

Institution: University of Ulster

Unit of Assessment: 34 Art and Design, History, Practice and Theory

a. Overview

RAE2008 recognised Ulster's Art and Design research environment as all 3-4* with 100% 4* esteem. Achievements demonstrating sustained research environment since 2008 include: **Research published** in 22 authored books, 13 edited books, 77 book sections, 104 journal articles and over 120 conference contributions. The University Institutional Repository (UIR) makes 1000+ art and design publications available.

• **Over 114 exhibitions**, either curated or as principle artist, **11 performances** and **14 internet publications** disseminate research to the academy and the public. Exhibitions include the Venice Architecture Biennale, dOCUMETA13, and at Imperial War Museum and key events in Derry City of Culture Programme.

• The Unit's **Practice research** focus and expertise is reflected in 128 artefacts, 8 designs, 3 installations, 14 bodies of work, 2 devices, 10 digital or visual media and 16 performances.

• Research translated into products and services that have a beneficial impact on society, culture, public policy, the economy, wellbeing, the environment and quality of life outside academia is demonstrated in 8 research reports, 7 Knowledge Transfer Partnerships (KTPs), 7 Fusion programme projects (Fusion is the all Ireland equivalent of KTPs), 43 Innovation Vouchers, 3 Proofs of Principle, 16 disclosures, patent applications/patents for 7 researchers in the Unit 34 (UoA34); 1 Community Trademark granted (Girli Concrete); I UK patent; 3 patents pending in Europe and US, one patent pending International (PCT) Application. 5 spinouts sustained in which the University retains an interest.

• £4.75M research income including PI of £250K AHRC Creative Industry Knowledge Exchange project, £125K Welcome Trust award and £111K Leverhulme Trust award.

• **Substantial renewal of academic staff** - 8 new staff submitted to REF2014, recognition of research leadership in **10 professorial appointments** and a strategy for leadership development.

• **Over 37 successful PhD** completions and an increase in PhD studentships (#43 2008-12)

• **The of architecture and of animation research** since 2008 has informed the unit's development from large discipline-specific research centres towards thematically driven clusters that ensure close alignment of research and innovation. The 6 clusters:

Art and Conflict
 Art and Contexts
 Art and Design of Living
 Space and Place
 Art and Design of Living
 Future and Virtual Worlds

Institutional commitment is evident in the rebranding of 'Belfast School of Art' and 'Belfast School of Architecture' and in the 2004 – 2010 completion of a **£30m refurbishment** of the Belfast campus creating customised facilities that anticipated the needs of research, learning and academic enterprise. The completion of phase III coincided with an 'Art and Design' Campaign, publications and exhibition to celebrate the 160th anniversary of Belfast School of Art. Work has commenced **(2013-18)** on an adjacent **£250M campus development** including extensive new art and design space and research resources.

b. Research Strategy

Research Institute Art and Design (RIAD) is co-terminus with unit 34. It was established in 2004 to deliver strategic subject leadership, administrative support, internal research funding and assistance to researchers. The University '**Strategy for Research and Innovation 2009 – 2014**' supports a broad research agenda through 15 such **Research Institutes** in order to provide an optimum environment within which research may be both sustainable and vibrant. Following the RAE 2008, RIAD reviewed activity against national benchmarks and revised its strategy in order to focus on areas of excellence, impact and interdisciplinarity. Building on the vision of '**Engaged Creativity**', introduced in 2007, the aims of RIAD's Five-Year Plan can be summarised as:

• **Sustaining** and promoting excellent Art and Design research and innovation that is nationally valuable and an international point of reference.

• Developing research capacity and leadership.

• **Nurturing** the next generation of researchers by maintaining a critical mass of research degree study, ensuring a vibrant subject research ecology and a multi -generational research environment (student, ECR, Mid career, senior researchers).



• **Providing** a flexible environment that is conducive to the development of new lines of enquiry, recognizing world-leading solo excellence and increasing collaborative/cross-disciplinary research.

• **Influencing** the cultural and creative economy in the nation and beyond, improving knowledge and understanding of the creative industries in the region and the relationship between art and design research and social, cultural and economic realms.

Expanding effective art and design knowledge / technology transfer and consultancy. The Strategic Review identified 4 further imperatives for UoA34 in the REF period 2008-13 1. Enhance understanding of the characteristics of subject research- the 24.8FTE REF 2014 reflects the 3*-4* volume in RAE and is similar to the RAE2002 volume when Ulster was rated 5. 2. Focusing more directly on the benefits and users of research, supporting researchers in maximising the reach, significance and planning impact of their research at the outset. 3. Nurturing and expanding research capacity in the two new areas of architecture and animation. 4. With University support, the completion of major refurbishment and the 160th anniversary of Belfast School of Art to reevaluate art and design research with exhibition and publications. A new **RIAD Executive** was convened to utilize research leadership to lead strategic direction while an expanded Research Institute Board ensures effective implementation, peer review and succession management through opportunities to lead events, sub themes and clusters. The Strategic Review and self-evaluation also led to the development of related events (examples of public and sector events include: Sebastian Conran 'Design Thinking - Creative Value' and Sir Tim Smit 'Climate For Change' both 2013). It has resulted in reflective outputs providing insights into research and development activity activities, examples include: [1] Belford's Output 4 in Ref2 [2] McManus, T. +4 co-authors (2011) Good Design Practices with Small Businesses; [3] Coulter, J.t and McKeag D. (2013) Thinking Outside the Square: Creating Value and Emotion in Ceramic Tiles Through Design- Led Innovation.

The Support Programme for University Research (SPUR) II funded the Interface Research Centre 2004-2008, a practice-led project that provided outstanding research facilities in two areas: Textile and Fine Art. In 2008-9 extensive engagement with researchers built on this success, informing a researcher driven redirection from 3 *discipline*-defined research units to **6 thematic research clusters**, listed in 'overview' above. Researchers may align with one or more cluster. The clusters developed sub themes, targets, strategy and plans. The clusters recognise new research imperatives such as 'space' while building on recognised existing areas of recognised excellence and persistent interest. The 'Art in Contested Spaces' evolved into 'Art and Conflict' with aspects in 'Space and Place Cluster. Textile Customisation and Construction broadened into 'Art and Design for Living' while hybrid textile configurations are encompassed in 'Creative Ecologies'. Archiving and documentary practices remain underpinning concerns.

Specialist (discipline) excellence continues to underpin the realization of outstanding art research. Based in the largest art and design HEI on the Island, RIAD spans many disciplines:

- **Fine art** practices painting, printmaking, performance video, photography and sculpture.
- **Contemporary applied arts** ceramics, silversmithing, jewellery.
- **3D Design**, product design, furniture including universal and inclusive design
- Architecture, landscape and interior design
- **Graphic design**, animation, interactive multimedia design
- History and theory of art and design including feminist theory and curation practice.

Implementation

RIAD has a recurrent budget; the major element is derived directly from earned QR. The full value of research earnings is attributed directly to the faculties and schools of each individual researcher enabling the resourcing of high-level equipment essential to globally recognized work. RIAD supports dedicated research equipment, workshops and research activity, such as conferences and symposia. RIAD deploys the majority of the strategic support budget (£690K 2008-13) on a **competitive peer-reviewed** basis through annual research planning and semesterly peer review of proposals in a threefold way:

[a] **Quality**- to clearly identify research imperatives and to foster the highest quality research to address them with regard to the scale and scope of each research project.

[b] **Capacity and rigour** –to develop skills and realize potential in relation to [i] early career researchers [ii] consolidate and grow established researchers [iii] cross-disciplinary research.

[c] **Significance and reach** -to secure effective reach and significance of Art and Design research, particularly with regard to impact and national / international accessibility.



Research clusters also seek support for research-specific equipment and specialist technical support including a research staff development in addition to that available centrally such as advanced laser cutter or 3D printer training. Commitment to implementation is evident in:

a) **New workload model**. Regular meetings between RIAD Director and Heads of School so that teaching and administration are monitored and adjusted to maximise research activity.

b) Revised research leave scheme.

c) Financial and advisory support for impact development.

The University introduced Impact Awards to assist the realisation and demonstration of impact. UoA34 secured £24.5K of this competitive support.

c. People, including:

I. Staffing strategy and staff development

Staffing Strategy

Since 2007 the University, Faculty and RIAD have pursued a staffing strategy to ensure UoA34 research capacity is maintained. There have been new posts at all levels from lecturer to professor in order to renew and sustain the research base of the unit following eleven retirements and departures. Key areas have been sustained (for example, replacement post in painting) and strategic consolidation or expansion enabled, (for example, new posts in animation and photography). Technical support has also been maintained with associated technical posts recruited [photography]. 8 academic staff in REF2 are **new** to the institution, **3 are ECR**. About one third of researchers in REF2 have fractional contracts or have chosen variation in their contract. The capacity and impact of the unit has been enhanced by recruitment of senior researchers from creative and cultural industry- *Maguire*, and *Wylie* are new to academia while *Curl* and *Wallinger* are returning after some time in professional practice. Most members of RIAD are academics, with research students the next largest group. The majority of art, design and architecture academics at Ulster have conventional teaching and research academic contracts. RIAD supports the research development of this substantial volume of researchers.

Visiting professorships (13) are strategically appointed to share best practice; to extend reach and impact through events, projects and collaboration. For **Professor Hodder**, first architect to win the internationally famous Stirling Prize, aligns to architecture research, **Professor Jaar**, artist, architect, and filmmaker, collaborated on art in public and PhD projects, **Professor Kitchen** developed sustainability policy. Researchers work with visiting professors and external industries ('From Experience' with **Professor Zellweger** and Craft NI). **Visiting Scholar** relationships are sustained (Wilson 2011 Irish People, Irish Linen). Wright was an **outward Visiting Scholar** to the University of Texas Medical Branch (2012). RIAD also secured competitively externally funded placements for 6 emerging craft SMEs R&D residencies (funded by InvestNI and the Arts Council) with an associated support programme open to all researchers in the unit.

Staff Development

Research Clusters nurture intellectual 'space' for dialogue between researchers at different career stages around identified research issues. They are a mechanism for internal mentoring and peer review in both ad hoc and formal meetings (reading groups, colloquia and public lectures). **Staff development and training** is available through a range of opportunities at University, Faculty and RIAD level. The University offers compulsory generic and local staff training for all new members of staff and an extensive portfolio of specific research training workshops, including research supervision and project management. This is complemented by an array of online courses on the virtual learning environment (VLE) and training offered by the Research Office (IPR, research governance/ethics, external research income generation). The University Knowledge Club contributes to knowledge and development of relevant networks such as IPR, Times Innovation Cities Roadshow (2012). Special events develop expertise in areas such as Horizon 2020, Research Councils, Technology Strategy Board and Creative Industries KTN (Knowledge Transfer Network).

At the start of a **new post**, two individuals offer immediate support: [a] a **'buddy'** assists professionally and personally in the initial 'find their way around' period; and [b] a personal **'mentor'** (an experienced member of staff) offers support in all core activities of the appointment. All new researchers are supported during their monitored probation period by an initial research planning meeting and periodical follow ups in conjunction with their Head of School. Researchers identify objectives and ambitions in **Research Plans**, complementing the Universitywide Developmental Appraisal Review process (DARS) allowing staff development and resource



planning. Progress towards research goals is monitored (through the UIR, research reports and annual review of plans). Whilst researchers are advised to aim towards outcomes within a 1-4 year period, support is also directed to strategic network development, and shorter-term collaboration or testing during which larger projects are developed. However, all researchers are supported in the identification and realisation of external funding opportunities.

The University 'Aspiring Academic Leader Development Programme' (2 Completions) was introduced in 2012 to develop the next generation of middle level academic & research leaders within the University leading to an *ILM Level 5 Certificate in Leadership & Management*. To complement this, the Faculty has particularly encouraged and resourced a programme of leadership development including training of Faculty executives. RIAD has supported researchers in undertaking external leadership training including Centre for Women In Politics (1) CHEAD Leadership Development (3) and ELIA (2). The University Centre for Higher Education Practice 'CHEP' founded 2008 expanded to include 'research' to become 'CHERP'. Unit 34 researchers have benefited from CHERP Visiting Professor workshops including those focused on writing journal articles and research degree supervision (34 attendances). **7 emeritus professors** retain close links with RIAD, maintaining networks and conferences. Ulster joined the Athena **SWAN Charter** in October 2012 and will submit for an Athena SWAN Bronze Award in November 2013. On this basis a substantial internal investment in the development of research projects by individual staff, collaborative ventures and research networks has been made.

c. II. Research students

Support and training for assistants and fellows Research staff and students are members of RIAD. Workshop space, cluster meetings and regular events ensure that such practice research is visible to other researchers. Belford is a **Senior Research Fellow** with independent research. She is supported to engage in significant cross-institution research including a Leverhulme award, industry collaboration and sustaining a research-driven spinout company. A small number of projects with **research assistant** posts concluded during the REF period and Leverhulme and AHRC have funded new ones. The 'buddy', induction, staff development and research clusters, described above, ensure new research staff enter a supportive research environment. A number of online courses support research (research indemnity, Data Protection [36 completions]), and extensive web resources (e.g. research ethics, SPSS) ensure that researchers can quickly adopt required practices information and negotiate institutional procedures.

Support and training for research students

A strong PhD community is at the heart of the Unit, having established practice-based research degrees almost 3 decades ago. Responsibility for quality assurance of PhD programmes, together with the maintenance of standards and procedures, resides with the faculty-wide Research Graduate School (RGS) with an RGS Head, dedicated administrative support and a Board that includes supervisors and students. The RGS annually briefs all supervisors. The RGS Board reports to Faculty committees and to the University central Research Degrees Committee. Each student has at least two supervisors. New Supervisors receive training and have an experienced advisor of studies. The University's Staff Development Department facilitates refresher training. **RIAD Research Clusters** identify potential areas for research and develop 'priority' topics that are advertised with named supervisors. This ensures that there is capacity to supervise, a feasible question in an area of current research and associated resources to sustain projects. The studentships attract applications from around the world. All gualified applicants are interviewed. There has been steady growth from 20 in RAE2008 to over 37 successful PhD completions in REF2014. The range of topics has broadened and supervisory capacity has developed. The majority of students study full-time, (part time is available). Most are recipients of a Department for Employment and Learning NI Research Student Award or Vice Chancellor Award and, being campus based (apart from fieldwork) contribute to a vibrant research environment. PhD rigour, viability and progress are monitored through a range of measures: recorded supervisory meetings; annual progress reports (from supervisor and student); progress review (after 100 days); confirmation viva at the end of year 1 (year 2 in p/t mode); a conference panel presentation mid year two; a poster competition in year three (year five p/t). Awards are made annually in the Unit for best publication, best research poster and best thesis. Research students are supported through a vigorous generic research training programme at University and Research Graduate School levels. The unit supplements this with specialist training in practice-based



research methods through research seminars and workshops e.g. Research Colloquium and a Practice Research Forum. The Unit has renewed a MOU with 3 HEIs in Ireland for The Graduate School of Creative Arts and Media (GradCam), Ireland's Dublin based centre for doctoral research. Ulster contributed to the process of revalidating structured doctoral studies in 2012. Ulster researchers are on GradCam's executive and management boards and are visiting fellows (Montgomery, Fleming, Lerm Hayes). Students have opportunity to extend their experience through GradCam seminars and programmes and to become associate researchers (Flegg). Students also benefit from staff research projects i.e. **CREATE (**Colour Research for European Advanced Technology Employment) in which Ulster was a partner with 7 other European HEIs led by University of West of England. Students also publish practice through research networks, including Catalyst Arts [Burke], Flax Art [Walker], Queen Street Studio [Clancy], Belfast Exposed [Huber].

Research students have annual research allowances and internal funding through awards in support of high quality dissemination of research in an international arena. Publications include 5 co-authored conference contributions: [1] Bosch, S., Moloney, M. and Miloshevski, Dr. (2009) *Homage to John Cage 4'33* public installation [2] Bosch, S., Driver, C. and Johnston, S. (2009) *AGENCY* [3] Bosch, S., Driver, C. and Johnston, S. (2008) *A Viewing*; [4] Bosch, S., Brownie, M., Cadman, C., Larkin, F., and 4 others (2012); Connections Artists in Communication [5] Loder D. (ED.)(2013) Skin of The Goat [6]. 11 staff were **External Examiners** for 17 research degrees in HEI's in the UK (11), the Republic of Ireland (3) and internationally (2).

d. Income, infrastructure and facilities

Income: Research grant applications and other forms of research income

RIAD members secured £4.75M in research income including funding from all major subject research funders (AHRC, Leverhulme, Wellcome Trust, British Council, Nesta and European funding). The University Research Office supports researchers making applications and in subsequent administration and budget monitoring. RIAD arranges peer review of draft applications. The University subscribes to Research Professional. Significant effort has been directed to external research income including a staff development module for this purpose (13 completions). Coyles, an ECR, secured his first AHRC grant following this course. Many researchers also secure support for research from non -research sources. Belford had support from the Creative Industry Innovation Funds and her spinout company (Ltd company, 2010), was awarded the Northern Ireland Science Park £25K award (2012) and has subsequently secured £250K in innovation support. Arts Council of Northern Ireland (ACNI) travel awards were made to **Bosch** (x 2), Connolly, Fleming, McCann, Moore, O'Beirn. Bosch was also awarded an ACNI international residency and Connolly, Dickson, McIntyre (x2), Murphy (x2), O'Beirn, Preston received ACNI general art awards. Other sources of support are related to the research content e.g. Lerm Hayes and the Joyce Foundation, Zurich and Goethe Institute, Dublin. Researchers often contribute to substantial funding applications submitted by external organisations (i.e. Galleries) in order to publish research outcomes such as performances or exhibitions. E.g. Biennale du Lin, Quebec. Strategic seed funding is made available from the RIAD budget for the development of research projects, equipment, technical, material, as well as occasional teaching relief for completing research projects and financial support for the international dissemination of practice outcomes. The Unit has commenced planning for the impact of open access publication. Strategic support from the European Framework Support Fund (EFSF) for European collaboration is ring-fenced to increase expertise through inclusion of non-HEI companies as partners. In this way Horizon 2020 is planned. Ulster's location requires allocation of a significant budget for researcher travel. Infrastructure: The intellectual infrastructure and Context

Since 2007 the Faculty of Art, Design and the Built Environment has been home to The Belfast School of Art and Belfast School of Architecture. Architecture is included in unit 34 for the first time. The vast majority of Unit staff are based on the Belfast campus. A smaller group united by shared design practices are based in the School of Creative Arts, Faculty of Arts at Magee, Derry where they benefit from proximity to Computing and Intelligent Systems at Magee, and Life and Health Sciences as well as Media research at Coleraine campus.

The city centre Belfast campus is adjacent to the Metropolitan Arts Centre (MAC). It borders the Cathedral Quarter and the Titanic Quarter, core to long-term arts-led urban regeneration. The University's Belfast Area Plan situates 'Art and Design' as a major contributor to that development. An adjacent £250M campus development commenced in 2013.



Aside from the Conflict/ post-conflict research described above, the **national context** is important. In relation to Northern Ireland having the highest concentration of SMEs in the UK, (81% of private sector employment) and more Creative industries (4.6% of the workforce). The creative industries, as one of few growth areas, have become a key focus for Government Departments and Public Development Agencies such as the ACNI and InvestNI. The unit represents the research capacity of what is, effectively, a national art college. The AHRC funded Creative Exchange Lab 2013 (CEL) will enhance understanding of this context. RIAD has developed research links with many relevant international contexts (The Egyptian Housing and Building Research Council [Walker]), and research contributes to understanding of international issues (Doherty's dOCUMENTA13). Research in UoA34 promoted strategic contributions to all dimensions of the Creative Industries: [a] creative service provision through, for instance, design consultancy (**Coulter, Rusk, McGinn**); [b] creative content production (Maguire, Fitzpatrick, Magee, Cullen, Cummins; [c] creative experience providers (Maguire, Higgins, Shipsides); [d] numerous creative originals providers, the largest proportion of activities, but more diverse than in 2008, including artworks, performances, curation, theory, architecture and design.

The operational infrastructure

The University Research Office manages central administration of all matters relating to University research activity. The Research Office advises on and supports grant applications, contracts and administers the recruitment, admission, registration, progress and examination of PhD students. The Research Office also implements the research policy of the University, steered by Senate, the Research and Innovation Committee (RIC) and Research Degrees Committee (RDC). The strategic management of research and innovation occur through a central department, Research and Innovation (R&I), that reports to the Pro Vice Chancellor for Research and Innovation. The Office of Innovation deals with all aspects of IPR, entrepreneurial and KTE activities. At Faculty level, a Research and Innovation Committee develops and implements strategy.

RIAD is resourced with highly gualified technical support staff and dedicated administrative support. RIAD is concerned with all aspects of research including the Unit's strategy, quality assurance, staffing, resources (administrative, material/equipment and technical), the physical environment, and income generation. It promotes research opportunities through a new monthly ebulletin, also celebrating achievements in an annual report. 1-2 away days per annum have keynote speakers ('Impact' Carole Gray 2009, 'The Value of Arts Research' Francois Matarrasso 2010). Its operation fully coheres and intersects with the policies and management of the Belfast School of Art and Belfast School of Architecture.

Connections between the Unit's research and local communities are enhanced by the University's Cultural Development department, a dedicated development and outreach unit that has organized substantial programmes of events, for example, annual Belfast Festival of Art and Design since 2008 (contributors have included Sir John Sorrell, Ana Maria Pacheco and Helen Storey). Resources

At University level, state-of-the-art Learning Resources Centres operate across the campuses. These combine the best of a traditional library service with a modern learning environment and electronic access to many sector-leading portfolios of online learning resources. Central high-level ICT facilities including video conferencing are complemented by specialist computing and state of the art digital equipment in Unit 34. Research resources include a range of post-production and communication facilities, sound post/production hardware and software, the latest generation of digital printers (Mimaki TX3 and UV/multisurface), Jacquard loom, CAD guilters and stitchers, laser cutter, rapid prototyping, digital imaging including professional quality cameras such as Hasselblad. There are also17 subject workshops including analogue photography, ceramics, wood and metal work, print, silversmithing, sculpture/casting, weaving and sewing, operated by qualified technicians.

e. Collaboration and contribution to the discipline or research base

The University fosters a culture of curiosity-driven research and associated creativity that includes supporting solo creative and cultural outcomes. About two thirds of REF2 is sole authored. Unit signature art practice remains powerful and has continued to achieve global recognition (Martin Parr 'Parrworld' and the transformation into an adjective, Parresgue', in The Guardian; Wallinger White Horse, Doherty in Derry UK City of Culture 2013 programme). One third of output in REF 2 is co-authored indicating sustained collaborative, cross-disciplinary and co-authored research (e.g. catalytic textiles (2008) and Skeletal Joe (2010). The cross-disciplinary and collaboration, research



under this strategy is increasingly realized through teamwork and collaboration-

• Within the unit such as *Coyles' (architecture) and Wylie's (photography) AHRC funded* 'Communities as Constructs of People and Architecture'.

• **Cross-disciplinary within the faculty**. Architecture is included in unit 34 for the first time and has generated cross disciplinary externally funded research (Coyles and Wylie); and the School of the Built Environment where animation and documentary photography are contributing to EU funded BeSECURE.

• **Cross-disciplinary with other parts of the University** including within the faculty and outwith the faculty such as Academy for Irish Cultural Heritage, Life and Health Sciences, and the School of Computing and Intelligent Systems.

• **Cross disciplinary with other institutions** (including Durham University, Kingston University Sheffield University, University of Texas, Sydney University) Ulster, with 7 other European HEIs led by University of West of England, delivered courses and conferences and publications 2007 – 2010 to develop artists, designers, technologists and scientists cross disciplinary approach EU FP 6 funded Marie Curie project Colour Research for European Advanced Technology Employment (CREATE). Free Radicals -a NESTA Project testing an interdisciplinary approach to innovation in the universities sector delivered with the University of Sheffield, the University of the Arts London, and the Helen Storey Foundation. The All-Ireland Architecture Research Group' consisting of seven schools of architecture of the Republic of Ireland and Northern Ireland, and professionals interested in architectural research.

• **Outside academia** -Wylie -Imperial War Museum; Belford - textile company Turnbull Thompson, O'Beirn - Armagh Observatory. Innovation Dublin Festival (2012), 'Fumbally Exchange' (2011) a community of design-focussed small businesses whose aim is to cultivate an atmosphere for creative and regenerative growth in a time of great challenges and volatility in our industry.

• **Curation** has enabled development of knowledge and publication through exhibition (Cummins at VOID, during the Derry City of Culture; Parr Brighton Photo Biennial Fleming the First international Curator of the Biennale du Lin, Quebec).

At HEI level, the **Office of Innovation** provides a focus for art and design enterprise innovation, commercial collaborations and consultancy. Structurally, **Knowledge Transfer Projects (7 KTPs completed)** play a strategic role in enabling industry access to research and to research thinking through direct engagement with businesses.

7 Fusion programme' projects developed new products, services and processes in this all-Ireland technology transfer initiative. InvestNI, the regional business development agency, awards **Innovation Vouchers (43 IVs in unit 34)** worth £4K to selected businesses to enable access to Ulster's consultancy, design expertise, market research and technical support.

Academic networks are extensive. A long-term collaboration between Ulster (Belford) London College of Fashion (Storey) and Sheffield (Tony Ryan), which led to outcomes in the last RAE, has continued to generate innovative outcomes in catalytic clothing and 'Herself'. Fleming led a Wellcome Trust grant with Durham University (Medical Education) and with Radiography in the University; Montgomery and Fleming collaborate with Queen's University in an AHRC Knowledge Exchange project. Networks and recognized collaboration thrive with institutions (in addition to those already mentioned) – including Independent Curators international, Goethe Institute, Joyce Foundation, Crafts Councils of Ireland and England, Design Wales, Arts Councils of Ireland England and Northern Ireland.

Consultancy is developed valued as knowledge exchange. It has included textile work for 'Game of Thrones' and design and production of table linen for the Arts Council of Northern Ireland. **8 Commissioned reports** have included McBrinn, J. (2009) *Public Sculpture in Dublin 1851-1951* Victoria and Albert Museum and Irish Heritage Council and McQueen, M., Elkadi, H., Millar, J. and Geoghegan, P. (2008) *Your Space or Mine? - A Co-Influence approach to shared future urban environments in interface communities* for the Community Relations Council.

Researchers make contributions to cultural infrastructure through over **22 board memberships** including Arts Council of Northern Ireland ACNI (**Montgomery, Seawright**), Museums and Galleries NI (**Fleming**), Metropolitan Arts Centre (**Lerm Hayes**), Craft NI (**Fiddis, Fleming**), Belfast Exposed (**McIntyre**) Void Art Centre (**Chan, Cummins**); and artists-led initiatives such as Belfast Print Workshop (**Penney**), Bbeyond (**Connolly**), Flax Art Studios (**O'Beirn**), Queen Street Studios (**McKenzie**), Catalyst Arts (**Driver, Shipsides**), Society of Dyers and Colorists (**Belford**) Orchid Studios (**Shipsides**). National Sector engagement includes Council for Higher Education



Executive CHEAD (**Montgomery, Fleming**) for which Ulster hosted the 2008 conference and Royal Society of Ulster Architects (Coyles, Walker). Walker was NI regional judge for Stirling Prize in Architecture. Masterclasses in Applied Arts supported by the ACNI in association with the Ulster Museum and Ormeau Baths Gallery (organized by **Fiddis**), have provided 6-8 per annum research-oriented training for practitioners in the region and cross-border facilitated by inter/national experts in the field with 'masters' including Glenn Adamson and Clare Twomey. Researchers are members of over 25 different professional organisations including the Art Historians Association, Design Research Society, Royal Institute of British Architects (RIBA). The Unit is a corporate member of European League of Institutes of Art (ELIA) Council for Higher Education in Art and Design (CHEAD) and represented on the board) European Textile Network and actively involved in European Art Research Network (EARN, Shipsides) and Paradox (Fleming). In addition to presentations in academic contexts, researchers also accepted 34 keynote invitations and give public talks including: **Cummins** –*Hugh Lane Gallery 2013*, **Curl** – Honorable Irish Society London 2013.

Evidence of Contribution The contribution of researchers was recognized in number of awards:

McKenzie- John Moores Painting prize, -	Deveney- Anonymous was A Woman \$25K.
long list 2012	D'Arles Contemporary Book Award 2008.
Murphy -RDS National Craft Competition	Best Photography books award.
Award of Excellence and California Gold	New York Photo Awards 20 nominees Best
Medal 2012	Photography book2008
Sam English Award	Honourable mention International photography
Blaney- The Best of British illustration 2011	awards 2008
Golden -RSUA Best project	Connolly - Allianz Arts and business award NI
Belford- Textile Society Prof development	Sheridan - The Royal Institute of the Architects of
award.	Ireland (RIAI) 2013 Best Research Project –highly
25K Northern Ireland Science Park award	commended and 4 other RIAI awards 2008-12
'The search for the next big thing"	Architecture Association of Ireland 2010 1st prize
Royal Dublin Society multimedia textiles 1st	Dublin Parlour Civic Square and special mention
prize. Society of Dyers and Colourists DC silver medal. The Big idea (for tactility factory) Wylie- Deutsch Borsch Shortlisted 2011 Awarded Bradford Fellowship 2012	 Walker- Royal Institute of British Architects /Learning Skills Council Higher Education Building of the Year 2008 for Usworth College Mackel RIBA Award 2012

A number of researchers contribute to academic publications including peer-reviewed journals in editorial or advisory capacities: **Belford** [1] Duck [2] Berg Structure and Form; **Chan** [1] Circa – Editorial Advisory Panel [2] *Translocations, migration and social change* -open access e journal [3] *Irish Migration* international advisory board member /peer reviewer [4] Race and Social *Transformation Review* – Editorial Board member/peer reviewer; **Golden** [1] Healthcare and *Architecture: Northern Ireland's legacy* -Editor and foreword [2] Perspective editorial committee [3] Journal of Architecture and Design in the Northwest USA; **Herron** *Animation: An Interdisciplinary Journal.* Sage (peer review, editorial board **Ionascu** 'Visual Inquiry' Peer Reviewer, editorial board Guest Editor, Special edition march 13;**Lerm Hayes** [1] *Answers: Journal for Literature and the History of Ideas* Peer Reviewer [2] Triarc Books [4] Journal of the Irish Association of Art Historians; **McBrinn** [3] *Journal of Modern Craft* Editorial Board [4] The Irish Arts Review; **Moore** Craft Research online journal

5 Researchers undertook work for the **AHRC Peer Review College**: Fleming, Kelly, Mey, Seawright, Wright. Fleming and Lerm Hayes have contributed to international scientific grant reviews. Fleming was a keynote at the Wellcome Trust launch of their new Medical Humanities stream. Seawright undertook a review of RAE 2008 Panel O / Sub-panel 34 and is a member of REF panel D UoA34 and researchers regularly contribute to reviewing research for other HEIs. Works by researchers have been acquired 2008-13 for many private collections and for prestigious international **collections** including: Archive of Modern Conflict, Canada; Arts Council NI; Dallas Museum of Art; Harry Ransom Center, Texas; Imperial War Museum; Lenbachaus, Munich; Neue Galeria, Kassel; Philadelphia Museum of Art; Speed Art Museum, Kentucky; Tate; Arts Council of Northern Ireland; Ulster Museum; Whitworth Gallery and Wolverhampton Art Gallery.