Introductory guide to understanding impact

MVLS impact vision

MVLS believes that all excellent research can achieve impact – making a constructive difference – in some way and at some time, that will ultimately benefit society.

The vision of the college is to help achieve this through activities aligned to the four key themes of Understanding, Enabling, Identifying and Publicising impact, and to embed the necessary knowledge and skills within its academic and non-academic community, thereby achieving a culture change across the breadth of the College.

In line with the understanding impact element, this guide provides a broad overview of economic and societal impacts and introduces the fundamental points to consider when developing a strategy for impact.

Content:

- Definitions of knowledge exchange and impact
- Rationale for engaging in impact generating activities
- Key points about economic and societal impact
- How can you begin to see where your research could have impact?
- What sort of stakeholders may be involved?
- What do impact activities look like?
- Communication and engagement with stakeholders
- Evidence to substantiate impact activities
Definitions of knowledge exchange and impact

An understanding of impact is essential for you to understand both the barriers and enablers you may face.

Knowledge exchange encompasses the two-way flow of knowledge, expertise and skilled people between the research environment and its user communities in industry, commerce, public and service sectors.

If implemented well, KE can open up new opportunities for research as well as creating credible impacts.

Impact is the demonstrable contribution that excellent research makes to society and the economy. It must represent an evidenced, measurable effect, change or benefit to:

- the activity, attitude, awareness, behaviour, capacity, opportunity, performance, policy practice, process or understanding
- a wide range of stakeholders: an audience, beneficiary, community, constituency, organisation or individuals
- in any geographic location whether locally, regionally, nationally or internationally.

It is acknowledged that part of the journey to the above definition of impact may include academic impact - the demonstrable contribution that excellent research makes to academic advances, across and within disciplines, including significant advances in understanding, methods, theory and application.

Fig. 1 – Examples of knowledge exchange and impact from MVLS research
Rationale for engaging in impact generating activities

Formal drivers:

- **Government and research funders** are becoming increasingly focused on the creation of economic, societal, cultural or policy related impacts - they anticipate a return on their investment in your research
- **Research assessment** – Impact counted for 20% in REF2014; it is anticipated that this will increase for the next formal assessment of research
- **RCUK grants** – Impact summaries and pathways to impact are now key components in research council grants
- **Formal University recognition** of impact activities, e.g. P&DR

Informal drivers:

- **Refine existing research questions and highlight new ones**
- **Open up new funding streams**
- **Establishes a track record for impact**, making your work more attractive to funders and enhancing your career development
- **Personal satisfaction** – understanding the relevance of your research to society. The drive for many researchers is to advance knowledge that makes a difference to the world in some way. How does impact fit with the attitudes and ethics that motivate your research?
Key points about economic and societal impact

- **Impact relies on key partnerships and two-way communication with external stakeholders**
- **Impact is an achievable, incremental process.** Substantial impacts can take many years to materialise; however, the impact-generating steps along the way can often represent impacts in and of themselves.
- **Impacts can occur at any stage in the research lifecycle** — Opportunities for knowledge exchange can arise at any stage of the research lifecycle; these can often lead to impact. For example, impacts can be generated at the outset of a research programme by involving stakeholders from the very beginning; they can occur during the course of a research programme, linked to research process and methodologies; or they can be associated with targeted dissemination of the research findings. At all stages these activities can feed back to refine the research direction.
- **Embed impact plans from the very start of the research programme** — the impact plan should be a natural parallel to the research plan and have a complementary timeline; it should not be an afterthought.
- **Impact is constantly evolving** in line with external stakeholder needs, so revisit your impact plan at various stages through the course of your research to ensure your knowledge exchange and communication with stakeholders is relevant and maximises potential impact.
- **Impacts can derive from a wide range of research outputs** as shown below.

![Fig. 2 – Typical MVLS research outputs that can be used to generate impact](image-url)
How can you begin to see where your research could have impact?

As you start to develop a plan for generating impact from your research it is imperative that you define how the aim of your research (i.e. your research question) relates to a real world problem. In doing so, this highlights the unmet need and the point at which your research can have an effect - an impact. Furthermore, this process will be useful in identifying the stakeholders that will be interested in your work (covered further below) and clarifying the objectives of your impact plan.

**TIP:** Whether you are engaged in applied research or more fundamental research, a problem tree analysis is a useful tool to assist with this process. This will help map out the range of complex causes and effects of a problem and focus the potential for your research to influence the process. This external website details the processes involved in producing a problem tree analysis - [link](#).

**TIP:** Speak with people removed from your research, perhaps through networking events; you can be too invested in it to see its potential for impact objectively.

What sort of stakeholders may be involved?

For any kind of impact to occur there needs to be engagement with the stakeholder communities. This often includes building up relationships with people in other types of organisation and listening to them so that you understand what they already know and what they don’t. Stakeholders can facilitate impact from your research by bringing expertise and influence as well as contributing new ideas and perspectives. To identify the stakeholders that might benefit from or contribute to your research, consider who may be interested, affected by or otherwise care about your findings:

- Whose problems are you trying to solve?
- Whose interests do your research outputs overlap with?
- How are these groups/individuals likely to benefit from or be affected by your research?
- Will they be motivated to engage with you?

**TIP:** Broad categories of research users may include:

- General public/community/social enterprise groups
- Government and non-departmental public bodies (ministers, civil servants, policy advisors/makers; regional, national, international)
- Health care providers/agencies
- Charitable sector/NGOs (including patient groups)
- Professional societies
- Private sector/industry (human and animal pharmaceutical companies, medical device companies, small- and medium-sized enterprises [SMEs])
- Media partners (collaboration with the media on feature stories, not press releases)

**TIP:** External guide for further information of identifying stakeholders - [link](#).

**TIP:** Stakeholders don’t necessarily work with the lead experts in an area, often seeking instead people they know and trust, and/or who communicate effectively. Thus networking, establishing relationships and communicating your research through numerous channels is key.
Once you have identified a list of potential stakeholders you need to refine this to prioritise those stakeholders that have the greatest interest and greatest potential to exert influence in achieving an impact from your research.

![Fig. 3 – Example framework to prioritise stakeholders. Well-connected stakeholders with a strong interest in your research have the greatest ability to facilitate impact (stakeholder 1).](image)

**What do impact activities look like?**

Impact can mean different things to different people and there is no one-size-fits-all approach. The information and examples presented here aim to help define what kinds of impact are relevant to you and your discipline. Our College’s experience from REF2014 has highlighted four broad ranging types of impact; examples of each are presented in Appendix 1.

1. **Responsive impacts** – impacts that arise from research conducted in response to an already identified unmet need/problem, e.g. a call for further evidence from a governing body to revise policy.

2. **Proactively nurtured impacts** – impacts that arise from research that identifies the unmet need/problem. In these instances, stakeholders must be made aware and convinced of the relevance and potential to translate to a benefit of the findings.

3. **Reputational impacts** – impacts that arise where a member of research staff is approached by stakeholder based on their clear track record for impact in a similar field, i.e. the stakeholders seek out the researchers and commission the work.

4. **Passive impacts** – impacts that arise serendipitously from research. There is no active engagement with stakeholders and the researcher has very limited or occasionally no knowledge of where, and by whom, their research is being used and the nature of the resulting impact.

Further examples of our impacts can be found on the MVLS [Research Impact](#) website.
**TIP:** Impact case studies on external websites:

- Research Councils UK (RCUK) [Case studies: Pathways to impact](http://example.com)
- Biotechnology and Biological Sciences Research Council (BBSRC) [Our impact](http://example.com)
- Economic and Social Research Council (ESRC) [Impact case studies](http://example.com)

**Additional external resource on policy impact** - [Strengthening world vision policy and advocacy](http://example.com)

**Communication and engagement with stakeholders**

Whilst excellent research can discover solutions to problems, the discovery alone does not solve the problem. It is what you do with this information, and how effectively you communicate it, that is important and can lead to changes that constitute impact, e.g. in behaviour, understanding, practice or policy. This requires that your research is translated into a meaningful format for non-academic audiences and communicated beyond the conventional academic channels.

Keep the following points in mind:

- **It is unlikely that stakeholders will read your academic research article. Why?**
  - It is often inaccessible due to high subscription-charging journals (although moves towards open-access aim to reduce this barrier)
  - The language is too technical
  - They don’t have time

- **Deliver communications at the right level** – For the relevance of your research to be recognised your need communications need to be targeted effectively, using content that is relevant and meaningful to your audience.
  - **TIP:** Keep language straightforward and jargon-free.
  - **TIP:** Prepare ‘elevator pitches’ of your research at different levels (e.g. general public, funder, research user) so you can deliver the relevance of your research quickly and during unexpected opportunities.
  - **TIP:** [JRF Findings](http://example.com) presents a framework for translating your research into ‘a concise, clear summary for busy people’.

- **Know your audience** – Research your stakeholders and identify their perspectives, priorities and needs. In doing so you will gain a better understanding of the sort of information that will interest them, engage them and promote their feedback.

- **Identify the most appropriate communication channels** – Identify which communication channels your preferred stakeholders draw from.
  - **TIP:** Invest time in targeting existing or developing new communication channels, e.g. workshops, focus groups, healthcare events, policy group meetings, professional newsletters/networks, trade journals, websites, third party consultants, social media.
  - **TIP:** Always ensure communications are consistent and always provide access for two-way communication between users and yourself.

- **Build and maintain productive partnerships with stakeholders** – These are vital to the success of impact activities. Building and maintaining partnerships of trust ensures the two-way flow of knowledge, skills and new ideas that will underpin your impact programme.
**Evidence to substantiate impact activities**

To evidence your impact activities it is very important that you record and keep track of:

- **Who you are engaging with and the means of engagement**
- **How they are using your research**
- **The scale of the impact**

The type of information and evidence you will need to gather will be specific to your own project and will relate to the types of impact-generating activities you undertake.

**The key question to ask is who is the person or organisation best placed to evidence your impact-generating activities, and can you rely on them to keep a permanent record of this?**

Some examples of the sorts of things you may wish to collect are:

- **Documentation** (e.g. clinical guidelines, policy documents, meeting minutes, professional training manuals, company/government press releases), preferably citing you, your research and/or institution
- **Formal requests for participation in events, committees** (emails, substantiating letters)
- **Webstats** (evidence of unique visitors, downloads, evidence of page browsing, demographics)
- **Testimonials from representatives within organisations** (preferably from an individual who holds a position of authority).

You may also want to discuss with stakeholders, formally or informally, mechanisms that will assist you to evidence your impacts. These may include agreements for:

- **Attribution** in published documents where your research findings are used
- **Establishing responsibility for evaluating events**, e.g. when delivering CPD or other professional training, will the stakeholders be evaluating outcomes, or will they assist you to do so?
- **Ways and means** whereby stakeholder use of your research beyond the initial engagement is reported to you, or can be requested by you.
Appendix 1 – example case studies within the four broad categories of impact

1. Example of a responsive impact

**Improving access to self-help therapies for mental health**

Case study based on research conducted in response to a call by NICE for evidence that supported new ways of delivering supported cognitive behavioural therapy (CBT) with maintained and proven clinical efficacy.

1. **What** was the problem addressed by the research?

   Access to CBT treatment has typically been limited by the low number of expert CBT practitioners, resulting in long waiting times.

2. **Who** benefited from the research?

   - Those suffering with low mood and depression
   - Local and national healthcare providers
   - Mental health and life-skills charities

3. **Nature and scale of documented impact?**

   - Over 1,900 healthcare professionals trained to support CBT self-help in Scotland alone.
   - 208,604 members registered for UK-based online service. NHS Choices CBT podcasts viewed over 46,000 times in just 5 months
   - Eire: 1700 attended life-skills classes
   - Canada: Over 22,475 patient referrals to support

4. **Credible evidence sources?**

   - Audit and evaluation data from charities using the therapies
   - Independent (academic) evaluations of healthcare provider supported use of therapies
   - Usage statistics from web-based resources
2. Example of a proactively nurtured impact

Childsmile transforms child dental health
Case study based on the development of a child oral health improvement programme. This research defined the public health problem and designed a framework for improvement. Through a process of continuous evaluation and improvement in partnership with national health boards, the oral health programme was refined and demonstrable evidence of improvement in child oral health was shown. In light of this, the programme was adopted by the Scottish Government.

1. **What** was the problem addressed by the research?
   - 1990s: Child oral health in Scotland was the poorest in Europe – 50% of 5 year olds had dental decay

2. **Who** benefited from the research?
   - Scottish children under age of 12 years (esp. deprived)
   - Dental health professionals
   - Scottish Government

3. **Nature and scale of documented impact?**
   - Childsmile now the NHS general dental service for all Scottish children from birth to 12 yrs (730,000 children)
   - Incorporated to national dental service contract and child health surveillance assessment (6-8wks and 27-30mths)
   - Ring-fenced Scottish Government funding. >1100 dedicated staff trained by NES to deliver Childsmile, savings to SG of ~£6M

4. **Credible evidence sources?**
   - Highly developed Childsmile website, tracked stats showing usage/training data
   - NHS dental contracts/child health surveillance documentation
   - Testimonials – Chief dental officer
3. Example of a reputational impact

Influencing UK policy on welfare and productivity of commercial laying flocks
Case study based on commissioned research on the long-term health and welfare implications of infrared beak trimming

1. What was the problem addressed by the research?
   Beak trimming is used in laying hens to mitigate injuries associated with bird-on-bird pecking. However, little was known about the long term welfare consequences of beak trimming using infra-red.

2. Who benefited from the research?
   - Laying hen breeders
   - Egg producers
   - UK Government & DEFRA

3. Nature and scale of documented impact?
   - The study was instrumental in parliamentary debate, supporting a UK Government decision not to go ahead with a proposed ban on beak trimming in 2011.
   - Beak trimming by infra-red is the only authorised trimming technique, and is used in all flocks of over 300 birds in the UK.
   - Mitigated the substantial economic losses (£4.82 and £12.3 million per annum) associated with lost productivity due to injury and death from pecking.

4. Credible evidence sources?
   - DEFRA public consultation citing research
   - Draft legislation presented by DEFRA to the UK parliament.
   - Transcripts of parliamentary debate citing the research outcomes.
4. Example of a passive impact

A simple test that enables reliable sexing of birds
Case study based on research that developed a DNA assay to differentiate male and female bird species. The translation of this research into an impact occurred with no active involvement from the staff involved. The research outcomes were not disseminated/promoted in any way other than the original academic publication.

<table>
<thead>
<tr>
<th>1. What was the problem addressed by the research?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Half of the world’s bird species cannot be sexed by their physical appearance.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Who benefited from the research?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial biotechnology companies</td>
</tr>
<tr>
<td>Bird conservation organisations</td>
</tr>
<tr>
<td>Private bird breeders</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Nature and scale of documented impact?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assay offered internationally by numerous companies (e.g. Avian Biotech International, Biobest Laboratories Ltd. UK) with approximately 50,000 sex tests performed per annum</td>
</tr>
<tr>
<td>Used to sex ~800 highly endangered birds belonging to zoos; a number of these species are listed on the International Union for Conservation of Nature (IUCN) ‘Red List’ of threatened species</td>
</tr>
<tr>
<td>Use in reintroduction programmes for endangered species to their native habitat (Costa Rica and The Seychelles)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Credible evidence sources?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testimonials – Chief executive Avian Biotech, Biobest Laboratories Ltd. UK</td>
</tr>
<tr>
<td>Data from zoos (Edinburgh Zoo/Royal Zoological Society of Scotland; Genetic department, San Diego Zoo)</td>
</tr>
<tr>
<td>Data from conservation projects (Ara project website)</td>
</tr>
</tbody>
</table>