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## **PARTICIPANT INFORMATION SHEET**

(Participant)

Project title: Representing and reasoning about the quality of preliminary design information in engineering product development

Name of Principal Investigator/Supervisor: Dr David Wynn

### **Researcher introduction**

My name is Jens Brinkmann. I am a PhD candidate in Mechanical Engineering at the University of Auckland. I would like to invite you to participate in my research project which aims to explore the nature of Preliminary Design Information and how it influences engineering work.

By participating, you and your company have the opportunity to gain a better understanding of how Preliminary Design Information affects your work and how Preliminary Design Information can be managed in practice.

I have already contacted your manager and I have obtained the permission of your manager to invite you to participate. Now I am asking for your participation. This document provides information you will need to make an informed decision.

If you wish to participate, please contact me by email at [j.brinkmann@auckland.ac.nz](mailto:j.brinkmann@auckland.ac.nz)

### **Purpose of the research**

- In the early stages of a design project, many important issues are unknown or only known imprecisely.
- Many design modelling tools (e.g. CAD/CAE tools) require parameter values to be entered in a precise manner, even if the quality of the information is known to be poor.
- This can cause problems in which downstream consumers of design information waste effort on tasks that are not yet justified.
- If the status of the information – the Quality of Preliminary Design Information (QoPDI) – could be made more explicit, this could help to avoid such problems, potentially leading to reduced rework and to better designs.
- We are currently seeking insight into how practitioners handle Preliminary Design Information, to inform this ultimate goal.
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Your participation is voluntary, and you may choose not to participate.

Your manager has given an assurance that your participation or non-participation will have no effect on your employment or relationship with the organisation.

### **Research Procedures**

- To understand how Preliminary Design Information affects your work, I would like to talk to you for approximately 60-120 minutes.
- I propose to travel to the place that is most convenient for you (e.g. your facility) and only need a quiet space (such as a meeting room) to maintain your privacy.
- I will ask to audio-record our discussion and will also take written notes. If you agree to being audio-recorded, you have the right of turning off the device at any point.
- I will ask about your role and number of years' experience to set the insights in context.
- I will ask about your company's context, to set the insights in context.
- I will then ask open-ended questions about how Preliminary Design Information impacts your work.
- Afterwards, I will transcribe the audio recording into a written record (transcript). The transcript will be used for research purposes only and will be securely stored at the University of Auckland.

### **Right to Withdraw from Participation**

You have the right to withdraw from participation at any time prior to the interview without giving a reason. You also have the right to withdraw your data from the research up to two weeks following the interview without giving reason, in which case the interview recordings, notes and transcripts will be immediately deleted. To do this, email or call us using the details provided below.

### **Data destruction/future use**

Data collected during the study will be electronically stored at the University of Auckland for a minimum of three years and a maximum of ten years. During this period, it is expected that these data will be used for research purposes similar to what is described above, and in publications (subject to the Anonymity and Confidentiality conditions described below).

At the end of the maximum period collected data will be destroyed, unless further approvals to retain the records have been sought and granted.

### **Anonymity and Confidentiality**

According to the University's [Code of Conduct for Research](#):

- The recording or transcript will not be shared with any third party (including your manager)
- Any potentially sensitive information that you mention concerning product design details, profit margins, financial key figures will not appear in any research report
- Your name and your company name will not appear in any research report.
- Some of your comments in the interview may appear as quotations in written research reports, but will not be traceable to you by name.
- In written research reports you will be referred to only by your role and number of years' experience, as well as a general description of the company at which you currently work (including its size and a description of the type of product, but not including the name of the company)

### **What do I do if I have questions or concerns about this research?**

Any questions or concerns about this research should be notified in the first instance to the Principal Investigator, Dr David Wynn, [d.wynn@auckland.ac.nz](mailto:d.wynn@auckland.ac.nz), +64 9 373 7513, or the Student Researcher, Jens Brinkmann, [j.brinkmann@auckland.ac.nz](mailto:j.brinkmann@auckland.ac.nz), +64 9 277184219

You may also contact Head of Department, Department of Mechanical Engineering, Associate Professor Krishnan Jayaraman, [k.jayaraman@auckland.ac.nz](mailto:k.jayaraman@auckland.ac.nz), +64 9 923 8235

For any concerns regarding ethical issues you may also contact the Chair, the University of Auckland Human Participants Ethics Committee, at the University of Auckland Research

Office, Private Bag 92019, Auckland 1142. Telephone 09 373-7599 ext. 83711.  
Email: ro-ethics@auckland.ac.nz

Approved by the University of Auckland Human Participants Ethics Committee on May 7<sup>th</sup>,  
2018 for three years. Reference Number 021145.