

Institution: Ulster University

Unit of Assessment: 32

Section 1. Unit context and structure, research and impact strategy

Unit Structure

The Belfast School of Art was established in 1849 and remains the largest and broadest Art & Design HEI provision with the most developed research environment across Ireland. The unit expanded during this REF cycle to include Games, Service Design and Art Therapy. It is situated in the University's **Creative Industries Institute** (Lead: Seawright, Co-Dir. Fleming) and partner in **one of the UK's nine AHRC funded Creative Industries Clusters (CIC), Future Screens NI (FSNI)** (Co-I: Fleming, Magee, Parkin). We are well known within the sector for having a long-standing, research intensive environment with sustained engagement with the cultural and business sector throughout Northern Ireland (NI). In REF2014, the Art & Design Research environment for staff and PhD researchers was judged to be 100% internationally excellent and world-leading, with 80% at 4* and 20% at 3*.

The unit has benefited from the University infrastructural changes in 2017 where the Faculty of Arts, Humanities & Social Sciences (AHSS) encompassed 6 schools and 9 UOAs, managed by an Associate Dean for Research & Impact (Lyons). Under his leadership, 9 Research Directors (RDs) closely work towards interdisciplinary synergy delivering the Faculty Research & Impact strategy. Subsequently the unit has significantly contributed to the successful Belfast Region City Deal (an £850,000,000 total investment package), specifically involved in two pillar projects:

- **Screen Media Innovation Lab (SMIL)**, led by Ulster University, a **£61,000,000** research infrastructure investment package involving UOA32 staff (Coyle, Fleming, Magee, Maguire, Parkin, Seawright) in collaboration with colleagues in UOA33 and UOA34.
- **Advanced Manufacturing Innovation Centre (AMIC)**, led by QUB, where Ulster provided technical/advisory for the Business Case and Strategic Direction (Gault) with colleagues in Main panel B.

In line with the University Five & Fifty Strategic Plan (2016-2021) the Art & Design research clusters were revised into thematic groups mapping to the University priority themes of Social Renewal, Healthy Communities, Creativity & Culture and Sustainability. Within Art & Design our evolved thematic groups foster solo and collaborative research building upon our REF2014 objectives.

- 1) **Art, Conflict & Society:** Working with community groups, government, those affected by political, social, and domestic conflict, museums and other organisations applying art practice to conflict situations nationally and internationally.
- 2) **Art, Design & Health:** Working with HSC Innovations, Clinical Transitional Research & Innovation Centre (C-TRIC), Medicine Optimisation Innovation Centre (MOIC), NI Pain Society, NI Pain Forum, Verses Arthritis, Health & Care Professions Council and the British Association of Art Therapists, stimulating or challenging topical debate and driving innovation for better healthcare or personal well-being.
- 3) **Art, Space & Place:** Engaging with the creative community in topics interrogating historic, environmental, art criticality, geographic, personal identity, and sustainability issues.
- 4) **Creative Industries Institute:** Design-led investigation engaging with industry bodies, the public and private sector leading the interdisciplinary Research Knowledge Exchange activities with the creative sector.

Proudly, the Belfast School of Art has strategically been able to sustain the same levels of staffing (teaching, research and technical) from the previous cycle in a challenging funding climate. We have increased our research intensively **growing our REF1 cohort by 28.6%** with 37 staff (31.19

FTE). We have demonstrated sustained research publication since REF2014 with **747 outputs produced**. Our REF2 submitted portfolio includes **70 outputs**, with **8 that are double weighted (78 total)**. **24 outputs are single component** and **46 are multi-component** which comprise of **299 sub-outputs**. Together a total of **323 outputs components across 20 of the 22 output categories** are captured, demonstrating the richness of our research scope (Fig. 1).

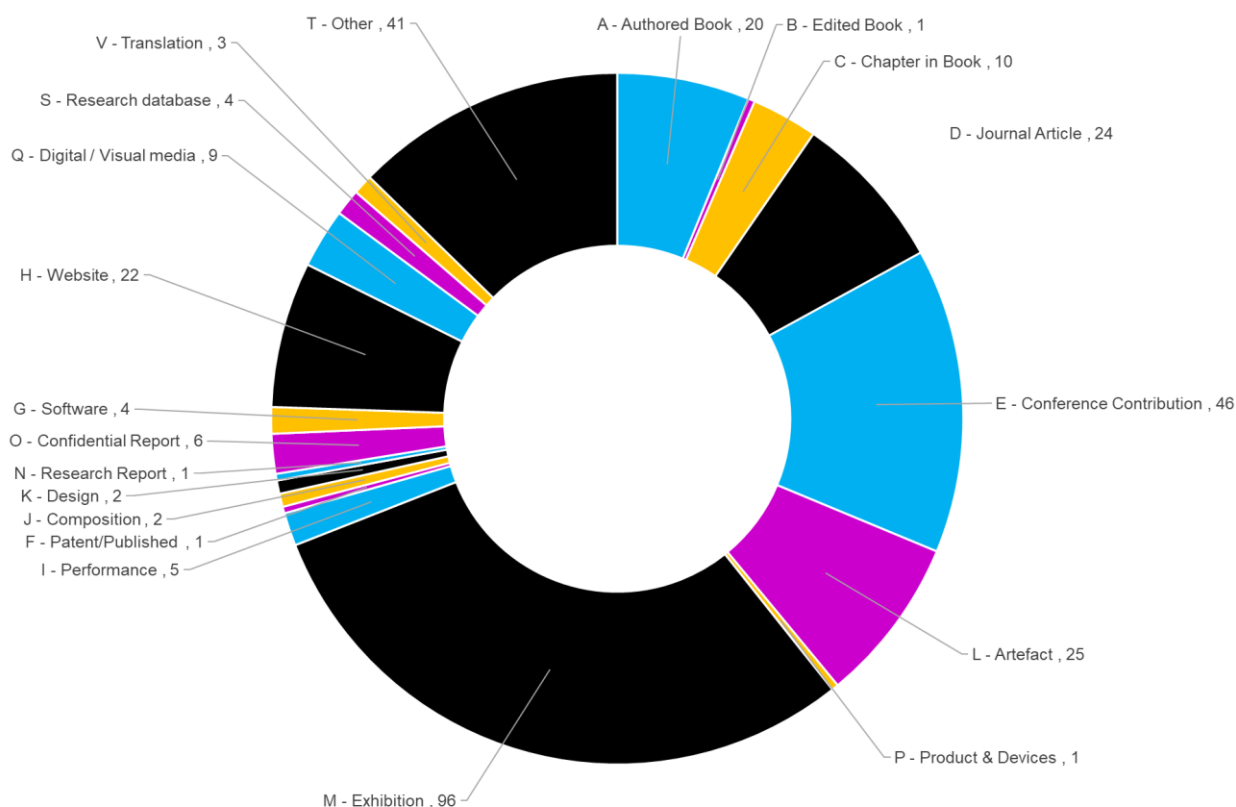


Fig. 1 Breakdown of multicomponent research, by type, for outputs and sub-outputs.

Research Strategy

In REF2014, we submitted 24.8FTE with a female representation of 28.2%. For REF2021, the primary aim, in the spirit of Stern's recommendations and Ulster's Five & Fifty strategy, was to increase research intensity and improve equality while nurturing our quality profile across UOA32. Our **gender balance is now equally distributed** (section 2), with **female representation almost double that of our REF2014 submission**.

Working within the new University structure we have benefited from the University's development programmes of Research Income & Grant Opportunities for Ulster Researchers (RIGOUR) and Significance and Originality in Academic Research (SOARING) improving the quality and integrity of our research, through knowledge exchange from other discipline areas. **Our research awards secured increased by 314% to £7,582,524 from £1,830,669 in REF2014** (section 3).

Similarly, we have enhanced PhD researcher experiences. Art & Design performs **on average 9.2% above the sector across all measures of the PRES survey** ranging from **3.4% to 20.2% better performance** (section 2). Ulster were ranked 8th in the UK (107 institutions) for PhD researcher satisfaction and 3rd in the UK for research culture for PhD researchers.

From 6 objectives outlined in REF2014 (REF5b) themed under Sustaining, Developing, Nurturing, Providing, Influencing and Expanding, objectives have been met or exceeded. There are now 4 key successful strategic developments, which drive the trajectory of our research, through the establishment of:

- **Creative Industries Institute: £20,000,000** University strategic investment providing a formalised infrastructure for strategic recruitment and engagement with industry, government, and community partners, building upon our track record in this regard.
- **FSNI Creative Industries Cluster £13,000,000** overall fund (Ulster, QUB and industry). Funded by the AHRC (**£5,705,381**) describing it as world class and original, this industry-facing environment reaches across multidisciplinary groups and is a significant part of our impact strategy. The key partners include NI Screen, BBC, Belfast City Council, Belfast Harbour, Causeway Enterprise Agency, Digital Catapult, Catalyst Inc., RTE, Games NI, Kainos, Invest NI, Techstart NI, Matrix and Tourism NI. The strength of FSNI was recognised by Professor Chitty (Challenge Director) announcing that FSNI *'is at the forefront of industry investment via the Industrial Strategy Programme'* (BEYOND, 2019).
- **Northern Bridge Consortium Doctoral Training Partnership (NBC DTP)** funded by AHRC to develop collaborative links across 7 University partners from Northern England and NI (Durham, Newcastle, Northumbria, Sunderland, Teesside, Queen's and Ulster) the programme is estimated at **£30,000,000**. Art and Design secured annual scholarships since involvement (2019). Fleming is Academic Director for Ulster and across the Faculty, 4 of our 6 awards are Collaborative Awards reflecting close relationships with industry. Magee, McHugh and Boyd are subject leads and national scrutiny panel members for Design, Visual Arts, Information and Communication Technologies and interdisciplinary assessments.
- **Collaborative Agreement with National Museums Northern Ireland (NMNI, 2018):** Building upon >20 years individual collaborations with NMNI, Magee led discussions on behalf of Ulster with NMNI, establishing a formal Collaborative Agreement between NMNI, QUB and Ulster. This enables Research collaboration on projects and PhD topics, Student Placements across AHSS, public engagement and sharing of faculties, training and resources. Specific Art & Design engagements have included exhibitions, permanent collections, book launches, PhD collaborations (supervisory and assessments) and seminars.

Strategic Plans for 2021-2028

Our objectives for the next 7 years continue to expand upon REF2014, aiming to:

- **Develop the economic region** through our **Creative Industries Institute and FSNI** for impactful change.
- **SMIL: This Virtual Production centre** will extend our research scope. It addresses industry needs of specialism relating to Film, Animation, Immersive (AR/VR/ MR) and Games. This collaboration with Belfast Harbour, NI Screen and the BBC proposes a c5000m2, **'Tier 1' Centre of Excellence for R&D and Innovation, in Virtual Production**. This will provide a world-leading and industry-facing research-led facility responding to the strategic needs of NI's screen-based and screen-related creative sector. Maguire has a leading role and is a **member of the Project Board representing Industry**, due to the international success of his research and its commercialisation. Ulster leads this collaboration with the wider creative industries sector that will provide the city-region with a transformative research and innovation centre driving the convergence of creativity, content development, technology, and digital delivery. The projected impact is outlined in REF5a.
- **Expand the Faculty's Virtual Production capability** with a **new high-end Virtual Production Studio**, located within the Belfast campus funded by Higher Education Research Capital (HERC; **£596,400**) with additional University investment totalling **£1,000,000**.
- Maintain our healthy gender balance, through supportive measures, contributing to the **School's developing Athena Swan strategy** and specifically **to support research impact opportunities for female staff**.
- **Extend our visibility and our interdisciplinary collaboration**, while in tandem nurturing the solo artist and researcher.
- **Grow collaborative research** enabling shared and manageable delivery of ambitious research. The Greater Belfast Development (GBD, section 3) creates opportunities for inter-disciplinary synergies through shared working spaces and relocation of Jordanstown

campus to Belfast. We wish to increase our collaborations with other Universities across the UK.

- **Grow our research intensity and broaden its scope**, in line with our spread of subject areas and in collaboration with the **Council for Higher Education in Art & Design (CHEAD)**. In particular, active engagement with the Research Alliance, contributing to national debates, influencing the sector and informing the development of our own research culture.
- **Intensify the collaborative engagements of Art & Design for Health**, including development of the emergent Art Therapy related research in scope and quality and engagement with the Allied Health Sciences and the newly established Medical School at Ulster (2020).
- **Continually improve the PhD environment** building upon our PRES2019 performance, and increase the amount of self-funded international researchers, interdisciplinary supervised scholarships, or those on part-time mode in line with increased SRR capacity.

We have realised our REF2014 ambition to grow Animation with research now including Animation theory (Chen) and an ICS relating to *Digital Realism* (Magee, Maguire, Quigley). We have a programme of development for non-SRR ECRs through mentoring programmes. Parkin and Coyle have been included on commercial research and FSNI projects. Following a Faculty restructure, Architecture was realigned with the Built Environment for both School and UOA. We maintain these collaborative research links by supervising Architecture staff through PhD study (Golden) who in turn now contribute PhD supervision in UOA32, including our first full-time Chinese PhD researcher. Another Architect (Coyles) collaborates as co-author on *the Legacy of Conflict in NI* ICS (with Doherty and Wylie). Going beyond our objectives in REF2014, we introduced new areas of academic engagement including Art Therapists, and Games Designers growing synergies between animation and interaction design.

Achieving Impact

The Research & Impact department has worked closely with us improving reach and communication of our research as we actively engaged in all aspects of the impact development series. Examples are detailed in **Development and Research mentoring (section 2)**.

Within UOA32, we have spent **£598,158** of strategic support funding directly on the development of Category A eligible staff research activities (2014-2020). The majority is by competitive assessment, considering:

- Value of the return and the benefit to enabling the research(er).
- REF potential: meeting the definition of research and that it builds upon iteration and sound research integrity rather than dissemination duplication.
- Significance or Impact of the research.
- Benefit to the Environment: University, Faculty, UOA and/or the researcher (especially in the case of ECR, Staff undertaking PhD or someone returning to work).
- Completion logistics: achievability.

We supported 7 ICS proposals for REF2021. 3 Impact Case Studies were agreed with others contributing to environment or being nurtured for future REF cycles. Our Impact Case Studies include:

1. **Photobook: Transforming social, cultural and educational engagement with photography** (Grant & Parr): Photobook production has been an integral part of our research since early 2000. Seawright's *Hidden* (2003) and Wylie's *Maze* (2004) are considered classics of the genre, attesting their early and vital contribution to this photographic practice, later including Wylie's *The Tower Series* (2014) and Candy's *A Good and Spacious Land* (2017). Grant published his first photobook in 2002, and released seven photographic publications since 2014, the most recent *Benny Profane* (2019). Photobooks by Seawright (2014), Gallagher (2019) and Grant (2019) were recognised as best in field in annual reviews. 3 PhD scholarships have been directly influenced by the Photobook theoretical positioning and many more indirectly informed.

Fitzpatrick and Neves' work focusing on the work of Parr, who has been a fractional Professor at Ulster since 2013, Category A submitted in REF2014, and previously a visiting professor since 2008. This ICS focuses on Grant and especially Parr's influence on Photobook culture with publications interrogating the cultural history of photography and shaping the future of the discipline educationally, culturally and for societal change outlined in the ICS.

2. **Photography, Video, Spaces and the Legacy of Conflict in NI** (Doherty, Wylie & Coyles): Since the signing of the Belfast/Good Friday Agreement in 1998, the *legacy of conflict* remains fundamentally core as a research theme. This case study engages with legacies of division, politicised urban planning, and socio-economic deprivation that persist in post-conflict NI. It articulates issues with victims affected by intimidation and violence, public awareness of post-conflict peace and resolution and the advancement of artistic expression of conflict. The independent works of Doherty and Wylie and the collaborative interdisciplinary work of Wylie and Coyles explore common themes and intertwine in their inquiry. It demonstrates the effectiveness of Art in dealing with complex socio-cultural and political climates, with significant museum collections internationally.
3. **Visual and behavioural digital realism: The Human Machine Nexus** (Magee, Maguire & Quigley): This design-led and industry facing research embeds new approaches within heavy engineering, medical printing for surgery and the animation sector informed by interdisciplinary *digital human* research. Their work directly impacts the creative industries capability and economy within the region, has influenced the FSNi strategy and provision growth in animation and games at Ulster including SMIL. It has stimulated new output types for the unit as software and databases as design and animation research informs the technological research sector. It quantifies significant economic contributions and stakeholder benefits across several industrial sectors demonstrating the value of the Creative Industries.

Interdisciplinary Research

Art & Design has enjoyed interdisciplinary collaboration across diverse subject areas engaging with researchers on all four University Campus locations, enhanced by cross campus teaching on joint course provisions:

- Securing **2 additional competitive interdisciplinary PhD scholarships (£136,000)** in University wide competitions (2019/20)
- Conducting **36 consultancy projects** and securing **6 KTPs**
- Securing **14 Higher Education Innovation Funding (HEIF) interdisciplinary projects**, totalling **£43,234**, which is a **76% increase on 2014**.
- Leading **>10 projects involving >46 diverse companies** across creative and technological disciplines for the **FSNI programme**.
- **95.6% of our External Research income** (60.6% of the number of awards secured) was **interdisciplinary** (across disciplines within all 4 University Faculties).

Open Research

We have an open approach to research, with sustained engagement with the Health and Social Care for NI (HSCNI), Public Health Agency (PHA), City Councils, Department for the Economy (DfE), Museum sector and Arts and Culture sector on exploratory work. We developed shared Intellectual Property working models to offset research development costs, enabling more rigorous and authentic collaborative research. An example **HSCNI case study** (Magee) shapes future healthcare strategy. Researchers have participated in more formal open research initiatives such as the AHRC funded **Design Research for Change** and Living Labs (Belford, Gault, Magee). Researchers have unlocked and shared new datasets such as **Martin Parr Foundation Photobook Collection** (Parr) and the **William Liddell Damask plate collection** (Belford) as public archives. The FSNi open calls facilitate the transfer of our research know how to the private creative sector in NI. Our research is openly shared on the institutional PURE repository, with artistic artefacts **widely acquired and published with Museum and Creative sector collections**. All our staff have ORCID numbers and Magee serves on the **VITAE, HR Research Excellence** working group at Ulster.

Culture of Research Integrity

Our Research Integrity Training strategy develops the quality of our researchers across the University. We maintain **100% compliance for PhD researchers and 92% for SRR staff**. Our Research Ethics Filter Committee (Chair: Sanders) benefits from the prior experience of other staff as Chairs for School, Faculty and University committees (Driver, Fleming, Magee). Magee was a member of the **Office for Research Ethics for NI (ORECNI, 2017-2019)** and certified by MHRA in medical devices (2017). This collective interdisciplinary best practice is shared across the unit, through action learning. Along with certified training from **Volunteer Now for vulnerable adults** (11 staff trained) and **Westminster Insight Safeguarding Children CPD** (Whitaker) we contribute to the University's strategy aligning to the **UUK Concordat to Support Research Integrity (2019)**. Magee advises on a steering group which tested a deployed a new **online ethics system**, developed by Biomedical Sciences for the efficient management of the ethical approval process. He led the Faculty of AHSS in adaptation of content, promotion, and training for the system with uptake in 4 other UOAs (18, 20, 23 and 34). Art & Design were the first outside of Biomedical science to adopt the system, improving precision and consistency of research ethics review.

Section 2. People**Staffing strategy and staff development**

Magee is **Research Director** for UOA32, a 100% research role, responsible for leading and managing research staff and PhD researchers, civic engagement, and academic enterprise/impact. He is supported by an Executive assistant (Brown), the **PGR Coordinator** (O'Hara), who is akin to a course director and works closely with PhD Researchers, their representatives, and supervisors on day-to-day matters, supported by clerical assistant (McCoubrey). The unit benefits from the experience of senior officers including the **Executive Dean for AHSS** (Seawright) and former **Pro-Vice Chancellor for Global Engagement** (Montgomery).

As part of the University infrastructural change, Architecture staff formally aligned to UOA34 in REF2014 accounted for 13.7% of our REF1 submission, are now realigned to B11. Nevertheless, our strategic planning has enabled an increased **REF1 submission of 37 staff (31.2FTE)** with 6 Professors, 4 Readers, 3 Senior Lecturers, 1 Senior Research Fellow, 22 Lecturers and 1 Leverhulme ECR Fellow.

29.7% of our 37 REF1 staff have fractional posts (0.2FTE-0.8FTE) reflecting a range of work/life or career choice balances. 2 of our 0.2FTE professors requested a change to their 1.0FTE positions, due to the success of their artistic research practice (Doherty) and commercial R&D spin-out (Maguire). The other 0.2FTE Professor (Parr) was previously a visiting professor (2008-2013), building upon a 30-year working relationship with Seawright, Wylie and Grant. Parr lived in Ireland during the 1980s, often returning to complete his most enduring work, *'From the Pope to a Flat White'* (Parr, 2020), and contribute to the pursuit of the Irish Photobook collection.

Our recruitment strategy, driven by a successful application to the **University Strategic Investment Fund** expanded our staffing across Animation, Games, Screen Production and Art Therapy. Historically, these have been underrepresented in REF within the unit and national sector. We have also focused on ECR recruitment enabling our sustainable goals to priority areas. **7 staff in our REF1 submission (19%) are ECRs**, with 6 new to Ulster (Barron, Brolly, Dillon, Dixon, McHugh, Whitaker). Additionally, we had **2 contract researchers and 4 KTP Associates complete during this REF cycle**. Contract researchers are supported by the HR Research Excellence Implementation Group, the Research Concordat Coordinator, and the Contract Researchers Forum, as the university continuously improves on our **Vitae HR Excellence in Research Award** (first awarded in 2012, reviewed in 2014 and 2019). Magee is a member of the institutional **Implementation Group** to ensure best practice experience, inclusion, and support. **43% (16/37) of REF1 staff have a PhD** and 6 SRR-Eligible staff are registered PhD researchers as part of their staff development. **73% of REF1 staff currently provide PhD supervision**. The Leverhulme ECR fellow (Dillon) collaborates on projects,

international networks, and PhD proposals as we support the growth of her SRR profile. She serves the research impact committee for Applied Social and Policy Sciences and the Art & Design Research Ethics Filter Committee.

Contributions of Art & Design staff to University committees and working groups

UOA32 staff contribute to strategic decision-making committees and working groups across the University, Faculty and School. Seawright served on the **Research Strategy committee**, Gault was elected to **Senate** (2018) and Gault, Magee and Seawright all served the **Research & Impact Committee**. Magee was on the following University committees: **REF2021 Steering Group** (2019), **Provost Task & Delivery Group for Magee campus** (2017) and the **HR Research Excellence Implementation Group** (2019). He was the Faculty representative for the **University Research & Impact Strategy Policy Group** (2016-2017) and the **Athena SWAN Bronze Award Working Group** (2016-2017). Liggett leads the School in the current Athena Swan Working Group (2018) and Fleming chaired the **University Research Ethics Committee** (2012-2017). A critically important aspect of our business is meaningful engagement with the UCU, especially following challenging restructures in 2012 and 2016 across the University. O'Beirn was elected as **Co-President of the UCU** (2019) following her success as Belfast campus representative (2018) enabling sustained and inclusive dialogue during the introduction of REF2021, the SRR process and the co-development of our Code of Practice.

Development and research mentoring

Structured opportunities are offered to nurture research expertise through University wide training:

- **Impact Development Series:** Seawright provided guidance to Research Directors. Fleming and Seawright delivered **seminars/workshops on articulating the research dimensions of practice-based research** across the University (2019). Magee was one of six senior staff selected to deliver specialist topics on the **Impact30 seminar series** (2019), focusing on Knowledge Exchange.
- **University Research Mentoring Programme:** 10 of our senior staff (SL, Reader, SRF, Professor) volunteered as mentors and 9 UOA32 staff are mentees.
- **RIGOUR, SOARING, Impact Development series and Mentoring programmes** had **62.2% participation** by REF1 staff (23/37) and 58.1% by REF eligible staff (36/62). Overall, the majority of our SRR staff attended 2 or more events with **ECR attendance at 71%**.
- **UCommunicate** focuses on research communication, in collaboration with the Broadcast industry. The 2019 conference was attended by 3 staff (O'Boyle, McComish, Coulter). Magee (2016) and Boyd (2017) were selected to receive media training to produce press material for their research.
- **Vitae HR Research Excellence working group:** Magee delivered seminars on **Creativity and innovation in research to ECRs and contract researchers** university wide (2020).
- **Research & Impact teams** provide weekly drop-in clinics for output and impact development.
- **The Impact Manager** (Prince) develops impact strategies for individual projects developing new pathways, tracking and analysis of impact.
- **REF2021:** Fleming provides updates on new published guidance, and invited Professor Boddington to a workshop at the Metropolitan Arts Centre (MAC) Belfast (2019).
- **CHEAD** representatives Fleming, O'Boyle and Magee inform staff of the sector insights and initiatives.
- **Wo/men's network programme:** 2 female staff are mentors (Coulter and O'Boyle).

Within UOA32 our **Director and subject lead staff for the NBC DTP**, support and mentor supervisors and PhD candidates through application processes. Supported by the Centre for Higher Education & Research Practice (CHERP), we have a **HEA Fellowship completion rate of 82%** (with 20% SFHEA, 69% FHEA, 11% AFHEA). 6 staff are trained mentors and have supported 5 colleagues across the University through this process. 15 staff volunteered for the

Art & Design Research Ethics Filter Committee of which 4 are Non-SRR staff benefiting from knowledge transfer from more experienced research staff. Our succession planning has seen 3 changes of REC chair (Driver, Magee, Sanders) providing an inclusive opportunity for progression and experience. 7 staff service on the UOA32 Strategic funding committee, sharing their experience as PI/Co-Is of external research awards. The REF2021 Strategy Committee, responsible for output selection oversight, includes 1 ECR, 1 lecturer, 1 reader and 3 professors.

Policy for sabbatical, early career and returning to work supporting well-being

Following the recent infrastructural changes within the University, and the development of our new People and Culture Strategy, the Faculty of AHSS Executive Dean (Seawright) led a well-being survey across the faculty (2017-2018), proactively seeking supportive measures, now in place to improve the wider working environment for staff. Our previous Research Leave scheme was superseded with a competitive **16-week sabbatical support scheme** (2018). The Faculty of AHSS award approximately 60% of the opportunities across the university with UOA32 providing 4 opportunities for Reader (McBrinn) and SRF (Belford) in 2018/19, Professor (Wylie) in 2019/20 and Lecturer (Grant) in 2020/21 (delayed due to COVID-19). Through **UOA32 Strategic Funding**, we support teaching relief to enable research delivery. 2 staff returning from maternity leave and other caring responsibilities, were supported through the **Athena Swan Returning Carers' Scheme** (2018, 2019) providing financial and pastoral support. 2 staff had an elective career break after securing PhD scholarships for full-time study. On returning, O'Hara was appointed as Post-Graduate Coordinator for PhD researchers, while Clancy moved from a fractional to full-time position. We actively consider the needs of any individual. Staff with reported disabilities (long term or short term) have had specific equipment purchased to assist them or make their job more manageable. While there is variation between individuals, SRR staff have approximately 32%- 40% of time allowance against Research across the academic year, with 20% during term time encouraged.

Exchange between business and academia

We work closely with the wider professional sector (**Sections 3 and 4**). The Belfast School of Art is part of the cultural hub in the heart of Belfast. Our staff have strong working relationships with artists and organisations as members of community groups, galleries, and artist forums, while some have studio spaces within the cities creative quarter working closely with the sector (McIntyre, McKenzie, O'Beirn, Shippies, Wallace). The design staff, indicative of the subject, work closely with industry, many of which are/were commercially active. This engagement is supported by a proactive Department for **Research & Impact** and **Innovation Ulster Ltd** which is Ulster's knowledge and technology venturing company. Our strategy for business engagement is enhanced through FSNI.

Recognition and rewarding staff

Staff have been supported in developing competitive applications to University wide competitions organised by Research & Impact, recognising innovation and impactful research. All probations for new staff progressed smoothly; 13 staff (5 male, 8 female) progressed from Lecturer A to Lecturer B; and one professorial progression. There were 6 promotions, including 3 Senior Lecturers (female) and 2 Readers (Male) with 1 then promoted to Professor. Seawright was promoted to Executive Dean of the Faculty for AHSS. We secured 2 competitive awards at University level and 1 at Faculty level:

- 2020 Ulster **Research Impact Excellence Award winner for Research Business Partnership of the year**: under 50 employees (Magee) with Axial3D Ltd.
- 2017 Ulster **Research Impact Excellence Award winner for Knowledge Exchange** (Magee & Quigley) with CDE Global Ltd.
- 2014 **Academic Enterprise Fellowship Faculty award** (Quigley)

Practice-based research has also informed the curriculum, which has been recognised across 3 Distinguished University Education excellence awards:

- 2020 **Educational Leadership** (O'Boyle)
- 2020 **Collaborative Excellence** (Bruce leading a team of 13 staff)
- 2019 **Professional Practice Innovation in Learning & Teaching** (Coulter)

Furthermore, the departments for **Research & Impact** and **Strategic Planning and Performance** work closely with staff for national competitions and recognition schemes. As a result, we achieved:

- 2018 Advance HE, **Times Higher Education Leadership Management Awards** (THELMA's), **Knowledge Exchange initiative of the year** (Magee & Quigley)

PhD Researchers

We have had **34.6 completions, plus 2 PhDs by Published Work**. Several of our PhD researchers are interdisciplinary within other UOAs, therefore this FTE figure equates to **42 PhD graduates** during the REF cycle. While the repositioning of architecture reduced our growth in that area COVID-19 directly affecting progress of 5 researchers our wider growth achieved balance. Our increasing **PhD recruitment is circa 10 PhDs annually**. In 2020 we funded extensions to stipends and fee waivers for those affected by COVID-19. Our staff supervise within interdisciplinary teams including Business & Management, Computing, Geography, Music, Physiotherapy, Social Policy and Cinematic Arts. One of these PhDs received the prestigious **American Heart Association, Paul Dudley White International Scholar Award in recognition of the highest ranked abstract in the UK**, where Magee was a supervisor.

Scholarships

Since October **2013 we have allocated 62 scholarship awards**, which include a stipend for living allowance and support funding to assist with research activity (**£68,000 each**). Within Art & Design we award **7 PhD scholarships annually, aligned to staff research areas**. Additionally, Magee secured an interdisciplinary DfE award (2018), in collaboration with Business and Management while Shippes and Whitaker secured another award (2019) with Geography & Environmental Sciences. In 2019 we joined the national productivity NBC DTP programme. **67.3% of our PhD researchers are female and 35.2% are from outside NI**. From October 2013 to 2018 our funded PhD's received £350 per year financial support however, this was increased to £900. The accumulative spend of **£79,513** directly supported our PhD cohort since August 2013. We support Researchers changing mode of study between part time or full time, due to family circumstances, health, or work reasons.

Monitoring and support for progression

Our PhD cohort are no longer referred to, or treated as students, we acknowledge them as 'researchers' - an integral part of our research community. We have **51 active PhD researchers in Art & Design**, who benefit from a bespoke **Researcher Development Programme** designed to comprehensively support PhD researcher development, offering >75 courses and workshops (face-to-face or online CPD) across:

- Engagement, influence and Impact
- Knowledge & Intellectual abilities
- Research governance and organisation
- Personal effectiveness

Through the NBC, the formal training programmes offered to awardees of scholarships are extended to our wider research community of PhDs, ECRs and other research staff (e.g. Medical Humanities Training day, 2020).

The Research Director is located adjacent to the Art & Design PhD hub, a purpose-designed, dedicated PhD researcher space. In 2019, the UOA32 PhD researchers **established a Faculty inclusive postgraduate research Journal publication, entitled 'Intersections'**. There are several associated roles including editor, assistant editor, graphic designer and peer reviewer. The first two years of issue had 18 and 16 researcher contributions, respectively. PhD researchers undergo the initial assessment (100 day), Confirmation of Transfer (200 day) and a final assessment in preparation for the Viva examination. We offer a choice of final assessment, through seminar series participation, contributing to *Intersections* or evidence of peer reviewed publication. Our four-day PhD festival which is University wide, provides a rich peer learning environment. In 2019, accompanying *Intersections*, we established a **PhD exhibition of**

Practice-led work as part of the Annual Belfast School of Art, Graduate Festival. Due to COVID, this was **online in 2020 and shared via CHEAD**.

Researchers take part in the 3MT competition, with Art & Design researcher (McConaghy) reaching the finals at Ulster (2020). Our PhD environment continues to grow with PhD researchers exhibiting their work in Galleries and contributing to conferences. Most recently NBC PhD researcher (Asmussen Doyle) was runner up in the **Janet Mullarney Prize (2020)**, while Clancy came runner up. Many practice-based researchers have professional artist studios across Ireland, financially supported by UOA32. We endorsed several successful applications for **ACNI funding**, in non-related PhD work, sustaining or developing the PhD candidate's independent practice. Many PhD's complete **First Steps to Teaching** or the **HEA Associate Fellowship** as they participate in the teaching, learning and research of the school. **5 have secured permanent employment as lecturers at Ulster since 2014** (Brolly, Liggett, Melki, Huska, Golden). Within the national PRES survey, we have seen significant engagement from our researchers. Our response rate has increased from 54% (2017) to 68% (2019) with improved satisfaction levels **significantly above Subject National benchmarks** (fig. 2).

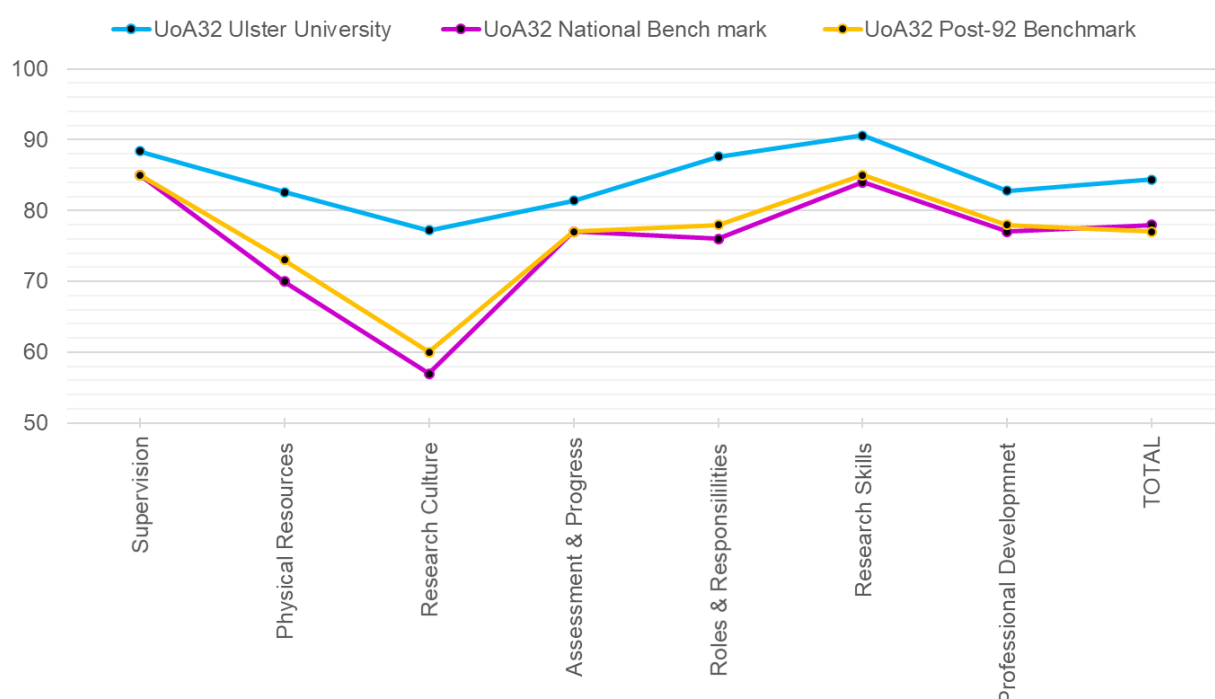


Fig 2. PRES 2019 comparative results for Ulster University Art and Design Research Unit.

We have extended our global reach, collaborating with Notre Dame University staff (Lebanon, 2015) with 4 researchers undertaking PhD's, an initiative led by Montgomery. A collaborative agreement with Shenyang University (Seawright, Magee, 2018) led to 3 PhDs from China.

During the COVID-19 pandemic, several proactive steps were taken to support PhDs and our research community have made external contributions and impact. Since the beginning of lockdown, the Research Director (Magee), Post Graduate Tutor (O'Hara) and PhD admin staff held weekly virtual coffee meetings with PhD researchers for social, well-being and information purposes. Online seminars on topics such as research ethics and assessment were delivered. The Art & Design PhD representative (McConaghy, 2019) became **Campus PhD representative for the Resilience and Recovery Committee serving one of 14 workstreams enabling recovery of our lab/studio-based research operations across the University**. The PhD

representative (Asmussen Doyle, 2020) initiated a **new seminar series engaging with the Creative and Cultural sector, through the Ulster Research Salon**, for a yearlong programme of seminars delivered online.

Equality and Diversity

UOA32 provides a supportive and inclusive environment and adheres to the University's policy to provide equality of opportunity to all. Diversity and inclusivity are valued, actively promoted, and embedded in all research processes and policies as outlined in our REF2021 Code of Practice (CoP). As the CoP places people at its centre, is mindful of the needs of all staff and ensures barrier free processes to maximise inclusivity and participation in REF, we used it as our roadmap for identifying SRR staff and selecting outputs for REF2021. For REF2, the final selection was based on quality using the PURE algorithm and determined by a robust process of internal and external review. **Manual analysis of all border line outputs** by the REF2021 Strategy Committed ensured a fair distribution.

The gender balance of our **REF1 cohort** is now **48.6% female, which is 51.7% of our FTE, inclusive of diverse sexual orientation**. Northern Ireland's gender balance has a 50.8%:49.2% Male to female ratio ([NISRA, 2017](#)). Our BAME profile is 5.7% compared to 1.8% in the NI population (2011 Census). NI is culturally homogeneous with low immigration statistics of 0.12% ([NIAR, 2016](#)). Art & Design enjoys a relatively more culturally diverse research environment. 51.4% of SRR-Submitted staff are from NI, 16.2% from elsewhere in the UK, 21.6% from the Republic of Ireland, 5.4% from mainland Europe and 5.4% from Asia and USA. 5.7% have a declared disability, compared to 20.6% reported in Census data (2011). Our age demographic is closely approximated to normal distribution with 57.1% aged 46-55 years, 20% in both 36-45 years and 55+ years age groups, and 2.9% younger than 35 years. 40% of staff have dependants (Caveat: 14.3% missing data reported).

Our female staff held 6 of the 10 leadership roles during this cycle including the Head of School (O'Boyle), Acting Associate Head of School (Driver), Employability Lead (Gault), Learning & Teaching Lead (Bruce), Marketing Lead (Blaney) and Global Engagement Lead (Morris-Cafiero). Coulter has completed the **Advance HE Aurora programme. 4/10 undergraduate and 4/6 postgraduate programmes are led by female Course Directors**. Other roles led by female staff include the **School Officer** (Mulholland), **Co-President of UCU Ulster**, **ENHANCE professional development mentors**, **former Research Director (2009-2017)** and **former Head of School (2017-2019)**.

Ulster's proactive **Athena SWAN charter** secured the **institution wide Bronze award in 2014 and renewed in 2017**. We are currently preparing the **Art & Design School submission for Bronze Award in April 2022**. Recently we launched **Equality and Diversity and Disability Awareness** training, with SRR-submitted staff respectively attaining **76% and 73%** completion rates to date.

As a civic University **our researchers contribute to raising awareness or debate** concerning **gender issues in domestic or societal settings** (Driver, Gallagher, Wallace) **sexuality issues and rights** (Chan, McBrinn), **body image** (Morris-Cafiero), **human rights** (Chan, Dillon), **migrant assimilation** (Greaney), **societal class inequalities** within cities (Brolly, Grant) accessibility of technology for the **aging population** (Boyd), **assisting vulnerable people affected by trauma** (McHugh, Whitaker) and **healthy aging** interventions (Gault, Magee, Quigley).

3. Income, infrastructure and facilities

Research Income

Our research expenditure of **£3,652,835** (REF4b) remains **significantly above, by an order of magnitude, the sector average** for REF2014, and our **£7,582,524** total of **research awards secured during the REF2021 period represents an increase of 314% on our REF2014**

awards (£1,830,669). 36 awards were secured by 21 staff (Belford, Blaney, Boyd, Coulter, Dass, Dixon, Dillon, Doherty, Fleming, Magee, McBrinn, McGinn, McHugh, McKenzie, Moore, O'Beirn, O'Boyle, Parkin, Quigley, Shippies and Wylie). The scope of these awards indicatively includes Innovate UK, Invest NI, H2020, AHRC, Leverhulme, Contract Research with the HSC NI.

95.6% of income was interdisciplinary involving all 4 University Faculties. The most significant was **one of the nine national AHRC CICPs (£5,705,381), FSNI** (an overall fund of £13,000,000). 3 of the 18 co-applicants were from UOA32 (Fleming, Magee, Parkin) and Maguire's spin out company HUMAIN, a commercial partner.

In addition to REF4b, HUMAIN secured £668,680 of external venture capital investment, £593,524 R&D funding from 5 Invest NI and NI Screen awards (2017-2019) and **£450,000 Research funding** from UKRI *Audience of the Future* (2019/2020).

In Kind & Soft Funding

In addition to the REF4b, UOA32 staff have secured individual artist funding which benefits their practice and research, not recorded by University income data. **19 staff** have secured **£1,111,950** funding in kind, including **£222,790 directly allocated to external industry partners, £41,259 provided to support an individual's research activity and £847,901 covering direct costs of materials or production**. These include prestigious competitive awards such as the Graham Foundation, ACNI, British Council, HSCNI, Royal Ulster Academy, Heritage trusts, Enterprise Ireland and the Museum and Gallery sectors internationally.

In summary the above awards total £10,404,788.

Consultancy and other income

Our research awards include 6 KTP's, however we are involved in other industry related income. Since 2014, 14 staff (Belford, Boyd, Coyle, Coulter, Fleming, Gault, Logan, Magee, McGinn, Murphy, Parkin, Quigley, Smyth, Spratt) delivered **>£310,000 consultancy services through Innovation Ulster Ltd. 36 Invest NI/ Enterprise Ireland Innovation Vouchers** have been delivered and nine general consultancies (**£209,484**). Funding for **5 Enterprise Ireland FUSION Programmes** was secured (**>£100,000**). Our staff have secured **14 Higher Education Innovation Funding (HEIF) interdisciplinary funded projects**, totalling **£43,234**, which is a **76% increase on 2014**.

2 of the current University spin-out companies (section 4), HUMAIN (Maguire) and **Tactility Factory** (Belford) are developed from UOA32 research. We work closely with a third spin-out from Biomedical Engineering, **Axial3d** accelerating their commercial growth through design-led research (Magee). Similarly, commercialisation of New Product Development for the clinical sector with the HSCNI (Magee).

Our research has extended knowledge significantly across the sector with new databases of **1600 Damask textile artefacts** for Museum sector (Belford), a **12,000+ Photobook database** (Parr) and **several unique 4D datasets for the FACS system driving revolutionary change** in the animation sector (Maguire).

Infrastructure

In REF2014, we identified a commitment for the infrastructural investment of the campus and school during 2013-2018. The Greater Belfast Development (**>£365,000,000 investment**) is **transforming the University**. The Belfast School of Art (BB building) underwent **£16,800,000** of major construction, (2017) as the first phase for a **purpose-built building**, including new equipment and resources for the entire school provision, with **£403,000** of further renovation and construction in BA Block (2020) establishing the infrastructure for the development of the Virtual Production Studio. The entire expansion programme will be complete in 2021, relocating Jordanstown campus staff/students and bring a diverse range of academic disciplines together.

Faculty and School level investment has taken place. For our PhD researchers, **a new dedicated PhD space**, with socialising and catering hub was established on the Belfast campus for AHSS PhD researchers. While UOA32 researchers are the predominant group, this faculty shared space with 32 permanent or hot desks and individual storage facilities, provides rich interdisciplinary synergies.

The Cathedral Quarter cultural and creative hub is in the immediate vicinity of the University hosting professional Artist studio spaces. We support our practice-based PhD's with hire of studio space connecting them with the wider artist community stimulating a mutually beneficial research ethos beyond the University. We have purchased specific equipment for PhD research including a dedicated high end desktop Apple Mac with the Adobe suite with connectivity to a range of printing and scanning facilities. We have bespoke eye-tracking equipment and colour pigment measurement devices to help in qualitative visual analysis, VR-enabled laptops, and a range of Immersive Technology, Digital SLR cameras and accessories for photographic and video research.

4. Collaboration and contribution to the research base, economy, and society

Art, Conflict & Society and **Art, Space & Place** staff engage widely with the Museum, Arts and community sectors e.g. regionally with the Void Derry, The Golden Thread and Belfast Exposed. Nationally with National Museum of Ireland (NMI), NMNI and the Irish Museum of Modern Art (IMMA) and internationally with the Tate, The MET and Kerlin Gallery. Our formal **Collaborative Agreement between NMNI, QUB and Ulster** deepens our engagement with the Museum sector. There have been **153 artefacts in 27 inter/national permanent collections**. The MET highlighted Wylie's work as *'the first time a United States museum acquired the complete Maze edition'* (2016), while the **TATE acquisition (2019)** described his research as the *'most important photographic work to deal with post-conflict NI'*. Similarly, Doherty's *Remains* acquired by IMMA (2014) is *'marked one of the most significant acquisitions to the Collection'*. There are **152 Photobooks and book dummies by Ulster staff in the Martin Parr Foundation collection (2017)** including Doherty (4), Gallagher (1), Grant (8) Morris-Cafiero (1), Parr (115), Seawright (9), Wylie (14).

Art, Conflict & Society research is diverse. Dealing with domestic abuse (Gallagher), won the **Jelgavas Tipografija & Backlight Prize** (2018), Guthrie Centre Bursary (2019) and The Guardian, **Top 15 Photography Books of 2019**. Grant's research depicting the British working class received the **Swedish Book Art Awards Jury's Prize** (2015), and **American Suburb X Best Books** (2019), while Morris-Cafiero's research into body image received the **Rencontres de la Photographie Portfolio Review Prize** (2017) and reached the **BMW Art & Culture Residency** shortlist (2020). Greaney's research into female Vietnamese immigrant culture won the **Centre Culturel Irlandais Paris Residency Award** (2014) was selected for the **Tate Modern Fast Forward Women In Photography** (2015), **Aperture Foundation's 'Photography Is Magic'** (2016) and was awarded **best research paper** at the 54th Society for Photography Education National Conference (2017). Their **122 artefacts in 16 Permanent Collections** include **Tate, The MET, Yale University, National Gallery of Canada** (Wylie) **DePont Museum, Harvard Art Museum, IMMA** (Doherty, Seawright, Wylie), **NMNI** (Doherty, Shippies, Wylie) including **'Art of the Troubles collection', ACNI permanent collections** (Greaney, Wylie), and **the 209 Woman Exhibition** (Greaney, Morris-Cafiero) commemorating the centenary of the Representation of the People Act and the Qualification of Women Act. Seawright's latest portrait of a Rwandan genocide survivor was shortlisted for **The Zurich Portrait Prize 2020**, while Parr has been recognised internationally for his **outstanding contribution to Photography at the Sony World Photography Awards (2017)** and his **contribution to the Arts, receiving the Royal Academy Bronze Acorn Award (2016)**, nominated by Grayson Perry.

Art, Space & Place research (Shippies) was highlighted at the **Stage & Screen Design 2015** (Irish Theatre Institute in collaboration with Year of Irish Design 2015, Irish Film Board and Culture Ireland) and later secured the **AEMI Moving Image Commission** (2017). McIntyre was winner of the **Hennessy Art Fund for IMMA Collection** (2018) while Moore received the **Jurors**

prize for the **39th Concorso Internazionale Della Ceramica D'Arte Di Gualdo Tadino** (2017) and selected for the **GICB Korean Ceramics Biennial** (2019). Wallace's research reached a longlist (2020) of 240/3500 for the **John Moore's Painting Prize 2021**. McKenzie and O'Beirn were **MAC International finalists** (2014, 2018) while McIntyre, McKenzie and O'Beirn secured **Paul Hamlyn Foundation awards** (2020). Sanders secured **7 community sculptures** for Peace and Reconciliation initiatives across Ireland and the **landmark public sculpture of the PyeongChang 2018 Olympic and Paralympic Winter Games**, South Korea, which attracted 71 high profile entries worldwide. There were **25 artefacts from 10 Permanent Collections** including **Pier24** (Wylie) **ACNI** (McKenzie, O'Beirn, Shippies, Wallace), **NMNI** (McCann, McIntyre), **IMMA** (McIntyre) **Seto City Museum** and the **Irish State Collection** (McHugh).

Arts & Health researchers continue to engage with the **two HSCNI clinical research centres in NI**: C-TRIC and MOIC, securing funding, developing new products, and sharing research. Collaborating with the **NI Pain Forum** and **NI Pain Society**, and in 2018 establishing a funded PhD in visualising pain (2018-2021), supported by a **PHA steering group**. Staff and PhD researchers have presented at related research network events to the NI Pain Forum, **NI Leg Ulcer Forum** and contributing to CPD accredited training by the **Royal College of Anaesthetists** at the NI Pain Society annual scientific meetings. Magee's research with Axial3D was graded **'Outstanding' by Innovate UK** and the associate awarded **programmer of the year for Digital DNA** (2019). Magee's work on Cardiology guidewire product development is a **published case study for HSC Innovations**.

The Creative Industries Institute provides a specific location for much of the industry collaborative R&D, knowledge exchange and impact activity. Design disciplines (Graphics, Product, Interaction, Fashion & Textiles) were foundational to the successful **FSNI, CIC**. We contribute to the entire programme, especially *'Leadership and Development for Growth'* and *'Immersion'* work packages. Coyle, Dixon, Parkin, and Magee have led **10 industry collaborative FSNI funded projects** reaching **46 creative sector companies**. The Immersive Work Package for FSNI was influenced by the CDE Global KTP (Magee & Quigley), which received a grade of **'Outstanding' by Innovate UK**, a finalist for **Advance HE, THELMA's** (2018) and a **published Case Study for the National Centre for Universities and Business** (2018). The KTP associate was finalist in the **Digital DNA awards** (2017). Coulter's research, which promoted female inclusion in STEM won the Employee's Choice in the **Rolls Royce Science Award** (2017). Belford's Damask plate database developed with FormNative Ltd., was highly commended in the **Institute of Designer in Ireland Awards** (2018), while Murphy had **5 permanent collections in the ACNI** and Belford's work was included in the **William Liddell Collection (NMNI)** and commissioned for the new **Royal Bank of Scotland fifty pound note**. This group achieved **2 Jerwood Drawing Prize 2016 shortlisting's** (Ionescu, Ingram) from the 61 works by 55 artists (2,537 submissions).

Sector engagement

The Belfast School of Art have held **leading positions** across the sector. Seawright was awarded an **OBE for services to arts and education** (2020). He is an advisory board member of the **British Council Arts and Creative Economy**, The **Department of Finance, Ministerial Committee** (2017/18) the **Imperial War Museum**, and the **ACNI** (until 2015, with Montgomery). Other board memberships include the **British Council** (Montgomery), **CHEAD** (Fleming), the **Irish Humanities Alliance (IHA)** (Fleming, 2017 and Magee, 2020) and **NI Screen** (Maguire), serving the **NI Investment Committee**. Seawright continues his contributions to REF following REF2014 panel membership, reappointed as a **specialist advisor for REF2021**. He joins Fleming who is a **REF2021 panel member** for UOA32. We are long standing **members of CHEAD** and in 2014 Seawright, Roddis, Sheffield Hallam University (SHU) and Gazzard (Fossbox) established the **Research Alliance**, with Fleming serving founding **Chair** (2014-2020) driving change in the sector. We are members of the **European League of Institutes of the Arts (ELIA)**, corporate members of the **Institute of designers in Ireland (IDI)**, and the Group for Learning in Art & Design in Higher Education (GLADHE), where **O'Boyle is secretary** and the **UK Professional Standards Framework lead for the Faculty**. Fleming served on the **EU**

Commission FET programme (2017) while Simms is the NI Council Director for the British Association of Art Therapists and Chair of the NI Group for Art as Therapy.

Staff also have individual **membership roles and responsibilities in the Martin Parr Foundation (Parr), International Academy of Ceramic (Moore), Craft NI (McHugh), the Mourne Heritage Trust/ Narnia Trail, Korean Association of Art & Design, Clifton Gateway Public Realm Project – Inclusion of Public Art 2019 (Sander), Seres2018 Juried Exhibition of Ceramics and Glass in Turkey (Moore), British Association of Art Therapists Educators Group (Whitaker, Simms), Arts and Health Coordinators Ireland (Whitaker) and ORECNI (Magee).** Dillon is an executive group member of **Women in Spanish and Portuguese Studies (WISPS)**, member of the **Latin American Studies Association (LASA)** and the **College Art Association (CAA)**. Staff have taken part in **16 different fellowships or residencies** across Ireland, England, Finland, France, Germany, Japan, Taiwan, Singapore and America including securing a Leverhulme Early Career Fellowship (Dillon).

8 staff have conducted **18 book reviews** for international publishers or organisations. 12 staff have **peer reviewed 62 articles across 22 different Journal publications** including The Design Journal (Magee), Design Issues (Dixon) and The Journal of Design History (McBrinn). Staff have also conducted reviews of artistic practice (Driver, Moore, Whitaker). 3 staff actively contributed within an **editorial capacity to 51 articles across 7 different journals** (Taylor & Francis, Intellect). 6 staff have examined 16 PhD Viva's at 15 other institutions across Ireland, Scotland, England, Wales and Holland (Seawright, Fleming, Shippies, O'Beirn, Herron, McBrinn). 4 staff assess PhD proposals as part of the **NBC national scrutiny panels** for the annual scholarship competition (Fleming, Magee, McHugh, Boyd). Greaney is **Fulbright Commission Ireland Ambassador (2016)**, and **peer review panel member**, Sanders serves the **Arts Council Ireland Projects Panel**, and McHugh serves the **Commonwealth Scholarship Commission**. 4 staff (Dixon, Fleming, Magee, McBrinn) have conducted peer reviews for the AHRC, with Fleming receiving recognition of **Outstanding Contribution from the AHRC Peer Review college (2020)**.

Ulster staff are proactive in participating and hosting CHEAD and AHRC supported initiatives, such as the **Graphic Design Research Network (2018)**, and **AHRC Design Research for Change initiative**, led by Professor Paul Rodgers (University of Strathclyde). Belford's practice-research features in their 2018 publication. McHugh presented ECR experiences for the **Next Generation Design Research (2018)** and Ulster hosted the **Writing an AHRC proposal in 2 hours workshop (2019)**, including colleagues from UOA33 and UOA34. Gault and Magee were selected to participate in the **'Does Design Care...? [2]' workshops, Japan (2019)** with a colleague in UOA13, contributing to a series collaborative research outputs, novel for the sector (40+ contributors). We hosted James Corozzo (SHU) to share research and stimulate debate with our Creative Industries group (2019) which led to further workshops with Professor Trigg (2019). We engage with the **National Centre for Universities and Business (NCUB)**, publishing Magee and Quigley's research as a **National Case Study** in their flagship 'State of the relationship 2018' publication.

Civic engagement

12 Staff have organised 21 international conferences or symposia, including: **European Conference on Cognitive Ergonomics (2019), British Human Computer Interaction (BHCI2018), Virtual Systems in Multimedia (VSMM2017), Practicing Creativity: Experimentation, Mistakes and Successes in Art-Archaeology (2018), Ceramic Values (2017), Transforming Maze/Long Kesh (2017) and Academy of Ceramics (2014).** 4 symposiums including **Irish Association of Creative Arts Therapists (2019), First Fortnight Festival, European Mental Health Art and Culture Festival (2019), Peripheral Vision (2018), Photography Ireland & the Photobook (2016).** The **International Federation of Knitting Technologists International Conference (2020)** was also secured but is postponed due to COVID-19. We have collaborated with academic staff in LuXun Fine Art Academy and the Dean of the Fine Arts College, Shenyang University (Xie) developing collaborative engagements in 2020, widening opportunities for our Chinese partners in Shenyang. Seawright curated **Inside**

out- new Photography from China. Other events have become more embedded within the Arts Culture in NI. **The Belfast International Festival of Performance Art (BIFPA)** is an annual independent art festival (2015, 2016, 2017, 2019, 2020) and social media archive established by Connolly (2013), inspired by previous school events. BIFPA generates new performance artworks by international, national & local artists with academia (part funded by Ulster). Maguire continues to be a catalyst in the animation sector nationally and delivered the NI Screen **All Ireland Animation Industry conference** (2017). Researchers have contributed to the NI Assembly's Research and Information Service **Knowledge Exchange Seminar Series (KESS)** in 2015 (O'Boyle) and 2017 (Douglas, Fleming, Montgomery) raising Design Industry issues. Ulster supports the **UN Sustainable Development Goals with individual staff pledge uptake ranked 1st and students ranked 2nd in the national leader board** and Bruce is **Civic Ambassador for Educational Outreach**, contributing to widening access. In 2018 (McKenzie) and the Provost of the Belfast Campus (Folli) launched **Art Unwrapped** collaborating with NMNI and Belfast City Council to selectively release valued artworks as a gift to the public widening access of valuable cultural artefacts. Annually the Fashion show, sponsored by industry attracts **>800 attendees** in St Anne's Cathedral.

We have a strong connection with the public and private creative sector with >141 different public talks/workshops reported to the HEBCI survey. Our formal talk series each year (organiser: O'Beirn) accumulatively delivering >199 talks to Research staff, PhD Researchers and MFA's, is often held in the MAC, Belfast. The MAC was shortlisted in the prestigious Art Fund UK Museum of the Year 2015 for the exceptional quality of its curatorial practice, nationally and internationally. 4 staff were profiled specifically under this initiative (Shipsides, McIntyre, McCann, McKenzie). Staff curate practice across Ireland for example in Dublin with AEMI (Shipsides, 2019), NMI (Moore, 2017), RuaRed (Cummins, 2017), in Belfast with the Golden Thread Gallery (Connolly, 2015; Seawright, 2019), PS2 (O'Beirn, 2018) and Catalyst Arts (Driver, 2018), the F.E. McWilliams Gallery, Banbridge (Wallace, 2020) and the VOID, Derry (Cummins, 2017).

Within Art & Design, Innovation Ulster Ltd has invested in the **University's first female led spin-out company. Tactility Factory**, established in 2013, has been trading during this REF2021 cycle. This company commercialises IP from REF2014 is an all-female joint venture between Art & Design SRF (Belford) and Queens' University (first Female Professor in Architecture in Ireland). It secured **£302,124** of which **£102,124** was invested by IUL. The second company **HUMAIN** (Maguire), established in 2018, combines cutting edge creative industries research transforming the seminal research of Paul Ekman's (University of Pittsburgh) Facial Action Coding System (FACS). They develop advanced 3D Character Facial Rigging Services for film, episodic television and video games (AAA, PC, Console, Mobile), which are set **to transform the industry workflow pipeline**. It received a total investment of **£769,000**, with **£100,000** from IUL and secured **£1,043,524 development funding**. **Dr Erika Rosenberg (Stanford University) the protégé of Paul Ekman, is HUMAIN's Chief Scientific Officer.**

We generate Intellectual Property regionally, with 7 invention disclosures within UOA32. Magee (4), Gault (1) and 2 UG student invention disclosures mentored by staff (Coulter), with 3 live patents during this REF cycle (Magee, Belford). 3 additional disclosures were submitted to HSC Innovations (Magee) driving innovation in the Health Sector. One supported by the **Commercial Impact Fund**, is undergoing commercialisation trials with a leading clinical firm.

Our engagement with Innovate UK's KTP programmes had positively contributed to the institution's performance. **Ulster is ranked among the top providers in the UK** and specifically **'38% of NI projects receive an outstanding grade versus 24% nationally'** as verified by KTP national manager Richard Lamb (2019). Our high performing KTP's receiving certificates of excellence from Innovate UK (Magee, Quigley) have helped Invest NI secure **£4,900,000** government funding for KTP projects in the region, for the period 2018-2023 (Invest NI, 2020).

Seawright, Parr, Wylie and 2 graduates photographed the Ireland section of the **Laying Foundations for Change** book, for **Magnum and The Atlantic Philanthropies** (2014). Wylie's invited talk at the **Business & Investment Conference New York (2019)**, represented the arts

with a focus on social change in Belfast. Grant was recognised with the **Ambassador of Wirral Award** (Wirral Borough Council, 2019) for significant contribution to the culture and stimulating regeneration of **£5,000,000 for the local economy**.

Responding to COVID

In direct response to the clinical needs of the region, Brolly, Fleming, Gault and McGinn and technical staff form product and textile design, **supplied Personal Protective Equipment (PPE) including face shields, masks, and gowns**. Magee worked closely with research partner Axial3d donating 3d printing hardware to expand their **production capacity for test kits, swabs, masks and ventilators to hospitals and care homes, and extending services to dental practices, enabling industry recovery**. Axial3D's printed swabs were recognised by Forbes (01/02/2021) **among the top 10 Healthcare Innovations**. Magee delivered an Innovation Voucher to develop Axial3D's user testing research methodology, in support of COVID-19 affected businesses. They released 75 free bespoke models to Hospitals assisting pre-operative decision making and measuring usefulness. Gault was an **acknowledged Expert contributing to the UK Parliament call** for Horizon scanning on prospective issues of COVID to work and employment.

Supporting the creative and cultural sector, Morris-Cafiero delivered a seminar for **Visual Arts Ireland** sharing her expertise with 'going viral' with research. She secured **ACNI COVID-19 funding** to deliver a virtual gallery exhibition, to stimulate positivity called 'The Inspired Ones'. Gallagher and Greaney's research were selected for **'Not Alone' an innovative travelling exhibition around European Galleries commissioned by the Golden Tread, Belfast**. Wylie contributed to the NMNI initiative **'In Conversation with Reimagine Remake Replay' project** engaging with 16–25-year-olds. Doherty exhibited his **first online exhibition 'Endless'** at the Kerlin Gallery, Alexander and Bonin, Galerie Peter Kilchmann (Dublin, New York, Zürich). This work references the denial of "historical facts and objective truths" challenging recent current affairs nationally and internationally. As co-editor of the Journal of the Association of Irish Art Therapists, Whitaker published a position paper on composition, comparing COVID-19 graph data to cliff face topology and cliff-hanging related anxiety.

Visiting Professors

Since 2014 we have had 4 key visiting Professors within UOA32. Professor Jim Roddis (SHU) provides research guidance and external review as a previous panel member in RAE2008 and REF2014 (2015-2025). Professor Yong Xie is internationally recognised for his public art. He contributes to our Global strategy building links with Shenyang University and LuXan Academy of Fine Art for Collaborative PhD provision (2018-2023). Mike Catto, board member of NI Screen and NMNI celebrated 50 years of service to Ulster (2018), significantly contributed as a Historian, to the PhD internal examination process (2014 -2019). Since November 2019, Professor Peter Lloyd Jones (SHU) has been collaborating with Belfast School of Art, extending our Design for Health strategy and in 2020 was officially appointed (2020-2025).

At University level, contracted through the VC's exceptional talent pool, Deepa Mann-Kler (CEO of NEON), is Visiting Professor in Immersive Futures. A key figure within NI and an active conduit to the regions digital sector and BAME inclusion. As a board member of PHA her applied research links directly to the Art, Design & Health group. Professor Anthony Lilley (CEO of Magic Lantern Productions) is Professor of Creative Industries at Ulster. He is a trustee of NESTA, the Crafts Council, Ofcom content member, Chair of Blast Theory and serves on the AHRC council.