Report to the Prime Minister: Prioritisation in New Zealand's Science, Innovation and Technology system

Prime Minister's Science, Innovation, and Technology Advisory Council

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Introduction

1. Publicly funded science is for the benefit of all New Zealand, delivering value that cannot be guaranteed by markets alone. New Zealand's science, innovation and technology (SI&T) system invests in research for both public and private good, advancing knowledge that strengthens economic resilience, national wellbeing, and the stewardship of the country's social, natural, and economic resources.

2. Earlier this year, as members of the Prime Minister's Science, Innovation and Technology Advisory Council (the Council), we were given a clear mandate: to provide advice to the Prime Minister to ensure that New Zealand's publicly funded SI&T system is focused, effective, and delivering for New Zealanders, now and into the future. We were instructed to be bold in giving this advice.

3. Building on this mandate, and multiple science system reviews including the Science System Advisory Group (SSAG) reports in 2024 and 2025, our task is to move beyond diagnosis and accelerate action.

4. In doing so, the Council acts on its mandate with a clear vision to strengthen the SI&T system and to enable New Zealand's transformation into a high-growth, high-productivity and competitive small advanced economy (SAE). This report sets out the investment priorities needed to realise this vision.

5. Our recommendations are aligned with the Government's wider SI&T reforms and operate within current funding baselines, in accordance with parameters set by the Minister of SI&T. They represent a deliberate first step toward building a strategic, future-focused SI&T system, with the capacity to absorb and deploy additional investment effectively as resources become available.

6. In the Council's view, Government SI&T spending must:
    - deliver justification for taxpayer investment
    - deliver high quality, rigorous, and internationally benchmarked research
    - perform public good and stewardship research responsibilities
    - deliver industry impact, supporting innovation pipelines and outcomes
    - be relevant to New Zealand's strategic challenges and opportunities
    - build a diverse, future-ready SI&T workforce
    - attract global partnerships, talent, investment, and boost New Zealand's global presence
    - ensure great ideas can emerge and complement mission-led priorities
    - foster sector interest and respond to end-user needs

7. We have applied these nine enduring principles to identify which SI&T objectives to prioritise and, where additional funding is not available, which should be scaled back. Our advice also provides guidance on the policy direction, system-wide coordination and culture shift required to operationalise funding shifts and deliver measurable impact.

8. Total Government expenditure on SI&T is about $1.7 billion.[1] The Prime Minister has asked that we consider the $1.2 billion of funding overseen by the Minister of SI&T. After excluding core system costs, we have identified $839 million for potential reprioritisation, with the balance reserved for future Council review.[2]

9. Other Government agencies oversee about $500 million of expenditure.[3] Their continued engagement and alignment will be vital to ensure the system, and the culture that underpins it, evolves in step with national priorities and future needs. Moving forward, the Council would like to consider expenditure from other agencies within its advice.

10. The Council acknowledges that the recommendations in this report form one component of a broader programme to re-energise New Zealand's SI&T system. They do not attempt to address every issue; rather, they complement other actions already underway.

11. We present this report to the Prime Minister of New Zealand, the Rt Hon Christopher Luxon, on behalf of all members of the Council.[4]

1 Total SI&T expenditure was $1.67 billion in 2024/25 covering a wide range of socio-economic outcomes, including some also captured by other ministries and departments.

2 Core system costs excluded cover Callaghan Innovation operating costs and administered grants, SI&T contract and fund management, policy advice, staff and other core costs.

3 Including money that Government invests through the Research and Development Tax Incentive (RDTI).

4 See Appendix 1 for further information on the Council and its membership.

Executive summary and recommended actions

12. The poor performance of New Zealand's economy across key macroeconomic indicators reflects deep-seated structural and external challenges. Among the available policy levers for change, effective and targeted public investment in SI&T offers one of the most direct and high-impact pathways to restore momentum. This is reinforced by overwhelming international evidence that SI&T are core to lifting productivity, export competitiveness and economic growth.

13. Yet New Zealand performs poorly on some SI&T outcomes. The country's scientists, researchers and entrepreneurs deliver strong results within the system's constraints, but barriers continue to limit their impact. Overcoming these barriers requires a more strategic, balanced and future-focused approach to SI&T investment, at the scale needed to deliver tangible results.

14. The recommendations below set out a framework for investment prioritisation to configure New Zealand's publicly funded SI&T system for impact. The Council urges the Government to view these funding decisions as a test of the system's ability to deliver that impact, with a commitment to scale up investment once this capability is demonstrated.

The Council recommends the following:

Develop a mission-led SI&T framework

15. The first action is to develop a mission-led framework to map New Zealand's unique challenges and strategic priorities and to guide where investment within the system should be directed for greatest impact.

16. **The Council recommends:** structuring investment around four thematic pillars:
    - **Primary Industry and Bioeconomy** to strengthen the foundations of national prosperity
    - **Technology for Prosperity** to improve the efficiencies of current industries and catalyse future industries and strategic capabilities
    - **Environmental Sustainability and Resilience** to innovate for environmental stewardship and resilience
    - **Healthy People and a Thriving Society** to enhance health and social outcomes through research, technology and innovation

17. **The Council recommends:** adjusting the funding balance within these pillars to be about 60 per cent mission-led (aligned to national priorities and outcomes) and 40 per cent investigator-led (competitively funded, curiosity-driven research).[5] This replaces the current approximate 45/55 per cent balance and positions New Zealand alongside leading SAEs.

5 Mission-led may also include contestable and investigator-led components.

18. **The Council recommends:** significantly increasing focus on measuring inputs, outputs and impact within this pillar framework, with clear metrics for public value, portfolio health, commercialisation, and knowledge transfer. This capability will promote greater flexibility and effective allocation of resources.

Redirect resources for outsized impact

19. The second action is to redirect resources within these pillars to where they have the greatest potential to deliver system-wide and ultimately national impact. Our analysis reveals a strong bias toward agriculture and environmental research in current SI&T funding, resulting in a misalignment with emerging opportunities and international benchmarks.

20. **The Council recommends:** reallocating $122 million (about 15 per cent of the available $839 million of SI&T funding administered by the Ministry of Business, Innovation and Employment) over two to three years for investment in areas of advanced technologies. This would deliver an 88 per cent funding increase to the *Technology for Prosperity* pillar relative to current investments. A phased approach provides time for the system to adapt while maintaining high-quality outcomes.

21. This reallocation would provide resources for additional advanced technology platforms and facilitate:
    - productivity improvements across a range of industries
    - strengthening areas of comparative advantage
    - greater diversification of New Zealand's economic base
    - lifting international investment, talent attraction, and global visibility
    - creating a future-ready SI&T workforce

Use pillar-based priorities to signal change

22. The third action is to provide direction on where funding should shift, allowing the system's institutions and researchers to adapt as new opportunities or challenges arise. Flexible guidelines, acting as 'signals' for prioritisation and reprioritisation, should be used to guide investment decisions. This dynamic approach ensures responsiveness and avoids rigid multi-year commitments to specific sectors or platforms.

23. The Council notes that recommended funding shifts will have limited impact without a corresponding cultural change. This requires fostering mindsets and practices that prioritise advanced technologies, supporting researchers to adapt, and ensuring expert leadership and agile systems that can respond to emerging priorities.

24. **The Council recommends:** pillar priorities should be used as signals to steer investment within the system.

25. **The Council recommends:** using signals to guide areas of deprioritisation. These signals include:
    - transition potential (areas where public investment can shift to the private sector)
    - limited future impact (areas unlikely to deliver significant benefits or workforce needs)
    - strategic misalignment (areas less aligned with national priorities or lacking global relevance)

Flexible funding

26. The fourth action is to establish a rapidly deployable funding mechanism designed for high-risk, potentially high-reward science to support bold, cross-cutting research discouraged or excluded under existing funding categories.

27. The Council notes that comparable funds or programmes operate internationally in the UK, Canada, Japan, and Germany, each modelled on the US' devolved Advanced Research Projects Agency (ARPA). Others, like Singapore's 'White Space' enable flexible reprioritisation of funds to seize time-sensitive opportunities or respond to global trends.

28. **The Council recommends:** establishing a flexible 'Ignition' fund for responding rapidly to limited time and unforeseen opportunities, supporting bold, high-risk-high-impact science, and/or surging behind emerging growth sectors driving new markets.

29. **The Council recommends:** the Government remain open to and continue to support alternative funding models to support emerging high-growth sectors, including redeemable contingent loans.

Other priority areas

30. There are key components of the SI&T system supporting broader reform objectives that require attention and will feature within our future work programme, these include:
    - **Infrastructure:** major capital investments in physical facilities, technical and delivery-based capability, high-performance computing, and connectivity solutions across all SI&T research domains. A coordinated approach to planning and procurement is necessary.
    - **Commercial outcomes:** New Zealand must improve its ability to translate research into real-world, commercially viable and scalable solutions. Stronger collaboration between universities, Public Research Organisations (PROs), industry and private capital is essential to unlock economic impact.
    - **Workforce development and human capital:** New Zealand needs to build a future-ready SI&T workforce but has acknowledged weaknesses in STEM education and an outflow of skilled professionals. Closing this gap requires coordinated action across several portfolios, including immigration, education and SI&T.

Strategic context for advice

31. SI&T is essential for New Zealand, enabling our small, remote economy to overcome structural challenges and remain globally competitive. Scientific research drives productivity, supports economic diversification, attracts international capital and partnerships, and delivers solutions to national challenges like sustainability and health – all of which are critical for long-term growth and resilience.

32. However, New Zealand's SI&T system is no longer achieving many of its intended outcomes. The current framework continues to produce excellent science, but it is not meeting the demands of rapid technological change, intense global competition for talent and capital, or the need for agile responses to complex challenges.

33. The New Zealand Government invests about $1.7 billion annually in SI&T, with the Ministry of Business, Innovation and Employment (MBIE) managing about $1.2 billion of that. Despite this investment, the country lags comparable economies on key SI&T outcomes. Indicators of this include:
    - weak productivity growth, averaging just 0.2 per cent between 2014 and 2024[6]
    - a poor and declining Economic Complexity Index (ECI) ranking for a developed nation, at 68 out of 145 countries, falling between Mali and Uruguay[7]
    - poor performance in translating research and innovation inputs into economic and societal impacts, as evidenced by our lower Global Innovation Index (GII) Outputs ranking (34th of 139 economies) compared to Inputs (22nd)[8]

34. Multiple science system reviews, including the SSAG reports in 2024 and 2025, identified systemic weaknesses that are hindering SI&T performance and impact, including a system that is:
    - **too fragmented**, with a lack of strategic focus, resulting in resources being spread thinly across too many areas and diluting impact
    - **poorly connected**, with limited system integration and unproductive competition
    - **underfunded** compared to international benchmarks
    - **weak on commercialisation**, with limited incentives for commercialisation or the delivery of strong economic returns
    - **underinvested in advanced technologies** like AI, quantum, and synthetic biology, which tend to have outsized impacts on economic outcomes internationally
    - **struggling to develop, attract, and retain talent**, with limited career opportunities and insecure contracts contributing to talent loss and capability gaps
    - **infrastructure-light**, with fragmented and outdated facilities that limit the ability to scale research and support advanced technologies like AI

6 New Zealand's economic productivity has declined relative to other countries since 1970, moving the country from one of the most productive economies in the OECD, to one of the least (Treasury, 2025).

7 Economic Complexity Index (ECI) is a proxy for the knowledge intensity of an economy or product. New Zealand's ECI ranking reflects an economy that remains heavily reliant on a narrow range of technologically simple exports (Harvard Growth Lab, 2025).

8 GII captures and quantifies elements of the national economy that enable innovation across 81 indicators, including infrastructure, market and business sophistication, human capital and research and technology outputs (WIPO, 2025).

35. The Council acknowledges that the Government's SI&T reforms are addressing many of these weaknesses concurrently, including through the establishment of the new PROs, Invest NZ, Research Funding New Zealand (RFNZ), alongside various policy and legislative tools. While supporting these reforms, the Council's initial recommendations address system fragmentation and under-investment in advanced technologies within existing funding baselines.

36. That said, the Council notes that other components of the SSAG reports merit further consideration. These include infrastructure, international partnerships, research across government for stewardship purposes, the future research workforce and structural mechanisms to support the conversion of knowledge from intellectual property into innovation.

The case for change

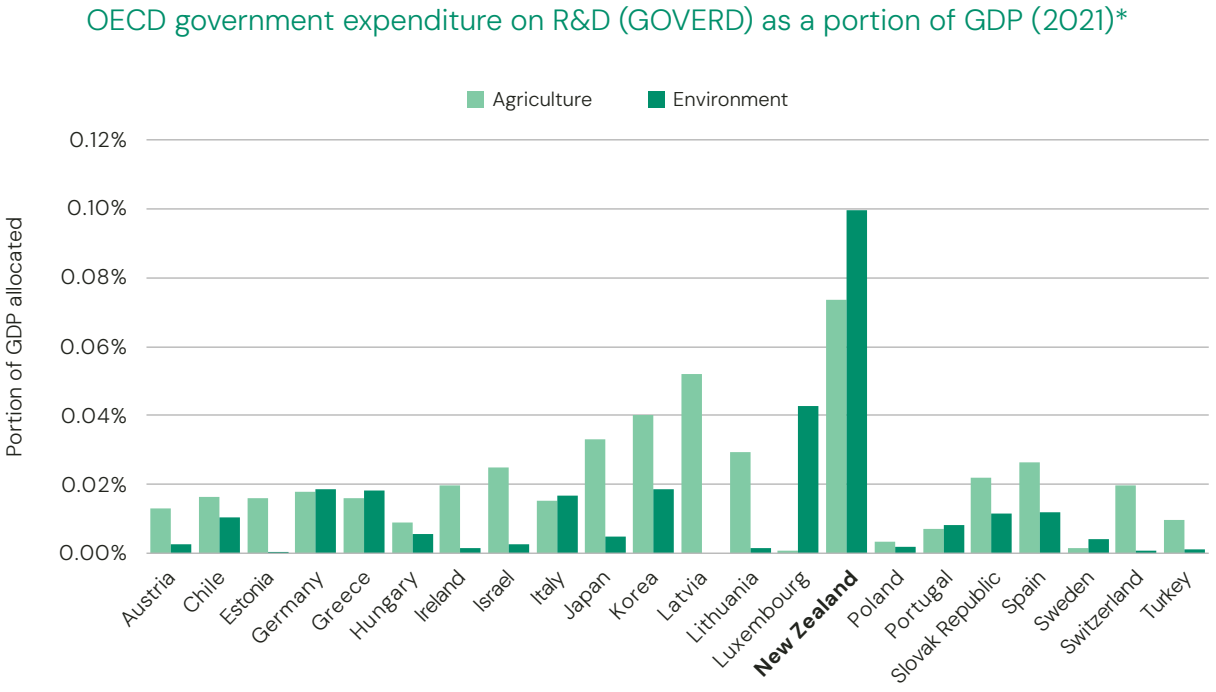
37. Data on institutional funding shows that New Zealand's R&D expenditure on agriculture and environmental objectives, as a share of Gross Domestic Product (GDP), far exceeds other Organisation for Economic Co-operation and Development (OECD) economies. In absolute terms, New Zealand's spending in these areas is closer to larger countries like France and Argentina than to other SAEs **(see Figure 1)**.[9]

38. New Zealand underinvests in advanced technologies compared to peer SAEs. On average, SAEs allocate about twice as much funding to industrial production and technology, three times more to energy and larger shares to space and defence. In contrast, New Zealand allocates about two and a half times more to agriculture and three times more to environmental objectives than other SAEs **(see Figure 2)**.[10]

39. New Zealand has, and continues to, demonstrate world-leading productivity and innovation in its primary sectors and in environmental management. While these sectors remain vital, more balanced public investment is needed to sustain a modern, globally competitive economy. Without change, New Zealand's economic performance will continue to decline relative to its peers, with corresponding impacts on prosperity and society.

40. The Council recommends reallocating a portion of MBIE SI&T investment away from mature sectors where private investment capacity is strong, or public funding far exceeds that of peer economies. These resources should be redeployed to accelerate the development of advanced technologies, bringing New Zealand closer to international benchmarks and expanding strategic capability across the SI&T system **(see Figure 3)**.

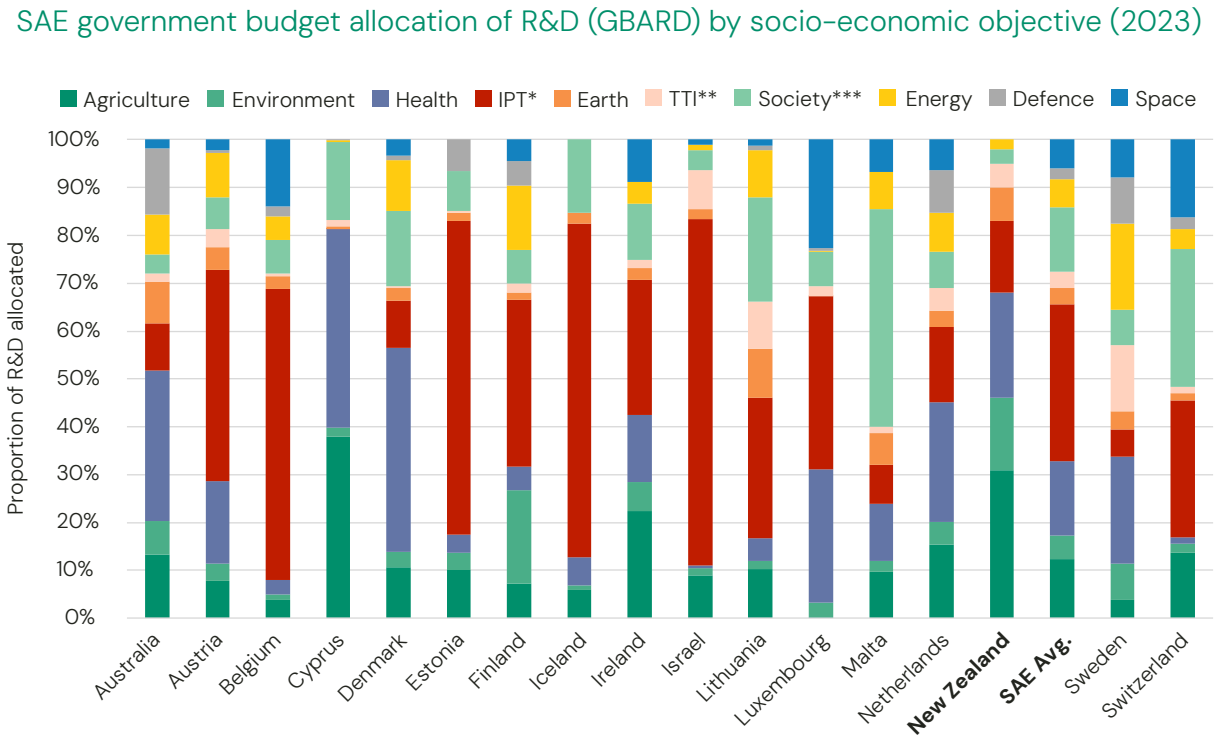
9 By measure of Government Expenditure on R&D (GOVERD).
10 By measure of Government Budget Allocation of R&D (GBARD).



*Only OECD countries that provide GOVERD data are displayed (countries listed in alphabetical order)

Figure 1: New Zealand's R&D funding for agriculture and environmental objectives, on a per GDP basis, far exceeds other OECD economies. (Source: OECD 2025, World Bank, MBIE).

Note: GOVERD measures government expenditure on R&D performed in public institutions. Data should be interpreted with caution, as definitions and reporting practices vary across countries.



SAEs = countries with <20m population, with per capita income of >US$30,000

* Industrial Production & Technology

** Transport Telecomms & Infrastructure

*** includes Education, Culture & Political Systems

Figure 2: New Zealand's R&D allocation to agriculture and environment is about three times the SAE average; allocation to Industrial Production and Technology (IPT) is about half the SAE average. (Source: Eurostat 2025, MBIE).

Note: GBARD measures government budget allocations for R&D by objective, not actual expenditure. SAE data uses 2023 figures, while New Zealand data reflects average expenditure from 2014–2017 – the last period GBARD data was reported for New Zealand. As proportional expenditure has remained largely unchanged since then (some additional expenditure for Space and Defence has occurred), this comparison remains valid. Note the exclusion of Singapore which does not publicly report GBARD. Australia is included as an important benchmark for New Zealand.

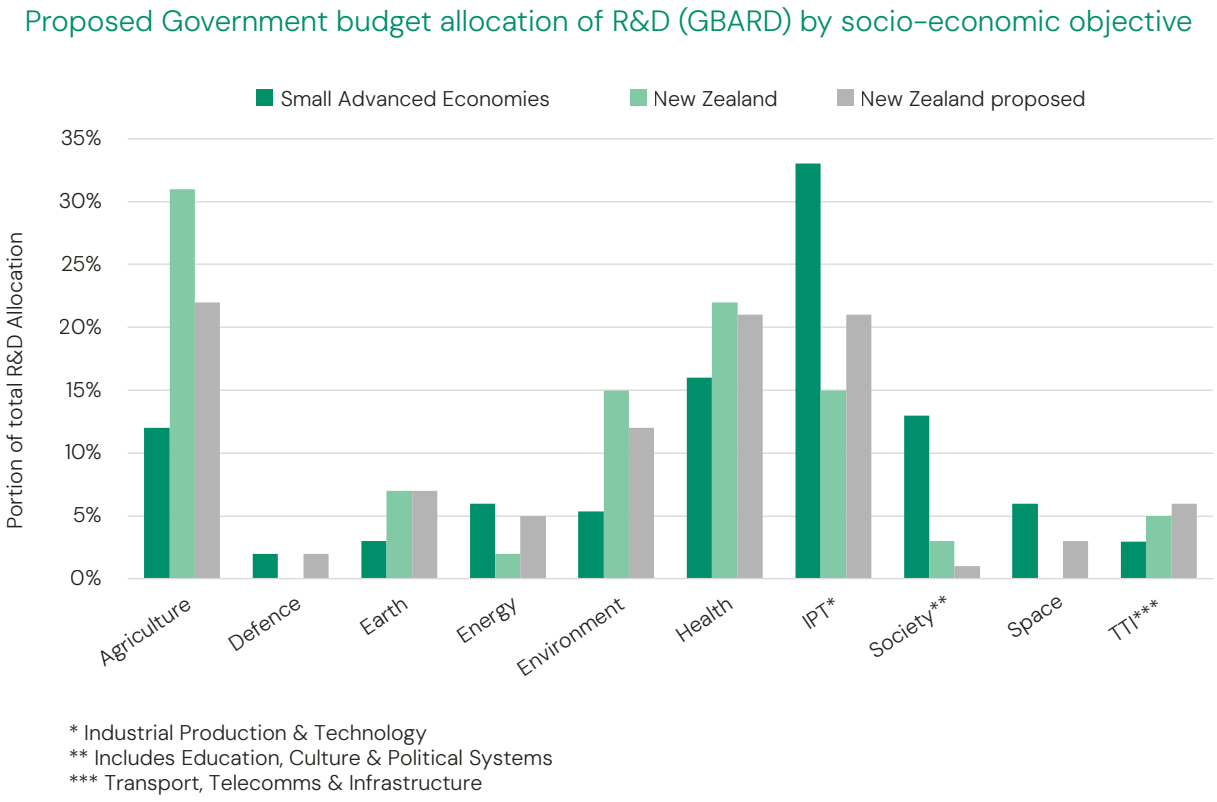


Figure 3: A representation of how the Council's proposed investment reallocation from agriculture and environment toward advanced technologies could impact socio-economic objectives. (Source: Eurostat 2025, MBIE).

Note: SAE data uses 2023 figures, while New Zealand's data represents average expenditure from 2014–2017, the last period for which GBARD data was reported from this country. As proportional expenditure has remained largely unchanged since then (some additional expenditure for Space and Defence has occurred), this comparison remains valid.

Develop a mission-led SI&T framework

41. The Council has developed a framework to guide investment priorities in New Zealand's SI&T system. This framework is structured around four mission-led pillars and reflects areas where New Zealand has established strengths and emerging opportunities **(see Figures 4 and 5)**. The pillars are:
    - Primary Industries and Bioeconomy
    - Technology for Prosperity
    - Environmental Sustainability and Resilience
    - Healthy People and a Thriving Society

42. The Technology for Prosperity pillar captures cross-cutting advanced technologies like aerospace, quantum, AI and synthetic biology and is the primary focus of funding reprioritisation **(see Figure 6)**. These investments aim to enhance New Zealand's advanced technology capability and accelerate innovation across all four pillars, while preserving capability in traditional areas of advantage **(see Figure 5)**.

43. Adjusting the funding balance within pillars to be about 60 per cent mission-led (aligned to national priorities and outcomes) and 40 per cent investigator-led (competitively funded, curiosity-driven research) positions New Zealand alongside leading SAEs. The exact balance will be different within each pillar, depending on the needs of each science domain.

44. **Figure 4** outlines the mission of each pillar, articulating both the strategic intent and the desired outcomes for the SI&T system.

45. **Figure 5** provides high level guidance on priority science domains and identifies areas likely to be less effective, based on expected investment impact. The examples draw on the Council's prioritisation principles, are not exhaustive, and will be expanded once the Council completes the next level of prioritisation in early 2026.

46. The Council notes that this next level of prioritisation will include deeper analysis of niche opportunities and partnerships to ensure investment is of sufficient scale to achieve desired outcomes.

47. **Figure 6** shows the proposed reprioritisation of funding toward the Technology for Prosperity pillar. It presents MBIE's SI&T baseline funding as set in the 2024/25 Budget and the pillars from which the reprioritised funding is drawn.

Primary Industries and Bioeconomy

Strengthening the foundations of national prosperity

Enabling New Zealand's primary industries, mining, and bioeconomy to generate national wealth, be innovative and globally competitive.

This pillar applies cutting-edge science, technology, and sector expertise to boost productivity, adaptability, and sustainability across the full value chain – including food, fibre, biofuels, bio-processing, and mineral exploration and extraction – while supporting responsible resource use and security for prosperity.

Technology for Prosperity

Catalysing existing and future industries and strategic capabilities

Enabling existing and future industries and strategic capabilities to enhance the competitiveness of New Zealand's economy.

This pillar accelerates the adoption and integration of advanced technologies – such as artificial intelligence, robotics and digital platforms – across key sectors, unlocking new opportunities, positioning New Zealand as a leader in innovation on the world stage.

Environmental Sustainability and Resilience

Innovating for Environmental Stewardship and Resilience

Protecting unique ecosystems and strengthening resilience to natural and geological hazards – securing a safer, more sustainable, and low-emissions future for all.

This pillar builds on our strengths in ecological science, resource management, climate change resilience, geological hazard mitigation and our unique biodiversity to drive research that safeguards natural systems and creates opportunities for globally relevant commercial solutions.

Healthy People and a Thriving Society

Enhancing health and social outcomes through research, technology and innovation

Applying science to empower New Zealanders to live healthier, more fulfilling and productive lives.

This pillar builds on New Zealand's diverse strengths to ensure our health, social and economic systems are resilient, adaptive and prepared for future challenges. It supports research that addresses national health and social priorities, workforce needs and system-wide impact.

Figure 4: Pillar mission statements

Primary Industries and Bioeconomy

Example priority domains:

Biosecurity science that safeguards New Zealand's primary sector – agriculture, horticulture, and aquaculture – by developing advanced tools and systems to protect natural assets and enhance the resilience of food systems.

Food production and agritech that supports economic productivity by advancing innovative approaches in food production and processing, ensuring New Zealand's primary industries remain globally competitive and adaptable.

Geoscience and mineral exploration that unlocks value from New Zealand's natural resources through responsible exploration and extraction, contributing to economic growth, energy security and strategic capability.

Excluded domains:

Food system research where the sector is mature, private sector capability is strong, and public investment can be reduced, eg new methods for yield estimation in viticulture.

Applied research in mature sectors where further public investment is unlikely to deliver significant system-wide impact, eg responses of dairy cows to supplementary feeding.

Technology for Prosperity

Example priority domains:

Aerospace that accelerates high-tech innovation, creates spillover benefits across advanced manufacturing, robotics and digital sectors, and positions New Zealand in global space and aviation markets.

Artificial intelligence research that accelerates innovation and delivers practical solutions by applying AI across priority sectors to boost productivity, drive economic growth and address national challenges.

Synthetic biology that harnesses advanced bioengineering to create sustainable solutions, and open pathways for New Zealand to lead in high-value sectors such as biomanufacturing, healthcare, and clean technologies.

Excluded domains:

Development of generic digital platforms or tools that do not reflect New Zealand's specific needs or provide a strategic advantage over existing international solutions – for example, creating a foundational large language model.

Duplicating existing tech solutions eg developing a cloud storage service or social media platform that replicates existing international products.

Environmental Sustainability and Resilience

Example priority domains:

Science that protects and restores unique ecosystems, safeguards native species and positions New Zealand as a global leader in biodiversity conservation and sustainable land use.

Resilience research including climate and Antarctic science that empowers New Zealand to anticipate, adapt to and mitigate climate risks and natural disasters through cutting-edge research and predictive modelling.

Energy systems (hydrogen, solar, wind) that accelerate the transition to a modern and sustainable energy future by supporting the development and deployment of innovative energy technologies and infrastructure.

Excluded domains:

Biodiversity research that does not directly contribute to the protection or restoration of native species or ecosystems in New Zealand.

Ecological research with limited national relevance, eg investigations into environmental phenomena (such as natural sounds or processes) that do not deliver enduring public value for New Zealand.

Healthy People and a Thriving Society

Example priority domains:

Health informatics and digital health that harnesses data, digital platforms and AI to empower individuals, improve healthcare delivery and ensure resilient, adaptive health systems.

Social investment research that uses information and technology to address the unique needs and challenges of New Zealanders covering education, health, employment and community wellbeing.

Genomics and precision medicine that applies genetic insights and cutting-edge molecular technologies to enhance health care options for New Zealanders.

Excluded domains:

Housing and social security research that does not address the unique needs of the population, eg studies on housing conditions or security outside New Zealand and the Pacific.

Legal and cultural mapping without direct relevance to New Zealand's or the Pacific region's health, social priorities, or workforce needs.

The Technology for Prosperity pillar captures advanced technologies like AI, quantum and advanced materials that support innovation and capability across all pillars, for example AI's integration with precision agriculture applications, climate modelling and forecasting, as well as workforce and STEM learning.

Figure 5: High-level guidance for SI&T prioritisation

Note: The research priority areas outlined above provide high-level guidance, with detailed prioritisation to follow in early 2026. This diagram is indicative only and non-exhaustive with pillars presented in no particular order.

Redirect resources for outsized impact

48. The Council reviewed advice outlining three strategic scenarios for prioritising MBIE's SI&T spending to maximise impact and public value. Each scenario balanced four factors – delivery speed, investment scale, impacts on existing platforms, and expected benefits – presenting trade-offs that ranged from significant reductions to full preservation of current funding domains:
    - **Scenario 1** 'Accelerate' proposed reallocating $172 million (21% of baseline funding) over three years, drawing funds from all pillars and existing platforms to rapidly expand New Zealand's advanced technology capability across multiple platforms
    - **Scenario 2** 'Modernise' proposed reallocating $122 million (15% of baseline funding) over two to three years, drawing funds from areas of over-concentration to establish a strong foothold for advanced technology investment **(see Figure 6)**
    - **Scenario 3** 'Manage' proposed reallocating $103 million (12% of baseline funding) over several years to protect existing areas of traditional strength while providing a modest investment in advanced technologies

49. The Council favoured Scenario 2, Modernise, as the option that best balanced responsible reallocation, targeted transformation and preservation of traditional strengths. Key factors informing this decision include:
    - the system's ability to effectively absorb and direct high-quality spend
    - avoiding irreversible disruptions or damage to strategic platforms and capabilities
    - the need to preserve public-good and stewardship research funding
    - the need to draw on funds allocated to mature, scaled sectors

50. The Council views the Modernise scenario as a pivotal step to align advanced technology funding with OECD and SAE benchmarks. The prescribed $122 million investment would signal a strong commitment to future readiness and give the New Zealand Institute for Advanced Technology (NZIAT) greater capacity to deliver innovations with positive, system-wide impact.

51. The Council recommends the Government act on this reallocation and treat it as a test of the system's ability to drive greater economic outcomes. If results demonstrate improved performance, investment should be scaled up to accelerate New Zealand's SI&T progress.

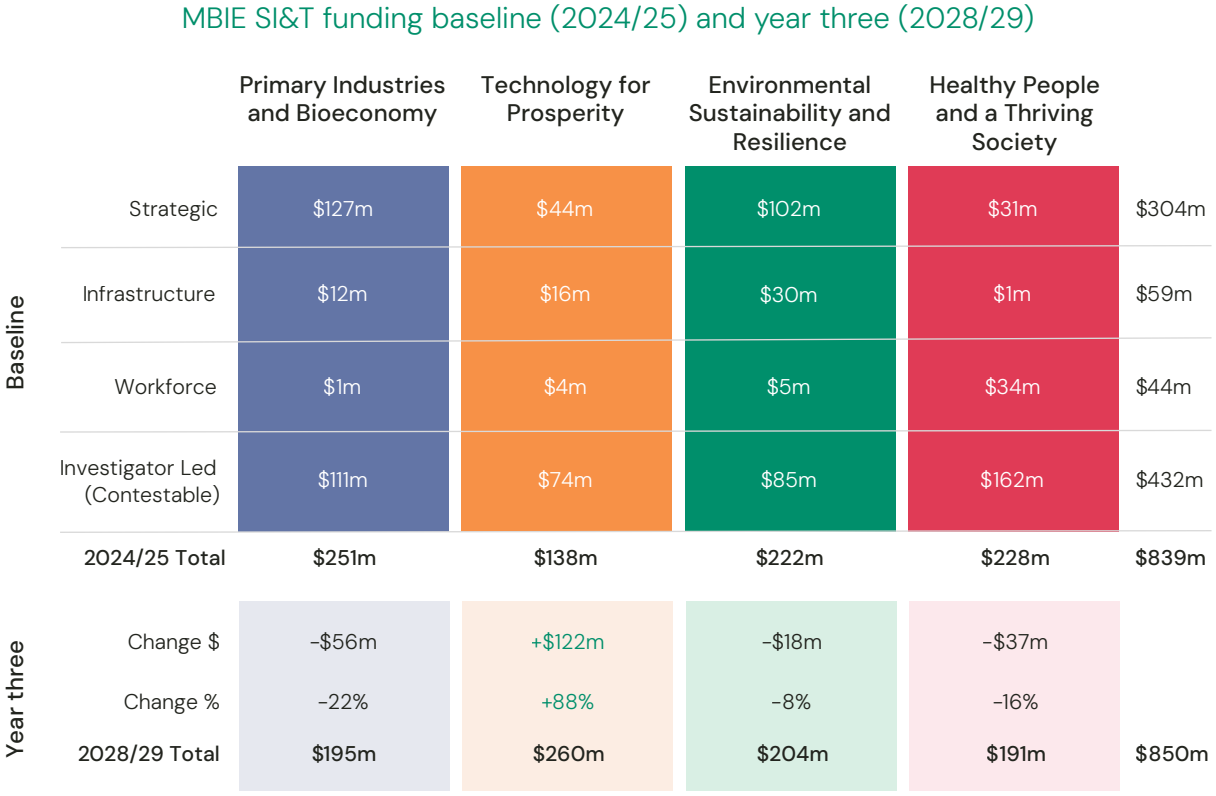


Figure 6: Funding scenario two 'Modernise'

Baseline: is a representation of MBIE SI&T investment in 2024/2025 mapped to the strategic pillars. The numbers presented include best judgements where necessary, and are rounded, so therefore could be subject to change.

- **The 2024/25 period** offers the most comprehensive view of MBIE's SI&T funding prior to current cycle figures
- **$839 million** of MBIE's total $1.17 billion 2024/25 SI&T budget is displayed
- $331 million is not displayed and includes allocations to Callaghan Innovation operations and grants, SI&T contract and fund management, policy advice, staff and other core costs. The Council may look at this portion in the future
- Horizontal categories capture **'Strategic'** (SSIF Programmes, Catalyst), **'Infrastructure'** (SSIF Infrastructure), **'Workforce'** (Fellowships, Applied PhDs) and **'investigator-led'** (Endeavour, Marsden, HRC)

Year three: is a representation of what MBIE's proposed SI&T investment would look like at year three (2028/29). It does not show phased allocation, but rather the three-year end point of recommended funding shifts.

- **A total of $122 million or 15 per cent of baseline funding**, including **$111 million of reprioritised funding** within pillars and **$11 million from outside of the pillars**, is allocated to the Technology for Prosperity Pillar by year three. This lifts the 2028/29 total to **$850 million**
- This results in an **88 per cent increase** in funding for the Technology for Prosperity pillar and brings the total to **$260 million**

Use pillar-based priorities to signal change

52. The Council has determined that funds can be responsibly redirected toward priority areas **(see Figure 6)**. To avoid locking the system into picking winners or indiscriminately cutting entire fields of science, we recommend adopting a flexible, signals-based approach to implementing these reallocations.

53. Applied as guidelines, these signals will steer funders and researchers toward areas to invest, grow, or reduce activity, without constraining exploratory research. This approach keeps the system dynamic and aligned with Government objectives, reduces reliance on imperfect data, and enables agile resource allocation.

54. The Council recommends embedding a signals-based approach in funding processes and ensuring consistent communication across the system. These signals should guide decisions on where public investment may need to increase to meet national priorities and, conversely, in areas where public investment may be reduced, covering:
    - **Transition potential:** areas where long-term public investment could or should shift toward private sector leadership
    - **Future impact:** areas with low projected workforce or capability needs, or where investment is unlikely to generate significant system-wide benefits
    - **Strategic misalignment:** areas that are less aligned with national priorities or lack global relevance

55. In practice, organisations with devolved MBIE funding (for example, through the Strategic Science Investment Fund) will be expected to respond to deprioritisation signals through resource and capability choices. Organisations receiving competitive funding (for example, through Endeavour, Marsden, and the Health Research Council) will also need to ensure similar alignment.

56. The Council proposes that funding shifts and signal directives be fully implemented by the 2028/29 financial year, to give organisations and individuals time to adapt to the new investment approach. RFNZ should take the necessary steps to operationalise this approach as the primary body responsible for future funding decisions.

Flexible funding

57. New Zealand's current SI&T funding system is structured in ways that may deter or overlook bold, high-impact proposals. Intense competition for limited resources, coupled with administrative burden and narrow success criteria, creates additional risk aversion, which ultimately constrains the system's support of truly transformational research.

58. Several advanced economies, including Singapore, the UK, Japan, Germany and Canada, have embraced dedicated flexible funding mechanisms or agencies, some modelled on the US' ARPA, that enable them to support high-risk, high-reward research at pace.

59. Key design features that help these funding agencies achieve this objective include:
    - a political mandate and/or requirement to pursue high-risk, transformational science, recognising that failure is an option
    - high levels of devolved decision-making, with autonomy vested in expert programme managers so decisions can be made in weeks, not months
    - non-contestable contracts awarded by invitation
    - three-to-five-year project horizons, with the ability to pivot or stop projects quickly through clear success measures and milestones

60. The Council recommends the Government establish an 'ignition' funding mechanism to complement existing funding models by addressing gaps in agility, flexibility and risk tolerance. This mechanism should draw on proven international approaches while being carefully tailored to New Zealand's needs.

61. Pending recommendations on scale and scope, essential requirements include providing contingency, flexibility, and preparedness for:
    - surging support behind emerging growth sectors and new markets
    - responding to emerging global trends or emergencies
    - acting on limited time opportunities
    - supporting bold, high-risk and transformational research, including in areas unforeseen or not covered by the market or the pillar framework

62. Fund implementation, governance and administration should be led by RFNZ, with the Council providing advisory support. Further information on international models of ignition-type funding is available in **Appendix 2**.

63. In addition, the government should remain open to alternative funding models to support emerging high-growth sectors, including redeemable contingent and interest-free loans. Similar mechanisms have been used internationally to develop sectors of strategic and competitive advantage – for example in Singapore (AI), Denmark (green energy and medtech), the Netherlands (advanced manufacturing), and Israel (cybersecurity).

Mātauranga Māori

64. The SSAG report highlighted the value of mātauranga Māori in driving research impact and recommended dedicated funding and mechanisms.[11]

65. Our priorities are closely aligned with those identified by iwi and Māori organisations in recent engagements and analyses **(see Appendix 3)**.

66. While the Council has not yet had the opportunity to give this aspect the depth of consideration it deserves, we wish to acknowledge its significance.

67. The Council recommends that the newly established RFNZ be tasked with determining appropriate funding mechanisms for Māori SI&T and mātauranga Māori, ensuring alignment with the S&T framework.

Impact on organisations

68. As the primary vehicles for delivering mission-led research, all PROs will be affected, as will independent research organisations. Given their closer alignment with the primary sector and environment pillars, the Bioeconomy Sciences Institute (BSI) and Earth Sciences Institute (ESI) will experience the greatest impact from the transfer of funding to the Technology for Prosperity pillar, and by extension the NZIAT. Any reduction in BSI funding will be partially offset by the establishment of the new Biodiscovery Platform.[12]

69. Universities will also face trade-offs. Based on their exposure to contestable and strategic funding changes, Otago, Auckland, and Waikato universities are collectively estimated to lose around $96 million across three pillars. However, these institutions, along with Auckland University of Technology and Canterbury University, stand to benefit where researchers pivot toward advanced technology domains.

70. Early indications suggest displacement of SI&T workforce, including postdoctoral positions, fellowships, and researcher roles across deprioritised domains. These losses are expected to be offset by new positions generated in advanced technology domains, with a net SI&T workforce gain projected by 2028/29 as the system adapts to new priorities.

71. The Council anticipates that reprioritisation toward advanced technology will have positive impacts across the wider New Zealand workforce. Investment in and development of high-tech expertise is expected to deliver significant downstream benefits, including preparedness for emerging industries.

11 Page 6 and 36 of the Science System Advisory Group Report – An architecture for the future, August 2024 refers.
12 $42 million investment for new Biodiscovery Platform pivotal milestone.

System monitoring

72. While the current system manages and monitors science investment contracts responsibly and transparently, the Council recommends shifting to – and resourcing – a performance and monitoring model that delivers enduring national value and captures the full impact of government investment.

73. The Council suggests future system performance measures be directly linked to SI&T priorities and portfolio health, covering impacts like job creation, export value, commercialisation success and knowledge transfer. The Council suggests considering the adoption of the following short, medium, and long-term measures:
    - **Input indicators** showing that R&D funding, the research workforce, and other SI&T system resources are being directed toward the priority areas identified in this report
    - **Short-term indicators** including the volume and quality of research outputs (such as peer-reviewed publications and patents), active stakeholder and industry engagement, industry co-funding contributions and the formation of new collaborations or partnerships with businesses and other research users
    - **Medium-term indicators** focusing on the commercialisation of research and uptake by industry or communities (eg spinouts, licensing agreements, revenue from intellectual property, and job creation within funded projects)
    - **Long-term indicators** assessing broader economic impact, including GDP contribution, productivity gains, exports and sustained improvements in sector capability and achievement of socio-economic objectives[13]

74. To further strengthen the system's ability to measure and demonstrate impact, the Council recommends that expert work be commissioned in 2026 to develop and refine robust performance measurement frameworks for New Zealand's SI&T investments.

75. This work should draw on international best practice and be co-designed with sector stakeholders to ensure that future indicators are fit-for-purpose, reflect stewardship obligations, and support continuous improvement in system performance.

76. At the system and programmatic level, RFNZ will serve as the primary authority for monitoring and reporting on the implementation and performance of the Pillar Investment Plans or PIPs (see page 24). Given this responsibility, the Council expects that RFNZ will be critical in designing and operating the monitoring and reporting model.

13 The short-, medium-, and long-term measures are not intended to be exhaustive, but rather indicative of the types of metrics that could help build a more comprehensive view.

The SI&T reform programme and next steps

77. RFNZ will become operational in early 2026 and will give practical effect to the Council's priorities and non-priority areas through the development of a Science Investment Plan (SIP) and a set of PIPs. These plans will guide the allocation of funding and capability across the system, ensuring investment aligns with New Zealand's long-term interests.

78. Practically speaking, the Council's advice sets the strategic direction, while RFNZ translates priorities into funding and capability decisions. This partnership combines the Council's monitoring and advisory functions with RFNZ's delivery role, creating a clear link between high-level oversight and tangible investment outcomes.

79. Looking ahead to early 2026, the Council recommends reviewing the investment models used by SAEs to help guide advice on the development and delivery of the SIP and PIPs.

80. The Council's next step is to develop more granular investment priorities by identifying 6-8 focus domains within each pillar and defining clear success measures. This work will draw on international expertise and proceed alongside the Council's responsibility to maintain a list of emerging technologies critical to New Zealand's future.

81. The Council also intends to commission targeted work on key system enablers. This will include assessing infrastructure requirements and workforce needs, covering training, retention and talent attraction aligned to emerging SI&T priorities.

82. Other key focus areas for 2026 include SI&T performance drivers, specifically commercialisation and international partnerships. Strengthening these areas is essential to unlock the full value of public investment by realising the economic potential of research and expanding access to global networks and scale.

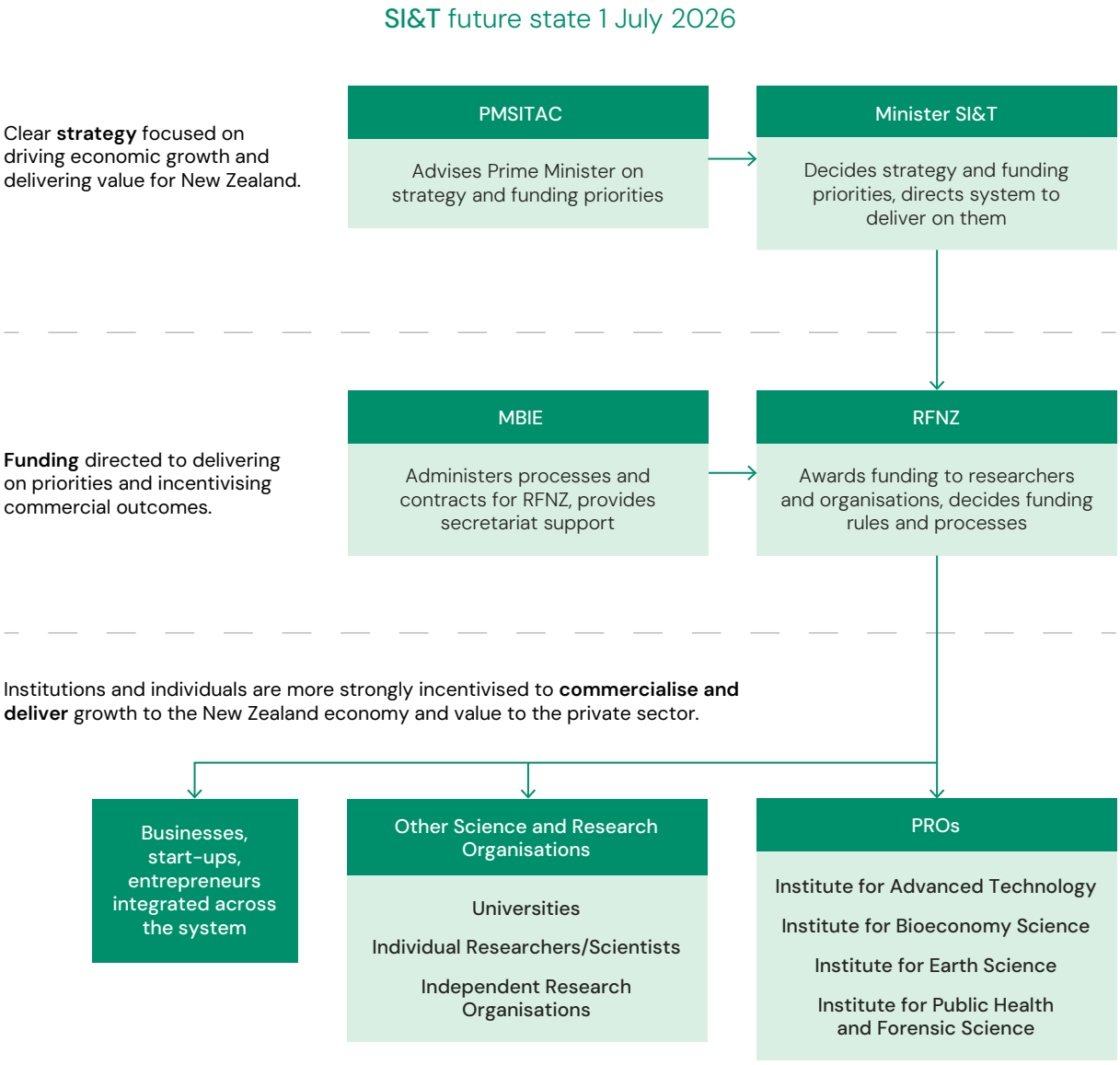


Figure 7: Future SI&T system architecture

Conclusion

83. This report sets out a clear pathway for strengthening New Zealand's SI&T system to enable New Zealand's transformation into a high-growth, high-productivity and competitive SAE. The Council's analysis confirms that while the system has produced excellent science, it is not currently configured to meet the demands of a rapidly changing global environment, nor to fully realise the opportunities presented by advanced technologies.

84. The Council recommends a deliberate and phased shift in investment, redirecting about $122 million over three years from mature research areas towards emerging and advanced technologies. This approach balances transformation with continuity, ensuring that New Zealand's traditional strengths in the primary sector and environment are leveraged, while positioning the system to capture opportunities at innovation frontiers.

85. The Council's prioritisation principles, drawn from both international best practice and the SSAG report, provide a robust foundation for decision-making. By focusing investment on mission-led pillars, embedding a signals-based approach to deprioritisation, and supporting bold ideas through mechanisms like the proposed ignition fund, the system will be better equipped to adapt, innovate, and deliver on national priorities.

86. The Council acknowledges that many other considerations and actions are needed to re-energise New Zealand's SI&T system beyond these initial recommendations. To advance this agenda, our 2026 work programme includes developing a second, more granular tier of priority domains for investment, alongside commissioned research and consultation on infrastructure, workforce, performance monitoring and commercialisation.

87. Achieving the intended outcomes of priority investments in advanced technology depends on effective implementation, ongoing system reform, and the ability to measure and monitor impact. The Council stands ready to provide strategic advice, track progress, and champion the changes needed to ensure New Zealand's SI&T system is focused, future-ready, and delivering for the nation.

Glossary and acronyms

Advanced Technologies

Emerging and transformative technologies such as artificial intelligence, quantum computing, synthetic biology and advanced manufacturing, that have the potential to drive significant economic and societal change.

ANZSRC

The Australian and New Zealand Standard Research Classification, a system for classifying research and development activities.

Capability mapping

A process to identify strengths and gaps in New Zealand's SI&T system, often using data such as ANZSRC codes and institutional information.

The Council

The Prime Minister's Science, Innovation & Technology Advisory Council, the advisory body established to provide recommendations to the Prime Minister on national SI&T priorities and areas for deprioritisation.

Endeavour Fund

A competitive government fund supporting research with potential for high impact in New Zealand.

GBARD

Government Budget Allocations for Research and Development, a statistical measure of government funding for R&D, used for international comparisons.

Health Research Fund

A competitive fund supporting research to improve health outcomes for New Zealanders.

Ignition fund

A proposed fund to support new, cross-cutting, or emerging areas of research not covered by existing funding mechanisms.

International benchmarking

Comparing New Zealand's investment profile, performance or priorities in science, innovation, and technology with those of other countries (eg Small Advanced Economies).

MBIE

The Ministry of Business, Innovation & Employment, the government agency responsible for administering much of New Zealand's SI&T funding.

Mātauranga Māori

Māori knowledge, wisdom, and ways of knowing, which inform and complement science, innovation, and technology in New Zealand.

Mission-led pillars

Thematic focus areas for investment and prioritisation, including Primary Industries and Bioeconomy, Technology for Prosperity, Environmental Sustainability and Resilience, and Health People and a Thriving Society.

NZIAT

The New Zealand Institute for Advanced Technology, a Public Research Organisation to support advanced technology research and capability.

OECD

The Organisation for Economic Co-operation and Development, an international organisation of countries that provides a forum for governments to work together to share experiences and seek solutions to common problems.

Primary Industries

Sectors of the economy that produce raw materials, such as agriculture, horticulture, aquaculture and forestry.

PROs

The new Public Research Organisations (New Zealand Institute for Bioeconomy Science, New Zealand Institute for Earth Science, New Zealand Institute for Public Health and Forensic Science and New Zealand Institute for Advanced Technology) form the backbone of New Zealand's publicly funded research system, each focused on delivering cutting-edge science and technology in their respective domains.

Public good science

Research that delivers broad societal benefits, often where market incentives are weak or absent.

RFNZ

Research Funding New Zealand is the new independent decision-making body responsible for allocating SI&T funding in line with government priorities.

Sector interest

The level of engagement and partnership potential from industry or end-users in a research area.

SI&T

Science, Innovation and Technology.

SAE or SAEs

A small advanced economy, a country that combines the characteristics of an advanced economy like high-income, diversified industries and global financial integration, with a relatively small population size.

SSAG

The Science System Advisory Group, a Ministerially appointed/created group that conducted reviews and provided recommendations on New Zealand's science system.

SSIF

The Strategic Science Investment Fund, a government fund supporting long-term, mission-led research in areas of national importance.

Stakeholder engagement

The process of consulting with and gathering input from researchers, industry, Māori, and other key groups to inform decision-making.

Appendices

Appendix 1: About the Council and its membership

About the Council

88. The Council's membership has expertise across science, business, innovation and system leadership, ensuring it can deliver robust, future-focused advice to the Prime Minister.

89. The Council's core role is to provide system-level advice on national priorities and areas for deprioritisation across the SI&T system. This marks a significant shift, as, unlike many of our peer countries in the OECD, a high-level group of this kind hasn't previously existed in New Zealand's science and innovation landscape.

90. The Council has a clear remit to:
    - advise on **long-term priorities and areas for deprioritisation**
    - identify **emerging technologies** critical to New Zealand's future
    - recommend ways to **overcome barriers to innovation and commercialisation**
    - ensure alignment with **New Zealand's economic strategy** and public good outcomes

Council Role	Name	Position
Chair	Hon Dr Shane Reti	Minister of Science, Innovation and Technology
Deputy Chair	Dr John Roche	Prime Minister's Chief Science Advisor
Member	Sir Peter Gluckman	President of the International Science Council
Member	Craig Piggott	Founder and CEO, Halter
Member	Professor Russell Frew	Chief Scientist, Oritain
Member	Professor Merryn Tawhai	Director, Auckland Bioengineering Institute
Member	Komal Mistry-Mehta	Chief Innovation and Brand Officer, Fonterra, and MD, Ki Tua Fund
Member	Malcolm Johns	Chief Executive, Genesis Energy
Member	Grant Wright	Group Executive, Artificial Intelligence, Seek

Appendix 2: How we identified priorities

91. In formulating advice on priorities we employed a structured, evidence-informed process, drawing on data, expert analysis, and stakeholder input. From July to November, we met monthly under an agreed roadmap **(Figure 8)** to ensure delivery within the timelines set by the Prime Minister. To determine priorities, the Council:
    - reviewed system-wide evidence, including investment data and capability mapping, to understand current funding patterns and identify areas of strategic opportunity or underinvestment
    - drew on how peer countries (particularly SAE partners) set science and innovation to identify global best practices
    - engaged stakeholders across research institutions, industry, Māori science leaders and innovators, and government to test assumptions and gather insights
    - developed and applied prioritisation principles to guide decisions about where to invest and where to scale back
    - considered the government's stewardship responsibility with a view to maintaining critical research infrastructure, supporting public good science, and delivering enduring public value

92. Where information gaps existed, decisions were guided by experience and judgement. The Council recognises that these priorities reflect our current understanding and expect that we may refine them as further evidence is gathered during the next phase of the SI&T system reform in 2026.

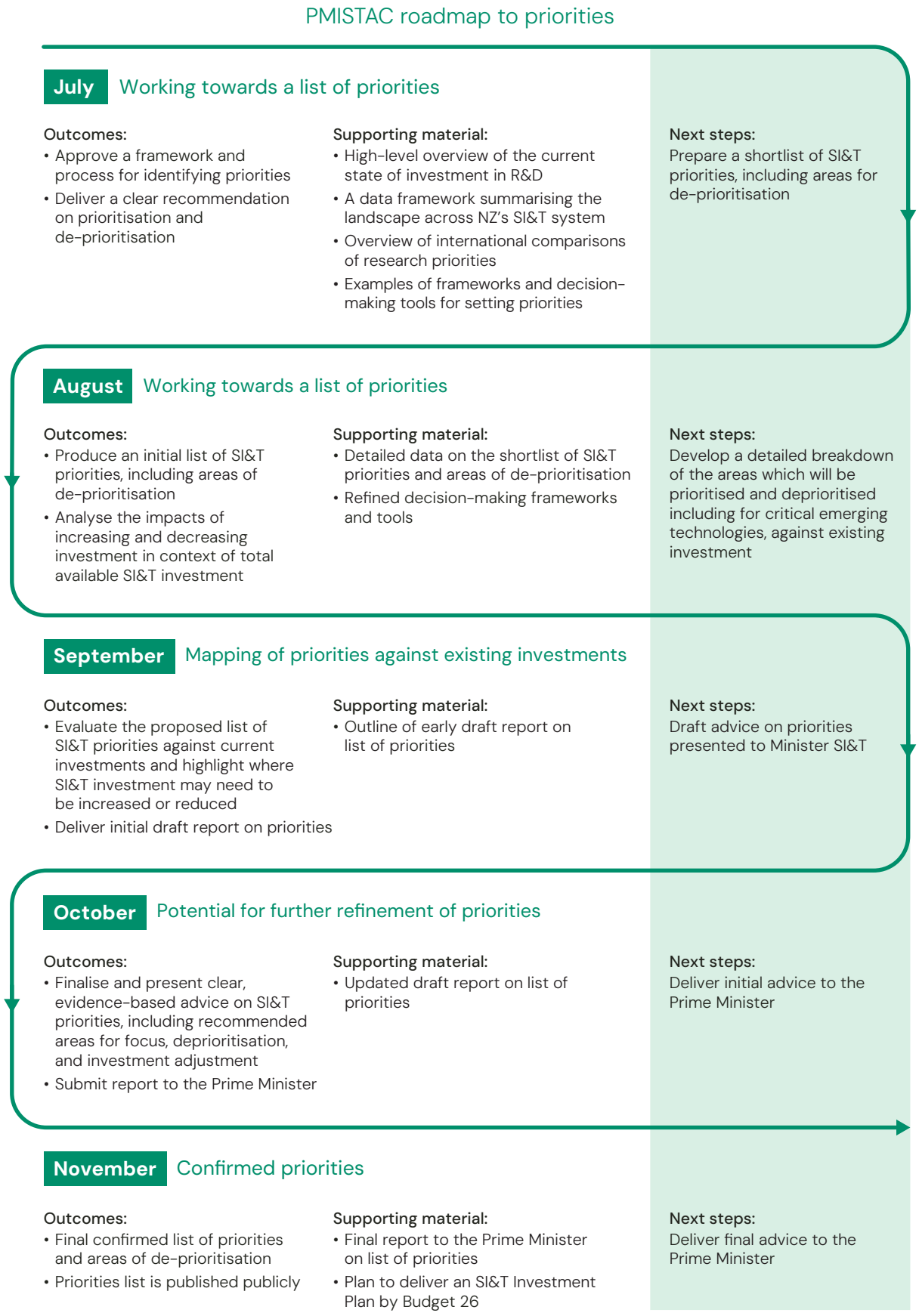


Figure 8: PMSITAC roadmap to priorities 2025

Prioritisation principles

93. To ensure all aspects of publicly funded SI&T were considered, the Council developed and refined a set of principles to guide funding decisions and deprioritisation **(see Figure 9)**. It is our view these principles will ensure the system is focused on delivering the impact that New Zealand needs, both now and in the future.

94. Three of the prioritisation principles were adopted directly from the SSAG report – research quality, relevance to New Zealand, and justification for taxpayer investment.

95. In line with the 'enabling innovation to emerge' principle, the Council's recommendations propose a deliberate shift toward greater emphasis on mission-led investment, aligned with national priorities and outcomes. At the same time, we recognise the ongoing importance of investigator-led research for fostering innovation within the SI&T system.

Research quality Must be rigorous, innovative, and internationally benchmarked. Expert-led assessment ensures coherence across pillars and disciplines.	**Relevance to New Zealand** Prioritise research that addresses New Zealand's strategic challenges and opportunities, growing national wealth and enhancing societal wellbeing.	**Justification for taxpayer investment** Public funding must deliver long-term societal value. Stewardship, transparency, and alignment with national priorities are essential.
Public good nature of research Supports knowledge and capability where markets fall short. This includes research into areas of broader societal benefit in social sciences, humanities, and mātauranga Māori.	**Industry impact** Drives commercialisation, productivity, and economic diversification. Enables knowledge flow into the private sector and supports innovation pipelines.	**International investment potential** Attracts global partnerships and strengthens New Zealand's science presence. Enhances competitiveness and strategic positioning.
Sector interest Strong sector engagement signals relevance and accelerates uptake. Research should respond to end- user needs and enable co- investment.	**Workforce development impacts** Builds a diverse, future-ready workforce and supports regional and Māori capability. Strategic oversight ensures system-wide resilience.	**Enabling innovation to emerge** Investigator-led ideas foster agility and complement mission-led priorities. Contestable funding supports responsiveness and fresh perspectives.

Figure 9: Council prioritisation principles

Approach to identifying priorities

96. As part of discussions, the Council considered the following frameworks and information to develop a thorough approach to prioritisation:
    - **Pillar framework:** developing four thematic pillars – Primary Industries and Bioeconomy, Technology for Prosperity, Environmental Sustainability and Resilience, Healthy People and a Thriving society – anchored by national missions and advanced technology as a cross-cutting enabler
    - **Capability mapping:** identifying strengths and gaps using funding and activity (based on ANZSRC codes) and institutional data
    - **International benchmarking:** comparing New Zealand's investment profile against appropriate benchmarking countries, including other SAEs and the wider OECD
    - **Scenario modelling:** testing implications of three funding scenarios *Accelerate, Modernise, Manage*

97. The Council engaged a range of system stakeholders **(see Appendix 4)** including PROs, universities, Māori science and innovation leaders and organisations, industry leaders and government agencies. These engagements highlighted:
    - support for a more focused, impact-driven system
    - concerns about capability loss in deprioritised areas
    - calls for pathways for emerging technologies
    - emphasis on Māori innovation and regional development

98. While the analysis commissioned and received was comprehensive, the Council acknowledge limitations in some of the underlying data, including incompleteness, time-lags and limited detail, particularly from international comparison sources. Despite these limitations, the Council remains confident that the approach taken provides a sound and defensible foundation for decision-making.

Appendix 3: International models of flexible funding

International models of flexible funding			
Country	**Instrument**	**Size of funding allocation**	**Type**
Singapore	White Space Fund **(2010)**	SGD$3.5 billion over 5 years	Highly flexible funding pool for unanticipated needs and opportunities
Canada	New Frontiers in Research (NFRF) **(2018)**	CAD$257 million over 5 years	Enables bold, interdisciplinary research unlikely to be funded through traditional channels
United States	Advanced Research Projects Agency Energy (ARPA-E) **(2009)** Climate (ARPA-C) **(2022)** Health (ARPA-H) **(2022)**	 ARPA-E: USD$460 million in FY2024 ARPA-C: Undisclosed ARPA-H: USD$1 billion in FY2024	Programme managers proactively identify, fund, and drive high-risk, high-reward science projects from concept to proof of, with significant autonomy and flexibility to shift or cut funding
United Kingdom	Advanced Research & Invention Agency (ARIA) **(2022)**	£800 million over 4 years	Modelled on ARPA, legal mandate to pursue breakthrough science at pace
Germany	Federal Agency for Disruptive Innovation (SPRIN-D) **(2019)**	€1.0 billion over 10 years	Modelled on ARPA, rapid, high-risk, high-reward innovation funding and dynamic program management
Japan	Moonshot **(2020)**	¥100 billion over 5 years	Modelled on ARPA, mission-driven targeting societal challenges
US-based non-profit	Welcome Leap **(2020)**	USD$635m since 2020	Modelled on ARPA, "a global ARPA for health"

Appendix 4: Māori strategic interests relevant to the SI&T system

This summary provides the Council with a synthesis of Māori aspirations and strategic interests relevant to the SI&T system.

It is designed to inform the identification of priority themes and pillars in the current reform process.

The analysis is based on a comprehensive review of Māori organisational strategies and submissions done in 2022. While still highly relevant, it should be noted that the data may not fully reflect developments since that time.

About 180 organisations were reviewed, grouped into the following categories:

- **Iwi and Hapū entities** (about 130): included iwi authorities, post-settlement governance entities, hapū trusts, and Māori incorporations
- **Māori Rōpū and collectives** (about 25): included Māori-led advisory groups, kaupapa Māori organisations and sectoral collectives
- **Research organisations** (about 10): included Māori research institutes, iwi research centres and Māori-led groups within CRIs and universities
- **Community and NGO entities** (about 10): included Māori NGOs and social service providers
- **Māori businesses and enterprises** (about 5): included large Māori-owned commercial entities and land trusts

Priority domains and themes for Māori entities

Environment and climate resilience

Key aspirations: Restoration of waterways, forests and marine ecosystems. Climate change adaptation and hazard mitigation. Sustainable land use and resource management.

SI&T opportunities: Environmental modelling, climate science, biosecurity and mātauranga-led restoration. Development of regional hazard planning and managed retreat strategies.

Identity, culture, and mātauranga Māori

Key aspirations: Revitalisation of te reo, tikanga and other taonga. Protection of indigenous intellectual property and data sovereignty. Cultural mapping and digital heritage.

SI&T opportunities: AI ethics, digital archiving, indigenous IP frameworks, and cultural technologies. Design of tools that embed and leverage tikanga and mātauranga Māori.

Health and wellbeing

Key aspirations: Kaupapa Māori health models and rongoā Māori. Mental health, chronic disease and child wellbeing. Structural equity in health systems.

SI&T opportunities: Genomics, precision medicine, public health research and indigenous health data platforms. Māori-led health research institutes (eg Whakauae, Indigenous Genomics Institute).

Economy and innovation

Key aspirations: Sustainable enterprise, carbon markets, aquaculture and agritech. Development of Māori innovation hubs and regional SI&T institutes.

SI&T opportunities: Commercialisation of indigenous innovations. Support for ventures in climate tech, food systems and bioeconomy with the Māori Economy.

Education and workforce development

Key aspirations: STEM pathways for rangatahi. Kaupapa Māori education and tertiary access. Building Māori SI&T workforce capability.

SI&T opportunities: Investment in Māori STEM career pipelines. Support for Māori tertiary institutions and research centres.

Governance and futures thinking

Key aspirations: Māori participation in SI&T decision-making. Futures thinking grounded in mātauranga Māori. System transformation that reflects Māori aspirations.

SI&T opportunities: Indigenous foresight, scenario planning and systems design.

Appendix 5: Stakeholder engagement summary

This appendix synthesises the perspectives gathered during the Council's initial set of engagements, which included formal meetings and written feedback from universities, tertiary sector leaders, government agencies, Māori science and innovation leaders, independent research organisations, business and industry and PRO chairs and chief executives. The engagement aimed to inform the Council's advice on system design, investment priorities, and innovation pathways, ensuring alignment with Māori SI&T aspirations, national priorities, and long-term strategic goals.

Key themes

System performance, productivity, and investment balance

- Persistent productivity gaps and underperformance compared to OECD peers
- Overemphasis on environmental and primary sectors; calls for rebalancing toward advanced technology, health, and high-growth areas
- Need for outcome-based reporting and greater system-wide accountability

Innovation, commercialisation, and industry uptake

- Slow translation of research to market due to fragmented investment and weak private sector engagement
- Importance of social license and public acceptance for new technologies
- Need for more cohesive, mission-led public-private partnerships

Strategic prioritisation and government coordination

- Strong call for cross-government prioritisation and coordination
- Desire for early, clear and stable guidance on national priorities and risk appetite
- Support for research that delivers broad societal benefits and leverages unique national strengths

International collaboration and strategic positioning

- Emphasis on leveraging New Zealand's international research reputation and partnerships
- Calls for deliberate engagement in global science platforms and trade-aligned research agreements
- Concerns about fragmented infrastructure and the need for stable funding to maintain global competitiveness

Advanced technology, AI and infrastructure

- Recognition of underinvestment in advanced technology, AI, and digital infrastructure
- Need for a national strategy on AI capability, workforce development, and data sovereignty
- Calls for investment in enabling infrastructure, especially in health research and digital platforms

Skilled workforce and talent retention

- Concerns about talent loss due to limited career pathways and contract insecurity
- Importance of aligning postgraduate training and workforce development with national priorities
- Need for integrated research, teaching, and advanced tech skills development

Māori economy, Mātauranga Māori and Treaty obligations

- Importance of Māori representation and embedding Māori perspectives across all pillars
- Recognition of Mātauranga Māori as a unique national strength and opportunity for greater integration and commercialisation
- Calls to honour Treaty obligations, support Māori investment and enable values-based, future-focused investment

Resilience, climate, and public good science

- Investment in resilience to climate change and hazards as essential for national wellbeing
- Ongoing need for public good research critical to national interests

System interoperability, collaboration, and integration

- Calls for breaking down silos and fostering genuine partnerships across research, industry, government, and Māori entities
- Inclusion of diverse voices, including industry and creatives, to ensure a responsive and innovative system

Appendix 6: Decision-making tools and criteria

August Council meeting decision-making tools

The August Council meeting focused on evaluating strategic funding shifts toward the Technology for Prosperity pillar. To support this, the Council applied a structured decision-making framework and scenario-based tools to assess trade-offs, system-wide impacts and alignment with national priorities. The tools outlined below were used to guide deliberations and ensure recommendations were grounded in evidence and strategic foresight.

Framework for determining funding shifts toward Technology for Prosperity

Criterion	Explanation
Commercialisation and market readiness	Prioritise initiatives with clear market pathways and provide early signals to guide strategic investment decisions
Public good and strategic capability	Invest in research that delivers public value and builds new capabilities gradually, ensuring critical skills are retained
Policy alignment and performance	Align investments with policy priorities and ensure decisions are backed by evidence and measurable outcomes
International and national positioning	Focus on areas of national expertise while strengthening global research ties and attracting strategic investment
Balanced investment prioritisation	Balance stable, long-term investments that build enduring capability with flexible, contestable funding to support emerging opportunities and system responsiveness
Managed transition	Ensure funding shifts are gradual and respect existing commitments to avoid disruption
Strategic alignment with national priorities	Investments should be guided by system-level priorities that reflect New Zealand's aspirations for economic growth and wellbeing

When selecting a preferred scenario, note the following factors:

- **Don't break things you can't fix** – Transitions must be managed carefully to avoid irreversible disruptions to existing systems or capabilities
- **Spend money well** – Investments should be strategic, targeted, and deliver clear value for money, especially in areas with long-term impact
- **Apply the precautionary principle** – Where uncertainty exists (eg data gaps, shifting money), err on the side of caution

Considerations for choosing a preferred investment scenario

Scenario	Description (with key figures)	Key considerations
Scenario 1: 'Accelerate'	Rapid relocation of **$172m** by 2028/29 from contestable and strategic platforms to Technology for Prosperity	• Quickest path to OECD and SAE benchmarks • Requires large reduction in contestable & strategic investment • Requires some existing platforms to be discontinued and/or reduced • Impact on investigator-led science • Requires early signaling to allow participants to prepare • Potential for funding voids and impact to critical skills
Scenario 2: 'Modernise'	Reprioritise **$122m** by 2028/29 from contestable and strategic platforms to Technology for Prosperity	• Progress toward OECD and SAE benchmarks • Reallocation of investment from the Primary Sector and Bioeconomy, Environmental Sustainability and Resilience, and the Healthy People and a Thriving Society pillars • Preserves public-good funding for environmental science, but significant reduction in Primary Industries and Bioeconomy pillar contestable/strategic funding • Requires early signaling to allow participants to prepare • Potential for funding voids + impact to critical skills
Scenario 3: 'Manage'	Release **$103m** by 2028/29 from contestable platforms and workforce to Technology for Prosperity	• Foundations laid for reaching OECD and SAE benchmarks • No impact to strategic funding across pillars • Phased transition - funding allocated/ rebalanced over multiple years
Additional consideration: 'ignition fund'	Ignition fund option **for each scenario**. Funded by reallocating a 10% of the funding that has been shifted into the New Economy	• Rapidly responding to an emerging global trend (where we think we need capability) • Or doubling down on niche competitive advantage • Or acting on a time limited opportunity

September Council meeting decision making tools

The September Council meeting focused on refining the structure and presentation of national priorities, including how to name and communicate the four funding pillars, and how to identify and justify areas for deprioritisation. To support this, the Council used a series of frameworks to guide decisions on naming conventions, prioritisation criteria, and scenario-based evaluation.

Framework to clarify naming of pillars

In this framework each thematic pillar is anchored by a clear mission to enhance both clarity and strategic coherence. This structure also provides flexibility to 'shift' existing investments or 'create' new virtual structures where none currently exist, aligning them under these mission-driven thematic areas.

Option	Structure	International example	Pros	Cons
Thematic Pillars	• Organises priorities into broad, cross-cutting domains (eg Primary Industries and Bioeconomy, Technology for Prosperity, Environmental Sustainability and Resilience, Health People and a Thriving Society) • Each pillar can house multiple research priorities	• Ireland's Impact 2030: Six pillars including Climate, Digital, Health, Economy, Food, Society • Singapore's RIE2025: Four domains (Health, Sustainability, Digital, Manufacturing) and three horizontals Talent, Innovation, Academic Research	• Familiar format • It allows for clear alignment with existing government and sector strategies • Pillars can be updated or expanded without disrupting the whole framework • Helps show how different domains interact or overlap	Pillars become a list-oriented domain without a compelling narrative
Mission-led	• Frames priorities as national missions with clear goals, investment pathways, and impact metrics (eg "NZ as a climate innovation leader" or "Digital education for all") • Missions are outcome-driven and framed as stories of transformation	• Israel's National R&D Priorities: Missions like Bio-Convergence, Quantum Computing, Foodtech	• Easy to communicate and understand • Focuses investment on measurable results, not just activity	These can be complex to design and take time to deliver

Framework for presenting areas to deprioritise

While the prioritisation process naturally leads to some areas being de-emphasised, there are three distinct approaches to actively deprioritise within the SI&T system:

Option	Description	Pros	Cons
1. Deprioritise specific areas of SI&T	Target individual disciplines or research areas **Example:** Targeted reduction in investment for plant production research and innovation	Clear and direct; easier to quantify impact	Requires robust data; risk of unintended consequences; May be politically sensitive
2. Deprioritise thematic areas of SI&T	Reduce investment across broader themes **Example:** Broad reduction across the agriculture theme, affecting multiple disciplines	Aligns with strategic shifts; easier to communicate	May affect diverse sub-fields; harder to isolate high-performing areas
3. Signal-based deprioritisation (recommended)	Use strategic signals to guide system-wide adjustments **Example:** Reduce investment in capability or research in mature sectors where it is unlikely to deliver system-wide impact	Flexible and adaptive; encourages innovation; less disruptive	Less immediate control; relies on system responsiveness; harder to measure short-term impact

Approach to identifying research priorities (and areas to deprioritise) within funding pillars

The Council adopted a structured approach to identifying research priorities across pillars as part of a commitment to a strategy-led SI&T system. This approach ensured coherence with system-wide reforms and supported transparent, evidence-informed decision making.

Classification of Pillars Using ANZSRC Codes

We assigned ANZSRC codes to each funding pillar to establish a consistent classification and enable alignment with existing research domains. We specifically used Socio-Economic Outcome codes and identified research areas against MBIE investment in SI&T.

Mapping existing research priorities (current state & future state)

We then aligned the current research activities and priorities with the funding pillar framework using designated ANZSRC codes. This enabled us to systematically identify gaps, overlaps, and areas of strategic opportunity. To verify alignment, we drew on previously provided SI&T datasets and cross-referenced these with desktop analyses of existing strategy and priority documents from across government, industry, and Māori knowledge systems.

Development criteria for prioritisation

We established a clear set of criteria to evaluate and prioritise research areas. The framework used considered alignment with government priorities, potential for impact, scientific excellence, and the capability and capacity of the system including workforce and institutional strength. In shaping this framework, we drew on previously provided principles and strategic design documents to ensure consistency with broader SI&T system reforms.

Presentation of priorities

We outline and recommend options for presenting the identified priorities.

Presentation of areas to deprioritise

Rather than explicitly identifying areas to deprioritise, we focussed on surfacing the broad signals that guide our strategic emphasis. This approach ensured alignment with government priorities and the direction of SI&T reforms, supporting a shift toward a more proactive and strategy-led system.

Prime Minister's Science, Innovation,
and Technology Advisory Council