Australian Government
Australian Research Council

EI 2018 ENGAGEMENT AND IMPACT

Engagement and Impact 2018

University of the Sunshine Coast

USC09 (ST) - Impact

Overview

Request not to be assessed for Impact

(If the institution has a compelling reason for not being able to put together an impact study, the institution may request not to be assessed in the impact assessment component of EI for a particular UoA. In this situation, the institution must select from one of the two reasons they should not be assessed for impact in that UoA.)

Yes

Choose from the list the reason why the institution is requesting not to be assessed for impact in this UoA

the discipline is new to the institution and researchers in this discipline have not had sufficent time to have an impact beyond academia

Future plan

Engineering research began at USC in 2010 with the recruitment of A/Professor Terry Lucke who heads the Stormwater Research Group (SRG). SRG conducts applied end-user-focussed research into stormwater management and urban water design. Lucke's 2012 Linkage grant was USC's first competitive grant in this FoR. SRG comprises mainly ECRs and HDR students undertaking applied research projects expected to produce impact in the next 2-3 years. USC's impact strategies include: •recruitment of staff with applied research interests and industry experience •mentoring ECRs to develop industry relationships and targeted funding proposals •fostering end-user relationships through consultancy and contract research •development of innovative products with commercial potential. A number of "green" civil engineering projects are close to adoption including a new design of constructed wetland for water treatment in urban developments and remote tourism resorts; more efficient drainage systems, culverts and stormwater outlets; and accurate characterisation of stormwater runoff in SEQ. Permeable pavements to mitigate structural damage from street tree roots are being trialled by local government. Applied mechanical engineering research focuses on new materials for: •corrosion-resistant endovascular stents •stronger timber products for use in multi-storey buildings. A Queensland Smart Futures grant (2012-2015) has funded Dr Damon Kent to develop the next generation of endovascular stents. With a commercial partner, Cook Medical, he is bringing this improved stent design to market. Kent's appointment has also led to USC being offered a research node in the UQ-led Research Hub for Advanced Manufacturing of Medical Devices, providing additional impact opportunities.

Title

(Title of the impact study)

Unit of Assessment

09 - Engineering

Additional FoR codes

(Identify up to two additional two-digit FoRs that relate to the overall content of the impact study.)

Socio-Economic Objective (SEO) Codes

(Choose from the list of two-digit SEO codes that are relevant to the impact study.)

Australian and New Zealand Standard Industrial Classification (ANZSIC) Codes

(Choose from the list of two-digit ANZSIC codes that are relevant to the impact study.)

Keywords

(List up to 10 keywords related to the impact described in Part A.)

Sensitivities

Commercially sensitive

Culturally sensitive

Sensitivities description

(Please describe any sensitivities in relation to the impact study that need to be considered, including any particular instructions for ARC staff or assessors, or for the impact study to be made publicly available after EI 2018.)

Aboriginal and Torres Strait Islander research flag

(Is this impact study associated with Aboriginal and Torres Strait Islander content?
NOTE - institutions may identify impact studies where the impact, associated research and/or approach to impact relates to Aboriginal and Torres Strait Islander peoples, nations, communities, language, place, culture and knowledges and/or is undertaken with Aboriginal and Torres Strait Islander peoples, nations, and/or communities.)

Science and Research Priorities

(Does this impact study fall within one or more of the Science and Research Priorities?)

Impact

Summary of the impact

(Briefly describe the specific impact in simple, clear English. This will enable the general community to understand the impact of the research.)

Beneficiaries

(List up to 10 beneficiaries related to the impact study)

Countries in which the impact occurred

(Search the list of countries and add as many as relate to the location of the impact)

Details of the impact

(Provide a narrative that clearly outlines the research impact. The narrative should explain the relationship between the associated research and the impact. It should also identify the contribution the research has made beyond academia, including:
- who or what has benefitted from the results of the research (this should identify relevant research end-users, or beneficiaries from industry, the community, government, wider public etc.)
- the nature or type of impact and how the research made a social, economic, cultural, and/or environmental impact
- the extent of the impact (with specific references to appropriate evidence, such as cost-benefit-analysis, quantity of those affected, reported benefits etc.)
- the dates and time period in which the impact occurred.

NOTE - the narrative must describe only impact that has occurred within the reference period, and must not make aspirational claims.)

Associated research

(Briefly describe the research that led to the impact presented for the UoA. The research must meet the definition of research in Section 1.9 of the EI 2018 Submission Guidelines. The description should include details of:
- what was researched
- when the research occurred
- who conducted the research and what is the association with the institution)

FoR of associated research

(Up to three two-digit FoRs that best describe the associated research)

References (up to 10 references, 350 characters per reference)

(This section should include a list of up to 10 of the most relevant research outputs associated with the impact)

Additional impact indicator information

Additional impact indicator information

(Provide information about any indicators not captured above that are relevant to the impact study, for example return on investment, jobs created, improvements in quality of life years (QALYs). Additional indicators should be quantitative in nature and include:
- name of indicator (100 characters)
- data for indicator (200 characters)
- brief description of indicator and how it is calculated (300 characters).)