

Research Paper No. 41

EXECUTIVE SUMMARY April 2016

(full paper link: <http://enterpriseresearch.ac.uk/publications/erc-research-papers/>)

The roles and effectiveness of design in new product development: a study of Irish manufacturers

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Investments in design can make a significant contribution to successful new product development (NPD). However, there is insufficient evidence on the most appropriate or effective role that design could play. Previous case-based research has identified alternative roles for designers in NPD, but there is only tentative evidence over such roles' contribution to NPD outcomes. Using data on a large sample (c. 1300) of Irish manufacturing plants we are able to examine the effectiveness of three different levels of involvement of designers in NPD and their impact on NPD novelty and success. Our analysis suggests that design is closely associated with enhanced performance regardless of the type of role it plays. However, the potential effects of involving design throughout the process appear to be much greater. The relationship between design and NPD outcomes is also strongly moderated by contextual factors; for example, its significance is only evident for organizations, which also engage in in-house R&D. Also, while both small and larger plants do gain from using design as functional specialism and in some stages of the NPD process, the additional benefits of a continuous involvement of design throughout the process are only evident in larger plants. Finally, while discourse and perceptions over design's role in NPD have certainly changed over time, suggesting a much more widespread and strategic use of design, our findings provide a more static picture, showing that design engagement with the NPD process has not changed significantly over the last two decades.