



Focus Area Brief: Innovation Skills for the Economy

We want to enhance the tertiary education sector's contribution to innovation skills for the economy. This Focus Area Brief describes our goals and expectations in this area for the 2018 Investment Plan Round. It is part of the [Investment Toolkit](#) and supplements the December 2017 [Plan Guidance](#) on our website.

The ability to innovate is crucial for New Zealand's social, economic, and environmental future

By educating and upskilling our workforce, we can harness the potential of new technology to lift productivity and cultivate an economy that is sustainable and inclusive. Innovation creates long-term benefits for all New Zealanders. It enables us to work smarter, use our resources more efficiently, and create new and better jobs.

The tertiary education system has a crucial role to play in delivering the skills that foster innovation. These skills include critical thinking, teamwork, creativity, and complex problem-solving ability. Innovative firms increasingly demand these skills to integrate ideas and technologies across disciplines, and apply them to new opportunities. Delivering these skills will help grow an innovation-driven economy that will stimulate further demand for higher skills.

This focus area aims to promote the skills needed for innovation in the economy. Its scope excludes research contributions *per se*. However, we are interested in postgraduate research as a way to develop innovation skills.

We will invest more in provision and postgraduate research that develops innovation skills

We will work with TEOs eager to enhance their contribution to innovation skills for the economy. We want to target three key areas through the 2018 Plan round.

TEOs should design and deliver provision that fosters innovation skills

We want to tap the innovative potential of more learners. Innovation and entrepreneurial skills tend to be concentrated among people who learn and see the world in different ways. TEOs should foster diversity through learning environments, pedagogy and delivery modes that recognise different learning strengths, aptitudes and perspectives. This may require more flexible and tailored approaches towards teaching and learning that allow for unusual approaches to solving problems and creating opportunities.

We are interested to hear about effective new approaches for fostering entrepreneurialism and developing innovation skills. TEOs have introduced many teaching and delivery mode advances linking delivery to industry and entrepreneurship. Educators are often best placed to identify specific opportunities to enhance innovation skills. We will be keen to discuss these opportunities and what we can do to support them.

We are particularly interested in investing in challenge-based learning. This involves student teams tackling defined real-world challenges. It asks student teams to answer new posed questions, rather than discover existing



answers to long-solved problems. Challenge-based provision develops team-work, social skills, multi-disciplinary learning, and purposeful integration of disparate technologies. It fosters the ability to think through and address unstructured challenges.

We are currently looking at how we can use funding flexibly to better support innovative delivery models.

We will shift more SAC 3 plus investment to degree level and above in areas of provision where there are opportunities to innovate

Skills for innovation are mostly developed through provision at degree level and above. Graduates apply their research-informed knowledge and capabilities in new ways in industry. We want to increase our investment in provision at and above degree level in areas:

- > that are particularly effective at developing innovation skills, and
- > where there are opportunities for graduates to use them productively.

We will talk to TEOs about where these areas are and what we can do to grow them.

To increase uptake at higher levels we will need to increase learner demand. We will work with TEOs and other stakeholders to foster demand through our learner information and careers service capabilities.

TEOs should develop innovation skills through research that addresses New Zealand priorities and opportunities

Postgraduates engaged in research that addresses real world priorities and opportunities develop a distinct skillset that can be particularly useful in innovative workplaces.

We want to support more postgraduate research that addresses long-term national priorities. These include areas such as industry development, infrastructure, environmental protection and sustainable development, and healthier lives. TEO research and innovation skills development should also link to regional industry clusters and skills ecosystems, as well as individual businesses.

For the 2018 Performance-Based Research Fund quality evaluation, we have introduced a new category to the Research Contribution component of the evidence portfolio which will make it easier to recognise and evaluate research activities that occur in the applied research environment. The new uptake and impact category provides an indication of the contribution the staff member's research has had outside of academia. This will support application-focused research cultures in which postgraduate researchers can develop distinctive innovation skills.

TEOs should work with employers to develop fit-for-purpose innovation skills

Work integrated learning and applied research are effective ways to develop innovation skills. They also benefit businesses by increasing their innovative capacity, which improves job opportunities for innovative graduates.

Investment Plans should lay out a strategy for delivering innovation skills

The investment directions in this focus area brief should be reflected as appropriate in Investment Plans, Mixes of Provision, and institutional objectives (as per the [Investment Plan template](#)) and, for TEIs, in Statements of Service Performance (SSPs).

We will work to address any system barriers that inhibit innovation skills development

We will work with TEOs to identify barriers that make the directions in this brief difficult to implement. We will take appropriate steps to address any barriers identified (in partnership with other government agencies where required). These barriers may relate to poor learner information and careers services, pricing policy, incentive structures, new delivery modes, system regulation, or other factors.

We will use a variety of qualitative and quantitative measures to track progress

We will work with TEOs that can contribute in this focus area on their proposed activities and to develop milestones and KPIs. We will track quantitative shifts in educational delivery, external research income from



industry sources, TEO-generated intellectual property, businesses created by or spun-off from TEOs, and TEO equity stakes in such businesses.

TEIs will report contributions to innovation skills for the economy linked to their SSPs. SSPs will cover responses to the investment directions set out in this brief.

We will encourage and support TEOs to share success stories. This will raise the TEO's profile and foster more effective innovation skill development across the sector.



We ensure New Zealand's future success.

