

# The Challenges of Conducting Transdisciplinary Engineering Research: A Case Study of the Made Smarter Innovation: Centre for People-Led Digitalisation

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**Abstract.** In order to meet growing complexity in societal and industrial requirements for engineering projects, there is a growing need for research projects that transcend traditional single discipline silos. Widespread experience and a growing academic literature suggest that there are inherent challenges in conducting transdisciplinary research together with further issues arising from institutional barriers, working across diverse teams, and an evolving industrial and funding environment. Failure to engage with these issues may be remiss in discouraging future projects or negatively impacting the success and influence of extant transdisciplinary engineering endeavours. Within this paper we present a case study of the Made Smarter Innovation: Centre for People-Led Digitalisation, a £5 million, engineering led, transdisciplinary research Centre. The approach of the Centre - governance, and research centre design - are presented and through a workshop, the Centre's Principal Investigators reflected upon common challenges and how management and design of the Centre might have mitigated these issues. Conclusions find that strategies employed in the design of the Centre have alleviated some common challenges to transdisciplinary research, however, integration of senior academics and the lack of broad organisational oversight within non-academic key contacts can be problematic. Future work will look to expand the study and incorporate the perspectives of researchers working within the Centre.

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