2017 SEED PROJECT FUNDING Q & As

What is a Seed Project?

Seed Projects are intended to bring new people with fresh ideas into the SfTI Challenge. They align with the SfTI Challenge Research Themes and involve high-risk research with potentially high rewards. Seed project research has enormous potential to contribute to New Zealand's economic growth.

How do Seed Projects fit into the bigger picture of Challenge research?

Seed Projects are about growing the scope of Challenge research. They allow us to continually refresh our science and to make sure our research stays relevant in the fast-moving world of science for technological innovation.

Seed Projects also enable new researchers to become part of the Challenge. They align with our research Themes which are large, multi-disciplinary areas of research that span applications and industries. Challenge Portfolios relate to industry sectors to which research will be applied. Each portfolio has a Spearhead Project aimed at opening up new areas of research.

As their name implies, some Seed Projects will thrive, while others may not be as successful. Those that do well could become incorporated into ongoing research workstreams, including potentially developing into a future Spearhead Project.

How many Seed Projects will the Challenge fund in 2017?

The Challenge has funded an additional 18 seed projects in 2017.

How much funding will each project receive?

Individual funding will range from $81,000 to $100,000 per year for up to two years.

How many research proposals were submitted?

We received 79 project submissions for funding.

What was the process for selecting proposals?

The proposals were assessed by a panel of 12 made up of STI management and external experts, including an independent Chair. Once assessed by the panel, the top ranked proposals were put into two ballots – once restricted to proposals with sufficient Vision Mātauranga alignment. The 18 successful proposals were then randomly drawn from the ballots.

Who was on the Assessment Panel?

The 2017 Seed Projects Assessment Panel was:

- ✓ **Chair:** John Hine, Emeritus Professor, School of Engineering and Computer Science, Victoria University

- ✓ Bruce MacDonald, Deputy Director and Theme Leader Sensors, Robotics and Automation, SfTI

- ✓ Don Cleland, Theme Leader Materials, Manufacturing and Design, SfTI

- ✓ Te Taka Keegan, Theme Leader Vision Mātauranga, SfTI

- ✓ Stephen MacDonell, Theme Leader IT Data Analytics and Modelling, SfTI

- ✓ Carmen Doran, Director, Tracks Business Consulting

- ✓ Austin Rainer, Head of Department Computer Science and Engineering, University of Canterbury

- ✓ Kevin Ross, Director of Research, Orion Health

- ✓ Jaco Pretorius, Independent Consultant

- ✓ Mark Apperley, Professor in Computer Science, University of Waikato

- ✓ Gill Dobbie, Professor in Computer Science, University of Auckland

- ✓ David Williams, Professor in Electrochemistry, University of Auckland.

What criteria were applications measured against before going into the ballots?

Applications were judged against a range of criteria, including measures related to quality, novel science, innovation, potential economic benefits, research plan and research teams. We also measured their alignment to the Challenge themes, links to business, involvement of emerging researchers and research provider collaboration.

Proposals are required to have strong Vision Matāuranga alignment to be eligible for at least 20% of funding reserved to support Vision Mātauranga via a separate ballot. Vision Mātauranga aims to unlock the science and innovation potential of Māori knowledge, resources and people for the benefit of all New Zealanders.

Why do you use a ballot process rather than ranking proposals against criteria?

The ballot process is starting to be used for other, similar contestable funding rounds across the science and innovation system – both in New Zealand and overseas. Ballots are increasingly popular because such funds are over-subscribed with high quality proposals and, after an initial scheming to select the highest quality proposals, a ballot is considered fairer than a relatively subjective and arbitrary selection/ranking of proposals that are all of very high quality with very few or minor weakness.

Does the ballot process mean important, worthy research proposals weren't funded?

Not all proposals that strongly matched the criteria were funded. This is a common scenario for similar contestable funds and is evidence of the volume of high quality, innovative ideas among New Zealand's physical science and engineering research community. Unsuccessful proposals can be resubmitted to a future seed project funding round without penalty.

How much funding was allocated to Vision Matāuranga proposals?

We reserved a minimum of 20% of available funding for proposals strongly aligned with Vision Matāuranga. The proposals selected from the Vision Mātauranga ballot were allocated about $600,000 over 2 years in 2017. Another1 of the15 proposals selected from the main ballots also had strong Vision Mātauranga alignment.

Where are the 2016 Seed Projects that were funded at?

A total of 10 projects were funded in the 2016 Seed funding round. Most of these commenced in October 2016 and will run through until June 2019. The project teams are being mentored by the Challenge theme leaders. Some of these projects have stage gate processes due towards the end of 2017. For these projects, on-going funding will be subject to satisfactory completion of their stage-gate objectives.

Will the Challenge fund more Seed Projects?

Future Seed funding rounds will only take place if the SfTI Challenge receives notification of a second tranche of funding.

When will the research begin?

From July 2017.

The funding allocated per project isn't a lot of money for research aiming to help transform New Zealand's economy. Why isn't more available?

Seed Projects are about bringing new people with risky new ideas (but with potentially high rewards) into the Challenge, so that means some projects may not achieve their objectives. By allocating smaller amounts to 18 different projects, we can spread our investment across more research areas. Successful Seed Projects could in future receive more funding by becoming Portfolio Spearhead Projects, or getting to the stage that they are better positioned to seek funding from outside the Challenge (e.g. Callaghan Innovation grants).

These projects are being undertaken at different organisations across the country. How will you ensure the quality of the research is maintained?

All 2017 Seed Project applications had to include stage-gate style critical steps in their research project plans, including milestones to achieving their objectives. The progress of each project will be reviewed

annually and if agreed milestones or deadlines are missed, this could result in funding being redirected or terminated.