

<p>Institution: Sheffield Hallam University</p> <p>Unit of Assessment: 34 Art and Design: History, Practice and Theory</p> <p>a. Context Research generated by the Art and Design Research Centre (ADRC) has a broad range of non-academic beneficiaries, including government agencies, the military, NHS, the police and social services as well as a variety of commercial technology businesses and marginalised social groups and individuals. Our main impacts can be demonstrated through, for example, the enhancement of social inclusion, bringing new perspectives to public policy, informing International Standards, the development of internationally award winning products, and spin out companies. Impact relates to our research through the foregrounding of practice-led methodologies enabling creative practice to link effectively with critical analysis, applied research and impactful processes and outcomes.</p> <p>b. Approach to impact Since the inception of the ADRC in 1993 the application (and impact) of creative outcomes has taken place, initially with the specific objective of supporting the economic reconstruction of post-industrial regions following massive redundancies in the steel and deep mining industries of South Yorkshire. <u>Practice-led Research:</u> An understanding of the potential for practice-led research to develop ideas, frameworks and policy with relevance beyond the discipline and the academy has formed the foundation of research within the ADRC. This has been embraced by individual researchers within Fine Art, Media and Design. The success of Roddis' <i>Open loop solutions for returned glasses</i> project and the approach to impact embedded within it, provided a model of applied research for others in the ADRC to follow in order to achieve economic and social transformation (Atkinson, P (Ed) 2011, 'Designing Impact!' produced in collaboration with Chinese Academy of Fine Art, Beijing). For example, Heath's funding from the National Crime Agency's Human Trafficking Centre and Cotterrell's award of a Philip Leverhulme Prize enabled the core research to reach new audiences. The work of Roddis, Knight and Chamberlain was cited by the Crafts Council UK ('Making Value' ISBN 13 9781903713204) in response to a 2010 speech by Vince Cable, Secretary of State for Business, Innovation and Skills about the future funding of Science, Research and Innovation, as an exemplar of the value of craft making and its impact on industry. The ADRC was awarded a Centre of Industrial Collaboration (CIC) in 2006 by the Regional Development Agency - the only Arts discipline based centre. In 2008, the CIC was subsequently awarded the EU RegioStars Award for Knowledge Transfer. <u>Research Relationships:</u> To support impact, ADRC's CIC/commercial design consultancy, 'Design Futures', develops strong links with industry, particularly in the areas of packaging design and healthcare products. Evidence of the nature of these relationships and interactions can be demonstrated through a growing portfolio of consultancy work and repeat commissions, for example with Billerud, Tesco and Marks & Spencer. Design Futures has contributed to over 700 products through knowledge transfer since 1995. The ADRC is able to deliver an agile approach to industry related opportunities through a dedicated core team within Design Futures (12 FTE) who do not have teaching responsibilities, working alongside research staff supported by the centre, having a significant proportion of their contract dedicated to research and KT activity. Achievement is evidenced through frequent successes with invitations to tender, delivered to the tight deadlines required by industry, and with high quality outputs conforming to stringent standards. The strategic building of relationships has focused on the healthcare sector, for example with institutions such as the NHS, and developing methods for co-design with end users to facilitate public engagement (e.g. public field labs and exhibitions). These strong relationships have helped to secure funding from, for example: Industry (Dulake/ Trulife) where research has led to significantly reducing the production time and energy costs of orthotics products; the Wellcome trust (Cotterrell see Ref 3b); and NIHR (User Centred Healthcare Design) where research has impacted through the Better Outpatient Services for Older People (BOSOP) project (e.g. The design and content of NHS patient appointment letter). The EPSRC/British Council HE/KT project 'Future Bathroom' (Chamberlain, in collaboration with Ideal Standard and Vitra) was cited in the FAST government annual report, leading to Chamberlain being invited to present 'creative methods for patient engagement' at the Health Services Annual Research Symposium 2012.</p>

Impact template (REF3a)

Development of relationships with key users and beneficiaries is further strengthened, and reach extended, by the interdisciplinary nature of staff within the ADRC, coming from such diverse backgrounds as mechanical engineering, HCI, biomechanics, ergonomics, social science and occupational health, in addition to a wide range of art and design disciplines. For example, Craig's research in supported self-management for people with dementia has led to invitations to work with the Head of the Scottish Care Commission for Allied Health to explore ways of introducing the approach in Scotland. She was subsequently commissioned by the Head of National Education Scotland to work with Allied Health Consultants and representatives of the Scottish boards to explore how to implement this research into practice.

Dissemination of Research: The knowledge and expertise of staff, combined with their national/international profile, has led to numerous invited contributions to professional and practitioner audiences through conferences, seminars and workshops. For example keynote lectures have been delivered by: Atkinson, 'Open Design: Issues and Impact', Milan Furniture Fair 2011; Chamberlain: Tsinghua University's Summit conference on 'Design Innovation for Product breakthrough', Beijing, China 2010; Chamberlain, Roddis, Philips, 'Opportunities & Risk management to Support Successful Design & Innovation Strategy' at the Guangdong Industrial Design Week, World Trade Centre, China 2010; Cotterrell has presented keynotes hosted by the RSA, Wellcome Trust and EUNIC and Yoxall was invited to contribute to the development of European and International standards and guidelines in the area of packaging accessibility. The establishment of the annual Design4Health conference disseminates a strong theme of ADRC's research activity.

Support for Achieving Impact: The ADRC has made use of institutional facilities, expertise and resources to enhance impact, for example through HEIF funds, which have been invested to support Lab4Living (£132k and the Health Technology Portal £42k).

In response to the University', and the ADRC's, strategy for the protection and exploitation of the intellectual property routinely generated from research, a cohort of dedicated personnel has been developed with expertise in patent writing, IP protection and licensing. The Research and Innovation Office (RIO) provides central expertise to deliver the corporate vision of SHU in innovation, applied research and knowledge transfer. It is an essential partner in helping the ADRC to deliver research priorities, working with organisations and companies to achieve economic and social transformation. Dedicated personnel in RIO (16.2 FTE) maximise intellectual outputs from market-driven research; facilitate the raising of funding to support research; support the exploitation of research; and create commercial technology transfer relationships with external organisations. Through the IP Commercialisation Committee, an annual investment (£80K) is made in filing and protecting patents, legal fees, and supporting staff in the creation of spinout companies (e.g. TTURA & TacMap ICS). Support from the ADRC and RIO is available for contracted academics and members of the wider research community.

A well-established infrastructure is in place to support the applied research agenda in the ADRC, specifically the support of the Cultural, Communication and Computing Research Institute (C3RI) Project Management Group and the ADRC Steering Group. These groups now have impact as an item on their agenda and in recognition that this will become increasingly important. The C3RI's Project Management Group (PMG) continues to support the ADRC through regular project steering group meetings, ensuring that issues around Research Ethics; Health and Safety and Quality Control procedures are addressed. This committee now forms a central part of the ADRC's impact strategy by considering the application of research, the sharing of best practice across and outside the unit through open seminars, and the provision of peer support to individuals in overcoming barriers to achieving impact. The ADRC is supported by a dedicated team providing administrative support (6.8 FTE) to staff with respect to grant bids, work planning, and project management and recording. The ADRC Steering Group ensures quality, decides on research policy issues, the distribution of research funds and the direct and indirect mentoring of staff. Through these activities the ADRC supports staff in attaining impact from research outputs and in attaining outwardly facing positions on juries, peer review panels and advisory boards where they impact upon their disciplines (see REF5 e).

The staff development strategy assists staff in developing the skill-sets necessary to secure impact. A suite of training courses is available to enhance research and knowledge transfer skills in line with the Vitae Researcher Development Framework, including media training, and commercialisation and IP. The SHU Professional Development Policy and Framework articulates

professional development throughout the academic career, key components of which include knowledge transfer and marketing.

c. Strategy and plans

The ADRC's Impact Strategy 2014-2019 is consistent with the University's mission and commitment of ensuring areas of research strength contribute to the knowledge economy whilst having a positive impact on quality of life. The ADRC strategy has been developed and refined through reflecting on and responding to this REF exercise. Over the lifespan of the ADRC the application of research has always been an implicit agenda for the Centre. The Centre has provided support to enable dissemination, collaboration and development of a variety of research outcomes into systems and products. This support includes: the realisation of pre-production prototypes, standards testing, patent application development and filing; the purchasing of equipment; short secondments and the facilitation of practice-based research in a variety of forms; travel, accommodation and payment of conference fees, workshop participation etc.

Our strategy and plan to maximise impact over a five year horizon is to i) further extend our maturing approach to impact in Design across to Fine Art and Media; ii) adopt a more pro-active approach to the use of social media and the ADRC website to help forge new collaborations and draw attention to impact activities; iii) embed impact as a formal part of PGR training; iv) extend opportunity for impact within healthcare through the five year NIHR CLAHRC Y&H programme establishing links with industry, practitioners and patients.

To help deliver this strategy and make more explicit the impact agenda within the ADRC, quarterly research monitoring meetings will be broadened to identify, share, and consolidate support for new and existing research being conducted within the centre. This includes the involvement of a RIO Intellectual Property Manager and a member of the SHU B2B Marketing and Media team to enable early IP protection and dissemination strategies for developing knowledge. In addition university staff development courses are available in developing and managing impact. These will be enhanced by subject specific knowledge, led by senior researchers who have managed and developed impact and who have experience of the wider application of knowledge within the ADRC. Currently all researchers have a 'critical friend', or mentor, assigned at the beginning of each research programme whether the research is self-initiated, internally or externally funded. This pairing process is now encompassing the impact agenda. In appropriate instances impact mentors will be nominated from outside the centre and institution using the pool of expertise and networks created with international, national and regional industries, regional and national government agencies, and collaborating HEIs.

Supporting all of the above, RIO collates data on impact via a database capturing feedback from external clients about the benefits of our interventions. This feedback will not only support further REF submissions, but also improve internal protocols and communication with the wide variety of external agencies utilising our research.

d. Relationship to case studies

The three case studies epitomise the applied research agenda of the ADRC and its approach to impact, with research being tested in real world situations rather than propositions remaining within academia. All three case studies are underpinned by high quality, practice-led academic research within two of the identified research thematic constructs, 'Creative Practice in Healthcare', and 'Social Narratives'. Similarly, all the case studies are the result of close research relationships with a variety of stakeholders, with the resulting research insights disseminated to a wide range of audiences within and outside academia. The ADRC adopts a flexible and responsive approach to supporting individual researchers in order to maximise opportunities. All the case studies were supported by the ADRC to achieve impact through the provision of specialist equipment, and the funding of teaching remission, travel and subsistence.

Learning outcomes from the Impact Case Studies have informed the impact strategy for the next five years by illustrating that local, national and international impact is best achieved through: maintaining long-term relationships with collaborators; ensuring close engagement with end users as part of the creative research process; instigating interdisciplinary research projects; and supporting a continuing programme of staff development, training and mentoring. Moreover, the Impact Case Studies demonstrate an understanding of how a portfolio of creative practices can be used effectively to engage with a diverse community of stakeholders in a range of sectors.