Learning and Leading Together

Experiences from the Engaged360@Bath project

UNIVERSITY OF BATH

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Executive Summary

The Engaged360@Bath project was funded by Research Councils UK as part of an ongoing piece of work to embed cultures of public engagement within higher education institutions. Eight universities were funded through this call. It was expected that these universities would work individually, to effect change within each institution, and collectively, to contribute to the wider understanding of public engagement within the HE context.

This report describes the work of the Engaged360@Bath project at the University of Bath during the period April 2012- March 2015. The Engaged360@Bath project has been highly successful in that we now self-assess ourselves, using the EDGE tool[1], as being in the Embedding phase of culture change. There is now cross-university understanding of the role, importance and value of public engagement. The quality, breadth and variety of public engagement has also increased during the Engaged360@Bath project. The Public Engagement Unit, formed at the start of Engaged360@Bath, ran the project and will remain in place into the future to continue to support the changes started through the work reported here and further embed this new culture.

The vision for the RCUK-funded Engaged360@Bath project was to:

> "facilitate highly visible public engagement, embedded across the whole research lifecycle that encompasses all University staff and students in building mutually beneficial links between our research and the public"

Key highlights for Engaged360@Bath

We identify two key highlights:

1. Learning and Leading together

In order to deliver the project, the University established a Public Engagement Unit along with management and governance structures to support the project. The Public Engagement Unit served two purposes:

- To lead change through developing practice, providing training and rewarding and recognising public engagement.
- Be a clear signal of institutional support for public engagement with research

The Public Engagement Unit, while small (2FTE), was highly effective in delivering change. The Unit staff modelled the behaviour and approaches they would expect in engaged researchers and introduced a wide variety of interventions and profile-raising activities within the university through the four project work packages. The team brought a wide range of experiences and skills to the project from within and beyond the HE sector.

2. The Department of Pharmacy and Pharmacology

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[1] http://www.publicengagement.ac.uk/support-it/self-assess-with-edge-tool

This department has undertaken a significant journey of change during Engaged360@Bath. Not all the activities undertaken within the department originated from within this project, but they worked to reinforce the public engagement agenda. Pharmacy and Pharmacology had an existing interest in public engagement, but it was ad hoc and not aligned clearly to needs of the department.

During the period of the Engaged360@Bath project researchers got involved with Images of Research, seed funds, the Advocates scheme, Pint of Science, Engaged Researcher Case Studies and the Wellcome Trust programme to support Heads of Department to embed public engagement. As a result of this variety of work, the department has developed a public engagement strategy which better reflects their aims for public engagement and has a concrete programme of work to support its delivery.

Context and approach

The University of Bath is a top ten UK university with a reputation for research and teaching excellence. Our mission is to deliver world-class research and teaching, educating our students to become future leaders and innovators, and benefiting the wider population through our research, enterprise and influence.

The University has a research portfolio of around £125m, at June 2015, with around 60 per cent from UK Research Councils. In the 2014 Research Excellence Framework (REF), 87% of our research activity was graded as 4*/3*. Research impact was strong, with 96% of our impact rated as 4*/3*.

Prior to the Engaged360@Bath project there were two centrally organised initiatives: a lecture programme and the Images of Research competition. There were pockets of activity including a Science Café, a Science Festival and one of the Centres for Doctoral Training delivering a compulsory module. The university had an existing network of external collaborators through the student placement programme, Knowledge Transfer Partnerships and the Innovation Centre.

In order to deliver against the Engaged360@Bath objectives, the Public Engagement Unit worked through four work packages:

1. establishing structures
2. embedding and facilitating public engagement
3. targeted initiatives (postgraduate skills, economic and societal impact, citizen science, tomorrow's researchers)
4. evaluation

Interventions and activities included: showcases to celebrate high quality public engagement with research; developing networks of engaged researchers; appointing advocates to certain aspects of the project; instigating new university level awards for public engagement with research; developing local opportunities for engagement; providing seed funding awards for small scale/pilot projects; delivering a programme of professional development for researchers; making changes to HR documentation to support the culture change; supporting the development of centre and departmental engagement strategies; and supporting the inclusion of engagement within grant applications.

Impact

The Engaged360@Bath project has seen the University of Bath progress along the EDGE tool from being Developing and Embryonic across eight of the nine EDGE categories to being Embedded. It is noted that our work did not focus on the public category.

EDGE Tool	Focus	Prior to Engaged360	After 3 years of Engaged360
Purpose	Mission	Developing	Embedding
	Leadership	Developing	Embedding
	Communication	Embryonic	Embedding
Process	Support	Embryonic	Embedding
	Learning	Developing	Embedding
	Recognition	Embryonic	Embedding
People	Staff	Developing	Embedding
	Students	Developing	Embedding
	Public	N/A	N/A

Stories of change

The stories of change highlight the importance of having multiple entry points to public engagement as they work to reinforce and support each other. The Engaged360@Bath was seen as a high profile programme of work which was instrumental in signalling the importance of public engagement. By working with other professional services teams the Public Engagement Unit developed mutually beneficial areas of work, in particular around developing and evidencing impact.

Partnerships

The Public Engagement Unit worked with several partnerships. The Catalyst group, external partnerships with local practitioners, academic partners across the GW4 Alliance and internal partnerships across several teams and structures.

Lessons learnt

- Culture change happens by working in partnership.
- Culture change within a university is not easy and it is not always visible.
- Culture change takes time, resilience, and creativity.
- Culture change is non-linear and requires multiple entry points.
- Culture change needs a strong, experienced team on the ground and senior management support.

What's next?

The Public Engagement Unit will continue the work of the Engaged360@Bath for a further three years, building on the success of the last three years. The focus for 2015-2018 will be to build a strong evidence base for the value of public engagement for research quality, research impact and research visibility.

Recommendations to other organisations

1. **Be strategic and build your evidence base:** find ways for Public Engagement to enhance and support the strategic aims of your institutions. Capture evidence of this through your period of change.

2. **Be small, but think big:** a small public engagement unit or centre is a clear indication they are not there to do public engagement for others. Structure your unit with several grades to cover the full range of activities you'll need to deliver effective change.
3. **Buddy up:** build a strong relationship with a respected, senior academic who will advocate for both public engagement and change. This need not be someone with high profile public engagement.
4. **Diversity is good:** build your unit and project team to cover the wide range of skills and experience needed to deliver effective culture change. You may not find all these from within a university / higher education environment.
5. **Do stuff:** have several initiatives and activities to create multiple entry points for researchers at different career stages and at different stages in their engagement journey.
6. **Keep control:** find ways to enable public engagement on your terms to raise quality, diversity and evidence. You are unlikely to change existing practice through persuasion alone.
7. **It's about public engagement; it's about culture change:** ensure all your activities serve both purposes and will also provide you with evidence for supporting your university's key strategic aims.
8. **Talk, talk, talk:** use your activities to raise the profile of public engagement and create institution-specific examples you can refer people to.
9. **You will not know culture change until it emerges:** using complexity theory helps with managing this but also results in a non-linear project structure which can be challenging to communicate and manage with conventional project governance.
10. **Change will affect you as much as you effect it:** build resilience into your team and project structure by being reflective and evidence-based.

Acknowledgements:

Key Highlights

Highlight 1: Learning and Leading Together

The Public Engagement Unit has been at the heart of the Engaged360@Bath project. From the outset the Public Engagement Unit was set up to, and expected to, be "highly effective" and this has been a key highlight. We want to take this opportunity to describe what makes the Unit effective. Our end of project evaluation[2] has told us that:

"Members of the university have noticed a significant and accelerated change with respect to public engagement since the Public Engagement Unit was established"
End of project evaluation

"University members feel well supported by the Public Engagement Unit and that the unit offers an accessible and sensible source of advice and support"
End of project evaluation

"I think that's primarily what having a Public Engagement Unit does: it lets researchers know that public engagement is important. The university is putting resources into it; there's such a thing called a Public Engagement Unit…that shows that it's particularly important."
Associate Dean for Research

1. Developing ideas for new platforms for public engagement

It was recognised early in the project that success was reliant on the academic community embracing public engagement as their own. It was critical, therefore, that the Public Engagement Unit supported this, even though this risked reducing the visibility and perceived causality of change to the Public Engagement Unit. This mode of working necessitated an engaged approach whereby the behaviour and actions of the Public Engagement Unit were indicative of engaged practice in general. This engaged approach also made it clear that we were going on the journey of change together with the academic and professional services communities. Their experiences were a critical and visible source of insight from practise. This mode of working also prevented early rejection as a result of initiative fatigue.

The Public Engagement Unit has managed to build and maintain its powerful reputation within the University whilst simultaneously supporting autonomous public engagement and promoting ownership of the agenda. This has recently been evidenced in departments citing their public engagement work alongside their research and teaching when presenting themselves at showcases, open days or celebrations.

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[2] Available separately on request.

The success of the Public Engagement Unit is in large part due to the qualities the individuals brought to the project. The two people appointed (Head of Public Engagement, Dr Joanna Coleman; and Public Engagement Officer, Ed Stevens) brought a diverse range of experiences to the project which was further enhanced when Dr Helen Featherstone covered Joanna's maternity leave for the last year of the project.

Prior to joining the Catalyst teams, the individuals had experience from a wide range of relevant contexts which include: Research Councils, charity sector, museums/galleries, volunteer management, evaluation, culture change and public engagement practice; as well as their existing experience from within higher education. The skills that the combined team members have brought to the project include[3]:

- **Credibility:** a deep and rich understanding of the university, HE sector, Research Councils and public engagement through research and practice. Well-connected outside of HE.
- **Reflexivity:** using reflective practice to inform and develop the work of the Public Engagement Unit as well as individual actions.
- **Belief:** deeply held, and evidence based, conviction that public engagement brings benefits to research, researchers and the research environment.
- **Boundary working:** working in a way that interacts with many different communities within and beyond the university to translate, facilitate, mediate, network and broker.
- **Social and emotional intelligence:** working in a way that recognises, and influences, both yours and others' feelings and behaviours.
- **Collaboration:** working with others to achieve mutual benefit.

Some of these were additional to skills and attributes described in the job descriptions of the Head and Officer, but this combination of experience, skills and attributes has been key to the success of the Engaged360@Bath.

The Public Engagement Unit could not have been as effective as it was without the support and advocacy from the Principal Investigator, Professor Jane Millar. Professor Millar, as Pro-Vice-Chancellor Research has been a consistent ambassador for public engagement with research at all tiers within the university but it was through her role in the senior management team that she was able to keep the profile of public engagement high on the university's agenda.

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[3] *Public Engagement Academy: Change Agency and Public Engagement a self-assessment tool for change agents* is available on request.

Highlight 2: Pharmacy and Pharmacology – a departmental engagement journey

This highlight story illustrates how several initiatives have significantly enhanced public engagement practice within a department which has also had several, positive, unintended consequences that reinforce the embedding of public engagement with research. These developments did not all originate in the Engaged360@Bath project, but the project was able to provide an umbrella to enhance these activities.

The Department of Pharmacy and Pharmacology had an existing commitment to sharing its research in the public domain. Several members of the department regularly invited schools onto campus, gave talks in schools or for adult public audiences and the team would regularly participate in the science festival *Bath Taps into Science* run by a small group of University staff and affiliates (now run by the Widening Participation team). Researchers were contributing to the Images of Research competition: Dr Hannah Family won the 'best picture' prize in 2012 for her take on the overloaded brain of a community pharmacist.
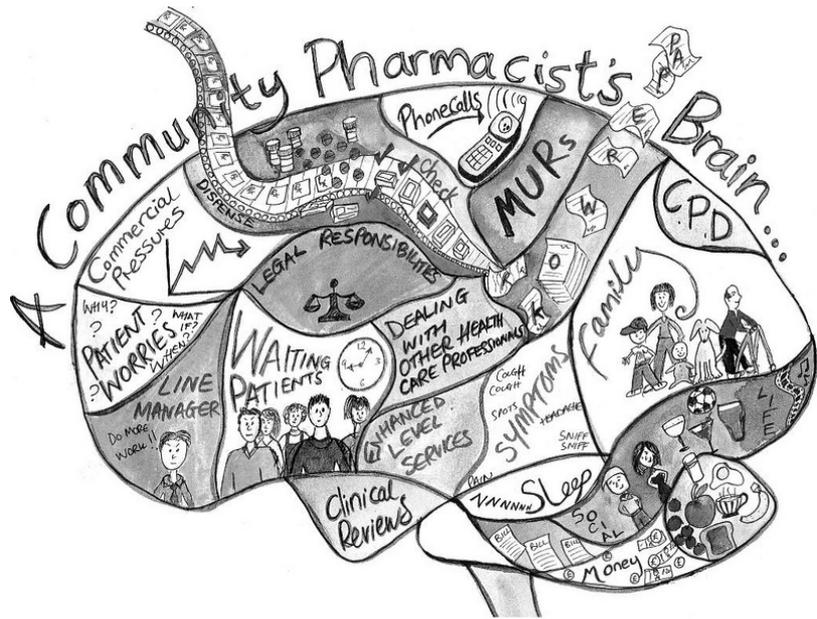
2. The overloaded brain of a community pharmacist by Dr Hannah Family

In September 2013 (16 months into Engaged360@Bath) the Public Engagement Unit initiated a formal Advocates scheme. The Advocates were to lead on the four Targeted Initiatives (see Strategic Priorities section). Dr Sarah Bailey, from Pharmacy and Pharmacology applied to be a Public Engagement Advocate based on her work with schools, the Science Media Centre and her commitment to supporting others to embrace public engagement.

Around this time the Public Engagement Unit put out its first call for Seed Fund projects. The projects were intended to mobilise public engagement activity to learn about the Bath context for public engagement and to develop Bath-specific communications and activities. Dr Sarah Bailey submitted an application which supported an existing sci-art collaboration and was intended to encourage colleagues to get involved with exhibitions, workshops and talks for the local community.

The resulting *Art of the Brain* project, with artist Stephen Magrath, was very successful in raising awareness of Bath's neuroscience and neuropharmacology research as well as providing several opportunities for researchers in the department to have their first experience of public engagement.

The exhibition and workshops were developed with a local organisation: the Bath Royal Literary and Scientific Institute (BRLSI), which provides a wide range of activities for science- and literature-interested adults and children. At the Art of the Brain exhibition, Dr Chris Bailey met Ian Todd from the local drugs and homelessness charity, Developing Health and Independence. As a result, he contributed an article on his research to their newsletter and the charity is now contributing to real-life case studies for teaching about addiction.

3. Art of the Brain

In January 2014, two postgraduate researchers from the department joined our first team organising the Bath Pint of Science Festival on the 19th-21st May 2014, bringing the best cutting-edge research from across the University to pubs across Bath. A series of exciting talks included contributions from researchers in the Department of Pharmacy and Pharmacology, covering topics like erasing unwanted memories (Dr Chris Bailey) and how the brain works (Professor Roland Jones).

In the Autumn of 2014, the Wellcome Trust funded Graphic Science to develop a programme to support academic Heads of Department to embed public engagement within their department. This was developed in response to a need identified by the Beacons, Catalysts and elsewhere that Heads of Department are in a unique and challenging position with respect to embedding public engagement. Professor Steve Ward, Head of Department for Pharmacy and Pharmacology, was invited to participate on this programme.

At this time, another member of the department, Dr Hannah Family, was selected to feature as an Engaged Researcher Case study based on her work in pharmacies with pharmacists, healthcare commissioners and patients, which built on her original image of a community pharmacist's brain.

The synergies between these activities have made a significant difference to the public engagement within the department. For example, while Dr Bailey had long been an informal advocate for public engagement, the formal 'titling' of Public Engagement Advocate enabled her to push the agenda forward with the confidence that this was something the university was committed to. Dr Bailey actively liaised with Professor Ward to lobby for public engagement. In doing this he came to be aware of the range and diversity of public engagement that was happening in his department.

When the invitation to take part in the Wellcome programme came about, Dr Bailey supported Professor Ward in his participation and he drew on her role as Advocate to bring other members of the department with him as he participated in the Wellcome programme.

They used the programme to develop a departmental strategy for public engagement to activate significant change between now and 2020. This was in response to a workshop, run by Graphic Science, which revealed a significant disparity between current activities and ambitions. The activities, while important, were heavily skewed towards schools and families leaving little room to develop the strategically important Public Patient Involvement work. Dr Bailey, with support from Graphic Science and the Public Engagement Unit, has developed a strategy for public engagement and set up a working group to take it forward. This has been well-received by the other researchers in the department.

Dr Sarah Bailey became the second winner of the Vice-Chancellor's Award for Public Engagement in May 2015.

Meanwhile, Bath's Holburne Museum was working with a group of homeless people exploring mental health issues through the art collection in the museum. The participants in this programme were aware of Stephen Magrath's *Art of the Brain* work and wanted to involve him in their activities. Through Stephen's work with the Department of Pharmacy and Pharmacology he was able to involve another researcher from the department. The resulting artworks produced by the participants were hung in the Holburne Museum and as part of a local festival *Fringe Arts Bath*.

Pharmacy and Pharmacology is now an exemplary department with respect to their strategic development of public engagement. Members of the department interacted with the work of the Public Engagement Unit in many different ways. All of the interactions and activities were worthwhile and met their individual aims, but the collective impact of all these initiatives working in concert has accelerated the public engagement agenda and practice within the department.

Context and Approach

4. University of Bath campus

The University of Bath received its Royal Charter in 1966, celebrating its 50th anniversary in 2016, and is now firmly established as a top ten UK university with a reputation for research and teaching excellence. Our campus, overlooking the beautiful UNESCO World Heritage City of Bath, has a vibrant research culture driven by the enthusiasm and invention of our academic community. Students are attracted by our excellent academic reputation, our outstanding graduate employment record, our world-class sports facilities, and the wide array of other social, recreational and personal development opportunities we offer. Our ability to offer placement options across our discipline base, and with leading organisations, is outstanding among UK research-intensive universities. We are sector leaders in the commercial exploitation of intellectual property (IP) and the establishment of international links for exploitation of IP.

Our mission is to deliver world-class research and teaching, educating our students to become future leaders and innovators, and benefiting the wider population through our research, enterprise and influence.

The University of Bath has a current research portfolio of £125m, at June 2015. This includes £73m of Research Council grants, £15m in grants from the EU, £15m from industry and £8m from the charitable sector.

In the 2014 Research Excellence Framework (REF), 87% of our research activity was graded as 4*/3*, the highest classifications of world-leading and internationally excellent, placing us joint 12th in the UK (excluding specialist institutions). Research impact was strong, with 96% of our impact rated as 4*/3* and 6 of our 13 submissions in the top 10 by GPA for impact.

The University of Bath has Graduate Schools in each of the three Faculties and a Graduate Division in the School of Management. Bath is involved in 13 Centres for Doctoral Training and Partnerships:

- EPSRC Centre for Digital Entertainment
- EPSRC Centre for Doctoral Training in Catalysis
- EPSRC Centre for Doctoral Training in Condensed Matter Physics
- EPSRC Centre for Doctoral Training in Decarbonisation of the Built Environment (dCarb)
- EPSRC Centre for Doctoral Training in New and Sustainable Photovoltaics
- EPSRC Centre for Doctoral Training in Statistical Applied Mathematics (SAMBa)
- EPSRC Centre for Doctoral Training in Sustainable Chemical Technologies
- EPSRC Centre for Doctoral Training in Water Informatics: Science and Engineering (WISE)
- EPSRC Centre for Innovation Manufacturing in Continuous Manufacturing and Crystallisation (CMAC)
- NERC GW4+ Doctoral Training Partnership in environmental sciences
- BBSRC South West Biosciences Doctoral Training Partnership (SWBio DTP) in food security and bioscience
- ESRC South West Doctoral Training Centre (SWDTC) in economic and social science
- AHRC South, West & Wales Doctoral Partnership (SWW DTP) in arts and humanities

The 2013-14 annual review is available at http://www.bath.ac.uk/about/pdfs/annual-review-2013-2014.pdf

History of Public Engagement at Bath before the Catalyst Project

Prior to the Catalyst project there was no Public Engagement Unit and no member of the senior management team had public engagement as part of their portfolio. Public Engagement was mentioned in the strategic plan (2012-2015) for the University and featured in annual review documents, which were being written at the same time as the proposal for Engaged360@Bath. The University of Bath had signed the Manifesto for Public Engagement.

At a University level there were various engagement activities of note:

- There were two centrally organised initiatives: the General University Lecture Programme which included non-University of Bath lecturers and the annual Images of Research competition.
- Bath was just coming to the end of its work as the South West spoke of the HE-STEM programme. Part of this programme was the undergraduate module: Communicating Physics.
- The University had (and still does have) a strong network of relationships with over 4,000 companies, national and international, through an extensive student placement programme, Knowledge Transfer Partnerships, other research links, and our Innovation Centre.
- There were early stage plans for a Policy Science centre which developed into the Institute for Policy Research in 2013.
- Public Engagement training and opportunities for postgraduate researchers was ad-hoc with occasional workshops including media training and workshops such as *Making a contribution to society with your research*.

There were also ongoing initiatives led by individual academics:

- One Professor in Biology and Biochemistry set up and runs the monthly the Bath Science Café.
- One Professor in Maths (also a Co-I on the Catalyst project) set up and ran an annual science festival: Bath Taps into Science which is a festival both on and off campus, aimed at children and families. The same team ran Maths Masterclasses for KS3 students.
- The Centre for Doctoral Training based in the Centre for Sustainable Chemical Technologies (led by another Co-I on the project) featured training for public engagement with doctoral students taking a compulsory module in year one, and optional courses in later years. The modules included delivery of activities at various events including Bath Taps into Science and the Cheltenham Science Festival.

Changes to the University during the project

There were no senior staff changes within the university during the project. There were no unexpected changes that affected the university or the progress of the project. In 2013, four research intensive universities in the region developed a collaboration, the GW4 Alliance, to "enable

the universities of Bath, Bristol, Cardiff and Exeter to work together to translate research into real-world applications and to stimulate growth."[4]

The Catalyst Team

The Catalyst team comprises the Public Engagement Unit:

- Head of Public Engagement - 1FTE, Grade 9, Department of Marketing and Communications
- Public Engagement Officer - 1FTE, Grade 6, Department of Marketing and Communications

With 1hr/week dedicated from Professor Jane Millar, Pro-Vice-Chancellor Research, Institutional Champions: Professor Matthew Davidson, Department of Chemistry (3hrs/week), Professor Chris Budd, Department of Mathematical Sciences (3hrs/week), Dr Liz Lyons, UKOLN (1.5hrs/week) and the Advocates.

The Public Engagement Unit is situated in the Marketing and Communications team; this has been a good fit while the University has been seeking to use its marketing and communications more strategically. The Head of Public Engagement is line managed by the Director of Marketing and Communications, and is also responsible to the Pro-Vice-Chancellor Research as the Catalyst Principal Investigator.

The Head of Public Engagement was on maternity leave May 2014-April 2015: an Acting Head of Public Engagement was appointed who had been based in another Catalyst (Exeter). Dr Lyons (Co-Investigator) left in 2014 and was replaced by two others in a joint role (Professor Ed Feil, Department of Biology and Biochemistry and Dr Emma Rich, Department for Health).

Strategic Priorities

The Engaged360@Bath has been successful in achieving its aims and objectives. A culture where public engagement is embedded throughout the lifecycle of research has been realised, not at an individual level, but at an institutional level. Through the work of the project there are Bath-specific examples of public engagement with research at all stages of research, for varied purposes and with a broad range of public groups. The concept of public engagement for mutual benefit has been embraced and accepted. The work of the Public Engagement Unit will continue to support this direction of travel, by sustaining the changes implemented throughout the duration of the project.

A full evaluation report, which details progress against the specific aims and objectives, is available on request. The section on Sustainability Plans in this report gives more detail on how the Public Engagement Unit will sustain and progress its work.

The strategic priorities and objectives for the Engaged360@Bath were:

Our Vision is to:

Facilitate highly visible public engagement, embedded across the whole research lifecycle that encompasses all University staff and students in building mutually beneficial links between our research and the public.

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[4] http://gw4.ac.uk/about-gw4/

Aims:

i. *Build and sustain institutional capacity for public engagement through establishing a highly effective Public Engagement Unit which acts to train, support and encourage all members of staff, which becomes a natural point of contact between the general public and the university, and which ensures effective alignment of current professional service structures with public engagement.*

ii. *Become a leading catalyst for public engagement in research both within and beyond Bath, with public engagement at the heart of the university.*

Objectives:

i. *Ensure that strategy, staff development and role description documents at all levels recognize the role of public engagement is appropriately*

ii. *Provide a structure in which public engagement by trained staff and students is rewarded, encouraged and supported, and becomes a natural part of the activity for all members of the university (who then become effective role models for research and the public).*

iii. *Set up, support and sustain a network of Institutional and Departmental Champions for Public Engagement who will act as catalysts for change within Bath.*

iv. *Engage heavily with the media, and for all staff to be trained and encouraged to engage with the media at all levels, including full exploitation of new social media outlets in public engagement.*

v. *Build up a large, effective and sustainable network of links between Bath and many different avenues for public engagement.*

To deliver against these objectives four work packages were delivered:

1. **Establishing Structures, Project Management and Coordination (Lead: Pro-Vice-Chancellor Research)**
2. **Embedding and Facilitating Public Engagement**
3. **Targeted Initiatives (led by Institutional Champions):**
   a. *Building postgraduate skills: PhD training in public engagement*
   b. *Maximizing Economic and Societal Impact through industry and policy engagement*
   c. *Promoting citizen science*
   d. *Inspiring Tomorrows Researchers*
4. **Evaluation**

Overall Approach to Culture Change

Our overall approach to culture change built on the experiences of the Beacons for Public Engagement and used complexity theory as the underpinning model of change. Complexity theory recognises that collective change is based on individual change. It also recognises that institutions are themselves constantly changing, whilst simultaneously being within a changing environment. As a model of change, complexity theory predicts a period of uncertainty as new processes and

practices are tested: creating conditions for change. This period of uncertainty is followed by enduring change that emerges from these conditions created by the new processes and practices. All the work of the Engaged360@Bath has been undertaken with a philosophy of reflective practice where initiatives are fully evaluated to refine them and to ensure appropriate, enduring change.

The model of change necessitates a dispersed programme of work. This creates networks of public engagement practice which are more robust than work initiated and controlled by a central unit. In line with Work Package 1 the project was structured with the following:

- The Public Engagement Unit – centrally coordinates the project, provides an overarching vision and steer to reduce mission-creep
- Institutional Champions – these led the targeted initiatives described above
- Project working group – this comprised the unit, institutional champions and academic lead (PVC Research) and met twice yearly to share progress
- Steering group – this comprised internal stakeholders (from HR, Research and Innovation Services, Marketing and Communications) and ensured the work of Engaged360@Bath complemented the work of other academic and professional services

Work Package 2 was delivered through the processes and practices of theEngaged360@Bath project. These fall into three broad categories: Professional Development, Public Engagement in Practice, and Reward and Recognition.

Professional Development includes: Courses for the Postgraduate Skills programme, Public Engagement Conversations, one-to-one bespoke advice for researchers, cohort advice, Public Engagement Forum.

Public Engagement in Practice includes: Images of Research competition, Pint of Science festival, Seed Funds, Bath Inspires, Pathways to Impact advice

Reward and Recognition includes: Vice-Chancellor's Award for Public Engagement (Postgraduate and Staff categories), inclusion of public engagement in revision of probation and promotion criteria, inclusion of public engagement in newly developed generic job descriptions, Celebrating Engaged Research showcase.

All of the activities delivered through Engaged360@Bath were seen as opportunities to develop deeper and more nuanced understandings of public engagement for the University of Bath with each activity informing others. This ongoing process of reflection and action is a key characteristic of embracing complexity theory as our model of change. See Key Highlights section for more detail on the skills and aptitudes the team drew on to effect change using this model.

The targeted initiatives of Work Package 3 were delivered through several pieces of work embedded into the three categories of work detailed above. These are detailed in our annual reports but include developing and delivering the Public Engagement Forum (*Building postgraduate skills*), supporting a researcher to run a workshop with Chatham House (*Maximising societal impact*), producing a Guide to Engaging with Industry (*Maximising economic impact*), running a GW4

workshop on citizen science (*Promoting citizen science*), and working with researchers to revise and deliver the Communicating Physics module (*Inspiring tomorrows' researchers*).

The evaluation (Work Package 4) was delivered in partnership with Graphic Science.

Building on the work of the Beacons

As described in our proposal we have built on the work of the Beacons. The following pieces of work were directly influenced by the Beacons:

- Creating a Public Engagement Unit
- Self-assessing using the EDGE tool
- Prioritising the development of a shared understanding of public engagement
- Having a combination of reward and recognition mechanisms with the university-level Awards and the annual Showcase being two that translated well into the Bath context
- Appointing an external evaluator who worked with us throughout the project

The mechanisms for building on the work of the Beacons included site visits, having Beacons at Catalyst meetings, taking advice through the NCCPE and from the Beacons' online materials and building the GW4 collaboration, which includes Cardiff.

Impact

The Engaged360@Bath project has made significant progress against each of the original aims and objectives of the Catalyst Programme. This is outlined in the table below, with more detailed information within the full evaluation report, available on request. It is worth mentioning here that culture change projects are non-linear. We found that it took time to gather the momentum to make significant impacts and a lot of effort was made to build this momentum in the first 18 months, after which progress gathered pace as the culture change started to manifest more strongly. The impacts will continue to emerge beyond the end of the RCUK funding as the Public Engagement Unit builds on the developments and activities of the project, using the experience and learning from being a Catalyst project.

Progress Against RCUK Catalyst Programme Objectives

Objectives	Activities	Progress and evidence of change	What's next?	What would you do differently next time?
Strategic Commitment				
Strategic commitment to public engagement (work package 1)	Embedding public engagement with research within strategic goals, planning cycles, formal governance, academic workload planning or within the responsibilities of senior managers.	The PI for the project and joint line manager of the Head of PE is the Pro-Vice-Chancellor Research and PE is now (as of July 2015) part of this formal job description. Through this route, PE was incorporated into the remit of the Impact sub-group of the University Research Committee (Year 1). Steering and Working Groups were set up which comprised senior academics and professional services staff (e.g. Directors of Marketing and Communications, HR, Finance) (Year 1 and ongoing). Signatory of the Manifesto for Public Engagement (pre-Catalyst). The PE Unit is now centrally supported until July 2018.	As part of future planning for the PE Unit there will be an assessment of which of the project structures to keep in place to maintain the links across the university to ensure that the visibility of public engagement is maintained. The work of the unit will now focus on maintaining the profile of PE whilst also pushing the agenda forward - for example through advancing the quality of public engagement and evidencing its value to research quality, research impact and research visibility.	We would not change the work significantly.
Integration of public engagement into the core activities of HEIs, including measuring quality and impact of public engagement with research activities (work packages 2 and 4)	An institutional PER strategy or mission.	A separate strategy was not developed as PE is seen as an element of high quality research which improves research quality and research impact. However some departments and research centres have decided to set up their own PE Strategy (e.g. Pharmacy and Pharmacology Department and Education Department, and the Centre for Death and Society), see row on Departmental strategies.	Continue to work with institutional research structures to maintain the visibility and contribution of PE.	We would not change the work significantly. The University of Bath prioritises research and teaching, as such the commitment to public engagement as a route to enhancing research quality and impact is key. The deep relationship between research quality, along with other strategies being implemented during the course of the Engaged360@Bath project, has meant that PE is seen as part of the research strategy.

	Developing a shared definition of PE	We adopted the NCCPE definition and have not developed an alternative. We have started to use the Open University's definition of Engaged Research but this has not been formally accepted (Year 3). It is noticeable that in the end of project survey there is a persistent perception of PE as being about informing others - the two-way nature of engagement is not at the forefront of thinking about PE. When considering the purposes of PE more people cite co-generation of research than in 2012 and the open question on defining PE demonstrates that people consider listening and involving a key element.	Continue to develop a shared understanding of PE based on the National Coordinating Centre for Public Engagement definition and the Open University definition of engaged research. It is unlikely that we will develop a Bath-specific definition.	We would not change the work significantly.
	Departmental PER strategies	Departments are not creating PER strategies as they are tasked with creating impact strategies. At the time of writing departmental impact directors have been appointed and development of these strategies is going ahead, supported by the Impact sub-group of the University Research Committee. Pharmacy and Pharmacology have elected to write a PE Strategy because their Head of Department participated in the Wellcome Trust funded PE Leadership programme. During this work it became apparent that the existing PE practice within the department, while extensive, was ad hoc and un-strategic so did not meet the research needs of the department. The strategy for the department is a tool for capturing the shared needs and rationale for PE and to help individuals within the department make decisions as to the type and purposes of their PE practice.	Work with the departments that have decided to set up strategies to continue support. Work with Associate Deans (Research) and Heads of Department as they develop their impact strategies.	We would not change the work significantly.
	Leadership development focussed on embedding PE	We worked with our Associate Deans of Research throughout the project. We successfully applied for two Heads of Department to go on the pilot Leadership scheme set up by Wellcome Trust (Year 3).	Continue to work with Associate Deans (Research) and Heads of Departments. If the Wellcome Trust leadership programme is successful then we will consider if / how to roll it out across other departments.	Heads of Department are in a challenging position and it is tempting to say that we should have worked more proactively with them. However, time was needed to develop a shared Bath understanding of PE and the support needed for more experienced academics, meaning that it was inappropriate to take their time more regularly without a clear offer. The commitment to improving research quality and impact will be valuable for furthering relationships with them.
	Allocation of strategic funding to support public engagement with research during lifetime of Catalyst	The Public Engagement Unit was set up with the Catalyst funding. The Public Engagement Officer role was funded through the University.	The Public Engagement Unit will be supported by the University for a further three years.	

	Development of investment case for long term sustainability of the Catalyst and sign off on this	The University has agreed to maintain the Public Engagement Unit, initially for a further three years to July 2018. The structure and location have remained the same, but with an aim to develop stronger links with Research and Innovation Services.	Continue to work with researchers and Research & Innovation Services to successfully embed PE within research proposals and demonstrate a concrete return on investment.	The funding secured through the Catalyst did not allow for any seed funds. However, it became clear this was necessary in order to capture learning about public engagement. We were able to reallocate funding to seed funds in early Year 2, but it would have been useful to have had the allocation from the outset.
	Working with other institutional structures	Working with Research and Innovation Services to create a Planning for Impact toolkit (Year 1), support Pathways to Impact plans (ongoing), guidance for REF Impact Case Studies (Year 1). Working with the Widening Participation Office to increase research-based activities into their programme of work. Working with Marketing and Communications to develop the use of social media for engagement (e.g. a PE Conversation in Year 2). Working with the newly formed Institute for Policy Research (2013) to develop policy-engagement activities. Working with the Researcher Development Unit to deliver PE-specific courses for PGR and ECR (ongoing). Working with three of the 13 DTCs to share experiences from the Centre for Sustainable Chemical Technologies CDT (Year 3).	This will continue.	Set up structures earlier in the project which could offer evidence in support of university strategic needs (e.g. research income, research quality). The work of the Unit focussed on the project goals during the Catalyst project.
Practical Support				
Reward and recognition of researchers and staff involved in public engagement (work package 2)	Recognising public engagement with research in awards, recruitment criteria, promotion criteria, performance review	The Vice-Chancellor's Award for Public Engagement (staff and postgraduate researcher categories) was established in Year 2. Repeated annually. Probation and promotion documents were revised to highlight that PE can demonstrate excellence in research (this was done as part of the routine cycle of review and revision). PE was incorporated into the generic job descriptions for all tiers for use in recruitment for new roles - this was a new initiative during the Catalyst project.	Continue the annual award scheme and evaluate the benefits of having such a scheme. Proactively support line-managers and researchers on probation to use PE within the case for passing probation. Proactively support line-managers and researchers to use PE within promotion cases.	Be more proactive in identifying one or two people to support through probation or promotion using the new criteria.
Creating networks within institutions to share good practice, celebrate their work and ensure that those involved in public engagement feel supported (work packages 2 and 3)	Building capacity for public engagement with research through creating champions, networks, professional development, partnership working and creation of resources	The Public Engagement Network was set up in Year 1 and membership continues to grow each year: from 64 in Year 1 to 346 at the time of writing in Year 3. In Year 2 we established an annual PE Forum to work proactively with postgraduate researchers (20 over 2 years). 10 Public Engagement Advocates were appointed in Year 1 to support the work of the four strands of project. A Bath-specific PE webpage was developed and launched in Year 2. The website hosts guidance, videos, case studies of engaged researchers and specific projects, including a guide to engaging with industry. Events include: PE Conversations, Celebrating Engaged Research showcases and a GW4 collaborative event on Citizen Science.	Continue to sustain networks. Continue to develop Bath-specific case studies and guidance. A decision about the role of the Advocates has yet to be made. It's anticipated that they will continue in some form, but the detail has yet to be finalised.	Be more proactive in supporting the advocates to develop their advocacy skills and help them feel closer to the PE Unit and the project.

Encouraging and supporting researchers and staff at all levels to become involved (e.g. by building capacity for public engagement amongst researchers) (work package 2)	Practical support for public engagement with research e.g. central support and an indication of number of staff working in these roles.	The Public Engagement Unit is a central unit comprising 2 FTE (Head of PE and PE Officer). The PEU works across all faculties.	The PE Unit will continue in its current form with the likelihood of some changes. A number of projects are underway which have PE roles embedded into them which will expand the Unit.	We would not change the work significantly.
	Training provision for public engagement with research	Courses have been developed and run through the Researcher Development Unit – reaching 226 individuals through 18 workshops. The PEU helped with the development of a new undergraduate module called Communicating Physics (Year 1). This has been repeated in Years 2 and 3 (88 students participated) and is now being adapted for Chemistry and Pharmacy and Pharmacology students (Year 3). Bespoke courses have been developed for cohorts e.g. Marie Curie International Training Network, Crucible and the Proteus project (reaching 379 people through 23 workshops).

Feedback on these courses is consistently high for satisfaction, relevance, and methods. Participants also valued the flexibility of our approaches. | Refine the PG Skills course again to keep the popular courses and remove those that are not attractive. Develop courses that relate directly to opportunities to practice skills developed. Contribute to Centres / Partnerships for Doctoral Training across the GW4 alliance. | We would not change the work significantly. |
| | Communicate clear messages about the value and purpose of PE to the institution / department through events and conferences; publicity materials; newsletters; web presence | Consistent messaging was developed through ongoing conversations in Year 1 with departments, researchers, Heads of Department, Associate Deans for Research and Pro-Vice-Chancellors. In Year 2 the first Celebrating Engaged Research showcase was delivered which raised the profile of the diversity of the engaged research happening across the university. This was repeated in Year 3. PE featured on the Bath Course (compulsory course for academic staff on probation) and induction programmes for postgraduate researchers. Case studies of 10 engaged researchers were created in Years 2 and 3. Public engagement conversations are short meetings for members of the PE Network to discuss pressing issues in PE practice. Departments featured their PE work in a programme of visits the Vice-Chancellor made to all departments. PE features on internal news items. | Continue to work with Marketing and Communications to keep the profile of PE high internally and, where appropriate, externally. | We would not change the work significantly. |
| Develop best practice which recognises the two-way nature of public engagement with research (work packages 3 and 4) | Provision of opportunities/platforms for researchers to engage with the public | A seed funding scheme was set up in Year 2 and will be repeated annually. The criteria of the scheme were used to maximise the likelihood of best practice being achieved. Opportunities to get involved include Images of Research, Pint of Science and Bath Inspires (a sandpit-style workshop to co-create platforms for public engagement between | Continue to offer Seed Funds to advance best practice, create learning opportunities and provide Bath-specific content for communications and resources. Opportunities to get involved will continue but are likely to be reduced in number. | We would not change the work significantly. |

		researchers and community groups).		
Contribution to a wider network supportive of public engagement with research including the NCCPE, other recipient HEIs and the wider HE community (work package 1)	Offering advice to other HEIs; contributing to consultations; speaking at events; creating resources to share learning with others. Attending all Catalyst meetings, contributing to collective outputs (e.g. Change Agent role description), EDGE redevelopment. Advised the British Ecological Society (and Royal Society of Chemistry) on embedding PER. Offered one-to-one advice to several universities. Initiated a GW4 PE Group.	The PEU has led on several Catalyst sessions at national and international conferences. The Unit has supported at least four universities, two learned societies and one charity by offering advice on PE and culture change to support PE. Training has been delivered in conjunction with the NCCPE.	Dr Helen Featherstone is to be a tutor on the newly launched Public Engagement Academy developed by the NCCPE. We are working with our GW4 partners to develop a regional commitment to PE. We are working with the Catalyst Seed Fund applicants.	We would not change the work significantly.
Project Management				
	Evaluation of quality and impact of activities and policies to inform practice and planning	Ongoing process of reflective practice which involved reviewing activities and adjusting processes before next iteration (e.g. seed funds, awards, training). Celebrating Engaged Research Showcase annual event was developed in response to baseline evaluation to raise the profile of PE and to share PE practice. An online, central resource for PE information was requested and has since been implemented. An external evaluator was used to develop baseline, mid-term and end of project data.	Continue to be reflective and evidence-based. Suggested objectives were submitted with the business case - mechanisms will be put in place to ensure evidence is available to measure progress.	We would not change the work significantly.
	Develop strategic relationships and collaborations with external stakeholders such as community partners.	Organisations such as Fringe Arts Bath and Bath Royal Literary and Scientific Institution have been invaluable in providing collaborations and opportunities for researchers to get involved. We continue to build links with other organisations to increase the offer to the academic community.	The PE Unit will continue to develop and sustain these relationships, in particular as opportunities to put training in practice and for other collaborations.	Work more closely with the external evaluator, perhaps having them in a slightly different role as mentor or critical friend. Their role as evaluator meant that access to data was generalised due to confidentiality and this was not always helpful.
	Intelligence gathering about public perceptions and into areas of need / opportunity to inform planning	All seed funds have an element of evaluation and intelligence gathering which is used to inform future practice of the PEU and to offer information to researchers.	Continue to use seed funds to listen to public needs. The university will be celebrating its 50th anniversary in 2016 and this will be a significant opportunity to undertake a listening exercise to understand community needs.	We would not change the work significantly.

EDGE Tool assessment

We would comfortably place ourselves at the embedding end of the spectrum within the EDGE tool for all categories except for the 'Public'. We had no public focus as part of this project: it was about internal culture change and not about proactively supporting publics to access our institution. Public engagement with research is now included within the strategic mission, has clear leadership within the Pro-Vice-Chancellor Research role and is regularly a feature of internal communications; the Public Engagement Unit will be supported by the University until at least July 2018, which will maintain all the networks and systems of support that have been established; a range of professional development and learning opportunities are available; formal and informal reward and recognition processes have been put in place; and opportunities are available for all staff and students to be involved in engagement should they so wish.

EDGE Tool	Focus	Prior to Engaged360	After 3 years of Engaged360
Purpose	Mission	Developing	Embedding
	Leadership	Developing	Embedding
	Communication	Embryonic	Embedding
Process	Support	Embryonic	Embedding
	Learning	Developing	Embedding
	Recognition	Embryonic	Embedding
People	Staff	Developing	Embedding
	Students	Developing	Embedding
	Public	N/A	N/A

Stories of Change

Our stories of change give us an opportunity to consider the three years of the Catalyst project from different perspectives associated with the project. To do this, we have representations from the Public Engagement Unit and the PI of the project, a member of our professional services on the research support side, a researcher who was involved in the project after volunteering to become one of our advocates for public engagement with industry and from one of our external partners, the Bath Royal Literary and Scientific Institution.

Story of Change: the Public Engagement Unit

During the Catalyst project, the Public Engagement Unit was at the centre of facilitating culture change towards a more inclusive approach to engaged research. Our journey was one of perpetual 'try, reflect, adapt and try again'. As we worked with our academic community and other professional services teams, we adapted and evolved our approach and the activities that we were

using to engender a change in culture.

We realised early on in the project that our academic research community would need a mixture of implicit and explicit permission and ownership for public engagement with research, in order for culture change to emerge. The simple fact that the University had established a Public Engagement

Unit was sending out a clear message that this agenda mattered to the institution. Continuing to raise the profile of public engagement with research in multiple ways was going to be crucial to allow the research community to feel that this was their agenda too; to be performed and resolved in a way that worked for them and their research; and to be grown in the institution's culture from the bottom-up as well as from the top-down. This supported our complexity theory model of change.

We explicitly talked about and raised the profile of public engagement with research by using strong, overt messaging and clearly signposted activity. This included launching a public engagement network and PE Conversations; developing the Vice-Chancellor's Awards for Public Engagement with Research; providing seed funding for pilot projects and sandpit opportunities to co-develop projects with local community groups; running annual showcases to celebrate engaged research at Bath; delivering workshops and training opportunities to postgraduate researchers and academic staff; and taking on and transforming the annual Images of Research competition.

We also worked to implicitly encourage engaged research by getting engaged research into the everyday ether, increasing the visibility and frequency of messaging from multiple sources. We regularly use internal communication channels, including the internal homepage, our own web pages, our own and other people's newsletters and posters on campus. We have incorporated public engagement with research and impact into key HR documents for academic staff; we have brought public engagement with research into agendas for other people's meetings; and we have demonstrated working in an engaged fashion by modelling this behaviour in our own work, using a facilitated approach, being collaborative and inclusive, reflective and evaluative, and having a 'can do, can help' attitude.

We had originally intended that there would be faculty level and institutional strategies for public engagement with research by the end of the project. Once we were in post and understood the institution and our research community better, it was obvious that this was not going to be the best approach if we wanted positive results. Rather than taking actions that were going to lead to public engagement with research being viewed as an additional burden on top of research and teaching, we needed to embed public engagement as part of the process and behaviour of undertaking research. Separate strategies being pushed for by a Public Engagement Unit would not allow this to happen in Bath. Far better to have public engagement intertwined with the University Research Strategy and have individuals, departments and faculties decide for themselves how they wanted to respond and work to this agenda. We had to allow the culture to grow; we had to nurture the culture to change; a headstrong approach would not be accepted in Bath. It might take more time and be more difficult to measure our direct impact as a Unit, but being interwoven and allowing our research community to own the agenda from the outset, shaping what public engagement with research would look like in Bath, would mean longer lasting results for Bath.

We have been able to see changes in the understanding of public engagement with research within Bath as we have worked on this project. As understanding increases of the differences between outreach, knowledge exchange, impact and public engagement with research, we have seen this reflected in the types of discussions we have, the types of activity people want to discuss with us and the types of help requested. These conversations are more strategically significant for the researchers, more subtle in their understandings of public engagement and more nuanced about

purposes of public engagement. The shift is not even across the institution, nor is it universal. We still find ourselves having "entry level" conversations about public engagement alongside these more sophisticated interactions. These progressions are difficult to document, but it is one of those distinct changes that we feel on a daily basis.

Ultimately, the three years have been about change, change and more change: for us, for our work, for individuals, groups and departments that we work with and influence. It is a constant series of interactions, reflections, adaptations and interactions – to change a culture is a mantra of 'try, reflect, adapt and try again'.

Story of Change: PI Reflections – Professor Jane Millar

Engaged360@Bath has indeed been, as intended, a catalyst for change at the University of Bath, and has brought about change that could not have happened without the resources of the project. We started this work with a solid and long-standing commitment to public engagement, but mainly through the activities and willingness of a relatively small group of colleagues. The Engaged360@Bath project gave us the opportunity to do more, to embed more deeply across the university, to reward and make visible, to develop skills and expertise, to be more reflective about evaluating what we do, and – perhaps most importantly – to articulate the meaning and purpose of public engagement with research in the University of Bath.

7. Professor Jane Millar

As Pro-Vice-Chancellor Research, I am particularly interested in public engagement as a way to enhance research. We are committed to making our research knowledge and experience available for good of society, and communicating our research is obviously important to that. But public engagement is much more than communication and it is important at all stages of the research process. Engaging with people is part of generating new research ideas and questions. This can take a range of forms, on a spectrum from consultation to co-production.

Engagement can also contribute to research design and methodology. And if you want research to make a difference – to have a wider impact beyond academia – engagement throughout the process is essential. Hence our Engaged360 title.

As Principal Investigator for the project, I particularly welcomed the external opportunities to meet other Pro-Vice-Chancellors to discuss culture change and issues of reward and recognition. I also found the events and conference organised by the National Coordinating Centre for Public Engagement to be interesting and excellent for networking. I enjoyed, and learnt a lot from, working

with our small, but very experienced and knowledgeable, professional public engagement team. Academic colleagues and postgraduate students across the University have been involved in lots of different ways, and it has been good to be able to recognise that with small grants, awards and events.

The challenges included enabling a wider group of colleagues to dedicate time and resources to public engagement and enhancing the quality and effectiveness of the work. The REF impact agenda was an asset in raising the profile of public engagement activities, but sometimes a source of confusion as to aims and purpose.

We will be continuing to seek exciting and innovative ways to develop further, keeping our eye on our main purpose – excellent research, which is enhanced by being engaged and outward looking.

Story of Change: Public Engagement with Impact - Katy McKen, Head of Research Information and Intelligence

Within my role in the Research and Innovation Services (RIS), I have interacted with the Public Engagement Unit throughout the three years of the Catalyst project, with a particular emphasis on the impact agenda.

One specific avenue of work was supporting staff who were writing REF Impact case studies, helping them to effectively evaluate and evidence change through research engagement activities. This was, and still is, an evolving process. Thinking about how to capture and evidence engagement activity around research had not been there prior to the REF build-up, so I was working to help our researchers think this through. So we were working with staff to gather evidence of the change that had happened retrospectively, trying to unpick past engagements and their resultant impacts. Staff in RIS worked with the Public Engagement Unit to effectively support the research community and help them to find evidence of the changes that occurred as a result of the activity. Supporting the reflection process on what would and would not have happened ('the so what?') was crucial. Public

8. Katy McKen

Engagement Unit expertise was used to help unpick the issues and directly support the academic community.

Culture change can be seen and is ongoing with researchers undertaking engagement activity now. Research staff are considering how to evaluate, are aware that they need to think about this and are proactively coming to RIS and the Public Engagement Unit for help. In researcher induction sessions, we are now seeing the other academic colleagues advising of the need to consider engagement in an evaluative way, such as knowing who has come to a workshop, why, and what resulted. It's not just professional services staff saying these things anymore! In the REF panel reports, the public engagement case studies were well received and Bath's did well, which gives the external validation that this is a positive aspect of research (it was also mentioned specifically in the published chemistry and physics panel reports).

Public engagement was one of the five streams of specific activity relating to the university's thinking and development about impact, within the Impact sub-group of the University Research Committee. Part of this Impact sub-group was devising ways to capture impact data in PURE and how to work with the academic community to do this. The Public Engagement Unit played a valued role in this and are still doing so.

Culture change is still happening. Looking forward, the Public Engagement Unit will have a key role in underpinning and supporting REF2020 case studies and support for evaluation and the collection of evidence. It is valuable to have that support from this Unit. The culture change is supported and influenced by a few activities tackling the issues from different angles, specifically the REF, the Impact Acceleration Account, the PURE system and the Public Engagement Unit. The synergy between them has been strong. With any one of these aspects of work missing, the culture change around impact would not have been what it is. It is all about getting the message out. The high profile nature of the Public Engagement Unit, its Vice Chancellor's awards and the involvement of senior management helps with all of this. Involvement of the Public Engagement Unit also gives the clear message that impact and engagement are bigger than REF – having messages coming from Marketing and Communications and the Vice Chancellor too moves it beyond being just REF related. We are still on a journey, especially helping academics how to evaluate, plan to evaluate and evidence their activity. Some are there and able to do this unsupported now, but this is by no means universal. Similar to impact, we need to continue to raise awareness of engagement so it's there in people's minds: even if it is not appropriate or relevant today, it will be some time tomorrow.

Story of Change: Advocacy and Industry - Dr Richard Fairchild, Senior Lecturer, School of Management

In August 2013, I responded to a call from the newly-established Public Engagement Unit for volunteers who were interested in becoming Public Engagement Advocates. I was delighted to become Public Engagement Advocate (PEA) for Industry. Over the previous years of my research career, I had built up an increasing research agenda with industry, particularly in the area of finance. Furthermore, prior to returning to academia, I had several years' practical experience working in finance and strategy functions in industry. I was keen to promote to my colleagues the joy, excitement and general positive effects that researching with industry has on one's research experience.

In the early days of the role, there was much discussion with colleagues at the Public Engagement Unit about what precisely "Public Engagement with Industry" meant. The other roles (Public Engagement with policy-makers, public engagement with schools) had quite a clear-cut agenda for engaging the public: in the case of my role, Public Engagement with Industry was more 'murky'. Was it enough to be engaging with industry practitioners and leaders? Were they the public that we were trying to engage? Did we then need to disseminate industry findings to the general public? But then, what about confidentiality issues, and the possible damage to trust between researcher and industry? These were vexing issues.

Over the past two years, the role has developed 'non-linearly' by a process of adaptation, trial-and-error: indeed, "try, reflect, adapt and try again." Early on, I publicised my PEA role to my colleagues

in the School of Management. I pointed them in the direction of the Public Engagement Unit website, and regularly advertised PE-opportunities and lunch-time discussions that appeared on the website.

The Public Engagement Unit's showcase event in November 2013 provided an opportunity for me to publicise the role of the Public Engagement Unit to my colleagues. Several of us displayed posters of our Public Engagement work at this event. Furthermore, in 2014, I ran a lunchtime discussion seminar on Public Engagement with Industry, attended by colleagues from across the University, some of whom were already engaging with Industry, while others were interested in learning about 'how to do it'. We talked about the benefits and costs of engaging with Industry. We discussed confidentiality issues, the differing pressures and timetables faced by academics and industry practitioners, the differing expectations of the parties involved, the skills involved for the academic in translating academic research into industry language, and the overall tensions for the academic in managing the relationship. I emphasised that, in my experience, it should be made clear from the beginning that the academic/practitioner research relationship should be one of open communication and two-way cooperation: this is genuinely a cooperative and collaborative relationship: it is NOT an exercise in consultancy! As a result of this lunchtime discussion, I wrote a piece for the Public Engagement Unit webpages on "My Experiences of Engaging with Industry."

9. NRG Engagement Event Poster

As part of my public engagement activities with Industry, in the last two years, I have been working with a colleague from the Psychology Department to act collaboratively with Finance Industry Practitioners in the complementary areas of behavioural economics (my main research and teaching area) and neuro-economics (my psychology colleague's expertise, and now my increasing fascination)! In 2014, we were awarded Public Engagement with Research Seed Funding in order to establish a new Research Group, the Neuro-Economics Research Group (NRG): this is a collaborative group of cross-disciplinary academics and industry practitioners. In October 2014, we had a well-attended launch event, from which a number of collaborative academic-industry projects have arisen. An interesting discovery from NRG is that industry practitioners are very keen to understand, and are very engaged and interested in, academic theories and models, beyond the practicalities of their everyday work. The projects are ongoing, and particularly interesting to us is the research that we are conducting with social entrepreneurs and social investors, where we are employing behavioural and neuro-economics in an attempt to understand these actors' motivations.

During my role as PEA for Industry, a key challenge that I have faced is to convince sceptical colleagues, who are focussed on Impact and REF scores. Many have seen PE as a time-consuming

non-productive distraction, with no REF benefits. I hope that through my activities, I have been able to convince them that Public Engagement with Industry is very rewarding in terms of research fun and excitement. Furthermore, it enhances ones' research, strengthens publication potential, and increases the possibilities of Impact! Indeed, this is the message that I put across to my academic colleagues when I gave them a presentation about my role as PEA at a recent Research AwayDay!

Story of Change: Bath Royal Literary and Scientific Institute

By Paul Thomas, BRLSI Youth Activities Programme Manager

Bath Royal Literary and Scientific Institution (BRLSI) STEM Initiative

STEM Trails workshop (from Bath Inspires workshop)

1. SUMMARY

BRLSI has always had close links with the University of Bath. Since 1992 a member of the university academic staff has had a place on the Board of Directors (Trustees) and staff and students have been members, attended talks and given talks. What is very different over the last eighteen months is a belief in and an increasingly active involvement of members of the university, undergraduate, postgraduate, postdoctoral and staff in the work of the BRLSI and its outreach programmes. Since the establishment of the University of Bath Public Engagement Department BRLSI has come to rely on the University as a key partner in its provision of STEM activities. The support the department provides is very effective. It varies from providing BRLSI with particular links to staff and departments for specific purposes, through to advice on the construction of funding bids, to encouraging members of the university to become involved with BRLSI programmes, to the operation of joint projects. The focus on active involvement in STEM research projects is the most impressive and useful support the Institution has received. Over the last 12 months it has been possible to create active, in depth and meaningful learning experiences through the exploration of problems in the context of challenging research activities.

2. EXISTING ACTIVITIES

The present BRLSI Youth Activities programmes began in September 2012. The premise of the Youth Activities Programmes is to bring (self-selected) school students from different schools together and provide them with challenging and fun 'hands on' learning opportunities which are not related to the existing school curriculum. We began by offering 'hands on' workshops concentrating on Science, Technology, Engineering and Maths in line with H.M. Government's initiative to encourage the involvement of all children and young people in STEM and through them, whole communities.

The BRLSI Programme sub Committee offered its support and Emeritus Professor of Physics at the University of Bath John Davies gave his advice.

During the academic year 2012 - 2013 through informal links with staff in the Physics department and The Bath Taps into Science initiative we were able to work with undergraduates and postgraduates. Dr Alex Narduzzo helped enormously and we were able to obtain a small grant from the Institute of Physics to acquire materials and equipment. Alex also helped us personally by making and assembling equipment and by encouraging students to get involved in devising activities. As a result of this we were able to run to run workshops both at BRLSI and also in local libraries, (Bath, Frome, Wells, Shepton Mallet, Radstock, Midsomer Norton, Saltford, and Keynsham) the Roman Baths, Marksbury and Paulton Primary Schools, Paulton Girl Guides.

Alex continued with his support and we offered more outreach workshops in libraries, schools and the Roman Baths, Bath Taps into Science and 'mysciencefair' at the Wiltshire Music Centre. In addition 3 students devised and led 3 three hour workshops at BRLSI supported by a dozen or so volunteers at each of the workshops.

Volunteers try hard not to tell the children anything but ask open ended questions and encourage observation and discovery. In this way, with guidance, children find out and uncover explanations themselves. Participants are also supported as they reflect on their own learning and achievements and are provided with a 'Research Portfolio' (a loose leaf file) in which to store records of their research and learning. The aim is that through participation in the BRLSI STEM programmes children retain interest and concentration and gain confidence in their own ability.

It is a two way process volunteers also learn. The core skills are about effective communication of science, sensitivity to the process of individual learning, the ability to reflect on participants learning and also their own. In the case of volunteers without a STEM background they also learn, side by side with the children, about the scientific content of the STEM activities. Incidentally additional skills are acquired through active participation which include social, personal and those of the 'expert'.

Many of the STEM workshops use selected activities from the library of over 350 'hands on STEM experiments' which have been developed for this purpose. Each activity has to fulfil the criteria of being challenging or demanding beyond the average and to provide opportunities for the participant to learn how to deal positively with and learn from uncertainty, difficulty, 'failure' and 'success'. All the activities involve collaborative, active learning, problem solving and use the analytic, creative thinking and planning skills that the 'expert' uses. Most activities involve a 'product' of which participants can feel proud and include suggestions which aim to encourage participants to extend their thinking and learning and explore additional possibilities. The development of these activities has been supported by students from the University of Bath who have checked and used the activities and devised some of them.

A standard pattern for workshops has evolved. Children are usually in teams of 4 with a team leader. It is very important that children are encouraged to work together and to share their discoveries, knowledge and skills. Activity leaders (i.e. subject specialists) support the team leaders to enable each child to attain their highest level of understanding. Children move from activity to activity (usually five) with their team leader making notes; they return to their team table to assimilate the

information and to prepare for an end of workshop 3-minute team presentation which is aimed at explaining what they have learned and what they enjoyed.

The workshops proved successful with children over 8 and with student volunteers over 17 including postgraduates, BRLSI members and also STEM Ambassadors. The workshop format was not so well suited for children under 8 nor for children over 12. However BRLSI wished to retain the interest of children over 12 who had attended the children's 'hands on' workshops so an alternative had to be found.

3. DEVELOPING OUR PRACTICE

In the 2013 – 2014 academic year BRLSI developed formal links with Helen Featherstone and Ed Stevens of the Public Engagement Department. This was of great benefit to BRLSI. It enabled The Institution to make contact with various departments and individuals. The significant growth in interest in public engagement and the fact that members of the university became increasingly aware of not just of the importance of developing links but also the fun to be had by being involved, created a ground swell of support for BRLSI programmes amongst members of the University. This gave BRLSI the confidence to continue to develop its programmes.

Dr Sarah Bailey of the Pharmacy and Pharmacology Department (using funds provided by the Public Engagement Department) worked closely with BRLSI to provide and deliver an art exhibition (in conjunction with a local artist and the Jeyns Gallery at the BRLSI) and a 'Brainwave' 'hands on' workshop led and staffed by Sarah, 4 PhD students and 4 undergraduates.

More recently the BRLSI Young Science Researchers Programme exemplifies the way in which the University of Bath/BRLSI partnership is developing activities in innovative and significant ways, both in terms of education, research and community involvement. Towards the end of summer term 2014 two stalwart 'graduate' members of BRLSI Children's Workshops, approached me separately, suggesting that BRLSI should devise a specific programme for young people aged 13 plus. However, BRLSI does not have STEM labs, hardly any equipment and a very small budget. It occurred to me one equivalent of 'hands on' science could be a research project.

I was invited to a seminar [Bath Inspires] by the Public Engagement Department of the University of Bath. One of the exercises was to put in a bid for a project. I met Dr Paul Shepherd (from the Architecture and Civil Engineering Department) in one of the groups. We agreed to put in a bid idea to involve PhD students from Paul's department. The doctoral and postdoctoral students would act as mentors and share their research. This would thus not only provide teenagers with an insight into research skills but also provide PhD students with an opportunity to improve their supervisory/mentoring skills and to reflect on their own learning. As all the students would be undertaking research into the built environment it was suggested that in addition to a straight forward written report and oral presentation of the programme, an end product might be a Geology Trail around the centre of Bath making use of the varying building materials used in some of Bath's notable buildings.

Paul Shepherd worked all this this up into a formal bid and the University accepted it and so the project was born. Paul S recruited the PhD students and agreed to lead the project from the point of view of the University. I contacted 13+ 'graduates' from the BRLSI STEM Workshops and several

indicated an interest and they recruited some friends. Paul T recruited BRLSI member Marie Huxtable to lead the project on behalf of the Institution.

The first session took place in November 2014. The participants have given very positive responses to the regular evaluations. The teenagers came from a range of local schools Ralph Allen, Royal High, Hayesfield, Mark College, Kingswood and two were home educated. It has been particularly pleasing that the PhD students have enjoyed the project and found it very useful.

In March 6 young researchers also designed and staffed a stall at Bath Taps into Science in Victoria Park along with 3 PhD students and Paul Shepherd and Marie Huxtable and Paul Thomas from BRLSI. This was a really useful experience. As the Young Researchers and their mentors were able explain, demonstrate to visitors Helen Featherstone and Ed Stevens from the Public Engagement Department. The Young Researchers were also to use the event to contact members of the public to capture more information for their projects, using two sets of questionnaires. They were also available at the stall to engage with members of the public to discuss the programme and to encourage other teenagers to consider joining the programme in 2015 – 2016. This was a truly confidence boosting exercise and helped the teenagers both to practise and successfully demonstrate their presentation.

All the participants are now engaged in writing up both their research and experiences for a paper which is hoped will be published in the Autumn. It will be launched at an event to be held in the University on Saturday October 17th. When the Young Researchers will present their impressions and also introduce the new programme to potential new Young Researchers who will begin the programme in November.

4. NEXT STEPS

The academic year 2014 -2015 saw an increase in the 'hands on' workshops at BRLSI for children from 8 to 12. With an even greater involvement of students, undergraduate, postgraduate and postdoctoral. The 6th form Chemistry lectures were repeated for over 100 students. Sarah Bailey was able to repeat the 'Brainwave Workshop' with students from Pharmacy and Pharmacology, while The Physics Department and The Chemistry Department organised and led workshops in their field of expertise. The Engineering Department gave its support to the BRLSI initiative of arranging the Bath Young Inventor of the Year Award. This will be judged in July.

In addition the increasing support of the University has led to a programme of monthly after school outreach workshops in disadvantaged areas of Bath (Snowhill, Twerton and Foxhill) specially designed for hard to reach children. University of Bath students have been involved in these. The workshops have been very well received. After the latest workshop in Snowhill BRLSI received a comment from the community worker:

> *"Parents were again today talking at toddlers about how much their children love and they appreciate the science workshops :)"*

Links have been made with Curo the Social Housing Landlord and their major hew housing project in Foxhill. It is hoped that next year it will be possible to recruit some teenagers from Foxhill and also members of that Community so that a research project can be undertaken looking at aspects of the built environment in the context of the community needs and the social housing stock in that part

of Bath. This is to support our wider agenda on reaching communities who would not/could not self-select to attend BRLSI. Pilot initiatives have been very well received.

Informally the Public Engagement Department has advised and continues to offer support and advice to BRLSI in the area of funding raising by criticising the bids the Institution is preparing. Such funds are needed for the developments in the STEM initiative because BRLSI is a registered charity had has no regular external funding.

5. CONCLUSION

The progress of the BRLSI Youth Activities Programme in general would not have been so rapid, nor so successful without the enthusiasm, professionalism and support that it has received from the Public Engagement Department.

It is planned to continue with all the Youth Activities Programmes and in particular to extend the links with research scientists at the university and the BRLSI outreach programme. (Already PhD Students from The Chemistry, Physics, Education and Architecture and Civil Engineering Departments have been recruited.) The outreach programme will also extend to include two additional sites one in the Abbey Ward in central Bath and The Julian Road Area from November.

So BRLSI hopes that its strong links with the Public Engagement Department will continue to develop.

Lessons Learned

This project has been awash with learning within the Public Engagement Unit, from the everyday operational ways of working to moments of true clarity that caused us to change our approach or realise how we would be most effective. Here are some of those learnings that really helped to shape our project and drive culture change forward. Others are included in the impact framework within the Impact section of the report.

Revelling in other people's glory – the Public Engagement Unit is the change agency, so public engagement is not what we do, but what we facilitate others to do well. Our success is reflected in the successes of those we have worked with and influenced directly and indirectly, but this can be complex to measure and evidence and reduces the visibility of the work of the Public Engagement Unit.

Evolving a shared understanding – a shared understanding of public engagement with research is important, but you have to allow time for this to happen at individual, departmental and institutional levels and within the academic and professional services communities. This shared understanding has developed from multiple starting points which include: media, communication, outreach, and knowledge exchange. Rather than rejecting any approaches that fall into these categories, we have engaged with these conversations to allow us to develop the clear and shared understanding of public engagement.

Resilience is key – as catalysts of culture change we have had to be resilient and maintain a strong belief in what we are doing and why. In the earlier stages of change, the dominance of outreach as opposed to engagement and of people expecting to see high profile public engagement activities can be down-hearting, but staying strong and understanding that change takes time is important.

Defining in the doing – get excited and do stuff! It can be easy to get bogged down into planning and intelligence gathering early on in a project like this, but you have to be brave and try things out to find out what works, to encourage people to get involved and to demonstrate what public engagement with research can look like for your institution. Those institutional examples can be more powerful internally than more unknown external examples and help to create your shared understanding of engaged research. It also demonstrates that the agenda is not fixed and there is scope to influence the direction of public engagement within the university, thereby increasing ownership and buy-in.

Indirect Influence – Many academic researchers can be difficult to reach and influence directly. We have prescribed multiple purposes to some of our activities, using some to indirectly influence and further reinforce our messages with academic researchers who we may not have been able to reach otherwise. For example, we have invited people we wish to influence to support our work by getting involved with more conventional academic duties such as reviewing grant proposals or nominations for awards, so that they see our criteria through another route, other than PE practice.

Embedding across the institution – we have intertwined our messages with current and new activities being managed by others within the institution. This leads to a greater sphere of influence and more visibility than we could manage alone, plus the messages come from many touch points with higher frequency than we could achieve. We had to give ourselves permission *not* to respond to

all agendas relating to public engagement ourselves, but to work in partnership across the institution with our Widening Participation Office (for schools-related activity), the Marketing and Communications teams (media and research marketing activity), our Institute for Policy Research (policy activity), Research and Innovation Services (grant-related and impact activities) and the Researcher Development Unit (training and development). Ultimately, we are looking to catalyse change across the entire organisation: even if the main manifestation required is within the actions of the academic community, we still need to influence the rest of the institution to understand the culture change and work with them in partnership to achieve it.

Evolving your approach – it has been important to evolve our approach in response to developments in other sections of the institution. As those we work with evolve in their own approach, we can evolve our approach to accommodate for these changes. For example, changes to press and media support meant that we could ease off the drive for media and social media communications and training which had been part of the original proposal. This became more about us influencing rather than delivering on activity that is ultimately more about communication and profile raising, but is often a first port of call for researchers on the engagement path.

Creating a ground-swell of activity – we realised early on that a complexity theory approach was the natural way to work toward culture change in Bath. Therefore, a ground-swell of activity and interest was paramount in order to cultivate change. This meant that we needed to build towards greater institutional capacity for public engagement with research via research grants, pilot projects and opportunities to practice; higher internal visibility of engaged research; and the reward and recognition of high quality engaged research. We had to be patient (and encourage our senior colleagues to trust us and be patient too) and allow this to build and accelerate over the three years. We are now in a position where there is enough individual influence (bottom-up) in some areas to build into collective influence in academic groups and departments enabling discussion of public engagement strategy at departmental levels.

Advocates and Advocacy – informal and formal advocacy are important aspects of culture change if you want to change culture from the bottom-up. You can have only minor control over any informal advocacy – this is more serendipitous as a result of enthusiasm, interactions and support provided. Therefore, the shared understanding of public engagement with research becomes crucial. Formal advocacy can be important as it gives people a title and, therefore, express permission to push the agenda forward beyond the boundaries of their own activity and interest. With our formal advocates, it became very clear to us that we should have dedicated more time and effort towards helping with advocacy skills: we should have pushed harder on our strategic approach targeting those with high profiles and spheres of influence where we needed it, as well as allowing people we did not know to surface.

Quantity versus quality – at the start of this process we needed any public engagement that was already happening to surface and we needed to enable people to try things out and practice, so were not too prescriptive about the quality of engagement. Quality was always important, but the quantity of engagement being seen to be undertaken needed to increase to help create the ground-swell. As the culture alters, the quality aspect becomes increasingly important in relation to the quantity of engagement. Our efforts have been, and still are, shifting towards supporting the quality of public engagement with research rather than creating more engagement: now people are more

ready to talk about their own engagement and to consider it for themselves, we are talking more strongly about quality. Those people we have worked with closely, including our prize winners, seed fund holders and engaged researcher case studies have embraced quality criteria and are passionate advocates of some of the more subtle key criteria for public engagement with research (for example, questioning the lack of evaluation in seed fund proposals when we have invited these people to get involved through reviewing proposals).

Confronting convention –at times, it has required balance to fit into the style and form of the institution: our approach can be counter to normal modes of working. We modelled the style of behaviours that we were asking people to consider, but at the same time, being sensitive to the people we were working with. We have maintained a facilitated, practical and collaborative partnership approach to our work in Bath, aiming to lead by example. Interestingly, this approach has been more 'normal' to students from within Centres for Doctoral Training (who are used to cohort working and interactive models of learning) than some other postgraduates (who are more isolated). Our physics undergraduates have struggled with this approach, taking longer to get used to high levels of interactivity rather than a conventional model of lectures and practicals. There are also distinct differences between faculties and their approaches to engagement, and how they like to interact, and it can be difficult to break through these conventions, internally and externally.

Public Engagement with Research versus Culture Change - the remit of the Public Engagement Unit was, and continues to be, to embed public engagement with research and realise a shift in culture within the institution. However, the subtleties of this can be easily misunderstood and evidencing the progress towards culture change is much harder than evidencing the effectiveness of a particular public engagement intervention. Managing expectations here has been crucial, but the business case for continuation of the Unit was still challenging to make as a culture change agency and facilitative Unit.

Being seen as the public face and entry point to the university – our remit was very much focussed on the internal culture, but obviously required partnership working with some external parties in order to enable us to facilitate and provide opportunities for engagement. Those we have initiated have been the most successful so far. We have also been used as a contact point for some people trying to find a way into the University, particularly from festivals wanting researchers to present in a voluntary capacity at their events. We have needed to carefully manage expectations in these circumstances. Trying to be helpful and work collaboratively has backfired on at least one occasion when the festival actually wanted sponsorship from us rather than collaboration. We are now trying to work with this organisation again, being explicit at the start about what we can offer 'in kind' rather than as hard cash. We are often seen to be a wealthy organisation in the local community, so people can be very surprised when we cannot provide thousands of pounds for partnership projects.

Unintended Benefits of Creating Case Studies – it was important for us to have examples of Bath's public engagement with research for Bath researchers to consider and learn from; to recognise the work of those being featured in the case studies; and to create a visible portfolio of engaged research. However, we had not anticipated how important the process of collecting the case study material would be for the researchers themselves. For many of those we worked with, this was the first time they had thought reflectively about their public engagement with research skills and practice as a conscious process, leading to significant realisations for the individuals, including how

they could be more strategic, widen their reach to other audiences or other people they could work with within the institution.

Framing training – is it training? Is it a masterclass? Is it advanced training? Is it professional development? The subliminal impacts of a name cannot be underestimated. They play a crucial part in whether people even read the course synopsis! Once framed correctly for the right audience, we found that cohort-based, practical workshops were the best received of our courses, and where there were obvious routes to follow-up and put ideas into practice beyond the course.

Partnerships

The Public Engagement Unit has worked in several partnerships:

The Catalyst Network (including RCUK, HEFCE and NCCPE)

This has been a critical relationship. The Catalyst institutions have been candid, thoughtful and willing to share experiences, both positive and negative.

The involvement of the NCCPE has been crucial to sharing learning from the Beacons as well as other institutions who are engaging with this agenda. The NCCPE facilitated the between-Catalyst learning through the quarterly meetings and the mailing list. Conversations between Catalysts continues independently between meetings.

RCUK and HEFCEs presence at the Catalyst team meetings has been useful as they have been party to the experiences of the Catalyst teams, project issues and the development mechanisms for overcoming challenges. This enabled RCUK and HEFCE to develop their own thinking about how to further support public engagement as well as to inform us in real-time about issues under discussion.

External Partnerships

The Public Engagement Unit has developed a number of relationships with external organisations, with several are emerging now. These partnerships have come about through direct contact with the Public Engagement Unit and through collaborations with researchers. Key organisations involve: Bath Royal Literary and Scientific Institution, Fringe Arts Bath, At-Bristol, University of the Third Age, Bath Bridge, Bath Festivals, and Rising Ape Collective. These organisations bring benefits to public engagement practice through a number of routes: platforms for engagement, existing infrastructure e.g. marketing, advanced/innovative practice and routes for sharing this practice, and raising the visibility of the university's willingness to engage within the local community.

Academic Partnerships

In 2013, the research intensive universities in the region formed the GW4 Alliance to "enable the universities of Bath, Bristol, Cardiff and Exeter to work together to translate research into real-world applications and to stimulate growth.[5]"

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[5] http://gw4.ac.uk/about-gw4/

All four members have significant commitments to public engagement with research: Exeter and Bath are both Catalysts, Cardiff was a Beacon, while Bristol has a long-standing Centre for Public Engagement and co-hosts the NCCPE with UWE, Bristol. This shared commitment to public engagement suggested it was worth developing a strategic partnership around public engagement. This has not been fully developed at the time of writing, but is likely to focus on shared support for professional development of researchers (for example through Centres for Doctoral Training) and the impact agenda.

Internal Partnerships

The Public Engagement Unit has developed partnerships with several professional service departments within the University of Bath. These departments include:

- **Research and Innovation Services**: supporting grant applications (e.g. through advising on pathways to impact), contributing to cohort training sessions for early career researchers, and developing public engagement specific grants (e.g. Festival of Social Science).

- **Researcher Development Unit**: contributing to the academic skills programme and the compulsory Bath Course for staff on probation.

- **Research Marketing**: sharing insight about academic contacts and research activity, and providing bespoke training for academics who are undertaking public engagement and research marketing activities.

- **Widening Participation**: the Widening Participation Unit now runs the annual *Bath Taps into Science* festival for schools (on campus, day 1) and families (off campus, day 2). In 2015 they made a step-change in the festival in terms of organisation and a commitment to featuring research (rather than science in general). The Public Engagement Unit contributed to the organising committee and supported academics to feature their research within the festival.

- **Impact Sub-Group of the University Research Committee**: the Pro Vice-Chancellor Research (who is the PI on Engaged360@Bath) chairs the University Research Committee and its Impact Sub-Group, established in 2012 to support an institutional commitment to impact from research. Involvement with this committee ensures public engagement is seen as a route to impact and allows the Public Engagement Unit to influence institutional decision-making about research impact.

- **Internal Communications Team**: increasing the visibility of public engagement was a core piece of work for Engaged360@Bath. Most of the activities developed by the Public Engagement Unit create opportunities for internal communications meaning the work of the Unit and the researchers involved feature on the internal news pages on a weekly basis. This near-continuous presence of public engagement has resulted in departments feeling empowered to feature public engagement within their own communications (e.g. at conferences, in newsletters and for departmental visits from the Vice-Chancellor).

- **Graduate Schools**: the Graduate Schools support those undertaking postgraduate research and taught courses. The Public Engagement Unit contributes here, for example, by speaking at induction events or being involved with competitions and research showcases.

Sustainability Plans

The university has agreed to support the Public Engagement Unit initially for a further three years, until July 2018. This is based on the success of delivering against the RCUK project objectives; emerging evidence that public engagement benefits research quality, research impact and research visibility; and an understanding that culture change takes longer than three years.

The structure of the Public Engagement Unit will remain the same (2 FTE) but with the possibility of expansion through including support for public engagement in large research grants and new university institutes. There are a small number of these in discussion at the time of writing this report.

The work of the Public Engagement Unit will retain a focus on continuing to embed the culture of public engagement with research, enabling the emergence of change. As calls on the Public Engagement Unit increase, this aspect of the work of the team will become more and more important. We will encourage and facilitate departmental autonomy, leaving the Public Engagement Unit to focus on strategically important support for public engagement, rather than routine advice and information.

The Public Engagement Unit will continue to work to the following statements, which are adaptations of those included in the original proposal and based on our successful areas of work:

Our vision

The Public Engagement Unit facilitates highly visible public engagement, embedded across the whole research lifecycle that encompasses all University staff and students in building mutually beneficial links between our research and the public.

We believe that public engagement with research can improve:

- research quality
- research impact
- research visibility

The Public Engagement Unit builds and sustains institutional capacity for public engagement. We have three broad areas of work:

Public Engagement in Practice – opportunities to get involved with public engagement

Professional Development – advice and training to develop insight and skills for public engagement

Reward and Recognition – ensuring that public engagement is recognised in institutional policies and procedures

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In 2015-18, the Public Engagement Unit will work to build a robust evidence base for the value of public engagement with research. This will include measures such as increased grant income, higher

quality and more diverse research outputs, and clear research impacts. The specific elements of improving research that were cited by academics included:

- **Contribute / refine research questions** so that research outcomes are beneficial to those involved and those who can enact change beyond academia.
- **Improve retention of research participants** and enhance their experience**.**
- **Develop skills** for interacting with stakeholders outside of academia which is crucial for impact-generating relationships.
- **Develop skills** for interdisciplinary or international research projects.
- **Enriching teaching** through including external partners in teaching.
- **Contribute to the institutional reputation** of the university through increasing the visibility of research and increased perceptions of the university being a positive contributor to the city and region.

In order to achieve an improved evidence base, we will prioritise our time to work with research leaders, or future research leaders, and move away from investing significant proportions of time on postgraduate researchers. In response to a clear steer from the University, a second priority for the Public Engagement Unit will be to focus on increasing the quality, diversity and innovation of public engagement with research. This is in contrast to the period of Engaged360@Bath where there was an emphasis on raising the profile of public engagement through highlighting all practice within the university.

The Public Engagement Unit will continue to have dual reporting roles to the Pro-Vice-Chancellor Research and the Director of Marketing and Communications, reflecting the vision statements for the Unit in improving research quality, impact and visibility. In order to strengthen the relationship between public engagement, research quality and impact, the Public Engagement Unit have been working closely with a member of Research and Innovation Services. This trial will be extended to other members of Research and Innovation Services over the coming year.

The demand on the Public Engagement Unit is increasing and is expected to continue to increase. In order to meet these needs the Public Engagement Unit is working with researchers and Research and Innovation Services to build capacity within the Unit. One mechanism involves including financial support for people and consumables within larger grants and the development of new institutes and centres. We will continue to monitor grants that have included support from the Public Engagement Unit as evidence for institutional need to inform a case for keeping the Public Engagement Unit beyond 2018.

Conclusions and Recommendations

Conclusions

Culture change is possible, but it is difficult and takes time. In three years we have come far, but if all the support stopped now, it may not be too long before these gains would be lost. At Bath, we aim to build on the momentum achieved, so support for the Public Engagement Unit will be maintained for at least another three years. We want public engagement with research to be a truly embedded part of academic life: we have made much progress, but must keep striving to ensure that embedding happens. We are creating the necessary ground-swell of activity, and have much learning and practice to share across the institution with our research community (and externally). It is important that we see through the initiatives and changes put in place, so that they can have the intended longer term impact.

If we look at the EDGE tool, we are well within the 'embedding' phase. Moving forward we need to be consolidating our work and increasing the quality of engagement with high quality research, to see the real impact of embedding public engagement with research. The journey continues.

Recommendations for funders

There were few external influences on Engaged360@Bath that were unique to the project, however we were all affected by the REF submission and subsequent release of results. The REF process has been of benefit to the work of the Public Engagement Unit as the Impact Case Studies created opportunities to describe the benefits of public engagement. However, they have also surfaced a key issue of public engagement with research: rigorously demonstrating the impacts/benefits of engagement.

Impact, or creating routes for impact, is still not considered a core academic skill in some quarters. However, for those who are willing to undertake engagement for impact the evidence requirements of the REF raise a second issue of responsibility. Can researchers be expected to demonstrate and track impact from their activities, and, if not, then who should do this and from which budget? Is it the responsibility of the university, the sector, or the funder who is making the demands?

In combination with Research Council's Pathways to Impact sections in grant proposals, which necessitates clear understandings of public groups and their needs, these two agendas should complement each other to drive the engagement agenda forward but in practice this does not always happen. We hear from Research Councils that where researchers include public engagement in their Pathways to Impact, they rarely describe it adequately or budget appropriately for it. Yet, we also hear from researchers that reviewers do not take Pathways to Impact seriously or do not review those sections adequately. For public engagement to be taken seriously it has to be reviewed and critiqued in the same way as the rest of the research and we recommend that this is something RCUK consider further. Without this, there is a risk that (public) engagement will continue to be seen as an optional add on.

Recommendations for other HEIs

1. **Be strategic and build your evidence base:** find ways for Public Engagement to enhance and support the strategic aims of your institutions. Capture evidence of this through your period of change.

2. **Be small, but think big:** a small public engagement unit or centre is a clear indication they are not there to do public engagement for others. Structure your unit with several grades to cover the full range of activities you'll need to deliver effective change.

3. **Buddy up:** build a strong relationship with a respected, senior academic who will advocate for both public engagement and change. This need not be someone with high profile public engagement.

4. **Diversity is good:** build your unit and project team to cover the wide range of skills and experience needed to deliver effective culture change. You may not find all these from within a university / higher education environment.

5. **Do stuff:** have several initiatives and activities to create multiple entry points for researchers at different career stages and at different stages in their engagement journey.

6. **Keep control:** find ways to enable public engagement on your terms to raise quality, diversity and evidence. You are unlikely to change existing practice through persuasion alone.

7. **It's about public engagement; it's about culture change:** ensure all your activities serve both purposes and will also provide you with evidence for supporting your university's key strategic aims.

8. **Talk, talk, talk:** use your activities to raise the profile of public engagement and create institution-specific examples you can refer people to.

9. **You will not know culture change until it emerges:** using complexity theory helps with managing this but also results in a non-linear project structure which can be challenging to communicate and manage with conventional project governance.

10. **Change will affect you as much as you effect it:** build resilience into your team and project structure by being reflective and evidence-based.

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10. Pictorial Representation of our Open House Event, by Eleanor Beer