

Environment Statement (REF5)

<p>Institution: Lancaster University</p>
<p>Unit of assessment: 34 (Art and Design: History, Practice and Theory, Main Panel D, Sub-panel 34)</p>
<p>a. Overview:</p> <p><u>Context for Submission:</u> Lancaster Institute for Contemporary Arts (LICA) is committed to generating world-leading interdisciplinary research in Art, Design, Film, Sound, and Theatre and to the rigorous enquiry into the relationship between creative practice, criticism and theory. While conventional research (understood in terms of that which leads to published outputs) is conducted across all areas within LICA, much of what makes our research distinctive lies in its theory informed practice, its outward-looking character and its elaboration of innovative knowledge exchange. Since 2008 the UoA has had exceptional research funding success: 58 successful awards have generated in excess of £5.4 million in research income; £3.81 million of which is HESA reported (31 July 2013). An additional £765k of research funding has been secured from the AHRC since 01 August 2013. Our research income in the REF period represents a 350% rise since RAE2008. Researchers in the UoA have produced 50 monographs and books, won 14 major awards and prizes, written 126 journal articles, 106 book chapters, presented papers at 320 conferences, and are responsible for 115 exhibitions, performances or other art events. A further indication of research excellence is the growth in PGR students, which currently totals 80 students (vs. 16.5fte in RAE2008, a 385% increase). Research in LICA is supported by a dedicated £10 million building (The LICA Building, built in 2010), which provides a forum for research engagement with a range of external organisations and specialist researchers. LICA also houses the public arts at Lancaster University – now integrated into one umbrella organisation, “Live at LICA” – supported by an annual Arts Council England grant (as a National Portfolio Organisation) of over £100,000 per annum contributing to research into practice and knowledge exchange in the contemporary arts.</p> <p><u>Research Themes and Centres:</u> Since RAE2008, in response to the changing configuration of staff strengths, growing numbers of contract researchers and PhD students, and following internal consultation, LICA has refined the clustering of its research activity. Three centres have evolved out of the former arrangement of research clusters, although these clusters still inform a significant proportion of the overall research activity. These centres are <u>Contemporary Arts Thinking</u>, <u>Imagination</u>, and <u>Performance and Practice</u>.</p> <p>This centre structure (modelled on the success of LICA’s “Imagination” research lab) is designed to facilitate the integration and support of research assistants, postgraduate and early career researchers and visiting researchers. Each centre has a professorial leader who convenes regular meetings to discuss centre-specific research activities; the leaders also meet together to coordinate research across LICA. While all LICA researchers are full members of the centre that best represents their research, they are often associate members of others. We use four cross cutting themes (reported in RAE2008) to support discourse and collaborative opportunities for individuals and between centres. The four themes, <u>Culture, Theory, Context</u>; <u>Environments</u>; <u>Languages of Form</u>; <u>Languages of Process</u>, provide common touch-points for our research that enable productive dialogue between members of our three research centres.</p> <p>Since 2008, LICA has made 11 new appointments, with an additional 6 posts (the majority in Film) being relocated to LICA from other departments at Lancaster. These have been strategic appointments designed to foster targeted areas of both existing and emerging strength. There has also been a strategic move away from traditional music to ‘sound’ as a broader interdisciplinary research dimension. Overall the number of staff researchers has increased – with a headcount of 38 category A staff (compared to 36 in 2008), 10 post-doctoral researchers, and 80 doctoral research students.</p>
<p>b. Research strategy:</p> <p><i>Achievement of strategic aims for the assessment period:</i> As a central aspect of LICA’s strategic research agenda, increasing research funding has enabled</p>

the development of our profile in terms of our national and international reach and recognition. The increase in research funding has supported the expansion and scope of high quality collaborative research – with scholars in the UK and abroad and with a range of non-academic organisations including businesses, the public sector and specialist research organisations. This success has also provided access to extended research networks (e.g. EPSRC Liveable Cities Programme Grant, AHRC Creative Exchange (CX) Knowledge Exchange Hub). Such projects support international research engagement and dissemination and extend our research base, as a number of these research grants include senior research fellows and/or funded PhDs. A key strategic aim since 2008 has been to build on staff expertise and knowledge and create a culture that fosters collaborations with international projects, that supports the applications for research funding and provides the infrastructure to develop a thriving postgraduate environment, an environment that has training as a central tenet.

The research centre structure adopted by LICA is key to achieving the strategic aim of creating an environment to support the production of world-leading research and has enabled LICA's academic community to collaborate within centres, across LICA, the University (e.g. with Computing, Health and Environmental Science, Management, English Literature, History and Sociology) and beyond.

Briefly the research centres and their activities are:

The Centre for Contemporary Arts Thinking (CAT): Gere (Director), Bennett, Bettinson, Frayling, Harland, Hodgin, Marsden, Munby, Rushton, Thakkar). CAT is a forum for research dedicated to advancing critical-theoretical understanding of the contemporary arts and the majority of its activities are framed within the theme of Culture, Theory, Context. Researchers work within an interdisciplinary ethos and often in conjunction with practice-based/led researchers to sustain an established focus on the relationship between thinking and making and how critical thinking help us to engage with the potential of the contemporary arts a transformative force within our culture.

A strategic intervention to consolidate the scope of contemporary arts research at Lancaster brought film researchers Bettinson, Bennett, Munby, and Rushton, art and new media theorist, Gere formally into LICA, building on their inclusion in research activity on LICA's formation in 2006 and in LICA's RAE2008 return. The appointment of distinguished professor, Sir Christopher Frayling also testifies to a commitment to an interdisciplinary future - where film, design, and exhibition overlap (e.g. his co-curated 'Hollywood Costume' exhibition at the V&A, which attracted more than 250k visitors and was the venue's second most popular show in the last 20 years).

Monographs and articles by Gere, Rushton, Munby, Bettinson, Harland, Marsden, Hodgin, Bennett and Thakkar reflect a high level of engagement between critical thinking and a wide range of arts practice (digital art, fine art, film, literature, performance, music). Since 2008 the centre has organised and co-organised a series of conferences including 'J. Hillis Miller: The Theory to Come', 'Refresh: International Conference on Media Art, Science and Technology', 'Dialogues on Deleuze and Cinema' and 'Production Design Symposium'. Visiting Speakers include Professor John Lechte (Macquarie University), Professor Barbara Creed (University of Melbourne) and Professor Joseph Hillis Miller (University of California Irvine). Centre members have contributed to successful funding applications made by other centres (e.g. the AHRC funded Creative Exchange) and Marsden is a Co-Investigator on an AHRC Methods Network Grant (£2m) 'Transforming Musicology' and was PI on the AHRC funded Digital Arts Innovation Laboratory (DAILab) (£152k).

Imagination: As a centre for design-led research, Imagination conducts applied and theoretical research into people, products, places and their interactions. It works with a variety of organisations to provide fresh perspectives on real-world issues and facilitate innovation.

Launched in November 2007, Imagination was formed as a strategic investment (£3m) to put design and creativity at the forefront of Lancaster's contemporary arts research activities. It utilises innovative strategies that combine traditional science and social science methods with the practice-based methods arising from the arts. Its mission is to help imagine and make tangible the future through design-led creative approaches supporting multi-level interaction and knowledge with academics and non-academics including citizens, end-users, industry, and policy-makers.

Emphasis is placed on productive collaborations to create desirable and sustainable futures.

Research outputs are multifaceted and include publications, artefacts, designed workshops and engagements, as well as hosting *The Design Journal* (Cooper, Editor). Research in imagination is

conceptualised across two dimensions:

- *Design processes and forms* - researchers in this area explore the process and role of the designer and design thinking in changing societal, cultural, technological, and organisational settings - with a focus on processes of non-hierarchical interaction, playfulness, knowledge exchange, generating new understanding of the roles of the artist and designer (Cooper, Coulton, Cruickshank, Clune, Dunn, Evans, Hands, Murphy, Tseklevs, Walker).
- *People, products, places and their interactions* - researchers engage emerging concerns and debates in the policy and the public spheres, regionally and internationally, with concern for urban futures, digital media and social technologies, design for sustainability, and the future of management, service, sustainability and design decision making (Clune, Cruickshank, Cooper, Coulton, Dunn, Evans, Sangiorgi, Tseklevs, Walker, Whitham).

Since its inception, Imagination has been collaborative and interdisciplinary, engaging disciplines *beyond design* including computing, management, performance, social science, engineering, urban planning and the built environment. This approach is evidenced through the EPSRC funded 'Liveable Cities' (Cooper) that includes collaboration with three other universities (Birmingham, UCL and Southampton) and disciplines that include engineering, sociology, policy, energy and ecosystems ecology alongside over 40 non-academic organisations. This is also evident in the EPSRC/DSTL 'Solar Soldier' project (Tseklevs, £650k, 24 months) with Glasgow, Strathclyde, Loughborough, Leeds and Reading Universities in the areas of engineering, chemistry, energy and design, collaborating to investigate the design and incorporation of sustainable and renewable technology for the modern infantry soldier. Cooper also leads the AHRC 'Knowledge Exchange Hub - The Creative Exchange' (henceforth CX; £4m in conjunction with Newcastle University and the Royal College of Art) - which engages the profound changes in practice in the creative and media-based industries stimulated by the opening of the digital public space. The CX builds on a long-standing relationship with FutureEverything in Manchester and the BBC at Media City, and has resulted in 24 projects with SME's in 2012/13 and a body of research around knowledge exchange (Cruickshank) including an innovative knowledge exchange conference held at Lancaster in September 2013.

Whilst EU projects have offered research from a number of perspectives, participatory design processes and open innovation have been addressed through PROUD (People Researchers and Organisations Using Design for Co-Creation and Innovation) (Cruickshank), design innovation policy across Europe through DeEP (Evans, Cruickshank, and Cooper), collaborative work with Computing on EU PDnet has generated work on digital and the urban environment (Cooper), and Cooper has extended the design research into concern for individual wellbeing and design through a science review on wellbeing and the physical environment for the Government Foresight programme.

Imagination has benefited from visiting scholars (such as Anna Meroni, Milano Polytechnic; Avi Friedman, McGill University), memorandums of understanding with organisations such as The Gild (commercial design agency, London), visiting Research Fellow Raymond Turner (formerly Design Manager, London Transport) and Visiting Professor Kevin Roberts (Saatchi & Saatchi).

Imagination has hosted numerous *Imagination Labs* in collaboration with a breadth of companies, and organisations, including The Design Council (2011), InfrastructureUK (2012), and two industry/practitioner conferences BIG (Business Innovation and Growth), 2012 and 2013 in collaboration with Creative Lancashire and the Institute of Directors. Such engagement with external sources has enhanced the research environment by both bringing new thinking into the centre and providing pathways for our research to external stakeholders.

The Centre for Performance and Practice (P&P): Etchells (Director), Aston, Casey, Dickens, Fiddler, Harland, Harris, Juers-Munby, Quick, Southern, and Stewart. P&P has evolved since RAE2008 out of the Centre for Advanced Studies in Contemporary Performance Practice and the Centre for Practice and Theory: Research in Composition Research Centre, broadening their perspectives to include not only performance practices in theatre and music/sound but also practices in art, new media, video and film, as well as cross-arts practices. Centre members have produced monographs, articles, book chapters, and been creators of over 100 exhibitions/performances since 2008.

P&P researchers collaborate closely with Live at LICA, which provides a platform for

performing/exhibiting LICA researchers' and postgraduates' Practice as Research to wider public audiences. It also provides opportunities for researchers' direct engagement and collaboration with external contemporary arts practitioners.

Research within P&P is conceptualised across two dimensions: exploring what creative and collaborative processes are at play in contemporary arts practice and how these processes might be theorised and disseminated to the academic and public spheres; examining ways that innovative arts practices inform theoretical/philosophical/cultural/social understandings of creative practice and how innovative practice connects to disciplines outside the arts and humanities such as Medicine, Engineering, Management, the Environmental Sciences and Business.

The strategic appointment of Etchells (artistic director of Forced Entertainment) as a Professor of Performance and Practice grows out of his longstanding association with LICA, including an AHRC funded Creative Fellowship during RAE2008. As a practitioner whose work moves between the areas of performance, fine art and creative writing and also as a renowned theorist on collaboration and the creative process, he is in an ideal position to lead P&P.

The centre has supported two AHRC Creative Research Fellows: Fox (Weather Station) and Prichard ("Creating Alternative Realities: Applied Drama and Playwriting with Female Survivors of Violence"). The centre is also home to four fully funded AHRC PhDs all of whom are research led professional practitioners of national and international stature (Eatough, Wilson, Shah, Smith). The attraction to LICA rests in many ways on the way P&P members have been central to the organisation of important academic symposia on practice – including an international conference on Post-dramatic theatre and the "Practice Reflected" series run by Live at LICA which provides an opportunity for artists to reflect formally on their own practice and to invite responses from other practitioners, writers, critics and academics (e.g. "Lastness, Raiding the Archive, and Pedagogical Practices" (2008), "Making Time" (2010), "Getting it Out There" (2012); "Jelinek in the Arena" (2012); "Words/Worlds" (2013). Researchers in P&P have had considerable success in gaining Arts Council funding to support projects (e.g. over £300K to support Quick's work with Imitating the Dog).

Plans, Aspirations, Strategies for future development:

The overarching plan for LICA's research future is to: 1) continue to build critical mass in each research centre, through sustained and where appropriate increased research grant income, postdoc recruitment, and continued collaboration across centres to generate new directions for research; and 2) further develop the doctoral programme both with the centres and across LICA, whilst supporting early career researchers into academic careers. Each centre will also address its own specific developmental needs within the broader LICA and university environment:

Imagination will continue its applied and theoretical research into people, products, places and their interactions and design processes and forms. It will look to develop national and international research collaborations in areas such as open and co-design; the transformative potential of digital, media and network technologies; service design innovation, (hosting ServiceDES conference 2014); playfulness and game design; design fiction; urban design (working on City Visioning with Future Cities Catapult 2014-17); and digitally enabled knowledge exchange.

Imagination will be working to a research agenda partly informed by recent large grant awards – "Creative Exchange" (AHRC £4m) runs until the end of 2015 and "Liveable Cities: Transforming the Engineering of Cities to Deliver Societal and Planetary Well-being" (EPSRC £2.3m) runs until 2017. There are challenges in the convergence of the physical and digital, alongside the development of the internet of things; research is needed on design processes, decision-making and the environment in which the design and technology will impact upon behaviour. The convergence of design disciplines to address this challenge places Imagination in a good position to develop its programme of research over the next five years. For example Evans and Walker were awarded £768k by the AHRC (in August 2013 in collaboration with Leeds University) to develop effective design strategies to revitalise designs, products and associated practices that have cultural origin and relevance, and in doing so increase their perceived value.

ImaginationLancaster will evolve its activities and focus to capitalise upon an international research agenda while it integrates its activities alongside the other research centres in LICA.

Contemporary Arts Thinking is the most recent centre in this configuration and has the potential to develop considerably over the next five years. The integration of film researchers into LICA is a

relatively recent development (2010) and the new structure is designed to enhance cross-disciplinary debate and nurture potential interdisciplinary research in the theory and context of the contemporary arts. We foresee considerable development of our already existing research strength in new media (Gere) and digital art, given the strategic investment in new hires in this area across centres (Devereaux, new media theory and practice; Coulton, the role of the digital in design and mobile communication, Southern, art, process and mobility). Future research projects will focus on the impact of film on contemporary art, particularly on installation, painting, theatre, photography, gaming, and visual narrative in digital space. Rushton is leading on a project looking at the relationship between theatricality and cinema, and Frayling is planning a significant exhibition around this subject area. Another focus of research in CAT is the area of visual cognition, led by Harland, which will continue to bring together theoretical thinking around contemporary modes of looking and current scientific investigations into the ways that we see and order thinking through sight. The long-term aim of the centre is to be at the forefront of theoretical debates in the contemporary arts, especially in the context of our current digital culture.

Performance and Practice will continue on its outward-facing trajectory, something that benefits from the experience in knowledge exchange research developed in Imagination and the support of Live at LICA in commissioning new works and providing a laboratory to test practice-based research's relation to the public. For example, initiatives fostered through inter-centre dialogue include a "Drawing Mobilities" proposal led by P&P member Casey (ECR).

In terms of future cross-centre research initiatives, curatorship is a growth area, one which will enable us to further develop the strategic centrality of Live at LICA to our research. This area will build on the developing curatorial expertise within Live at LICA as demonstrated by the AHRC and Nesta *Digital R&D Fund for the Arts* funded "Taking the Artwork Home" project (Coulton and Murphy) which uses Mobile Augmented Reality (MAR) to allow people to digitally curate their own art exhibitions from their own homes using content from the Peter Scott Gallery (a constituent part of Live at LICA), and juxtapose this with their own media. This is an example of research that transcends the research centre structure in LICA by bringing together researchers from Imagination, Live at LICA and external collaborators. Such research asks overdue questions about the role of curators, programmers and venues and considers wider implications of the structures used to fund, develop and access new work, and emerging models of curatorship. It explores the dissemination of the 'exhibition' in the light of hybrid forms, digital realities and networks.

c. People, including: i) Staffing strategy and staff development

Staffing Strategy: LICA's approach to staffing is defined by its strategic objective to recruit, develop and retain world-leading researchers. The focus on increasing visibility, strengthening established areas of research excellence and investing in emerging areas has underpinned LICA's approach to recruiting and supporting staff. All new appointments are made on the basis of excellent research track-records and future potential. Since 2008 high profile research-leaders have been appointed including, Frayling in the area of Film, Etchells who leads the Centre for Performance and Practice, and Harland, a Professor in Fine Art. Seven new appointments have significantly strengthened Design, particularly in the areas of design management (Murphy and Hands), urban design (Dunn), games and design interactions (Coulton and Whitham) and product design (Clune and Tseklevs). Similarly, five new appointments have been made in Art including Harland, Dickens and Casey in visual practices and Devereaux and Southern in digital arts.

Staff Development: LICA deploys University-wide procedures on staff development and each member of staff is nurtured through multiple policies and practices. Research staff are mentored through a peer system and their research concerns and performance addressed systematically through annual Performance Development Reviews with qualified senior staff (normally Director LICA) and through support from research centre leaders. A transparent workload allocation operates. All staff are equally entitled to departmental travel and research funds and all permanent staff receive an annual personal research fund (£700 in 2013/14). The Faculty also supports research through its Research Fund and Travel Fund, whilst both the Faculty and the University regularly provide research funding to ECRs on a competitive basis. Staff in LICA have been successful in obtaining competitive funding, e.g. Casey's work on exhibition preparation and set-up (£6,200), Murphy's work on design briefing and procurement including business models (£1,400), and Sangiorgi's work on service design in the public sector (£2,300). All staff, in accordance with

University policy, are entitled to apply for regular periods of sabbatical leave (one term in eight; one year in eight), subject to LICA Management Group and Faculty level approval. Since 2008 staff have taken 188 months of sabbatical leave within LICA. Sabbatical leave is always used to support the development and completion of significant research outputs and often to conduct research away from the university.

Research centre performance is monitored by centre leaders in terms of research outputs, funding, deliverables and centre strategies developed in annual workshops (e.g.) Visiting Professor Kevin Roberts works with Imagination on their 'purpose'. These strategies are monitored through LICA's Research Committee and reported to LICA's Management Group.

Specific support, training and monitoring of new staff and ECRs is conducted through probationary agreements, one-to-one mentoring, yearly Performance Development Reviews and reduced teaching and administrative loads during probation. Institute-wide research seminars, allied to research centres, provide a platform for ECRs and new colleagues to present work in progress and contribute to collaborative research activity. Broader training, career guidance and development needs are met at University level through its Development Opportunities for Staff programme, its Research Development Framework courses (in line with the Concordat to Support the Career Development of Researchers, and the University's award of the HR Excellence in Research Award) and Faculty grant writing workshops. ECRs who are new to PhD supervision are mentored by more experienced supervisors and begin as members of a supervisory team rather than lead supervisors. LICA also has a policy to ensure that departmental research and development funds are made available to nurture the research projects of ECRs and its more junior staff.

LICA actively supports all members of its staff at all levels of their career. The HoD and members of the LICA Management Group hold regular meetings with colleagues on probation. They also provide advice and support on promotion and career advancement to colleagues at all stages of their careers, both within the PDRs and more informally. This supportive environment is demonstrated by 16 internal promotions during the REF period.

Equal Opportunities and Diversity: LICA fully subscribes to the recommendations of the University's Single Equality Strategy 2010-13, and is actively implementing its findings. All staff are required to take part in training on diversity and equal opportunities and LICA follows the University's equal opportunities and diversity policies in all its recruitment processes, its centre activities and staff development. The current gender balance in the UoA is 30% female, 70% male; at the professorial level it is 55% female and 45% male.

i. Research students

Postgraduate Research Culture: There are currently 80 PGR registrations in LICA, reflecting continued upturn in research student recruitment. Overseas students currently constitute over 30 registrations (up from 9.50 in 2008). 13 PGRs are currently RCUK fully funded (7 Creative Exchange (AHRC), 2 Liveable Cities (EPSRC) and 4 funded practice-based researchers (AHRC)). LICA has a submission rate of over 90% for PGR students within the current REF period. 38 PhDs have been awarded since 2008. Since 2008 LICA has been in receipt of AHRC PG training funds which it uses for practice-based research seminars and workshops co-organised between PGRs and staff. Seminars and workshops are delivered by nationally and internationally recognised figures in our field, both academics and professional practitioners and are organised in close association with centre activity. This fund is usually administered through the students' selection of speakers for example The Performance and Philosophy Event for Postgraduates with Prof Freddie Rokem (Tel Aviv University) and Dr Laura Cull (University of Surrey).

Research Students are fully integrated into our research centres and are encouraged to link their research to the wider research themes where possible. Focal points are provided by the research centre seminars and meetings. Staff also run reading groups in specific research areas (e.g. The Knowledge Exchange Reading Group and the Practice-as-Research Reading Group). Since 2009 LICA has co-convened (with Northumbria University) an annual Design PhD Conference which attracts over 100 PhD students and academics nationally and internationally that explores issues directly related to the experience of undertaking a PhD in design. Doctoral students and staff also engage with a programme of fortnightly Digital Futures seminars led by internal and external speakers. LICA encourages its students to present papers at Lancaster and elsewhere, supporting them through Faculty and Departmental funding for conference fees and travel. Our research

students are high achieving, presenting at peer reviewed conferences and publishing articles and book chapters during their doctoral studies (approximately 75 publications since 2008). The high quality of our research students is also reflected in the number of academic posts they move on to at completion (10 in the REF period).

Studentships from major funding bodies: In 2008, LICA received £4.3 million funding from the ERSRC to set up HighWire in collaboration with InfoLab21 (Computing) and the Management School at Lancaster in partnership with a range of large companies and SMEs. HighWire is a Doctoral Training Centre funded by the EPSRC's Digital Economy Programme, dedicated to a post-disciplinary approach to digital innovation. Students are funded to pursue a 4-year PG programme (MRes plus 3 year PhD), which involves applied research into innovation in the digital economy involving working directly with a range of SMEs and multi-nationals. The CX AHRC Knowledge Exchange Hub provides stipend and fees for 7 doctoral students. CX is also housed in the LICA building which supplies office space and equipment to its students. In October 2013 the North West Consortium (7 HEIs in the North West of which Lancaster is a member) received £14 million to provide 200 Doctoral Training awards over 5 years from the AHRC Doctoral Training Partnerships (BGP2).

In the REF period, LICA recruited one AHRC fully-funded PhD student per year as part of the AHRC block grant. LICA also bids for partial funding (fees only) for students through Faculty resources with 7 students currently in receipt of such funding. We have also had an AHRC Collaborative Doctoral Award (with Lantern House arts organisation, Ullswater). Since 2008 we also have AHRC studentships for a number of our masters.

Research Students - Training and Support: PhD supervision, training and support is recorded and monitored through written records and a virtual system (MyPGR) that allows the Director of Graduate Studies to oversee all supervision records. All students in LICA are required to carry out an annual Development Needs Analysis which informs their training and helps to plan their PhD journey.

LICA provides all students with opportunities for training and development via a combination of dedicated Departmental and Faculty activities. The Faculty provides all students with a suite of research methodology courses (Research Training programme) and LICA supports this activity with specific training courses for arts-based research and practice-based research. Students also have the option to attend any relevant MA or, where appropriate, undergraduate courses.

Complementing generic skills training and progress monitoring, our PGR students have discipline specific training according to particular needs and topics. Specific training needs are thus met at both generic and subject specific levels. LICA also organises procedures to stimulate and facilitate exchange between academia and business, industry, public sector. For example, CX funded PhDs apply a novel approach to their doctoral studies by engaging with industry through practice based projects whilst using a theoretical lens to analyse practice. Other students such as HighWire and those working with Live at LICA, also maintain close relationships with sponsoring organisations and businesses. LICA offers the opportunity for all its postgraduate researchers to participate in a week-long residential course raising broader enterprise and business awareness at the Northwest Enterprise School (co-sponsored by Lancaster University and the University of Liverpool). Since 2009 Imagination has run a fortnightly PhD seminar for all design/HighWire doctoral students.

In terms of support and monitoring mechanisms for progress and completion regular meetings with supervisors are scheduled and then recorded via Lancaster's virtual learning environment (VLE). These are augmented by annual review procedures that appraise progress. Students in their second year (full time) are required to confirm their doctoral status by submitting a major chapter of their thesis, or practice-based equivalent, to an internal panel. Mock vivas are also provided for students at the end of their doctorate in preparation for the viva.

LICA places an emphasis on skills development and preparing the research student for the future. Specific Faculty modules are designed to further academic careers, such as Presenting Conference Papers or Writing for Publication. Lancaster University's Careers Service offers dedicated careers programmes for Faculty of Arts and Social Science PGRs - with workshops and seminars on career planning and interview preparation. This emphasis on the career development of its PGs reflects LICA's belief that the future of its disciplines depends on a vibrant and successful postgraduate cohort and culture.

d. Income, infrastructure and facilities:

Research income: LICA has increased its research income as reported by HESA by over 350% in the REF period vs. RAE2008. HESA reported expenditure in REF2014 period = £3,810,483 (31 July 2013). In addition of HESA reported data, LICA has also received funding from the EU, ACE, internally at Lancaster from the Higher Education Innovation Fund (HEIF) and other external funding sources. During the REF period a total of approx £5.4 million of research funding has been secured. In total LICA has been involved in research grants with a total award exceeding £24.5 million.

- Recent large awards: £4m The Creative Exchange (CX) (AHRC Knowledge Hub; £1.45m to Lancaster); £6.8m Liveable Cities (EPSRC Programme Grant; £2.3m to Lancaster); £2m Transforming Musicology (AHRC Digital Transformations with Goldsmiths' and Queen Mary, University of London, University of Oxford and Utrecht University; £250k to Lancaster); £768k Design and Cultural Products (AHRC Standard Route Grant in collaboration with Leeds University; £410k to Lancaster).
- Live at LICA = over £100k p.a. from the Arts Council England (Live at LICA is a National Portfolio Organisation of Arts Council England)
- EU Funding: PROUD (People Researchers and Organisations Using Design for Co-Creation and Innovation), a €4.8m, 4 year project funded by the EU INTERREG programme (€680k to Lancaster).
- DeEP: Design in European Policies (EU, €1m, €220k to Lancaster) aims to create an understanding of the impact of design innovation policies is funded by the EU's European Design Innovation Initiative.
- Arts Council and British Council Funding for Imitating the Dog (£300,000) in REF period.

Infrastructure: Areas of significant investment this cycle - HighWire Doctoral Training Centre (£4.3m - housed in the LICA Building); Digital Arts Innovation Laboratory, DAILab (£152k AHRC capacity building award - housed in the LICA Building) and a University equipment grant (£100k - for projection facilities), Imagination Lab (rapid prototyping and laser cutting £40k) has substantially improved provision for digital artists and researchers (e.g. vital to Imitating the Dog and PROUD).

Facilities: LICA Building, Live at LICA (public arts facilities - Nuffield Theatre, Peter Scott Gallery, International Concert Series), and DAILab - collectively means that LICA resources encompass studio spaces for rehearsals, workshops, performances, screenings and exhibitions; access to the use of a professional performance spaces (with technical staff); specialist resources such as sprung dance floors, digital laboratories and recording/editing facilities for multi-media practices, including green screen and motion capture facilities. The LICA Building is a multipurpose space that brings together all the performance practices, exhibition and performance spaces, and is able to support flexible and interactive conferences (such as the CX Knowledge Exchange Conference 2013,) seminar and workshops that drive innovative research and knowledge exchange activities.

e. Collaboration and contribution to the discipline or research base

Visiting fellowships, residences and similar (selected examples): Bettinson (scholar in residence, Hong Kong Baptist University); Gere (visiting lecturer, computing, University of Bremen); Munby (Sheila Biddle Ford Foundation Fellow, Du Bois Institute, Harvard University).

Awards, prizes (selected examples): Honorary Doctorate Aalto University (Cooper), OBE for service to education (Cooper), BESIE: New York Dance and Performance Award (Etchells).

Keynotes, plenary and public lectures (international examples: Aston (Leipzig, Dublin); Cooper (Madrid, Lisbon, Helsinki); Dunn (Detroit, Guangzhou); Evans (Seoul, Rotterdam); Gere (Gwangju, Seoul); Juers-Munby (Trier); Marsden (Vienna); Munby (Bremen); Quick (Rio, Taipei, Toulouse); Walker (Shanghai, Istanbul, Rio). Over 200 keynotes and plenary/public lectures were delivered by LICA staff in the REF period.

Contribution to policy agendas in the UK and Europe include, for example, Urban Futures and Liveable Cities (Cooper), DeEP: Design in European Policy (Evans, Cruickshank and Cooper), Murphy's work on design procurement in the public sector (in collaboration with the Cabinet Office procurement team and the Associate Parliamentary Design and Innovation Group), and the role of

service design in healthcare commissioning in the NHS (Sangiorqi).

Recognition in the Media/Press: Several projects such as the Solar Soldier (Tsekleves) received media attention by the Daily Mirror Newspaper, the Discovery News, the EPSRC news article, the British Forces News and several other online outlets. The 3D VIVANT project (Tsekleves) was also featured in the TVBEurope Magazine, the European Broadcast Union's Tech-I magazine, the Huffington Post, the British Cinematographer, in a special report about the future of cinematography and a BBC R&D white paper on the holographic future. Quick's work with *Imitating the Dog* has been reviewed by *The Guardian*, *The Observer* and *The Times*.

Journal editors: Aston, *Theatre Research International*; Cooper, *Design Journal*; Marsden, *New Music Research*; Bettinson, *Asian Cinema*; Harland, *The Journal of Contemporary Painting*.

Editorial and advisory board membership: staff sit on 20 editorial advisory boards of major journals; staff members act as regular peer reviewers/referees for over 40 international journals.

Professional and advisory committees (selected examples): Aston: executive committee ITFR; Cooper: AHRC Council, EPSRC Strategic Advisory Network, Government Office Foresight Future Cities Expert Group, Chair of European Academy of Design (EAD) and three EAD conferences (Aberdeen, Porto and Gothenburg), Aalto University Strategic Review, 2009, Gothenburg University Research Assessment 2010, Sub-Panel 34 REF2014; Fiddler & Juers-Munby: Elfriede Jelinek Research Platform, University of Vienna; Gere: Wire conference for media arts histories, Chair of trustees for Grizedale Arts; Marsden Institute of Musical Research.

11 staff members are on the AHRC and/or EPSRC peer reviewer college; and 6 staff members are peer reviewers in international government research bodies, such as the Greek Ministry of Education, the Croatian Creation Foundation of Science and the Qatar National Research Fund; and the Portuguese Ministry of Science.

Internally we collaborate with Lancaster University Management School (LUMS) and InfoLab21 (Computing) in the co-direction of HighWire Doctoral Training Centre and with Lancaster Environment Centre (LEC) urban sustainability researchers on the EPSRC funded Urban Futures.

Externally staff collaborate with UK and international research organisations as evidenced in the large RCUK grant collaborations and also through EU projects. Researchers also collaborate with The Work Foundation (acquired by Lancaster University in 2011) on funded research. European funding includes:

- "DeEP: Design in European Policies" (EU, €1m, €220k to Lancaster) aims to create an understanding of the impact of design innovation policies. The DeEP consortium is led by Politecnico di Milano (Italy) and comprises Lancaster University (UK): Evans, Cruickshank, Cooper, Mälardalen University (Sweden), The Work Foundation (UK), Munktell Science Park (Sweden), Confartigianato Lombardia (Italy), and Pro Design (Poland).
- "London Creative and Digital Fusion" two-year project for the Greater London Authority (ERDF, £5m) which aims to inspire and support growth in the digital industries by supporting up to 1,000 ambitious, growth-focused SMEs across the capital by giving them links to talent, expertise and resources. Lancaster (Hands, Cruickshank, Cooper) work closely with the Work Foundation, with four other key partners: Queen Mary University of London, the Centre for Creative Collaboration (University of London), the Council for Industry and Higher Education, and the Royal College of Art.
- "The China Catalyst Project" (£5.1M), funded by HEFCE to support a programme of business engagement and funded masters provision for 104 students to enable effective collaboration between UK and Chinese companies.

LICA collaborates closely with Live at LICA in commissioning new works from major UK artists – as well as developing practice-based research within LICA (see Stewart and Quick's impact case studies). These new works are developed to tour nationally and internationally. Examples include, Rajni Shaha, Quarantine, Lone Twin, Reckless Sleepers, *Imitating the Dog*, *Every House Has a Door*. Tour venues include: Barbican (London); Festival Ad Werf (Utrecht); Zoom Festival (Croatia); Theatre du Nord (Lille), West Yorkshire Playhouse (Leeds, Lowry (Manchester)); Bristol Old Vic. Through this extensive network of collaborations LICA aims to operate on a global basis and contribute innovative research across a range of creative practice and related activity.