



**INNOVATIVE
NEW ZEALAND**

Strategic Science Investment Fund

Overview

The Strategic Science Investment Fund (SSIF) is a new funding mechanism to support underpinning research programmes and infrastructure of enduring importance to New Zealand.

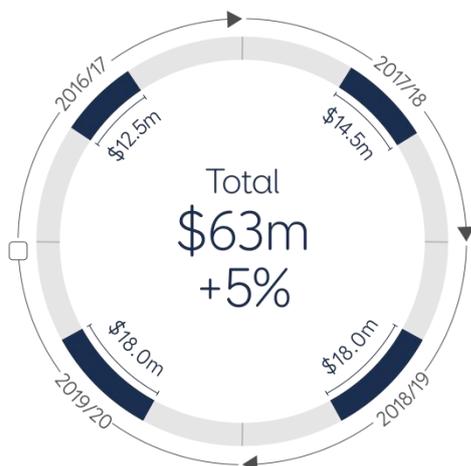
We are implementing the SSIF following the launch of the National Statement of Science Investment (NSSI) and completion of the 2015 review of Crown Research Institute core funding.

The SSIF will support the NSSI vision for a high performing science system by providing a mechanism for strategic investment for long-term beneficial impact on our health, economy, environment and society. MBIE will develop an SSIF investment plan in 2016 with sector input. The SSIF investment plan will clarify investment priorities and processes for the new fund.

The SSIF will establish the coherent basis for investments in underpinning science and science infrastructure. It will also simplify the funding system, clarify the different roles of government investments and create stability over time.

The SSIF will succeed some current investment mechanisms, including Crown Research Institute (CRI) core funding of \$202 million per year, Independent Research Organisation (IRO) capability funding of \$5.9 million per year, and infrastructure investments totalling around \$23 million per year.

Altogether, the Government will invest \$1 billion through the Strategic Science Investment Fund over the four years to 2019/20.



Budget 2016 provides new funding of \$63 million over four years for SSIF that will start at \$12.5 million this year, rising to \$18 million from 2019/20 onwards.



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The following table summarises SSIF funding to 2019/20:

| SSIF | 2016/17 | 2017/18 | 2018/19 | 2019/20 | Total |
|------------------|------------------|------------------|------------------|------------------|------------------|
| Existing Funding | \$238.49m | \$231.53m | \$231.08m | \$231.08m | \$932.19m |
| New Funding | \$12.50m | \$14.500m | \$18.00m | \$18.00m | \$63.00m |
| Total | \$250.99m | \$246.03m | \$249.08m | \$249.08m | \$995.19m |

The initial five year CRI core funding contracts end in June 2016. The CRI core funding review found that core funding had enabled the CRIs to make improvements in a number of areas. The report's findings showed that continued strategic funding for CRIs is appropriate, and that there is an opportunity to refine core funding to drive further improvements to realise greater science impact and benefit for New Zealand.

The launch of SSIF responds to this opportunity to align funding to the vision in the NSSI and use it to drive greater long-term impact across the science system. This investment, mainly in strategic programmes of research, will be one of the Government's major levers for achieving the NSSI vision.

Additional SSIF money will be invested in:

| SSIF new funding | 2016/17 | 2017/18 | 2018/19 | 2019/20 | Total |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|
| Freshwater research | \$8.00m | \$8.00m | \$8.00m | \$8.00m | \$32.00m |
| Deep-water marine research support (<i>RV Tangaroa</i>) | \$2.50m | \$4.50m | \$2.50m | \$4.50m | \$14.00m |
| Other initiatives | \$2.00m | \$2.00m | \$7.50m | \$5.50m | \$9.00m |
| Total | \$12.50m | \$14.50m | \$18.00m | \$18.00m | \$63.00m |

Budget 2016 increases vessel operating funding for *RV Tangaroa* by \$14.0 million over four years, including \$2.5 million per year to increase access to the *RV Tangaroa* for strategic marine research voyages, and \$2.0 million every two years for dedicated Antarctic research voyages.

Budget 16 increases operating support required to support researcher access to a strategic New Zealand research infrastructure, important for generating impactful marine research.



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The additional *RV Tangaroa* funding will be phased as follows:

| <i>RV Tangaroa</i> | 2016/17 | 2017/18 | 2018/19 | 2019/20 | Total |
|--------------------|-----------------|------------------|-----------------|------------------|------------------|
| Existing Funding | \$6.638m | \$6.638m | \$6.638m | \$6.638m | \$26.552m |
| New Funding | \$2.500m | \$4.500m | \$2.500m | \$4.500m | \$14.000m |
| Total | \$9.138m | \$11.138m | \$9.138m | \$11.138m | \$40.552m |

FAQs

How does the SSIF fit with the NSSI?

We expect the SSIF to contribute to a better-performing science system by; investing effectively for long-term impact; supporting attraction, development and retention of talented scientists; and leading to improvement in New Zealand's international standing as an R&D destination.

Combining some existing and new investments under the SSIF follows the system design principles set out in the NSSI. In particular the SSIF will:

- **ensure an appropriate role for Government** by:
 - shifting current CRI core funding from organisational bulk-funding to a more strategic investment. This includes providing stronger signals about the Government's strategic priorities. Research providers will then be able to respond to those signals in developing their research plans.
- **ensure the science system is transparent and high performing** by:
 - providing high level information on investment intentions, measuring and comparing strategic investments across the science system to inform future funding priorities and decisions; and providing clearer separation and transparency of CRI funding and ownership arrangements
- **create a system as simple as possible** by bringing strategic investment in science under a common approach
- **create a stable system** by sending long-term investment signals, developing an investment roadmap, and funding longer-term programmes of research.

How does the SSIF fit with the National Science Challenges?

The National Science Challenges (NSCs) are significant new mission-led investments that focus on defined issues of national importance. Each NSC is designed to include New Zealand's best team and find new ways of doing things to provide scientific solutions to the challenge.



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SSIF research will underpin a high-performing science system, including the NSCs. SSIF funding will be used to invest in underpinning research programmes and infrastructure of enduring importance to New Zealand, including those identified as priorities under the NSCs.

Who will get the new funding?

SSIF programmes funding (\$210 million in 2016/17) will initially be focused on supporting programmes of science that are currently funded by CRI core funding.

The SSIF will be open to all research providers. Funding will be allocated on merit for proposals that respond to the strategic scientific goals and priorities in the SSIF investment plan to be published by MBIE later in 2016.

Some of the new funding responds to immediate pressures and will be invested on a transitional basis in 2016:

- Additional \$2 million per year funding for Nationally Significant Collections and Databases (NSC&Ds) will be separated from core funding. Additional funding will go to NIWA, GNS Science and Landcare Research – the CRIs with the largest responsibilities for NSC&Ds. This will support immediate cost pressures in NSC&Ds, recognising their importance to New Zealand science. NSC&Ds will become part of the infrastructure component of the SSIF in future.
- Additional \$8 million per year funding for freshwater research will go to NIWA, Landcare Research and ESR, the CRIs that operate the five identified key freshwater research programmes. This will become SSIF funding from 2017.
- Funding for the *RV Tangaroa* will be subject to a new contract MBIE will negotiate that boosts support for Crown-funded research voyages.

A transition period for some current investments is necessary while SSIF is implemented. Most significantly, CRI core funding contracts will be extended for one year to June 2017 to enable a smooth switch to the new SSIF investment approach.

How do scientists access funding?

MBIE will publish an investment plan outlining the Government's strategic scientific goals and priorities, how the SSIF will be invested, and performance expectations. Research organisations will respond to the plan by developing allocation intentions and proposals that focus on delivering on strategic funding priorities. The Government will invest as required to deliver on the strategic priorities in the plan.

What impact is expected?

The SSIF will operate as a portfolio of science investments, giving clear performance and reporting expectations for funding recipients while increasing investment over time. We expect that this will facilitate excellent science that contributes to productivity and wellbeing, and that supports a high-performing science system.

How much will be spent on science?

From implementation in July 2017, the SSIF will contain approximately \$250 million per year.



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The SSIF will invest in programmes of science, and in research infrastructure that supports enduring priorities and ensures a high-performing science system.

What will be the impact of the SSIF on CRI core funding? Will it be reduced?

In future, strategic investment in CRIs will be made through the SSIF. Core funding contracts end in 2016 but are being extended for 12 months until the SSIF becomes operational. Most of what is currently core funding will be invested through the SSIF programmes component. The rest will be invested through the infrastructure component. Upon full implementation of the SSIF in 2017, we propose to maintain the amount of strategic funding currently received by each CRI.

How much will go to independent research organisations (IROs)? How will this be decided?

Current IRO capability funding is about \$5.9 million per year across three contracts. As these contracts end from 2018 onwards, any further funding decisions will be made under the Programmes component of the SSIF. In future, IROs might continue to deliver similar or additional programmes of research or infrastructure under the SSIF. MBIE is developing priorities and decision-making processes for the new funding mechanism. A SSIF investment plan and related guidance will be published by MBIE later in 2016.

What infrastructure will be covered?

Current major research infrastructure investments include the *RV Tangaroa*, the Square Kilometre Array, Research and Education Advanced Network NZ, National eScience Infrastructure, New Zealand Genomics Limited, and the Australian Synchrotron. In future, strategic infrastructure investments will be funded from the SSIF. NSC&Ds will be treated as research infrastructures in future. The new investment plan will include consideration of long-term research infrastructure requirements.

What will happen to Nationally Significant Collections and Databases?

NSCs&Ds are mostly funded via CRI core funding at present. In future, investment in collections and databases will be made under the SSIF infrastructure mechanism. Long-term policy settings for NSCs&Ds will be considered as part of the development of the Investment Plan.

What will the funding for genomics and precision medicine support?

In future, strategic investments in genomics will be made under the SSIF. The HRC may also continue to invest in genomics research. The forthcoming Health Research Strategy will establish investment priorities for health research.

Investment in access to high-end research infrastructure and in leading-edge programmes of research will ensure we have the capacity to benefit from technological advances and bioanalytical capacities in genomics.



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What is the new *RV Tangaroa* funding for?

\$2.5 million per year is provided to support increased access to the *RV Tangaroa* for marine research priorities and opportunities. \$2.0 million every two years is provided to support vessel operating costs for a dedicated Antarctic voyage. This funding increases the number of voyage days at sea available to New Zealand-funded marine research programmes.

Existing funding provides approximately \$7.6 million in 2015/16 to NIWA to operate *RV Tangaroa* voyage days for Crown-funded research purposes. \$1.0 million of this total amount was provided on a temporary basis until the end of 2015/16.

The new funding in Budget 2016 increases vessel operating funding for *RV Tangaroa* to \$9.1 million per year, and up to \$11.1 million in years with dedicated Antarctic research voyages.

Users are required to separately fund the research costs of projects and activities undertaken on board the *RV Tangaroa*.

Crown-funded demand for *RV Tangaroa* voyage days is forecast to increase because of programmes such as the Sustainable Seas NSC, increasing Antarctic research and possibly the Kermadec Ocean Sanctuary.

Why fund dedicated research vessels?

Research vessels carry out many different kinds of science. They are equipped with high-precision scanning and sounding devices and numerous deep-water winches. *RV Tangaroa* has an ice-hardened hull, and a dynamic positioning system, and can voyage at sea for up to 60 days. Compared with other similar research vessels, *RV Tangaroa* costs less and is used much more.