

Research Assessment Exercise 2020

Impact Overview Statement

University: The Hong Kong Polytechnic University (PolyU)

Unit of Assessment (UoA): 38 visual arts, design, creative media, other creative arts and creative writing

Total number of eligible staff of the university in the UoA: 35

(1) Context

High impact research is central to Design at PolyU as exemplified by our 3 research themes: Industry, Social Justice, and Human Health, which impact a broad range of users, beneficiaries, and audiences. Human-centred design research, co-creation, co-design and active user-engagement is fundamental to our research and strategy (see **Environment Statement**). Our research **users** include: **1) Government**: various Hong Kong Government departments (e.g. *Leisure and Cultural Services* and *Planning*) and the Chinese Government (e.g. *the Ministry of Industry and Information Technology* and the *National Development and Reform Commission*) that use our research to inform new policies and standards (e.g. such as for public facilities and the creative industries). **2) Industries** that invest in and commission over 50% of our research leading to their greater commercial success and improved sustainable practice (e.g. *Swire Coca-Cola (HK)*, *UBS AG Bank*, and *China Light & Power*). **3) Cultural Institutions** for whom our research is central to their public collections, exhibitions and communications (e.g. *The Met (USA)* and the *V&A (UK)*), **4) NGOs, charities and medical organizations** which put our research into practice to enhance their support to users with special needs.

Our research **beneficiaries** and the **types of impact** we have, include, but are not limited to:

1) Companies: commercializing our research through product development, deploying new industry standards to boost competitiveness and profits as well as benefiting from innovative eco-friendly, efficient and sustainable production methods and materials; **2) Communities** benefitting through co-design projects with a focus on combatting rural poverty; **3) Patient groups and healthcare professionals**, improving patient dignity and wellbeing through new services, products and practices improving health and especially ageing, disability, breast cancer, dementia, autism, scoliosis and osteoarthritis care; **4) Public museums, government and journalists** exploiting our research to develop exhibitions and collections for public education and communication as well as to attract and influence their **audiences** (e.g. museum visitors, schools & colleges, international cultural and creative professionals, industries and communities) via exhibitions, publications, residencies, workshops, web resources, international TV and media.

(2) Approach to impact

Putting users at the centre of our research is key to our strategic approach to impact. Our 3 integrated applied research themes focus on societal challenges and achieving our aim of delivering research impact. Supported by a robust infrastructure centrally by PolyU, locally with our Design units and regionally through sustained collaboration with government, industry and community stakeholders, key elements of our approach are:

2.1 Supportive infrastructure bridging our unit, NGOs, industry, user groups and audiences.

Our unit's infrastructure includes 3 key organizations:

1) The Jockey Club Design Institute of Social Innovation (J.C.DISI) established in 2013 with a HK\$30m donation, enables staff to directly engage with community groups and conduct collaborative interdisciplinary research with direct societal impacts. *J.C.DISI* has supported 17 projects that involve users with special needs and minority groups (e.g. *Wirman, Tan, Hasdell, Luximon*) **2) Troels H.Povlsen Care Apparel Centre** provides specific support in establishing partnerships with NGOs specialising in ageing and disabilities (e.g. *Yick, Lau, Ho, Yip, R. Liu*). **3) The Hong Kong Research Institute of Textiles and Apparel (HKRITA)**, initiated by our unit and hosted by PolyU, provides vital links to the fashion and textiles industry, as well as matched funding (8 projects totalling over HK\$12m within the assessment period).

2.2 Directly reaching out to potential new partners. Our unit's marketing and communication team (8 FTE) promotes our work at external plus internal venues (including 5 on-campus galleries)

and online platforms for public engagement, attracting future partners and cultivating audiences. Over 900 organisations from government bodies, NGOs and industry (including global companies such as *IBM, Deloitte, Swire, Huawei* and *Y&R*) visited our galleries during this assessment period.

2.3 Co-working approach. We actively engage non-academic partners in project implementation from the outset: from project proposals to evaluation; from strategic partnerships that ensure active involvement of beneficiaries on project boards, to co-working during project implementation. Our partners provide valuable advice, technical support, facilities and even real-life testing environments so our research outcomes are targeted and useful (e.g. *Hasdell, Siu, B. Lee*).

2.4 Multilevel impact-activity support. PolyU's *Innovation and Technology Development Office* (ITDO) provides support for patents (29 successful applications during this RAE), IP protection, commercialization and licensing. The *Institute for Entrepreneurship* provides micro-funds and training to students and staff. At unit level we have established a mentorship programme that pairs new researchers with senior academics to share experience in developing partnerships and delivering projects with non-academics.

2.5 Active participation in government advisory bodies, professional bodies and consultancy projects. Our researchers can invest up to one day a week serving as advisers and consultants to key government departments, organisations and international companies, thereby contributing design knowledge to help shape policy and standards such as *Made in China 2025* (*S. Liu*), public park design (*Lee*), the HKSAR public design policy (*Siu*) and Chinese national compression stocking industry standards (*R. Liu*).

2.6 External grants with matching industry funding. Researchers are supported to competitively bid for the HK Govt.'s *Innovation and Technology Fund* (ITF). This strategic platform provides funding, technical and facilities support and requires evidence of committed relationships with companies to secure matched funds. Researchers who have secured ITF projects (2 year duration), are incentivized to hire 3-year PhD students by the last year studentship top up being provided by the unit.

2.7 Industry advisory boards. 2 advisory boards composed of key representatives from industry and design communities have been established to provide insights into current and emerging challenges and formulate research directions that address industry needs.

(3) Strategy and plans

Design at PolyU's goal is to be the pre-eminent centre for impactful design research bringing societal, environmental, economic and cultural benefits. To achieve this goal, our strategy is to maintain our strong networks with key partners, build strategic collaborations with potential users and beneficiaries to ensure our research is responsive to society's needs, nurture talents and forge new research frontiers interfacing design and new technologies. In the next 6 years we will:

Create New Facilities and Infrastructure. We will establish an Artificial Intelligence (AI) Design Lab (Nov 2019) with HK\$208m agreed funding from HKSAR government. This new 9300ft² lab in the HK Science Park will house state-of-the-art facilities to support design and AI integrated research to create impact in health care, hospitality, service, as well as fashion and textile sectors. We will establish a User Consortium in 2020 to ensure NGO and industry needs are at the forefront of our research.

Improve our Support for Staff & Students. We will continue to *1*) embed impact in the curriculum, training research students in creating, capturing and evaluating impact, *2*) encourage participation of design research incubation through PolyU entrepreneurial schemes (e.g. *Tech Launchpad Fund* and *China-HK Matching Fund*), and *3*) recognise and reward staff who create impact in our Annual Staff Appraisal Exercise incorporating promotion and salary increments.

(4) Relationship to case studies

All 3 of our cases illustrate our strategic approach of putting users at the centre of our research. Case 1 illustrates building on a long-term partnership with an industry collaborator, and supported by HKRITA, ITDO, and matched funding. Case 2 illustrates active engagement with government, professional bodies and industry and Case 3 illustrates working with community groups to co-create both research and impact. Sharing these successes internally helps us promote best practice learning.