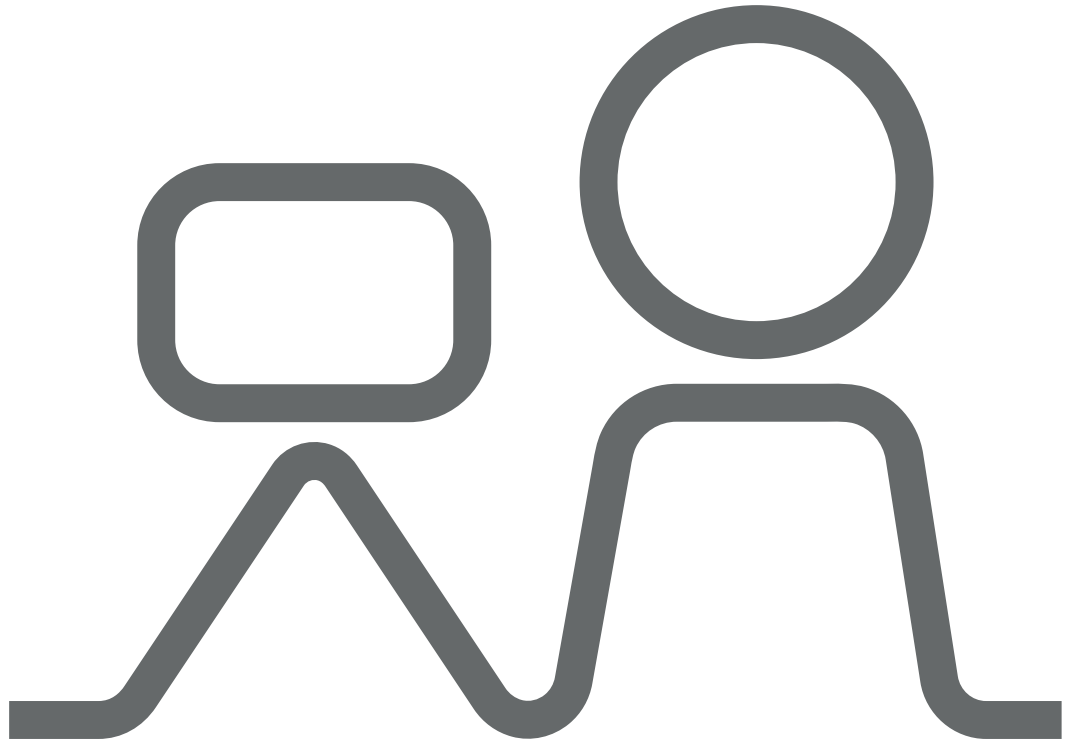
The first assessment by HEFCE was conducted in 1986 and was called the Research Excellence Assessment (RAE) until 2014 when it became the Research Excellence Framework (REF) because impact was added.

A REF Impact case study is a narrative which describes how research, conducted during a specific time-frame at a named institution, resulted in a change, had an effect on or provided a benefit outside academia and the submitting University, as demonstrated by qualitative and quantitative evidence. Only impacts that occurred during the REF census period are assessed.

Reach – the proportion of those that could have benefited that did benefit either locally, nationally or international with a consideration for how difficult it is to engage with the beneficiaries.

Significance – to what extent those who were reached benefited.





# SHEFFIELD ROBOTICS

**Sheffield Robotics is an interdisciplinary research institute that spans across all faculties at The University of Sheffield, and also includes members at Sheffield Hallam University. The institute has research facilities and equipment, and ensures that the very varied work in robotics is connected. A specific aim of Sheffield Robotics is to support collaborations, add value to existing research, and help researchers to create impact. To this end, the institute works with a wide range of stakeholders to make research relevant, appropriate, acceptable, and worthwhile.**

**Here are some case studies to showcase the way we use collaborations to further the interests of both our research and our partners.**

# Drones: Public engagement & influencing policy

It is becoming a regular occurrence that we see news reports of small unmanned aircraft, or drones, involved in near-misses with commercial aircraft. These events, set alongside the long-standing reporting of the military's large "killer-drones", can make my research area of autonomous drones a challenging one to speak to the public about. That being said, it's important for those of us working in the field to present the positive side of the technology, whilst being careful not to downplay the risks. My own interest in presenting my research to the public goes beyond simply providing a balanced argument on the subject, as I'm constantly seeking input on my research direction to ensure that I'm working on the challenges which will really benefit society. For example, my original research focus was only the autonomous control of drones but am now considering the safety of such autonomy as this was a common concern amongst the public.

Regular engagement with the public has had the added benefit of getting my research and expertise noticed far beyond the academic community. In 2015, after just one year of post-doc research, I was recognised by the Department for Transport (DfT) as an "Expert Stakeholder" in drone technology and asked to participate in their national public dialogue on the subject. This dialogue took the form of a number of public workshops conducted throughout the country over a three month period. In addition to the general public, these events were attended by a number of other stakeholders such as industry leading companies and government regulators. This opportunity to engage with industry and regulators has provided me a network of contacts which have proved crucial to my subsequent research.



“Regular engagement with the public has had the added benefit of getting my research and expertise noticed far beyond the academic community”

Dr Owen McAree, Senior Research Fellow in Robot Safety,  
Department of Automatic Control and Systems Engineering and  
Chief SUA Pilot, Sheffield Robotics

In addition to providing input to my research and excellent networking opportunities, practical public demonstrations are also good fun. I recently organised the DataDrones exhibit at Festival of the Mind with some design colleagues at Sheffield Hallam University. This exhibit involved multiple small drones flying for long periods of time, responding to particular keywords on Twitter. Overcoming the technical hurdles to such an exhibit was an interesting challenge and has produced some solutions which now aid my day-to-day research. Once the exhibit was installed I got to spend two weeks in a large art gallery playing around with the drones. Not only was this good fun but also an entertaining and informative experience for the public.



Off the back of my earlier involvement with DfT and continued public profile, I was recently invited to participate in the Department for Business, Energy and Industry Strategy (BEIS) Drone Industry Action Group. This group is tasked with developing the policy for the next generation of autonomous drones and as I am one of only two academic representatives this provides an excellent opportunity for my research to make a significant impact.



# “The truth is out there” or the benefits of collaborating with industry and their employees

Humans and technology have always had a very special love-hate relationship and it is fascinating to explore how people interact with what is considered to be humanity's future - robots. I am a psychology post-doc investigating the effects of graphical signage on human-robot interaction in a manufacturing setting, working in the Department of Automatic Control & Systems Engineering. As robotics combine various disciplines, the studies in this field include a variety of methods and most importantly collaboration with industry and engagement with the public.

Our initial research showed that when working with robots, people's well-being and efficiency improved when they had information about the robot in a graphical format (signs that told people what to do without any words). Although the task simulated a simplified manufacturing process, the participants were university staff and students; therefore, it was important to investigate the effect our developed signage had on actual robot users working in industry. At the same time, Sheffield Robotics was approached by a company planning to upgrade the automation in their factory. The company's main aim was to put a robot between their human employees and dangerous machinery to increase worker safety, creating perfect conditions for true human-robot interaction. And this was the beginning of a beautiful friendship, as Rick from “Casablanca” might say.

We planned several design workshops and a further experiment with our industrial participants. There were two main aims: one, to refine the graphical signage we already had by delivering workshops with volunteers, discussing their needs and how to meet them effectively. Two, to test how this refined signage affected their experimental task completion. Although we initially planned a few design workshops followed by the experiment, we quickly realised that to engage with staff and to attract volunteers we needed an initial discussion/warm-up exercise to understand attitudes and opinions towards robots. The

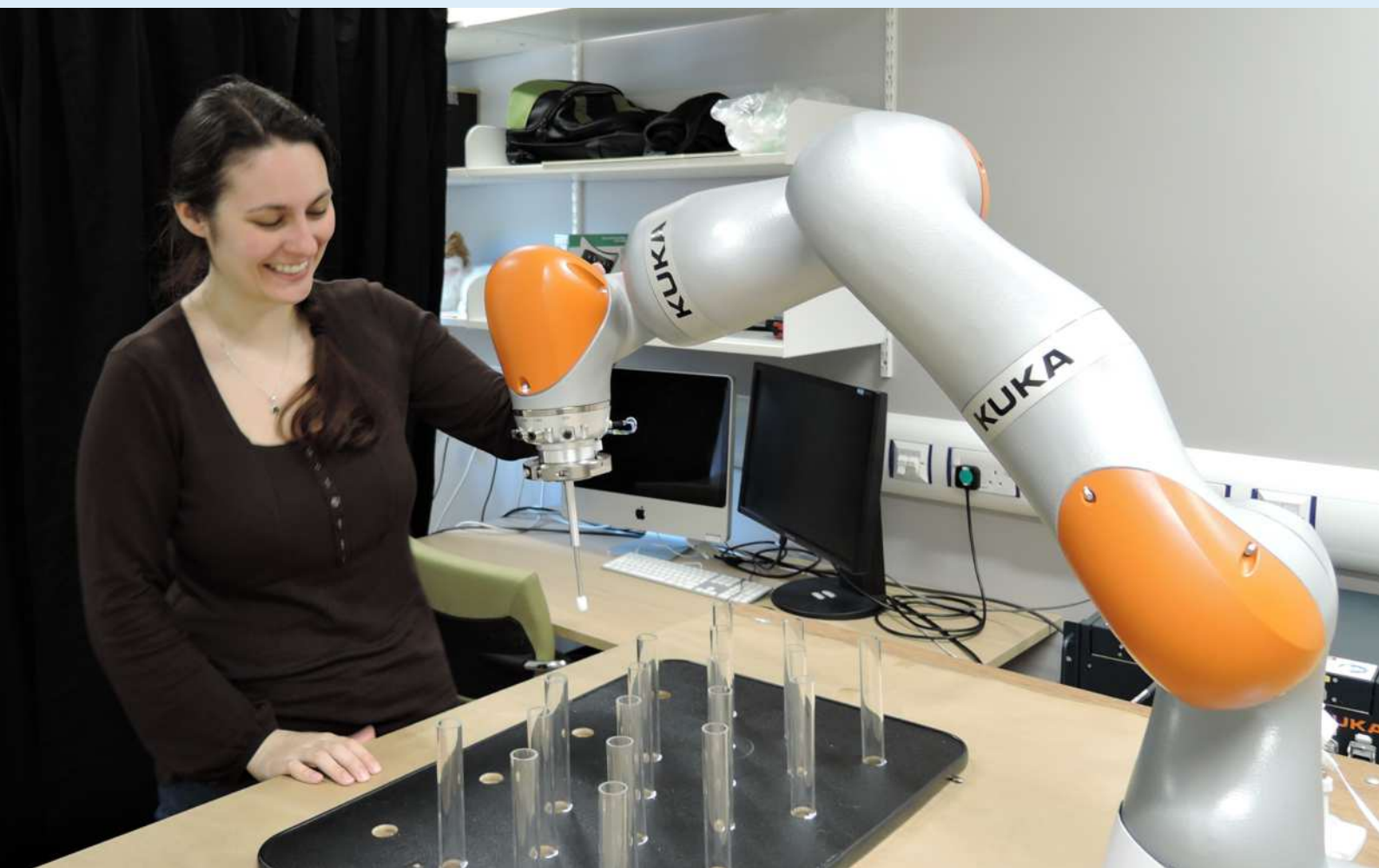
general public - including industry employees - has various preconceptions about a robot's role in a work environment, potentially causing rejection of new technology. Yet, as with all new things, there are benefits and drawbacks, and

**only the dialogue between researchers and end-users can shape the future of human-robot interaction.**

This discussion allowed us to measure a starting baseline of worker perceptions of robots to compare through all activities.

This project is still ongoing, with some activities planned over the next few months, however the benefit of engaging stakeholders is already evident. This includes advantages not only for the industrial partners and their workforce, but also for the research we are doing and for myself as a researcher. To start with, the workshops were oriented towards receiving feedback on the graphical signage and this aim was fully achieved.





Dr Iveta Eimontaite, Postdoctoral Research Associate  
Department of Automatic Control and Systems Engineering, and Sheffield Robotics

In addition, the discussions during the activities provided further directions for the research and raised some new questions in terms of human-robot collaborative working. Some of the opinions and insights participants expressed were unexpected (such as the need for in-depth technical knowledge, not only instructional signage but also providing feedback on performance) and will be explored in the future. From the perspective of the company employees (our participants), the workshops and activities provided an opportunity to discuss their anxieties as well as their excitement, and to ask the questions they weren't otherwise able to. Most importantly, their involvement helps them to feel valued and involved in the company changes, and influencing the research at the University of Sheffield. As a result, in a short time the company benefits by having employees who realise the potential for upskilling and how this will impact the company and themselves, while in the long term it is expected to result in lower staff turnover.

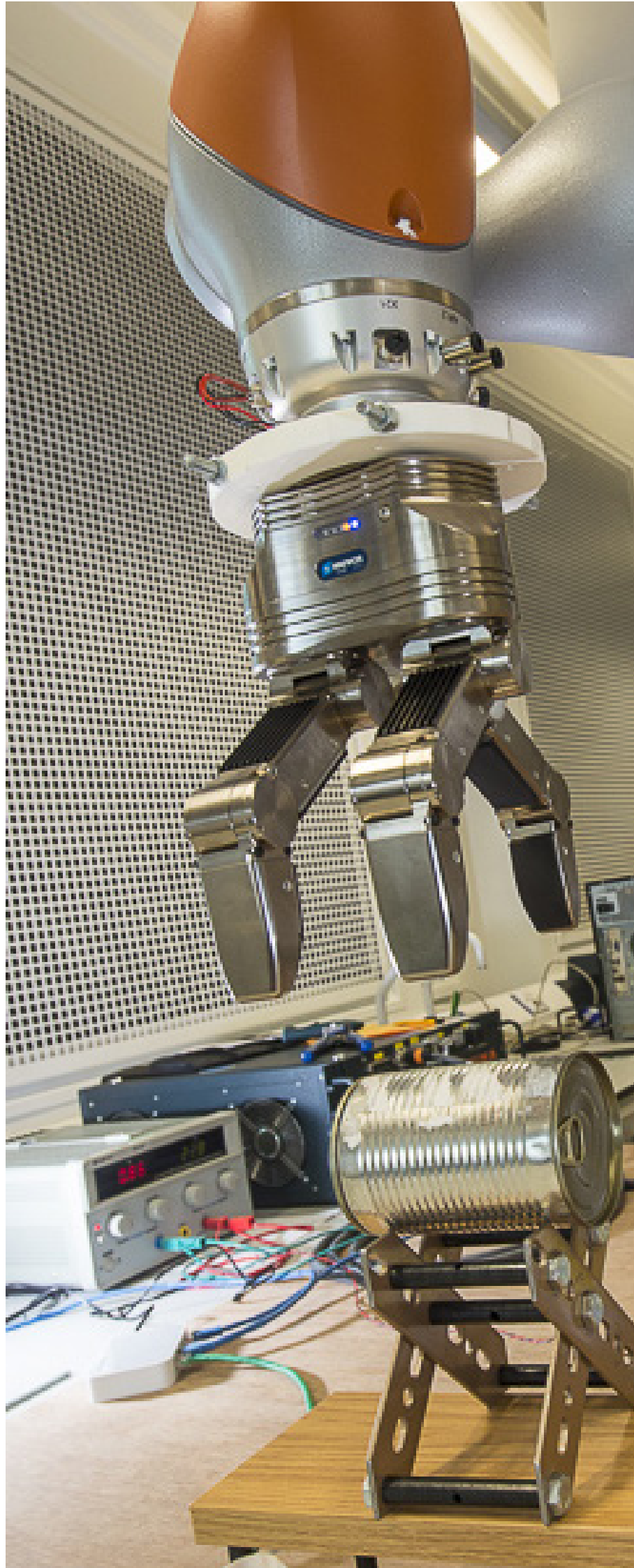
Finally, the activities in this project benefited me as a researcher. Gaining new skills in how to design and deliver engagement with public and industry, disseminating results outside of the usual academic audience, and collaborating with industry partners are all going to boost my CV and will be widely applicable for my further career; but most of all it just reminds me that science should serve humans and make their lives more comfortable – this is what all activities in this project are directed to.

Would I recommend engaging with industry partners and working with their staff? Yes, of course. For all the reasons mentioned above, and mostly for putting humans back in the centre of research. That's why I decided to do research initially. And it feels good.

Impact is rapidly becoming an important area which we're assessed on, especially as our careers progress. I moved to The University of Sheffield from the University of York in 2013, having been a Research Associate for 3.5 years on primarily industry-focussed projects. My role at Sheffield was essentially a move towards more Research Council funded work. Whilst at Sheffield I have had considerable opportunities to interact with companies and to lead small industry focussed projects which have revealed key technology gaps that prove especially fruitful directions for research.

My affiliation with Sheffield Robotics, my interest in mobile and especially field robotics, and a background in safety engineering has provided a collection of different opportunities. We're very fortunate that at present in the UK a wide range of companies are interested in the applications of robotics within their business, and from this position we receive considerable interest from industry.

In early 2015, I had the opportunity to visit a company that specialises in dealing with the waste recycling process. The opportunity came about through an invite to attend a meeting from Dr Stu Wrigley, the Business Development Manager in DCS and ACSE. The company were looking for links to robotics researchers, and we'd just completed a small EPSRC-funded project on looking at human-robot co-working - therefore we fitted a gap that our BDM could match us with. They were interested to hear more about what we'd developed and whether it could be applied to their processes. Typically most industrial companies that I've been involved with on projects so far have been through this route. However, chance meetings and exchanges of business cards at networking events have brought about some fruitful meetings too!





# It's a Dirty Job (so robots are going to do it)

This project has given me the opportunity to work closely with a company seeing their problems on the ground, and where gaps are in existing robotics. Specifically this revolves around efficiency, rates of operation, cost and safety. It's also allowed me to see the bridges future research will need to cross in order to move from our lab environment to deployable systems. This has helped me put my research in context, which in turn is helping to shape a Fellowship application. Whether this application is successful or not, the direct application of small, efficient and safe robotics will guide my own research agenda.

Whilst the process of founding an industrial project sounds simple (meet a company, discuss a problem, propose a project, and then do it!), each of those steps has many pitfalls and hidden challenges. My main advice is really centred across each of these separate areas, the main one is keep talking to contacts, and don't ignore leads. Also talk to your BDMs and keep them up to date on work that you are doing, as they'll often know of someone appropriate to link you with!

Lots of regular contact is an essential step to companies wanting to work with you, they like to keep hearing you're engaged and actively want to work on their problem. Added to this is that if a company wants to meet it's vitally important to pay attention. Also don't over-promise, especially on something that you won't be able to deliver in the project duration. They've got an issue and they really want to talk to someone. Be that person! My key experience has been active listening in these meetings, as companies are the experts in spelling out where the issues in their processes are.

Jonathan Aitken Research  
Fellow in the Department of  
Automatic Control & Systems  
Engineering

# Training an athlete for a brain-controlled Paralympic-style event



James Henshaw, PhD student,  
Department of Electronic and Electrical Engineering

My research involves creating a brain-computer interface (BCI): an interface which allows a user to control a device using their brainwaves. Since the beginning of my PhD I had been looking for opportunities to combine this with some form of assistive technology, which I viewed as the main motivation for conducting BCI research. However, eighteen months had passed and I'd still not found the chance.

Out of nowhere, an opportunity fell into my lap. A group called Team Gray Matter contacted Sheffield Robotics to find out if anyone could help them train a competitor for an upcoming event. The event, Cybathlon 2016, was the world's first assistive technology-based Paralympics-style Games, where disabled athletes would compete in events such as an Exoskeleton Race and a Powered Leg Prosthesis Race. The team wanted to enter the BCI-race; in this race the BCI pilots navigated an on-screen course using their brain activity to bypass the obstacles. For our team this would involve imagining movements in order to control the game.

## Imagined Movements



Right hand:  
Run



Left hand:  
Jump



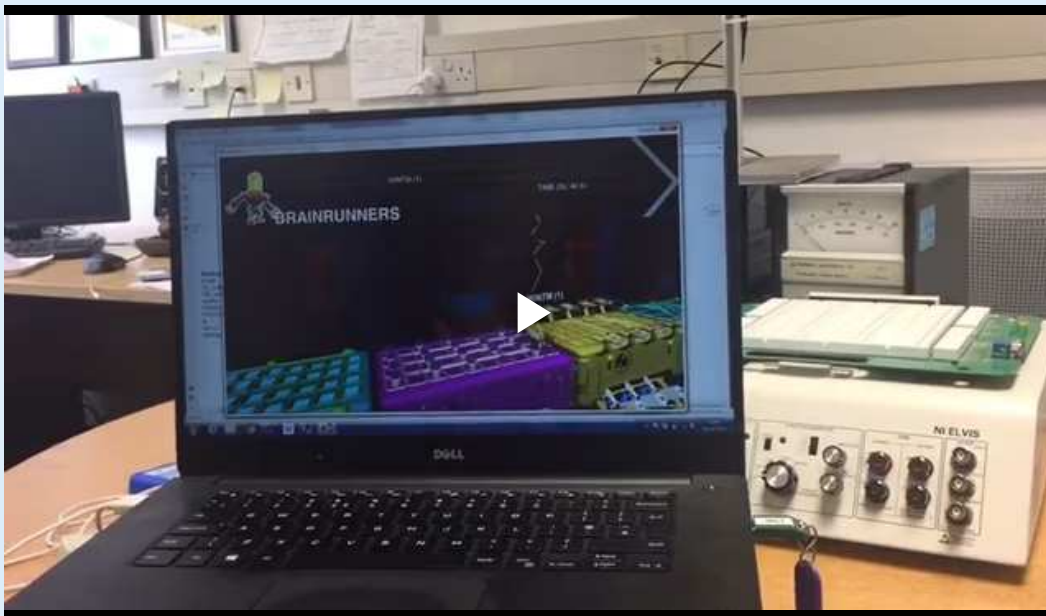
Feet:  
Slide

Although the project sounded fantastic, there was quite a lot for me to weigh up. Firstly, the team would be very small and the workload was huge, meaning it would eat into my work time considerably. Secondly, the work was actually very different from the BCI work I'd been planning to do, and meant I would have to change my PhD topic fairly drastically to accommodate it.

In the end I couldn't turn it down, as it was too appealing – I'd wanted to do something that could actually make a difference, and this was it. The pilot had been a keen gamer before his accident, and we were excited about seeing how far we could take this. Additionally, the project would give me a good chance to work with some other researchers from the university, including two other BCI researchers; Alexander Zaytsev (PhD student, Dept of Electronic & Electrical Engineering) and

Dr Mahnaz Arvaneh (Lecturer, Dept of Automatic Control & Systems Engineering). The months we spent on the project were an incredible learning experience for me; working with the other researchers and our overseas collaborator allowed me an in-depth look into their work and exposed me to new ideas and techniques. I think I got a bit lucky with the outside organisation, as we got along really well and they did their best to be flexible.

Overall, the project was fun but also a bit of a rollercoaster. We had plenty of great moments, such as getting to see our pilot's face as he played a computer game for the first time in eight years. And there were media sessions and lots of opportunities to discuss your work and raise your profile. But there was also the stress of international collaboration via Skype, timetable clashes, and the heavy workload. In the end our pilot had to withdraw from the competition before the race, which was hugely unfortunate. Luckily the project led to further collaborations, and we were able to complete our work, albeit without our pilot. You can see a brief demo here.



**“Be careful to check that the goals of the project closely align with your own, and be sure not to take on more than you can handle”**

Would I recommend working with an outside organisation to others in my situation? I would say that, particularly for early-PhD researchers an experience like this may be invaluable. I benefitted from taking part in this, and hopefully so will any others who take this step. Be careful to check that the goals of the project closely align with your own, and be sure not to take on more than you can handle.

I'd like to take this opportunity to give special thanks to Liat Levita, James Law, Peter Gray, Ivan Nixon, and Rolando Grave De Peralta Menendez for their work on the project.

# USEFUL LINKS

## Internal Resources and Guidance

Research and Innovation Services Impact pages: <http://www.sheffield.ac.uk/ris/impact>



Innovation, Impact and Knowledge Exchange (IIKE) schemes: <http://www.sheffield.ac.uk/ris/rpe/collaborate>



Impact-related training: <https://www.sheffield.ac.uk/ris/other/forms/cpd>



Online impact module: <http://www.sheffield.ac.uk/ris/ecr/online/impact>



Public Engagement: <http://www.sheffield.ac.uk/ris/publicengagement>



Think Ahead ECR development portal : <http://www.sheffield.ac.uk/ris/ecr>



## TUoS Impact contacts

Social Sciences Partnerships, Impact and Knowledge Exchange team (SSPIKE): <https://sites.google.com/a/sheffield.ac.uk/sspike/>



Arts Enterprise: <http://www.sheffield.ac.uk/artsenderprise/index>



Sheffield Healthcare Gateway : <http://shg.sheffield.ac.uk/>



Sheffield Engineering Gateway: <http://www.sheffield.ac.uk/faculty/engineering/business>



Sheffield Science Gateway: <http://ssg.sheffield.ac.uk/>



Departmental and faculty impact leads: <http://www.sheffield.ac.uk/ris/impact/contacts>



## External pages

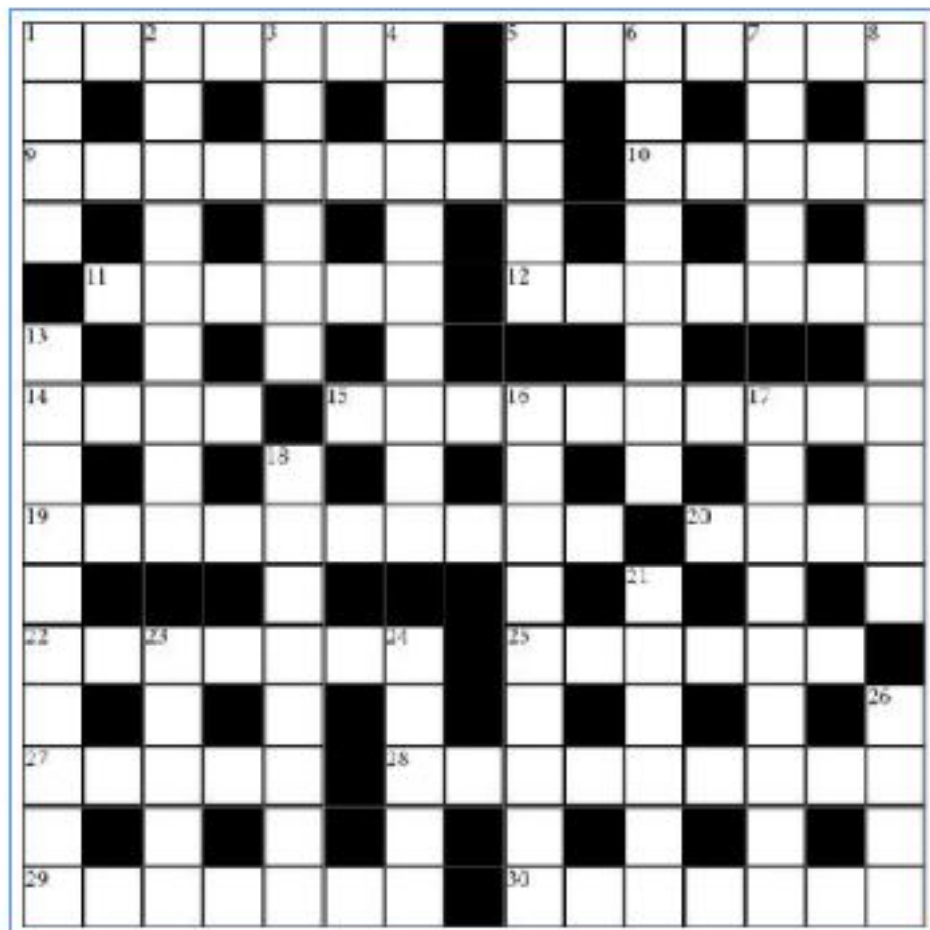
RCUK impact pages: <http://www.rcuk.ac.uk/innovation/impact/>



REF impact : <http://www.hefce.ac.uk/rsrch/REFimpact/>



We are always looking for contributions from PhD Students and related staff and researchers. If you would like to contribute to the next issue on the theme of wellbeing please email us by clicking here!



## ACROSS

1. Tool spotted by ungulate. (7)
5. Amusing "unpleasant noise" takes hold of original German capital. (7)
9. Supporter is able to declare wildly around ship. (9)
10. Execute rivals inside wombs. (5)
11. Initial Training Needs Analysis confused some undergraduates about journal. (6)
12. Prima ballerinas look backwards and then suck up struggle. (7)
14. Whole measure. (4)
15. Determined uncle fined by mistake. (10)
19. Innate hero tragically name after Bavarian Emmy. (10)

## DOWN

1. Stand up for noisy composer. (4)
2. Lively article on digestive fluid flows in a melodious way. (9)
3. Figure is uncommonly astute. (6)
4. American cowboy film loved by Queen. (9)
5. Anglican resides below, for push or pull. (5)
6. Ensure no havoc in specialized cells! (8)
7. Flawless plan gets little love. (5)
8. Sid's gang have tragic incident after taking a small liking to sliding down snow slopes! (10)
13. One supposedly ugly can overcome debts with fighting spirit. (10)
16. Feature of cricket ball hit for six? (9)
17. Mob kingpin "does over" large ruler for wearing a wire. (5,4)
18. Smother the accelerator. (8)
21. Desire revolves around breast. One cannot deny its existence! (6)
23. Impact? She's a regular addition. (5)
24. Start talking before the 15th drifts in! (5)
26. Young bird in Hackney? a shopkeeper? (4)
20. Sing loudly to speak to the deaf. (4)
22. Produce without end. Time feeds the earth. (7)
25. Hidden behind excitable metric (1-5)
27. Eight players took care of the initial confusion. (5)
28. Dirty room? Dirty room. (9)
29. Oral growth found at A&E by students nurses. (7)
30. Dull, heartless Scandinavians mixing with nymphs. (7)

*Crossword set by Daniel Graves, Sam Morgan, Ciaran Schembri, Ariel Weiss*

*Email completed crosswords to:*

*ddpenquiries@sheffield.ac.uk*

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