JISC

national co-ordinating centre for public engagement

Embedding Impact Analysis in Research

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Contents

How to use this document

This document tells the story of nine partnership projects, funded by the Jisc Business and Community Engagement (BCE) programme[1]. The initiative was designed and led by Jisc BCE, and facilitated by the National Coordinating Centre for Public Engagement (NCCPE), and the purpose was to enhance institutions' capability to embed impact analysis in research. This compendium focuses on the process that the projects followed and what they learned. It provides links to some of the frameworks, tools and resources that were developed by the projects.

It is broken down into the following sections:

- **Executive Summary**
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- **Project process:** A heuristic highlighting the process the projects followed
    - **Step 1 – Build a team:** Looks at the core competencies and skills required in an 'impact analysis' team
    - **Step 2 – Design a learning process:** Explores different ways of working together to develop a shared understanding of impact
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- **Challenges and outcomes:** Synthesises the outcomes from the projects, and looks at some of the challenges they encountered.
- **Acknowledgements**

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Box 2: An indication of the professionals involved and the range of experience they drew on

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[1] http://www.jisc.ac.uk/whatwedo/programmes/bce.aspx

Executive Summary

This report details the learning from nine tripartite partnership projects set up to develop capacity in universities to embed impact analysis in research using the expertise of Business and Community Engagement (BCE)[2] practitioners and information management specialists. The initiative was conceived and funded by the Jisc Business and Community Engagement programme, who partnered with the NCCPE in its management and delivery. The intended outcome of the investment[3] was an enhanced capability among UK higher education (HE) and further education (FE) research groups to identify, analyse and articulate the actual and potential impact of their research. It was recognised that this was crucial to enhancing UK institutions' research excellence and the potential for institutional knowledge to benefit the economy and society[4].

Many of the research teams involved had been working with non-academic partners and were committed to supporting 'real-world change' through their research, yet none had systematically investigated the impact of this work. Across the projects there were some striking similarities in the challenges they confronted and the solutions they developed. The projects reported significant gains in their joint capability to articulate what impact is, to develop more sophisticated approaches to analysing it and a deeper appreciation of the resource and training requirements needed to capture impact as a key part of research activity. The NCCPE and Jisc provided the projects with a Learning Framework and an Evaluation Framework, respectively, to help projects capture and embed lessons learnt and to target and identify the emerging impact of their projects.

In this report we have identified five stages that each of the projects followed and pulled out some of the key learning points and challenges they confronted at each stage.

1. Build a team
Identifying the skills and experience you need to embed impact analysis in research is crucial to success. This expertise will sit in various parts of the institution and across multiple disciplines. Project teams found that working together from the outset was crucial. Each team was required to consist of (i) researchers; (ii) practitioners with expertise in identifying external impact, designing appropriate engagement activities, and in evaluation; (iii) information management specialists. A selection of teams also drew on a wide range of external research partners.

2. Design a learning process
The projects adopted experiential and action learning approaches, engaging in a cycle of: testing – reflection – abstraction – development. This approach seemed the best 'fit' for the complex problems that they were trying to address and it enabled project teams to develop a shared understanding of each other's perspectives and needs in relation to impact.

[2] Find out more about Business and Community Engagement practitioners, who they are and what they do: https://www.netskills.ac.uk/bcecpd2/about

[3] The Jisc BCE investment for Embedding Research Impact Analysis totalled £233,200: 9 projects which ranged from £15,000 to £30,000 each plus the Facilitation and Synthesis project (approximately £42,000).

[4] For full details about the Jisc BCE funding Call and Terms of Reference see: http://www.jisc.ac.uk/fundingopportunities/funding_calls/2011/12/grantcall2011.aspx

3. Draw on existing knowledge and frameworks
The project teams brought to the table a wide range of resources and knowledge to help think through the different ways that research impact can be generated and evaluated. These ranged from stakeholder mapping tools, impact assessment frameworks, and theories of public space and social change.

4. Develop and test a model
Impact analysis requires a sophisticated grasp of complex processes. By building and testing models, teams were able to visualise how they were making sense of these processes and share ideas in a way that could be critiqued and built upon. Project teams aspired to create models that (i) were simple to understand and contained clear instructions on how they should be used; (ii) could inform specifications for technology developments supporting a shared understanding of terminology across disciplines and users; and (iii) could come with training sources that supported their implementation.

5. Design a system

As models were developed which captured the impact generation and evaluation process, projects began to develop the information systems that could support data capture, reporting, and sharing of good practice in relation to impact. Impact repositories were seen as a useful 'add on' to existing research management systems allowing researchers to input relevant impact data in addition to recording outputs. Some projects developed web-based platforms to share good practice in impact, recognising that in order for researchers to deliver impactful research it was crucial to share understanding of the processes that led to impact.

Having followed this process research groups reported significant gains, in particular:

- An enhanced capability to discuss impact, its relationship to research and the difference between related concepts e.g. outcomes, dissemination;
- A better understanding about how to develop indicators of impact for research;
- An ability to systematise information related to the impact of research activities;
- Realisation of resource requirements to continue impact analysis as a key part of research activity;
- Understanding of the level of training needed for academics to understand definitions of impact and metrics being used.

The projects demonstrated the value of bringing together researchers, knowledge exchange and information management specialists. Through bringing together this blend of expertise, researchers became more familiar with impact assessment and tested the limitations of specific approaches. Researchers developed more confidence in impact assessment and a clearer understanding of the role of their research in society and its relationship to other important stakeholders. They found that in doing so they were able to enhance research quality in addition to meeting reporting requirements.

It will take time for a deeper understanding of impact to be embedded in the sector, and projects such as this model how 'impact literacy' can begin to be built as teams explore and clarify their understandings and test out approaches. They also provide insight into the management challenges posed by the impact agenda – for instance ensuring that information systems, the requisite impact analysis expertise, staff support and training are aligned, and integrated into the day-to-day management of excellent research. Finally these projects benefited from coming together to share learning, and to develop opportunities to share their work with others. This created further opportunities to share knowledge and understandings, and build capability within the sector.

Background

In late 2011 Jisc launched a funding Call to develop capacity in universities to embed impact analysis in research using the expertise of Business and Community Engagement (BCE) practitioners and information management specialists. The premise behind this initiative was that the sector has the capacity and capability to work more effectively on impact, but the skills and experiences necessary to explore this agenda are often not 'joined up' between or even within institutions. The initiative aimed to enhance the capability of UK higher education and further education research groups to identify, analyse and articulate the actual and potential impact of their research and to encourage departments to embed impact analysis from the outset of their research, rather than retrospectively[5].

The Call came at a time of increasing pressure for Higher Education Institutions and Research Institutes to demonstrate their value to society, both in terms of accountability and also relevance. It was recognised by Jisc and those who submitted bids, that there was an urgent need to develop the capability to identify and articulate the impact and benefits of their research. The call encouraged bidders to explore how a more systematic approach to gathering and analysing impact could be developed, primarily to enhance research practice, with the added benefit of being better equipped to meet future funding requirements. Those interested in submitting a bid to Jisc were invited to sign-up to a social networking site[6] in order to find and match project partners and develop proposals. After an incubation period of three months a total of nine projects were successful in gaining funding with each project lasting just six months. The National Co-ordinating Centre for Public Engagement (NCCPE) led the facilitation and synthesis arm of the project. This involved establishing and managing the networking site, organising two workshops to share learning across the projects, managing an external advisory board, reviewing the final project reports and producing this compendium and a guide to impact analysis [http://www.publicengagement.ac.uk/about/impact-analysis].

There was a clear desire on behalf of all the submitted bids to learn more about the impact of their work. Many of the research teams had been working with non-academic partners and were committed to supporting 'real-world change' through their research but none had systematically investigated the impact of this work.

> "The research group had been working closely with non-academic research-users for almost 20 years, and were aware that there was some significant impacts from their work, but had not, prior to this project, investigated these…" **DIEGO**

While the projects represented a diversity of approaches, there were some striking similarities in the challenges they confronted and the solutions they developed. Though barely six months in duration, the projects reported significant gains in their joint capability to articulate what impact was, develop more sophisticated approaches to analysing it, and create a deeper appreciation of the resource and training requirements needed to capture impact as a key part of research activity. This document attempts to tell the story of the nine projects, to help others follow a similar process.

[5] For full details about the call see:
http://www.jisc.ac.uk/fundingopportunities/funding_calls/2011/12/grantcall2011.aspx

[6] See: http://nccpe1.ning.com

Box 1: Project Snap Shots

Each of the projects summarised their work and findings in a **Case Study**. These Case Studies, and Appendices where relevant, can be accessed via the links provided below each snapshot.

Accessing Participatory Research Impact and Legacy (APRIL)

Lead institution: Northumbria University
Partners: University of Sheffield, University of Cambridge, King's College, Catholic University of Applied Sciences

Focusing on Participatory Research (PR) in health this project developed a framework for classifying the impact and legacy of research which actively engages users in the research process. This framework was applied retrospectively to eleven studies in order create an interactive knowledgebase for researchers, both academic and community, to build knowledge about participatory research and its impact.

You can find out more here http://healthresearchimpact.wordpress.com
Case Study: http://repository.jisc.ac.uk/5116/

Disseminating Impact from Engagement with User Groups and Organisations (DIEGO)

Lead institution: De Montfort University
Partners: University of Edinburgh

The project applied a Research Contribution Framework[7] to assess the impact of two completed social action research studies delivered by the Centre for Social Action (CSA) at De Montfort University. The learning from this process was used to develop a data repository that would support the on-going tracking of impact on future projects.

You can find out more here http://diego.our.dmu.ac.uk/about/
Case Study: http://repository.jisc.ac.uk/5017/

Embedding Research Impact at Coventry (ERIC)
Lead institution: Coventry University

The project developed an in-house research management system to capture data on the impact of research. The system was designed through consultations with relevant stakeholders to determine types of impact and associated evidence and potential uses of impact data. The resulting impact capture system was successfully piloted and supports staff to plan impacts, record evidence and build a portfolio of impact across projects.

You can find out more here http://www.coventry.ac.uk/research/research-excellence/
Case Study: http://repository.jisc.ac.uk/5110/

[7] Morton, S. (2012). Exploring and Assessing Research Impact. Social Policy. Edinburgh, University of Edinburgh. PhD.

Interfacing Research and Impact Systems (IRIS)

Lead institution: University of Exeter
Partners: Plymouth University, Manchester Beacon, The Silvanus Trust
Severn Trent Water

Drawing on a wide range of perspectives from stakeholders across multiple universities and a range of external organisations the team developed a five step process in order to help researchers identify and plan impact into the research design.

You can find out more here http://emps.exeter.ac.uk/impact
Case study: http://repository.jisc.ac.uk/5070/

Learning from Law

Lead Institution: Oxford Brookes University

Based within the School of Law the project developed an 'impact analysis system' and used this to develop a schema for the systematic recording of impact. In utilising the toolkit, researchers were able to track the impact of their work through a number of routes which may lead to impact with non-academic users.

You can find out more here http://brookescareerscentre.co.uk/res/jisc
Case Study and Appendices: http://repository.jisc.ac.uk/5112/

Stand up to racism – Analysis and Articulation

Lead institution: Manchester Metropolitan University
Partners: Cheshire Halton and Warrington Race and Equality Centre

Focusing on an on-going participatory research study undertaken by the Department for Interdisciplinary studies, the project utilised a range of frameworks including stakeholder analysis and the NCCPE EDGE[8] tool in order to generate a better understanding of how impact is generated. The project noted that there negative impacts that need to be recognised and confronted as part of embedding impact assessment in research.

Case Study: http://repository.jisc.ac.uk/5113/

Emphasising research impacts

Lead institution: Newcastle University

The project aimed to demonstrate best practice in engagement through an online platform, to compare different approaches to generating impact through engagement activity, and to provide a useful tool for researchers looking to engage with non-specialists. This project was based within the faculty of Medical Sciences.

Case Study: http://repository.jisc.ac.uk/5115/

[8] National Co-ordinating Centre for Public Engagement (NCCPE) 2013, self-assess your institution http://www.publicengagement.ac.uk/support/self-assess

Public Engagement with Research Online (PERO)

Lead institution: University of Warwick
Partners: Open University, Cambridge University, Portland State University

The project looked exclusively at ways to measure the impact of public engagement that occurs online. Drawing on a range of theories, methodologies and tools for measuring impact, PERO developed and applied an impact evaluation framework to a specific instance of online engagement carried out by a professor of applied economics at University of Warwick.

You can find out more here
http://www2.warwick.ac.uk/fac/soc/sociology/staff/academicstaff/jensen/ericjensen/pero/
Case study: http://repository.jisc.ac.uk/5114/

Tracking Digital Impact (TDI)

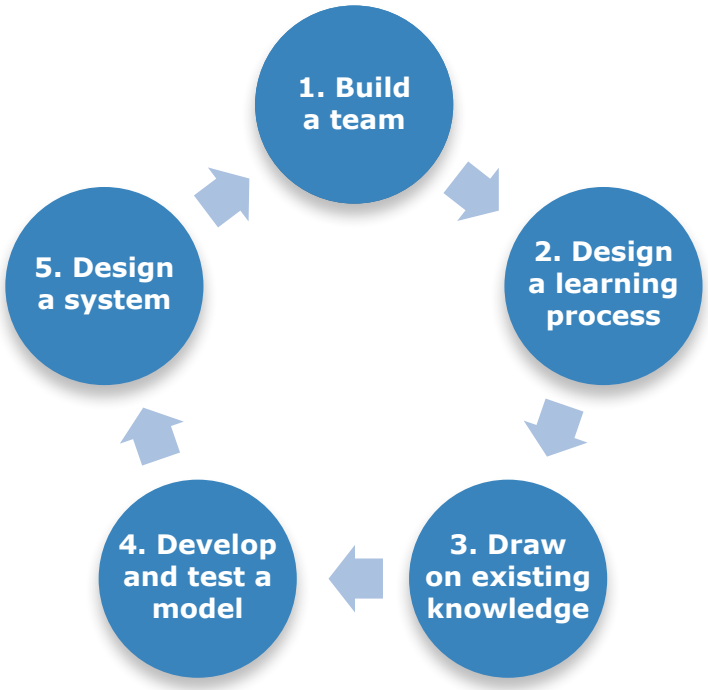
Lead institution: University of Exeter
Partners: Aberdeen University, Plymouth University, Manchester Beacon, University of South Queensland

TDI explored the types of digital engagement that are currently in use and how they are monitored and developed a set of guidelines for effective monitoring of projects undertaking public, business and community engagement through digital technologies.

You can find out more here
http://emps.exeter.ac.uk/computer-science/research/impact/tdi/
Case Study: http://repository.jisc.ac.uk/5111/

The project process

In synthesising the learning from the nine projects the NCCPE identified five steps that each of the project teams passed through, and the key learning points and challenges they confronted at each stage. In practice, these phases formed an iterative cycle rather than a linear process - with each team revisiting different phases over the lifetime of their project.



1. Build a Team

The challenge: identifying the skills and experience you need and bringing together people with the right kind of expertise to tackle the problem.

A first challenge for all of the projects was to build three-way partnerships, comprising of:

- **Research groups** seeking to develop their capabilities in analysing and articulating the impact and benefits of their research;
- **Business and Community Engagement (BCE) practitioners** with expertise in identifying
- People with expertise in **research information management** and with knowledge of digital tools and resources for capturing and evidencing impact.

The initiative sought to bring BCE and information management expertise into research teams; however several of the team members had relevant expertise that spanned these three groups, and the boundaries between the roles turned out in practice to be quite fluid. Typically the information management specialists understood research culture and practice, valued user-centred design, and had worked on data repositories or similar projects in the past. Many of the researchers had a commitment to engagement, and brought useful insights into better ways to embed impact analysis in research, for instance through their professional interest in encouraging user-participation in co-designing and co-producing research. Several teams reported that the

Business and Community Engagement Specialists brought with them helpful knowledge on forms of engagement, methodologies in evaluation, reaching target audiences and reporting impacts.

> "Working with the BCE analysts, the research group and civil society partner we discovered a much wider concept of what impact is in relation to their research. Moreover they were able to recognise some of their existing research skills as 'impact analysis' skills by viewing project data through 'baseline' and 'change' lenses." **Stand up to Racism**

Box 2: People Snap Shots

Kent McClymont

Associate Research Fellow, Computer Science, University of Exeter
Project: Tracking Digital Impact

Kent is a researcher in computer science, hydro-informatics and systems biology with experience of management systems, social media and web analytics, and developing professional media profiles (in a commercial setting). Kent has a strong interest in public engagement through digital media and has recently joined the NCCPE Public Engagement Ambassador scheme while, through his work, Kent runs internal institutional and national workshops on digital engagement.

Emily Brown

REF Impact Officer, Oxford Brookes University
Project: Embedding Impact Analysis: Learning from Law

Emily Brown is co-ordinating Brookes' impact case studies for submission to REF2014, and has developed an expertise and working knowledge of the research impact and its agenda through this process. She also supports the University's Knowledge Transfer Partnership portfolio and yearly HE-BCI return.

Tina Cook

Reader Inclusive Methodologies, Northumbria University
Project: Accessing Participatory Research Impact and Legacy

A participatory researcher, experienced evaluator and community engagement practitioner, Tina is passionate about ways of facilitating the inclusion, as research partners, of those who might generally be excluded from research that concerns their own lives.

Trevor Collins

Research Fellow, Knowledge Media Institute, The Open University
Project: Public Engagement with Research Online

Trevor's research engages users and other stakeholders in the co-design and development of educational technology to support teaching and learning. Trevor uses impact analysis as a means for objectively tracking research in order to reflect on the outputs and processes involved in his research practice.

Sarah Morton

Co-Director, Centre for Research on Families and Relationships, University of Edinburgh
Project: Disseminating Impact form Engagement with User Groups and Organisations

Sarah is interested in all aspects of research use and knowledge to action, particularly those addressing the use of social research, issues of co-production, assessing impact and approaches that recognise complexity.

Bringing together multi-institution, cross-disciplinary teams in this way provided a solid platform for addressing the challenges of impact analysis. They did not necessarily have all the knowledge and expertise – but they knew the right kinds of questions to be asking and where to look for answers to the challenges they faced. Many of the projects began by looking outside the team for existing resources or methods but found that most of what was available was often not fit for purpose, or required significant tweaking.

> "Online public engagement has outpaced the development of frameworks for capturing, analysing and accurately representing its impacts" **PERO**

> "The searches at Exeter and Plymouth both found very little in the way of guidance and rules on digital engagement" **TDI**

Also, unlocking their shared expertise wasn't straightforward. The teams that were most successful in achieving their aims appeared to have:

- **A degree of synergy in skills, knowledge and expertise.** *i.e. information specialists had worked with researchers and understood them; the researchers either understood or were willing to learn about systems.*
- **Identified an appropriate scale of change and influence.** *i.e. several of the projects started small with research groups or one case study rather than trying to work across a department or faculty.*
- **Embraced a strategic oversight.** *i.e. identified key stakeholders in the project with the power or influence or expertise to help it realise its purpose, and found appropriate ways to engage them (e.g. in an advisory group).*
- **Engaged research partners and users.** *i.e. involved research users drawing in their expertise in impact assessment and engagement, learning how they access and use research findings.*

Whilst many of the projects identified appropriate steps and processes for working together more effectively, each of them stressed the benefits of working together from the outset. As the projects progressed they began to think about other people that could strengthen the team.

> "Involvement of the IT developer throughout the project enabled the developer to fully understand the requirements, participate in solution thinking and implementation and respond to the specification within the parameters of the existing system" **ERIC**

> "…the team learned that it is important to identify and address gaps in the team's skills in order to effectively plan and implement digital engagement strategies" **TDI**

2. Design a learning process

The challenge: creating a dynamic problem-solving and collaborative process to make the most of the expertise within the team, and to galvanise deep learning and lasting change.

The teams brought with them a wealth of experience and knowledge around the impact agenda. Whilst many individuals did not consider themselves 'experts' per se, as the teams began to investigate the issues collectively, individuals were able to share their expertise and tease out issues. What helped was when teams recognised that what they were involved in was a 'learning process' as much as a 'delivery project' – and that it was crucial to make space to think, reflect, explore and test ideas before pressing ahead to implementing solutions.

All the projects adopted what could loosely be characterised as experiential and action learning approaches, engaging in a cycle of: testing – reflection – abstraction – development. This approach seemed the best 'fit' for the complex problems that they were trying to address and it enabled project teams to develop a shared understanding of each other's perspectives and needs in relation to impact.

> "We learned that while plans can be developed and implemented quickly when the skills are available, it is important to slow down the process and incorporate regular and effective self-assessment and feedback to ensure the planned activities are effective"
>
> **TDI**

> "The overall impact analysis expertise of the team was limited… consequently the team was keen to learn experiment, discuss, think about and reformulate their knowledge and skills around impact analysis" **IRIS**

The teams utilised a series of team meetings throughout the process. Being cross-institution, some of the projects utilised Skype in the first instance, but quickly found there that the technology was no replacement for face to face engagement. Workshops were often used with a wider group of stakeholders when required.

Whilst there is no set formula, or hard and fast rules to designing a learning process, the project reports surfaced a number of characteristics practitioners might aspire to encourage:

- Explore the characteristics and dimensions of the issue at stake
- Bring to light different perceptions, imaginable futures and available skills and knowledge
- Allow for on-going/iterative implementation within a research project
- Build in regular opportunities for reflection
- Capture gaps and training needs
- Allow for all stakeholders to change their positions, ideas and perspectives
- Develop and maintain shared vocabulary, resources and tools

Projects found that there were a number of simple tools and frameworks available to help support their learning. For example, the Step up to Racism project utilised a stakeholder mapping tool.

Each of the projects enabled researchers to make sense of impact in their own way, according to their discipline and research practices. This often involved the asking of questions rather than the providing of answers.

Questions such as:

- 'what is the purpose of our research?'
- 'who has a stake in our research?'
- 'what are our spheres of influence – who do we reach and how do we reach them?'
- 'what are the intended/anticipated impacts of our research?'
- 'what timeframe are these impacts likely to take place in?'
- 'in what context do these impacts occur?'
- 'which other actors may be contributing to the impact?'
- 'what impact can be directly attributed to the research?'

Many of these questions did not have fixed or certain answers, and were in part open to interpretation and on-going interrogation. However this process led to a deeper knowledge of impact, enriching research practice across the project lifecycle.

Change Management

The projects were not only about incubating new kinds of practice. They were also intended to address institutional culture, and support the challenges of undertaking impact assessment within research departments. For many academics, thinking about impact poses not only practical challenges – e.g. how to capture evidence – but also raises profound questions about the purposes of their work, and how they might need to start to work differently if they are to maximise the impact of their work outside academia.

Space to reflect on these wider questions needs to be built into the learning process, if changes to processes, practices and attitudes are going to be embedded and sustained. Useful triggers for addressing change management, applicable in this context, include identifying:

- the target change *(i.e. process, internal partnership or info management improvements);*
- the timescales;
- the stakeholders who should be involved, and those that might be excluded;
- the functions and systems affected;
- the approaches required to embed changes within existing systems and processes;
- communication mechanisms *(i.e. for involving those beyond the project team);*
- evaluation metrics.

The 'Stand up to Racism' project drew explicitly on the resources created by the NCCPE to address culture change within universities and research departments. These include a self-assessment matrix (the EDGE tool) which identifies nine focal points for addressing how to shift departmental culture, and to begin to embed a more supportive culture for engagement and impact-related activities:

purpose	Mission	Create a shared understanding of the purpose, value, meaning and role of public engagement to staff and students and embed this in your strategy and mission.
	Leadership	Support champions across the organisation who embrace public engagement.
	Communication	Communicate consistent, clear messages to validate, support and celebrate it, and ensure open and two-way communication with members of the public and community organisations.
process	Recognition	Recognise and reward staff involvement within recruitment, promotion, workload plans and performance reviews, and celebrate success with awards or prizes.
	Support	Co-ordinate the delivery of public engagement to maximise efficiency, target support, improve quality, foster innovation, join up thinking and monitor involvement and impact.
	Learning	Provide opportunities for learning and reflection and provide support for continuing professional development and training.
people	Staff	Ensure that all staff - in academic and support roles - have opportunities to get involved in informal and formal ways.
	Students	Proactively include and involve students in shaping the mission and in the delivery of the strategy, and maximise opportunities for their involvement.
	Public	Invest in people, processes and infrastructure to support and nurture the involvement of individuals and organisations external to the HEI.

http://www.publicengagement.ac.uk/support

3. Draw on existing knowledge and frameworks

The challenge: helping people get to grips with the complexities of impact assessment without being overwhelmed by the difficulties of making sense of such a complex field.

One of the key challenges across all projects was getting to grips with the complex processes of research, knowledge exchange and impact, appreciating the complex networks and environments within which universities are operating. To tackle this challenge the project teams brought to the table a wide range of resources and knowledge to help scaffold and structure the learning that the teams needed to engage in:

- Theories: (e.g. processes of knowledge exchange, use of language in social interaction, public space theory, theory of social change)
- Frameworks and tools: (e.g. Contribution analysis, EDGE tool, stakeholder analysis, generic learning outcomes, Research Excellence Framework)

Each of these provided routes for better understanding the landscape. Taking time to explore some of the theoretical challenges really helped ground the projects in a shared understanding of the processes that were involved in impact assessment. It also provided a framework to assess how useful particular existing tools were in addressing the needs of the project team.

Box 3: Public Sphere and Social Change Theory

PERO combined Jürgen Habermas (1989) theories of 'public sphere' with a basic theory of social change to look critically at the role of online technologies in developing a public discourse around research.

Link to read more http://bit.ly/13ISmOm

Box 4: Research Contribution Framework (RCF)

The RCF developed by Morton (2012) and used in the DIEGO project is a method based on contribution analysis, which sought to address the key challenges of research impact assessment.

1. Map a pathway to impact
2. Identify assumptions and assess risks for each stage of the pathway
3. Identify indicators for research uptake, use and impact
4. Collect evidence
5. Review pathway identify gaps in evidence try to fill
6. Write a contribution story

Link to read more http://www.crfr.ac.uk/briefing-assessing-research-impact/

Box 5: Stakeholder Mapping Tool

The project team at MMU utilised a stakeholder mapping tool from Changing Minds. This enabled the research group to broaden their conceptualising of impact, and consider where to focus limited resources in order to maximise impact.

Link to read more http://repository.jisc.ac.uk/5113/

4. Develop and test a model

The challenge: moving from theory and reflection to a working hypothesis/ model that can be tested and refined.

Embedding impact analysis into research is complex and discussions can end up being quite abstract; committing ideas, however imperfect, to paper enables people to share and build understandings. In order to progress their projects, the teams needed to be confident enough to share their ideas in a way that could be critiqued and built upon. This is especially important when working with a wide range of stakeholders with different expertise and insights, and when you are trying to build shared understanding of complex processes.

Models are one way of enabling people to visualise how they are making sense of a system and can be used to contextualise, simplify, and make sense of otherwise complex problems. Many of the projects sought to develop or adapt models in order to help them and others outside the project teams understand the landscape of assessing research impact. Project teams aspired to create models that were:

- simple to understand and contained clear instructions on how they should be used
- inform specifications for technology developments supporting a shared understanding of terminology across disciplines and users
- come with training sources that support the implementation of the model

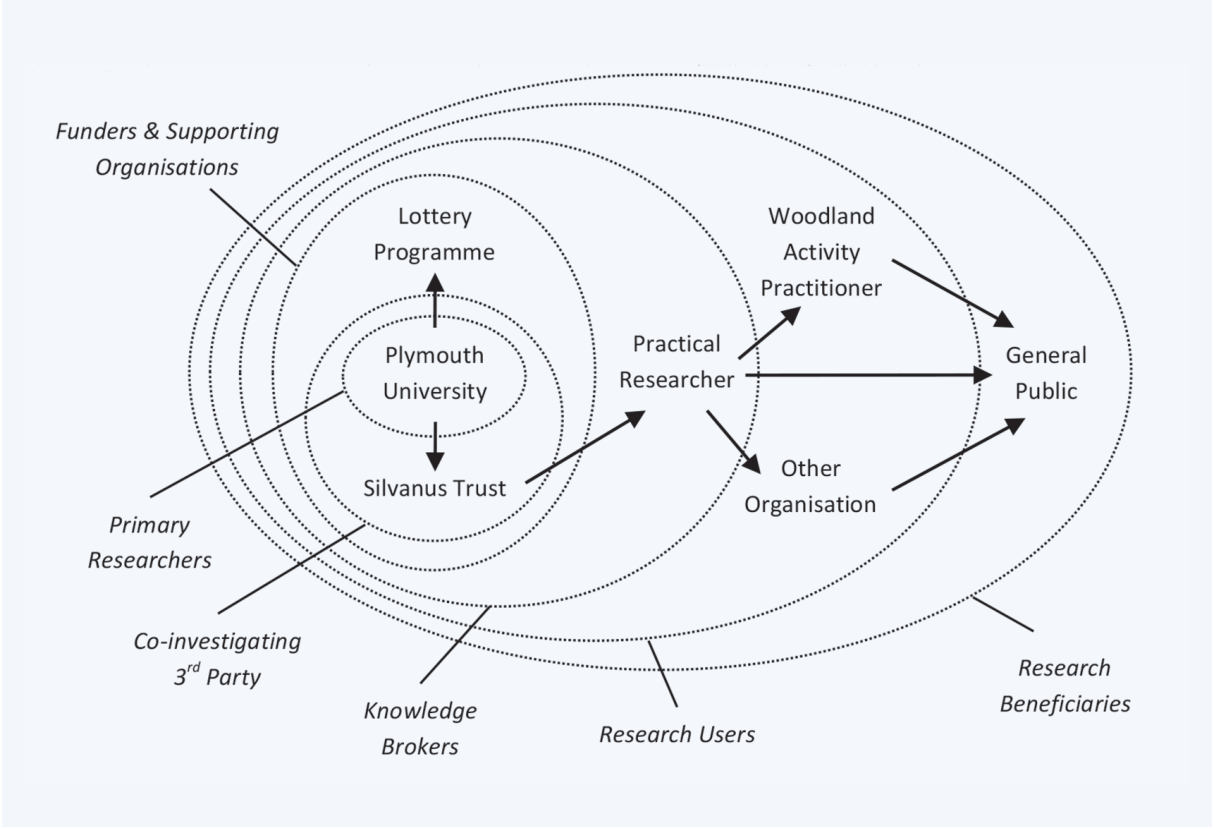
Box 6: IRIS

The project developed a 5-process toolset for embedding consideration of impact throughout the research cycle. It used logic models as a means of understanding with whom, where and how impact might occur and to explore the tools available to assess impact:

- Modelling: What is going on and who is affected? i.e. map your project network
- Identification: Where is it going on? i.e. identifying the points at which you may interact/engage with beneficiaries
- Monitoring: How do you know what is going on? I.e. how will you assess your impact
- Evidence: Where and how should you exchange with people about what is going on?
- Exchanging: How do I exchange with people about what is going on?

Using this framework the IRIS project developed logic models for a selection of research projects, which helped them visualise the pathways to creating impact. See next page for an example from one of these projects:

IRIS: Impact pathways logic model from project: Good from Woods



Box 7: APRIL

Drawing on work from INVOLVE (2006)[9] , the REF and Cornwell's (2008)[10] dimensions of participation, the project developed a scheme for assessing the impact of the participatory nature of the research.

Impact dimensions

- On research agenda
- On research process
- On academic/community based researchers
- On policy
- On research design
- On participatory researchers
- On services

Layers of participation

- co-option – where token representatives are chosen but have no real input or power in the research process;
- compliance – where outsiders decide the research agenda and direct the process, with tasks assigned to participants;
- consultation – where local opinions are asked for, but outside researchers conduct the work and decide on a course of action;
- co-operation – where local people work together with outside researchers to determine priorities, with responsibility remaining with outsiders for directing the process;
- co-learning – where local people and outsiders share their knowledge in order to create new understanding and work together to form action plans, with out-siders providing facilitation;
- collective action – where local people set their own agenda and mobilise to carry out research in the absence of outside initiators and facilitators.

The APRIL case study shows how this framework was applied, follow this link to read more: http://repository.jisc.ac.uk/5116/

[9] Staley, K. (2009). Exploring impact: Public involvement in the NHS, public health and social care research. INVOLVE: Eastleigh, England.

[10] Cornwall, Andrea (2008). Unpacking "Participation" Models, Meanings and Practices. Community Development Journal 43 (3), pp. 269-283

Box 8: TDI

The Tracking Digital Impact (TDI) tool was designed to help researchers, research groups, projects and institutions assess their current and future digital engagement strategies in an objective and informed way. Download the tool here: http://bit.ly/Y3tloL

Information management specialists were involved in the process from the start, so in many cases the projects were engaged in iterative development where systems and models were developed side by side by side. However, each project found that there were naturally occurring steps where the 'system' had to wait for the results of testing the 'model', before moving on to next stage of systems development. To test their models, projects selected a small number of completed research studies, and applied the models to generate data on impact. This in turn either led to revisions of the model, and/or a greater knowledge within the teams about how to apply it.

5. Design a system

The challenge: delivering a system that is theoretically robust, practical to use, and meets the needs of all the project stakeholders.

Alongside the development of models which captured the impact generation and evaluation process, projects began to further develop the information systems that could support data capture, reporting, and sharing of good practice in relation to impact. Several of the information management specialists working on these projects brought with them years of experience in user-centred design, crucially helping to ensure that the systems developed were not overly cumbersome. Likewise those projects that had worked iteratively with users of the system, found that the proposed information management solutions were far more appealing to the end user.

> "Having a key super-user to use the finished system, suggest useful changes and promote the system to colleagues was invaluable to development" **ERIC**

Although not all the projects reached the systems development stage, those that did focused on two distinct areas:

- Impact repositories;
- Web-based platforms to share good practice in impact.

Impact repositories

Impact repositories were seen as a useful 'add on' to existing research management systems allowing researchers to input data related in addition to recording outputs. It was noted that current research repositories were not universally used by academic teams because they were seen as 'management systems', however there was optimism that the inclusion of impact information within these systems would start to bring them to life for researchers as they began to support engagement and tracking of impact.

> "The research team now has a tailored impact capture system which they can use to begin adding impacts for both completed and new projects. This access allows them to capitalise on the motivation generated through involvement in the study and building impact profiles for projects, individuals and teams." **ERIC**

As the models were developed to record and assess impact, information management specialists began to integrate these with system design, so that the existing research management systems contained a section for capturing impact. By enhancing existing systems the development time was minimised, whilst the likely uptake of the system and sustainability was also greatly enhanced.

The projects learnt a number of lessons in relation to how to develop and promote the use of impact repositories. These are summarised below:

- Systems should be promoted in terms of their direct use for funding activities, individual performance reviews, workload reduction and improving professional reputations;
- They should help users plan for impact from the start of a project, generate timely reminders and prompts, and allow for the addition of impact data long after the funding period;

- They should be flexible enough, enabling the user full control over the impacts that they would like to log, capturing a range of data relating to impacts and outcomes that a study has generated (i.e. improved well-being, jobs secured, participants engaged with…);
- The structure of the system should allow for cross faculty/discipline research projects, utilising tagging and providing a formal structure only at the highest level.

Box 9: Impact repositories

Several different methods of developing impact repositories were implemented by projects.

Watch this video showing the new impact capture feature on Coventry University's research management system.
http://www.youtube.com/watch?feature=player_embedded&v=rKna2rzko_8#t=9s

Follow this link http://repository.jisc.ac.uk/5017 to download a technical summary for DIEGOs impact repository.

Follow this link http://brookescareerscentre.co.uk/res/jisc to explore the impact analysis system used in 'Learning from Law'.

Web-based platforms to share good practice in impact

APRIL and the Emphasising Research Impacts project both recognised the need to share knowledge about impact within research. It was felt that researchers would be better able to deliver impactful research if there was a clearer understanding of what processes led to impact. With the support of BCE professionals and information management specialists, both projects sought to identify impact within research and then develop an open, online and interactive database which could be tapped into in order to better understand impact. It was believed that this would enhance the capabilities of research groups to identify, analyse and articulate the benefits of approaches to research that led to impact. APRIL opted to focus on participatory action research, and the Emphasising Research Impacts project looked at a broad range of methodologies for engaging the public with research.

Box 10: Web based platforms

Having explored a range of open source packages APRIL settled on Wordpress as a temporary solution to hold a set of 11 papers that report on studies that have taken a participatory approach to research. The approaches embraced by the 11 papers vary as widely as the impacts they report but they make an interesting collection for engaging with such work and thinking about how the shape of the participatory approach has an effect on impact (local and national). The intention is the papers will form the basis of a more comprehensive, interactive and searchable international knowledge base on participatory research and its impact which is being included in an International bid which is being developed against the backdrop of the International Collaboration on Participatory Health Research (ICPHR).

Readers can visit the site here: http://healthresearchimpact.wordpress.com.

Emphasising Research Impacts developed an internal website for use by staff in the Faculty of Medical Sciences at Newcastle University which highlights good practice in generating impact through engagement. Their aim is to continue this work, in order to establish and develop:

- A standard template for researchers to complete to share their research with a lay audience;
- An evaluation process by which to measure success;
- An online mechanism to search and display case studies.

Find out more here: http://faculty-tools.ncl.ac.uk/engagement

In the above we have identified and explored five stages which are representative of how each of the projects developed. Whilst there were some significant differences in how the teams approached their work, the summary provides a 'best-fit' of the work carried out and the learning that emerged from each stage. It takes time for a deeper understanding of impact to be embedded in the research lifecycle, and projects such as this model how 'impact literacy' and analysis capability can begin to be built as teams explore and clarify their understandings and test out approaches. These projects also begin to provide an insight into the management challenges posed by the impact agenda – for instance ensuring that information systems, the requisite impact analysis expertise, staff support and training are aligned, and integrated into the day-to-day management of excellent research.

Several of the projects benefited from working together across institutions, sharing emergent learning. In a number of cases this led to joint workshops, joint planning and sharing of impact analysis expertise. There was clear evidence by the end of the projects that some team members were applying the lessons learnt in new settings, for example the learning from the IRIS project was embedded in the impact strategy in the digital engagement project at Lancaster University[11]. By the end of the projects, the focus shifted to sharing outcomes with wider audience, and it is here that teams returned to the first step of the process, thinking about who to involve and how to bring them together.

[11] http://www.slideshare.net/catalystas

Impact, Outcomes and Implications

The projects were designed to support and encourage positive change in processes, practices and attitudes around research impact, and to build capacity and capability within and across institutions so that the sector could take more practical ownership of this agenda. These are ambitious goals for a six-month time frame, and whilst much has been achieved, this remains a significant challenge. Universities are complex institutions, research is a multi-stakeholder process and impact is a term that is understood in many different ways by different people, and can be difficult to capture. For many of the projects this meant giving enough time to explore different understandings of impact, and identifying a suitable size and scope for their project.

> "Reflecting on the project I feel I have a much greater awareness of the complexity of the systems and hierarchy within a large university. Engagement and impact mean different things to different people. I would encourage any others developing such ideas to be very clear to have the complete buy-in and understanding of all stakeholders prior to commencing the work..." **Emphasising Research Impacts project**

The process of evaluating impact also opened researchers up to the possibility that their research may not be as effective as they had hoped in fostering the changes they would like to see. It is crucial that there is support for feeding back this learning into future research questions and ways of achieving impact, providing a framework for future collaborations and new approaches. It may also help researchers consider their assumptions about how change happens, and the interventions most likely to lead to the changes they would like to see:

> "Some potential audiences are far from eager to hear and implement the lessons from research. This was sometimes painful for the research group and prompted reflection on the ethics of research and the ethics of impact." **MMU**

In spite of these challenges, the projects reported many positive outcomes. Through bringing together a range of people from multiple professional roles, and by following the steps outlined in this document, outcomes included:

i) improved understanding of impact
ii) improved evaluation strategy embedded within research groups
iii) greater awareness of training needs for public engagement and impact assessment
iv) improved focus on who to engage to maximise the potential of the impact of the research

Professionals with expertise in impact analysis or business and community engagement, also reported multiple benefits including:

i) greater understanding of the way in which researchers define and capture impact
ii) improved capability in sharing their expertise with researchers
iii) enhanced understanding of impact assessment

> "Working with the BCE analysts, the research group and civil society partner discovered a much wider concept of what impact is in relation to their research. Moreover that were able to recognise some of their existing research skills as 'impact analysis' skills by viewing project data through 'baseline' and 'change' lenses" **MMU**

> "I've found the project fascinating as it has enabled me to explore the potential of online forms of involvement and engagement, which is completely new in the field of health services research" **PERO**

Several teams spoke of how their projects had begun to influence practice both within and outside of their institutions.

> "One of the effects the project has had is a cultural one – to get people thinking about impact"
> **Professor Alistair Fitt, Pro-VC Research and Knowledge Transfer, Oxford Brookes**

> "The lessons learnt will be embedded within the research impact strategy of a £1.5M EPSRC Catalyst project, which explores how academic and non-academic partnerships can build digital tools to facilitate social change" **IRIS**

In summary, the challenges of embedding impact in research were by no means fully resolved, and each of the projects reflected that there was still much to learn. As the project teams became more familiar with impact assessment and tested the limitations of specific approaches they were left with a greater tolerance of ambiguity and uncertainty; more confidence in impact assessment and a clearer understanding of the role of their research in society and its relationship to other important organisations and individuals working in the field. There was also a greater recognition of the value of internal and external expertise in addressing the impact agenda and how to use this to embed impact analysis in research. The projects began to show how these gains could be fed into the research cycle, and project planning.

> "By engaging with existing tools and analytical frameworks, the research group and civil society partner were able to reconceptualise impact as an on-going and evolving product of research that needs to be captured throughout a project, rather than something that happens at the end" **MMU**

> "Team members now have clearer ideas about how opportunities for impact can be identified and planned into the research design" **IRIS**

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National Co-ordinating Centre for Public Engagement

The National Co-ordinating Centre for Public Engagement's vision is of a higher education sector making a vital, strategic and valued contribution to 21st-century society through its public engagement activity. We are working to help support universities to improve, value and increase the quantity and quality of their public engagement and embed it into their core practice.

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www.publicengagement.ac.uk