

Institution: Falmouth University

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

a. Context

The development of impact has been supported by the EU convergence agenda in Cornwall, funding institutional infrastructure in recent years. The University has developed its response to the convergence agenda around two linked themes, the Digital Economy and Sustainable Design. The research from this Unit links with both themes and has Cornish, national and international audiences. A key feature of our work is engagement with external contexts, individuals and organisations with implications for economic growth, entrepreneurial activity, and employment – particularly in connection to Cornwall. The University's Strategic Plan addresses both regional development agendas and the imperatives of EU funding. A key aim of the University's 2012-17 Strategic Plan is to help Cornwall's economic development; the University has made notable progress – audited figures show 112 Business Assists in the current year, 21 spin-out businesses and in excess of £136Million of GVA contribution between 2008 and 2013.

Research from the unit may have indirect, but nonetheless important, consequences – for example, archival work to benefit tourist attractions, cultural centres and historical sites, such as recent research by Art and Design History staff with the National Trust and Tate St Ives. Academics in Fashion are, for example, working with conflict survivors in India and Sri Lanka in research projects which will enable product and business development. Joint research with the Eden Project links environmental research and art practice in exhibitions and art works with global audiences. Design staff work with museums and public collections, such as the Porthcurno Telegraph Museum, Truro Cathedral, and Dr. Johnson's house in London to produce interactive installations using RFID tags, touch screen and animatronic interfaces; each of these projects had audiences of thousands and improved the host institutions' economic viability.

This unit has also developed research connecting to broader praxes, including interdisciplinary R&D with medical researchers, environmental scientists, geologists, curators and telecom specialists. Alan Male's work on dinosaur typology and morphology with Yale University and the Smithsonian Institute in the USA is a high profile example. Gillian Wylde's performance art collaborations with UCL formed part of the 2012 Cultural Olympiad.

Superfast Cornwall leads a £135m investment bringing 100Mbps broadband to Cornwall and the Isles of Scilly, making Cornwall the best connected rural region in Europe; expanding the Cornish history of pioneering long distance communication. The early and extensive roll-out of Superfast Broadband (SFBB) to most of Cornwall has enabled the University and BT to explore connected issues, including the potential of digital crafts in rural areas, the environmental impact of SFBB and user-centred research on the implementation of Smart Grid technologies in rural geographies. Research feeding into the *Smart Cornwall* initiative has resulted in a series of early-stage agreements with international technology companies to develop a significant Smart Energy Micro Grid and Green Data Centre to enable micro-grids in other Cornish areas – both offer future research on user aspects of Smart Grids, the potential of SFBB in rural communities and in 'Big Data' analysis. Smart Grid research is collaborative with the University of Exeter's Environmental Science Institute (ESI) located at Penryn Campus.

Projects in the healthcare sector include the development of products with NHS Innovation, work with the European Centre for Environment and Human Health (ECEHH) in Truro, and with the Royal Free Hospital in London, where glass-casting research by Tavs Jorgensen and Gayle Matthias is part of research and practice in stem-cell-related reconstructive surgery. The incorporation of Smart Grid and sensor technologies into the design of a care home specialising in dementia care exemplifies our research and development in the growing Cornish health and wellbeing sector.

Connections to external communities, user groups and individuals grounds much of the Unit's

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research. Since 2004 the RANE research group has used art and social practice to engage environmental and sustainability issues. Creative practice and placement of environmental issues in critical cultural contexts have raised wider awareness via events, conferences, exhibitions and artistic output. RANE's work is enhanced through collaboration with environmental scientists at the ESI – for example in internationally disseminated explorations of soil structure and ecology.

Justin Marshall's *Bespoke* collaboration involved digital manufacture, the collection of opinions and information from diverse urban communities throughout the UK and the dissemination of the results of the research through the production of a community newspaper and via conferences and other professional channels. The work interrogates news-gathering processes to ask how these might be enhanced and communicated by digital and analogue methods and media. The developed electronic polling equipment and related *Bespoke* software is now used to gather opinions in a two-year study of the environmental impact of SFBB in Wadebridge, with BT, Cornwall Development Corporation (CDC) and the Wadebridge Renewable Energy Network (WREN).

The early Cornish adoption of SFBB and renewable energy technologies and Falmouth's history of environmental engagement have led to the recent (2013) establishment of AIR's Sustainable Design Centre. Centre Director Dr. Yorick Benjamin is responsible for the Sustainable Product Design degree programme, a direct link between a research theme and the development of undergraduate provision. Through consultancy services and involvement of the student body, the Centre is benefitting local businesses and communities by providing a range of commercial and employment opportunities. Academic and economic investment in Sustainability has entrenched our rôle assisting Cornish business for the coming strategic period.

b. Approach to impact

The unit, supported by clear institutional strategy and policy, has pro-actively developed its approach to impact and external engagement over the census period. Much of this is led by European convergence funding, which has supported the building and staffing of the AIR and collaborative PhD studentships with local businesses. A number of PhD students have supervisors from local SMEs, leading knowledge exchange through the localised reification of research.

Initiates within AIR support Falmouth University's external engagement. These include the 'Sandpit' programme to combine business users and the Unit's academics to explore mutual concerns in the digital economy theme and to develop collaborative projects; the development of the AIR Studio's residents scheme so businesses can work within the Academy to draw on the University's academic expertise and resources; the funding of R&D Pilot Projects with BT and Superfast Cornwall to bring together local businesses and Unit academics to develop and test business ideas; the recruitment of a new Knowledge Transfer & Collaborative R&D Manager to develop collaborative knowledge exchange partnerships and lead the development of the KE/KT strategy. We have focused our own internal Research Investment Schemes to develop impactful research through staff-led projects seeking to engage Cornish commerce.

The development of institutionally impactful policy is supported by the Vice Chancellor's membership of the Local Enterprise Partnership Board for Cornwall and the Isles of Scilly and her leadership role within the LEP on both the Cultural and Creative Industries Reference Group and the Innovation Board, chairing both groups. This has ensured that 'Creative Industries' has been included as a priority area in 'smart specialisation' terms for the LEP Structural Investment Funds plan as it goes forward. The institution is also engaged on LEP instigated steering groups for Smart Cornwall and e-Health/Wellbeing. This presence ensures 'Creative Industries' are a priority area for the LEP. The AIR residents scheme brings in key individuals to enhance institutional networking. This period we hosted Nema Hart of Arts Council England who built links between Cornwall's LEP and ACE and established the Cultural Reference Group to combine policymakers, practitioners and researchers to inform LEP, university and funding strategy. Hart's residency increased the volume of Falmouth's ACE proposals.

c. Strategy and plans

Impact-related activity has grown across both Unit and Institution. This activity's full impact is still to come to fruition. It remains our intention to maintain current relationships and partnerships in the creative and other business sectors through continued engagement with the LEP and European convergence programme now that the next tranche of Cornwall's structural funding is confirmed. We will continue research with Superfast Cornwall and Smart Cornwall to maximise the impact of SFBB and Smart Grid-related technologies.

The Cornwall and Isles of Scilly LEP aspires to leverage R&D throughout the supply chain in the next EU funding period 2014-2020 (SIF). The county is developing a smart specialisation strategy to invest in research related to e-health and wellbeing and to the Digital and Creative Industries. University strategy will enable strong connections to our research areas such as digital gaming, interactive technologies, digital making, and Smart technologies; connecting research to SIF investment priorities guarantees impact within local social and commercial communities.

Digital Games is an area for inter-unit research key for Cornish development and growth; local infrastructure is advantageous within the increasingly distributed production model adopted by the industry, as much R&D work is done on a collaborative, freelance basis. The University has recently appointed Tanya Krzywinska as Professor of Games Design and has recently secured an FP7 award of €2.4m from the European Commission to establish a Digital Games Technology Institute with an additional research professor and associated team of seven researchers, to leverage convergence and Horizon2020 synergies. The strategic focus on digital games is further strengthened by recently securing £1.5m ERDF funding to create Alacrity Falmouth in partnership with the Alacrity Foundation. The pilot programme is an innovative market-led model to incubate new businesses in the games sector. We have also established an international games innovation partnership with Gothia Science Park (Sweden).

The institution has recently established a Graduate School, led by the Dean of Research and the Graduate School and two Associate Deans. Part of the School's remit is to provide leadership and support to all researchers developing their activity in line with the university's strategic direction. This role of the Graduate School, over the coming census period, will promote the impact agenda across all members of the Unit, spread across a number of academic departments.

The University of Exeter's recently opened ESI, located at the shared Penryn Campus, provides collaborative research opportunities. Examples include Smart Grid and renewable energy technologies, soil culture research and issues linked to hydration in healthcare. ESI is funded through the convergence programme and so collaborative work with Exeter colleagues will lead to further impactful interactions with local businesses.

d. Relationship to case studies

Growth in the quantity and range of research with non-academic partners has been notable over the last three years. The full impact of this work, rebalancing the unit's economic and policy impact, is not yet realised. The submitted case studies focus on the research's cultural and social impact on communities, creative professionals and companies with whom we have collaborated as contributions to knowledge. We intend to maintain such impacts over the coming census period, just as we have done so to date. We have ensured the infrastructure we have put in place to support collaboration (e.g., the Sandpit, *Makernow* and the AIR Studio residency programme) continues to engage and enhance relationships with our creative and commercial partners.