



## Message from Directors

Welcome to our first newsletter, which is about keeping you informed about our collaborative network. On behalf of the entire Product Accelerator team, we welcome you as the newest additions to our growing research network. We are excited to be on this journey of collaboration, innovation, and shared success together.

We believe that your skills and insights will enrich our network and contribute to the country's economic well-being and growth.

The network is doing some great stuff in past years and we would like to share a few of them with you:

- **Network Members:** Recently, we have launched our new webpage, "Research Network Members" designed to recognize you as a valued member of the Product Accelerator family. You can explore it here: [Research Network Members](#). If you haven't already joined our community, we encourage you to do so by filling out this form: [Sign-up Form](#).
- **National Testing Register:** Our National Testing Register has become a vital resource for our industry partners. This database is invaluable for New Zealand enterprises and is available for commercial use by companies seeking to support their R&D initiatives. National Testing Register now boasts over 700 entries, representing a wide range of scientific testing capabilities from research centers and groups at New Zealand Universities, CRIs, and private laboratories. If you're interested in accessing research capabilities or listing items on the register for commercial use, please explore the database here: [National Testing Register](#).
- **Latest Updates and Collaborations:** Stay up-to-date with our latest news and collaborative endeavours by visiting our news section [here](#) and our case studies page [here](#).

We look forward to your continued involvement and support as we grow and innovate together.

## Tomorrow's Economy Vision

"Tomorrow's Economy" is an initiative by our Advisory Board chaired by Sir Ian Taylor to tackle big economic issues and develop "sticky NZ centric industries". The first vision to be developed has been Bio-Forest Products-wide ranging products manufactured from trees. The Product Accelerator model of "pull science"- or "industry led" resulted in a working group being formed with the key industry players who are driving this new primary industry-Oji Fibre Solutions, NZ Bioforestry Ltd, and Futurity Bioventures.

All the industry participants realised they could not do this bio-transformation on their own and the Product Accelerator was the catalyst that enabled this working group to collaborate by also bringing to the table Scion, NZTE, NZ Forest Service and the Forest Growers and related parties. As a result of grants from Agmardt & the Forest Growers, we commissioned independent third party to report on the Potential Value of Products from Forests. The report is available for [downloading](#) on our website so feel free to share it with your colleagues.

To quote Sir Ian Taylor- "A Tree is More than Wood"

## Case Study

Fisher & Paykel Appliances – Design for a Changing World

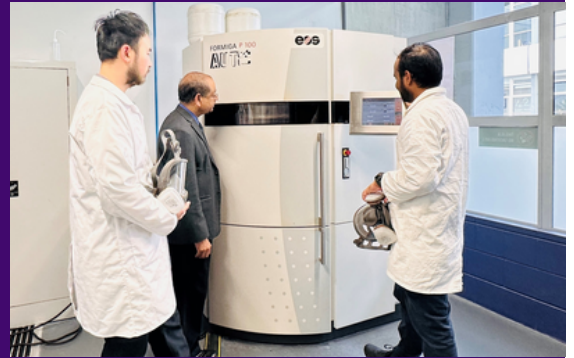


In 2022 F&P Appliances with the help of the NZ Product Accelerator (NZPA) reached out to the New Zealand R&D ecosystem, looking to identify research capability that was aligned with the vision of the Carbon Zero Smart Home R&D Institute and the first Research Challenge focused on making a step change in thermal insulation performance. An outcome of that process was to start a project with GNS Science, an NZPA partner, at the beginning of 2023 that now has several streams of work underway. These streams of work are investigating the fundamentals of reducing heat-transfer, and the application of those fundamentals to temperature-controlled appliances with significantly reduced energy consumption and carbon footprint.

[Read Full Story here](#)

### Institution Stories

Professor Sarat Singamneni is pleased to announce that the Eos P100 Selective Laser Sintering system at AUT has been repaired and refurbished and is back into full functionality again. As always, AUT 3D Printing lab or the Additive Manufacturing Research Centre are ready to help any end users needing the service by producing rapid prototypes in Nylon or investigating new materials options for selective laser sintering. Using the commercial alumide powders, the system can also produce moulds for injection moulding polymers and polymer composites with relatively low glass transition temperatures. Printing the moulds comes under rapid casting, considerably saving manufacturing lead times and costs. There is also a possibility for rapid production of patterns for investment casting using proprietary materials, another route to rapid casting. Professor Singamneni says, they are happy to engage and help local industry and other end users with requirements that may be provided through prototyping and other possibilities with this P100 laser sintering system.



Please contact the New Zealand Product Accelerator or email [sarat.singamneni@aut.ac.nz](mailto:sarat.singamneni@aut.ac.nz) for further information.

### Alumni Stories



Hi! My name is Laura, I'm an engineering student in France and I've been lucky enough to intern with Dr Jingjing Liu's hydrogen research group. We worked together to exchange our respective knowledge of hydrogen between France and New Zealand. I would like to thank all the people who were able to accompany and help me during these 11 weeks rich in human experience.

### New Student Introduction



Kia Ora, I'm Anie Shejoe Justin Jose Sheela, a new Ph.D. student working with Dr Jingjing Liu, AP Meng Wai Woo and Dr John Kennedy at the University of Auckland. This project is supported by a Marsden FS project to tackle the energy efficiency loss for hydrogen production. I did my master's in chemistry and research on PEM (Proton Exchange Membrane) hydrogen fuel cells in India. I'm interested in the materials of the MEA (Membrane Electrode Assembly) and would possibly find some cheaper catalyst layers for the membrane. Through my doctoral research ahead, I would be diagnosing Hotspots in the PEM electrolyser for green hydrogen production and possibly nullifying it and improving the performance of the electrolyser.

We encourage you to reach out to our team members, Harshpreet Singh ([h.singh@auckland.ac.nz](mailto:h.singh@auckland.ac.nz)) and Brian McMath ([b.mcmath@auckland.ac.nz](mailto:b.mcmath@auckland.ac.nz)), should you have any feedback or questions. Additionally, we invite you to share your inspiring stories with us, which could be featured in our upcoming newsletter.

As valued network members, you are welcome to join our Operations meeting, held every Monday from 10:30 AM to 12:00 PM online via Zoom. It's an excellent opportunity to hear about what is taking place in the network across the country. Here are the meeting details:

**Meeting ID: 92599247974**  
**Zoom Link: [Join the Meeting](#)**

If you would like to present your research to a wider network at this meeting please contact us to arrange a suitable date and time. We also hope to release information later in the year relating to NZPA funding for PG study. So stay tuned for that.

**We look forward to staying connected and hearing from you!**

