
Abstract

The construction of new scientific norms for solving Grand Challenges

Kate Maxwell¹ & Paul Benneworth^{2, 3}

¹University of Tromsø, Arctic University of Norway, Tromsø, Norway

²University of Twente, Enschede, Netherlands

³Agderforskning, Kristiansand, Norway

There is an increasing recognition that there is a class of problems that society must solve urgently in the twenty-first century if humanity is to survive into the twenty-second century – the so-called ‘Grand Challenges’. Science policymakers have been active in recognising these challenges and the attendant need to develop new multidisciplinary ways of working. But embracing multidisciplinary is not a straightforward choice for scientists, who individually are strongly steered by norms and values inculcated through their past scientific experiences. In this paper, therefore, we ask whether new funding approaches can contribute to creating new ways of working by scientists towards challenge-driven research, specifically by changing scientists’ expectations and beliefs. We address this research question with reference to a single new experimental method, the ‘research sandpit’, implemented experimentally in a single national science system, Norway. Our data are derived from interviews with scientists involved in the five research projects funded as a result of the first sandpit, called ‘Idélab’ (idea lab) and held in 2014, and with the Research Council of Norway. We conclude that the sandpit approach appeared to shift research perceptions of individual scientists, particularly around long-term belief structures. This implies that, when well managed, the sandpit model can indeed be useful to generate multidisciplinary research as part of a multifaceted approach to funding scientific research.

Correspondence: kate.maxwell@uit.no