



MaD2019 PANEL DISCUSSIONS

PANEL DISCUSSION PROGRAMME

Mon 20 May 4.00-5.00pm	1. Opportunities for Innovation in Digital MaDE	2. Future-Proofing the Next MaDE Generation
Tue 21 May 4.00-5.00pm	3. Diversity in MaDE	4. Collaboration within MaDE

There will be four Panel Discussions split across two one-hour sessions (one on the afternoon of Monday 20 May and the other on the afternoon of Tuesday 21 May). Each Panel Discussion will be led/chaired by an industry representative or a researcher.

OVERALL AIM OF THE PANEL DISCUSSIONS:

To identify opportunities, challenges and strategies related to each topic so as to enable New Zealand's manufacturing and design economy to retain and expand its global competitiveness.

THE PROCEEDINGS:

- The Lead Panellist is the Chair of the session.
- The Lead Panellist introduces the topic and Panel members. This should not take more than five minutes.
- Panellists introduce their insight into the topic for about three minutes each followed by an open discussion.
- Delegates will be invited to contribute to the discussions from the floor.
- All Panel Discussions will be recorded.

RECAP OF THE SESSION AT THE CLOSING CEREMONY:

The outcomes and findings of the Panel Discussions will be summarised by the Lead Panellists or their nominees for presenting succinctly in the Closing Ceremony and in more detail for the post-MaD2019 Conference Report.

Panel Discussion Topics

PANEL 1:

Opportunities for Innovation in Digital MaDE

Mon 20 May, 4-5pm

Venue: Great Room 2

LEAD PANELLIST:

- Olaf Diegel
Professor, Mechanical Engineering and Lead, Creative Design and Additive Manufacturing Laboratory, University of Auckland

Other Panellists:

- Göran Roos - MaD2019 Keynote Speaker; Founder and MD, Innovation Performance Pty Ltd.
- Robert Blache - Future Insights Manager, Advanced Manufacturing, Callaghan Innovation
- Susan Lake - Composite Structural Engineer, Core Builders Composites
- Xun Xu - Professor, Mechanical Engineering, University of Auckland

DESCRIPTION:

Digital Manufacturing, in the wider sense, is about an integrated approach to manufacturing centred around advanced technologies. This includes digital design, computer simulation, Industry 4.0 and IoT (internet of things), Blockchain and cryptocurrencies, additive manufacturing and manufacturing processes all linked together through a digital thread. Digital Manufacturing, if applied for good reasons and in a suitable way, promises drastically shortened product development cycles and leads to better and more sustainable products and processes. However, for NZ companies that still rely on antiquated paper based drawings and stand-alone processes, many challenges exist in the 'Why', 'How' and 'When' to engage with digital manufacturing.

This Panel will discuss challenges and opportunities for NZ companies to render manufacturing more digital and will debate the challenges from both a business and an applied research perspective.

PANEL 2:**Future-Proofing the Next MaDE Generation**

Mon 20 May, 4-5pm

Venue: Great Room 4

LEAD:

- Professor Juliet Gerrard
Prime Minister's Chief Science Advisor

Other Panellists:

- Dieter Adam - Chief Executive, The Manufacturers' Network
- Jim Johnston - Professor, School of Chemical and Physical Sciences, Victoria University of Wellington
- Mark Taylor - Professor, Chemical and Materials Engineering; Director, NZ Product Accelerator, The University of Auckland
- Melissa Bornholdt - Product Development Manager, OSA Interface Industrial Design, Fisher & Paykel Healthcare

DESCRIPTION:

Our graduates and young innovative engineers, scientists and designers of today are our future for MaDE. Education and training in the respective discipline areas are necessary components. However these need to be coupled with wider graduate education attributes including business knowhow and personnel development. Research and development, innovation, team work, networking and cross-fertilization of ideas, together with harnessing the digital age are also key components in driving forward and achieving success in manufacturing and design businesses. Ongoing research and development identifies and opens up new opportunities, products and markets. University, Crown Research Institute and Industry research collaborations as well as the opportunity to source and secure research funding from both government and industry resources, are essential for positioning and maintaining a manufacturing / design business at the leading edge in the New Zealand and international marketplace. The Panel will variously explore and lead discussion on these aspects.

PANEL 3

Diversity in MaDE

Tue 21 May, 4-5pm

Venue: Great Room 2

LEAD:

- Debbie Munro
Senior Lecturer, Biomedical Engineering, University of Canterbury

Other Panellists:

- Craig Shannon - Mechanical Engineer, Globex Engineering Ltd.
- Derek Kawiti - Senior Lecturer, Interdisciplinary Digital Design, Victoria University of Wellington
- Troy Coyle - CEO, HERA – Heavy Engineering Research Association, Auckland
- Wendy Kerr - Director, Centre for Innovation and Entrepreneurship, University of Auckland

DESCRIPTION:

Attracting and retaining diverse talent in manufacturing, design and entrepreneurship is an ongoing issue for industry and academia. Being an under-represented person also places additional pressure and unique challenges on the individual. The Panellists will each provide an overview of their background and examples of the challenges they've experienced first-hand before opening an interactive discussion on how we can better support diversity in order to improve our workforce.

PANEL 4

Collaboration within MaDE

Tue 21 May, 4-5pm

Venue: Great Room 4

LEAD:

- Brian McMath
Business Development Manager, NZ Product Accelerator

Other Panellists:

- Allen Guinibert - R&D Collaboration Manager, Product Development, Fisher & Paykel
- John Kennedy - Principal Scientist and Team Leader, GNS Science
- Mark Battley - MaD2019 Co-chair and Associate Dean Research, Faculty of Engineering, University of Auckland
- Troy Dougherty - Chief Technology Officer, Nuenz
- Vic Crone – Chief Executive Officer, Callaghan Innovation

DESCRIPTION:

Effective collaboration is critical to achieving relevant and high-quality research and for ensuring effective uptake and implementation of new technologies by industry. The Panellists will discuss their experiences in achieving effective collaboration between researchers, across research organisations and between researchers and industry. The Panel will then open an interactive discussion on how we can facilitate and improve collaboration.