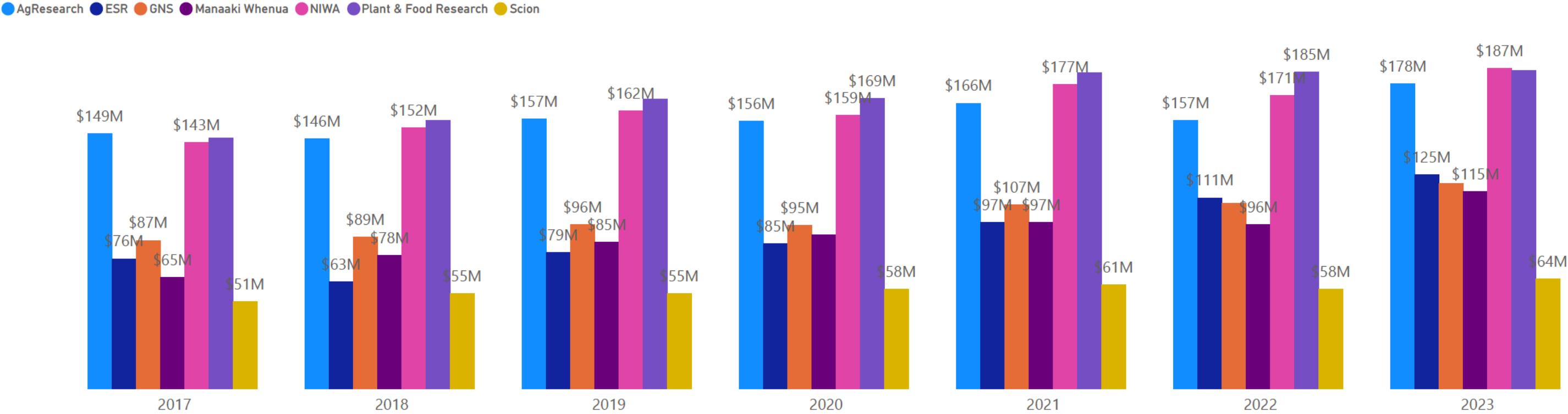
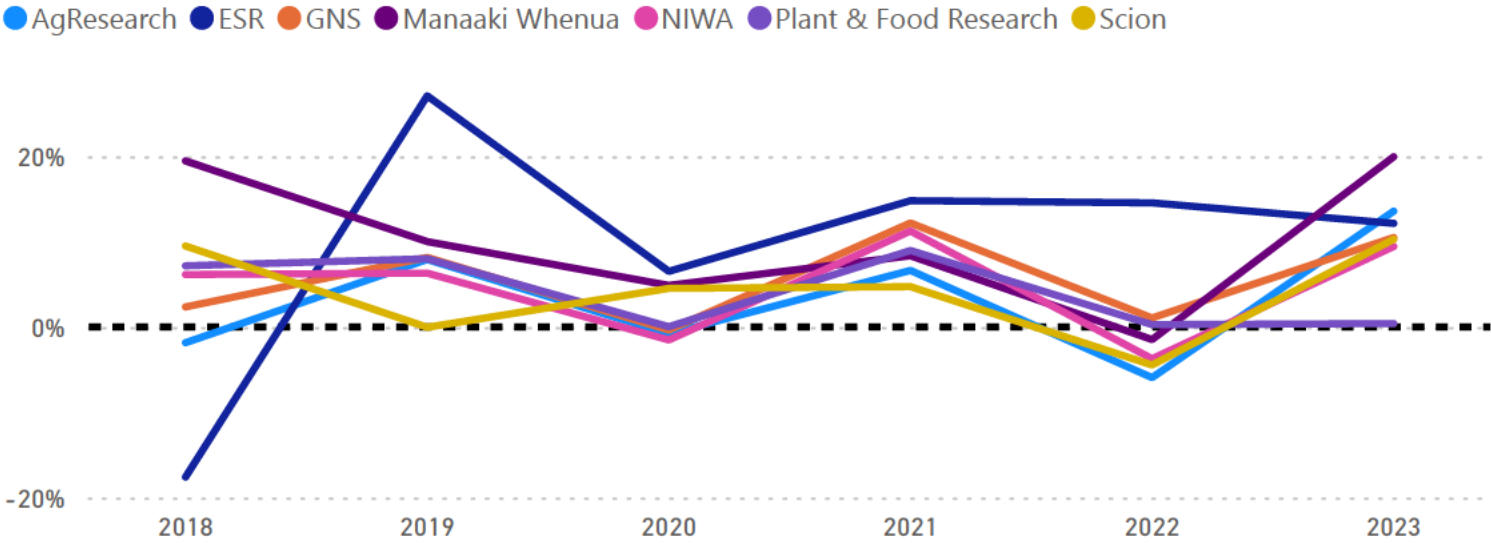


Crown Research Institute Financial Performance

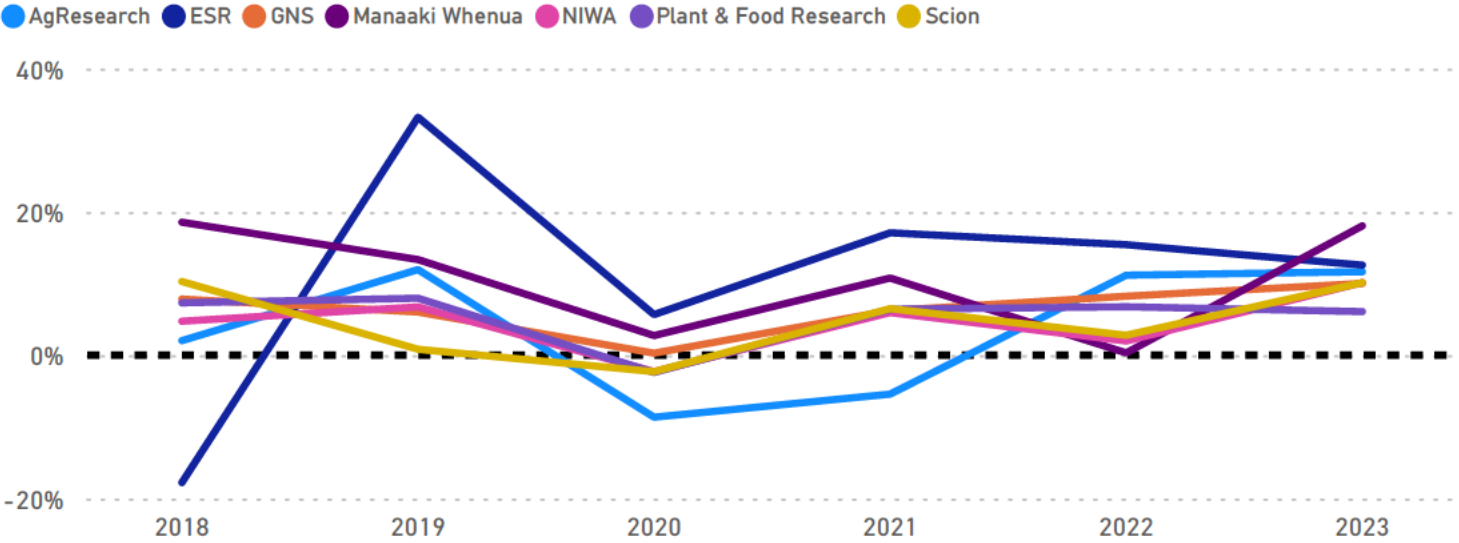
Revenue



Revenue Growth



Expenses Growth

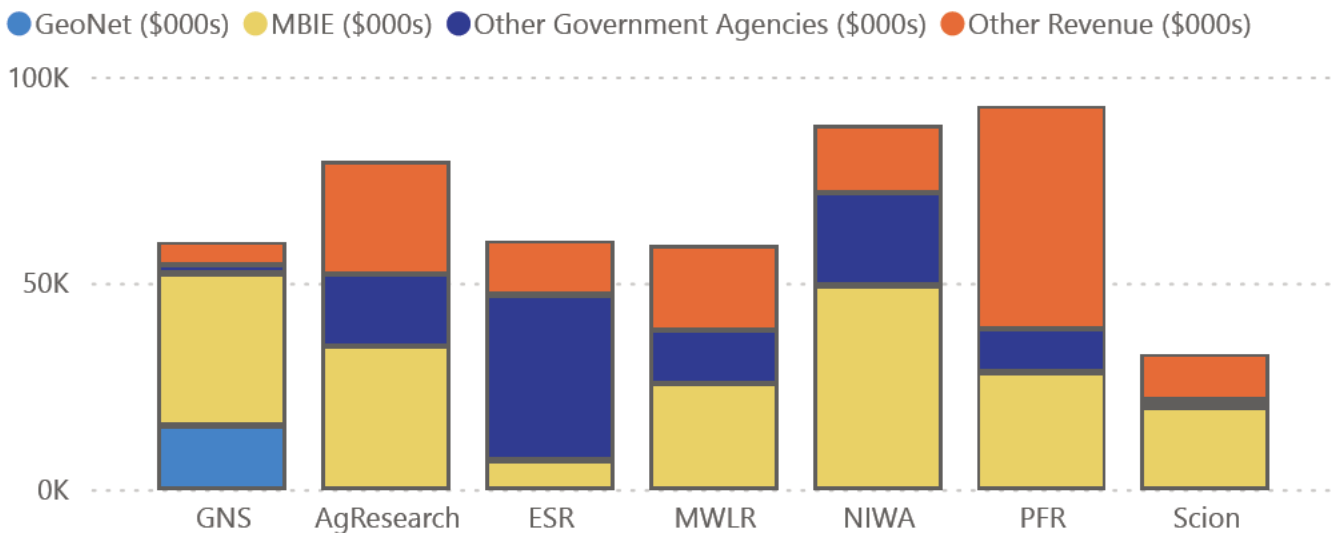


Crown Research Institute (CRI) portfolio:

We note that the government and non-government breakdown has been provided through quarterly reporting data and is therefore unaudited and commercial-in-confidence.

- Strategic Science Investment Funding (SSIF) makes up roughly 20% of CRIs total revenue.
- Private sector revenue in the period July - December 2023 made up roughly 29% of the total revenue.
- Strategic Science Investment Fund (SSIF) Programmes support longer-term programmes of mission-led science of importance to New Zealand. As the graph in the bottom right corner suggests, SSIF revenue has not kept pace with inflation over time. In 2011, SSIF was 24.7% of total revenue. In 2023, it makes up 20.2% of total revenue.
- SSIF supports seven CRIs across sixteen science platforms, funding is baselined. The platforms align to each CRI’s core purpose and support unique capability in specific research areas.
- SSIF CRI contracts focus on how SSIF is managed, in line with devolved investment.

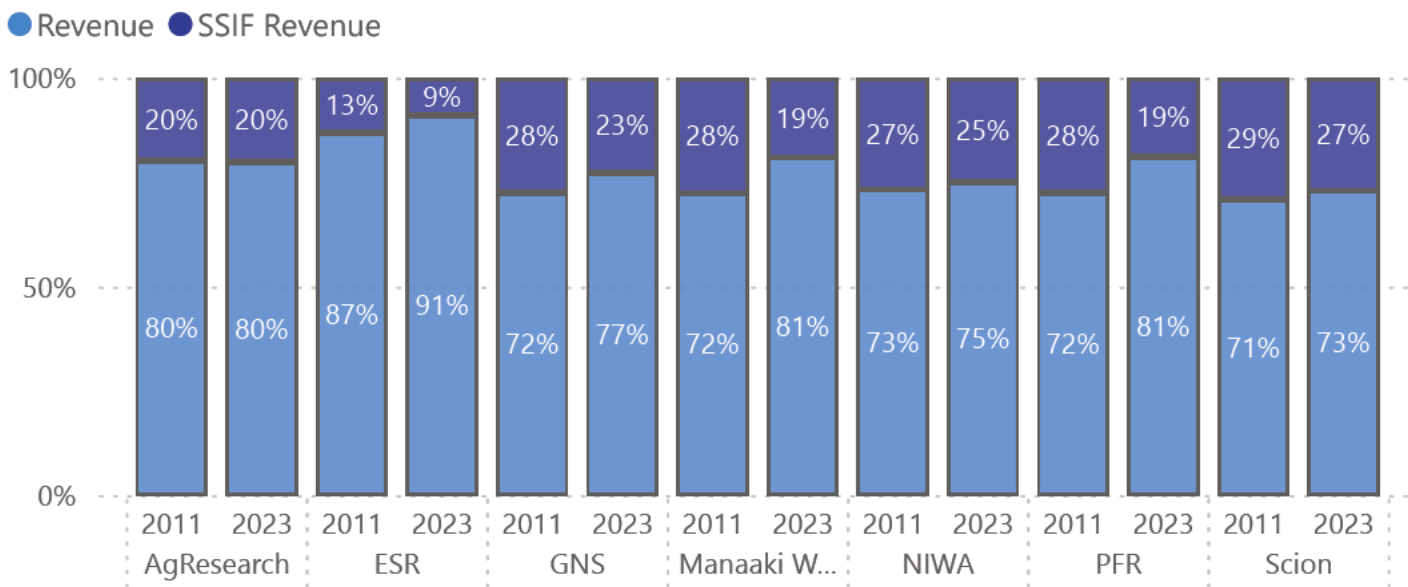
Govt and Non Govt Revnue for CRIs July - Dec 2023



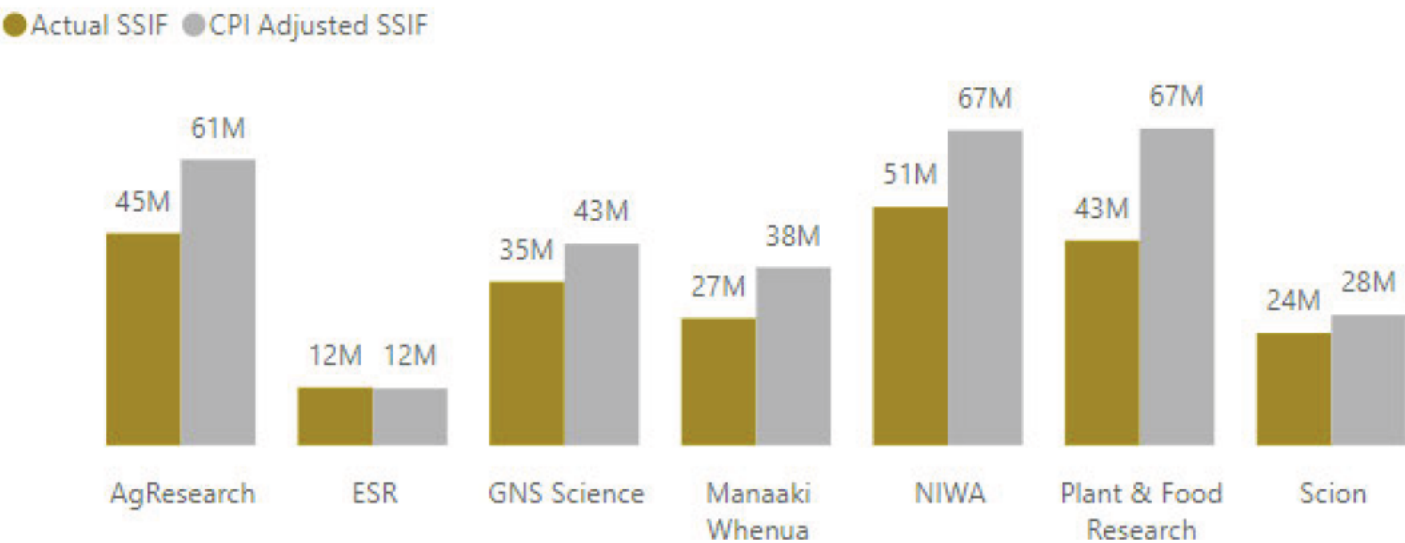
Govt and Non Govt Revenue for CRIs July - Dec 2023

Entity	MBIE (\$000s)	Other Government (\$000s)	Geonet (Mixed) (\$000s)	Other Revenue (\$000s)
AgResearch	34672	17538	0	27190
ESR	7123	40061	0	13016
GNS	36902	2169	15416	5413
MWLR	25606	13003	0	20491
NIWA	49425	22399	0	16376
PFR	28380	10460	0	54060
Scion	19934	1738	0	11028
Total	202042	107368	15416	147574

SSIF proportion of revenue 2011 and 2023

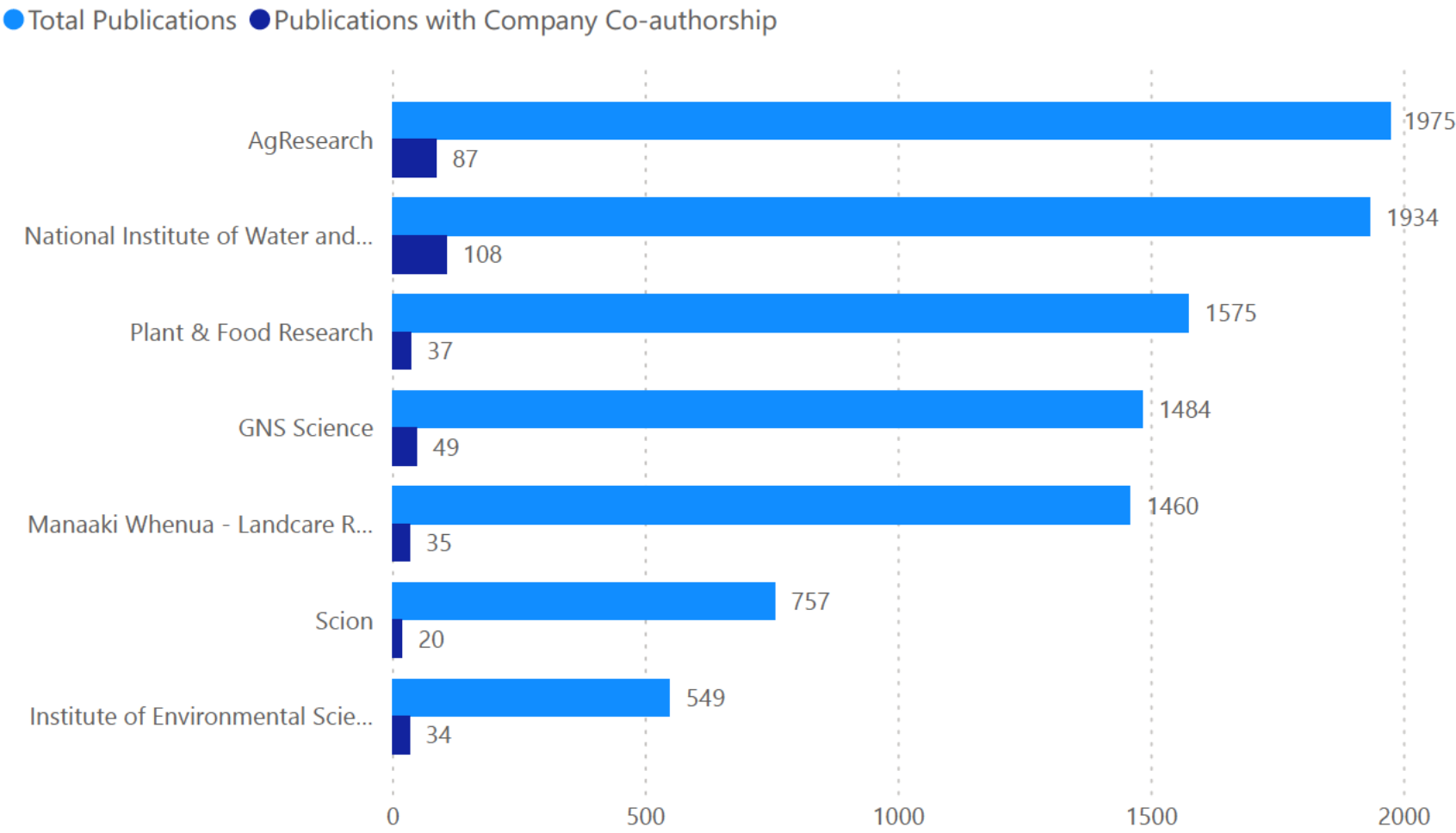


Actual 2023 SSIF compared to if SSIF had been CPI adjusted

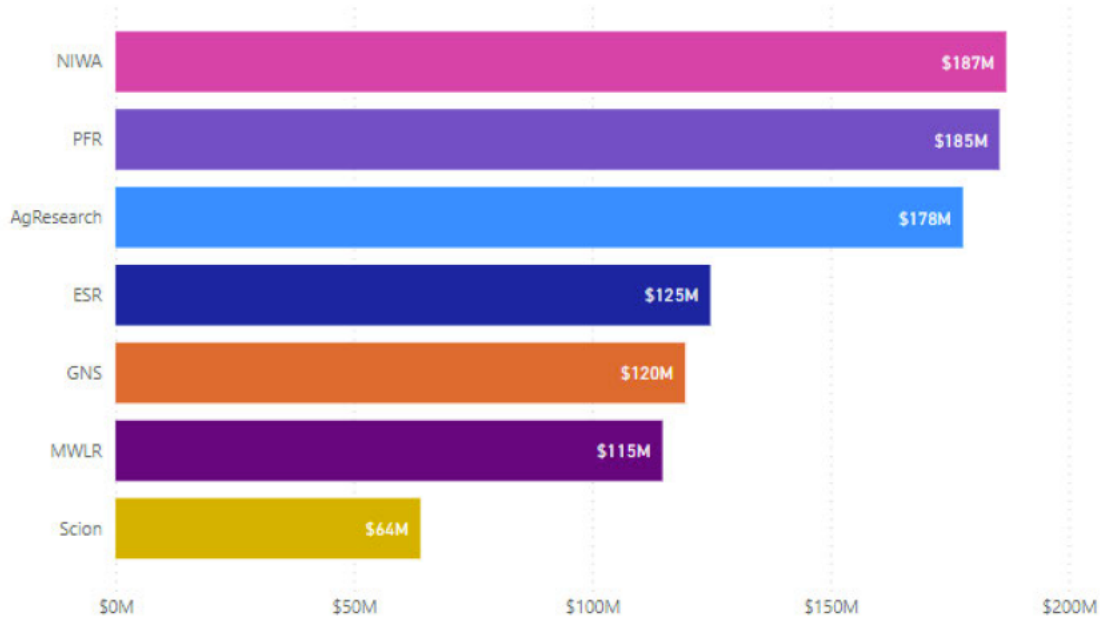


Crown Research Institute (CRI) portfolio

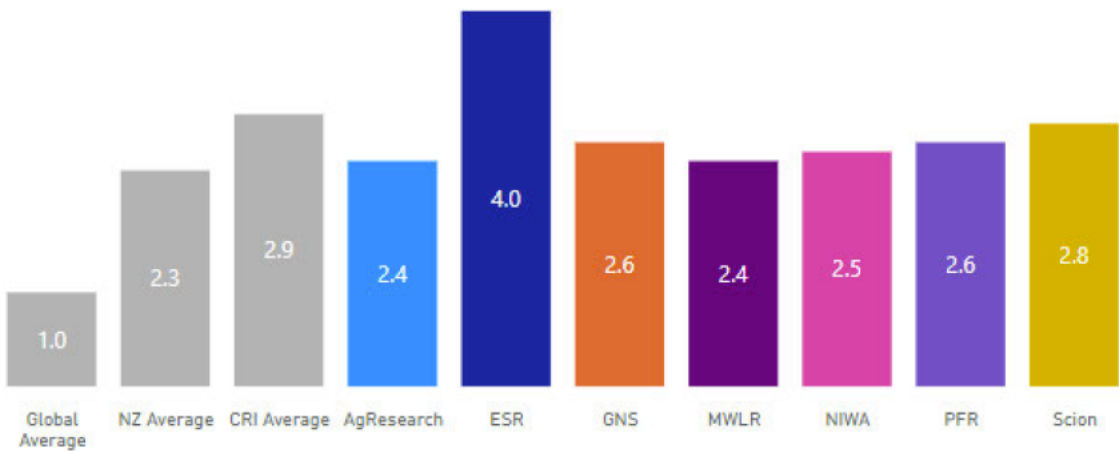
Total publications 2019-2023



Revenue 2023



Field Citation Ratios



Summary points:

- AgResearch published the largest number of total papers (1975), NIWA had the largest number of company co-authored papers (108) and ESR had the largest percentage of company co-authored papers (6.19%).
- Field Citation Ratio is a citation-based measure of scientific influence of one or more articles. It is calculated by dividing the number of citations a paper has received by the average number received by documents published in the same year and in the same Fields of Research category.
- All CRIs have a higher field citation ratio than the global and NZ average, with ESR having the highest.
- Impact is hard to measure, field citations are just one measure/aspect of science influence/impact, and work is underway to develop a range of measures to improve science impact monitoring.

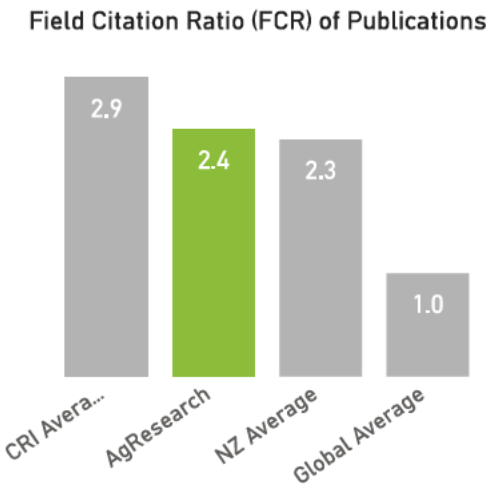


Enhance the value, productivity and profitability of New Zealand's pastoral, agri-food and agri-technology sector value chains to contribute to economic growth and beneficial environmental and social outcomes for New Zealand.

AgResearch is a Crown Research Institute, which is a 100% Crown-owned company that carries out scientific research for the benefit of New Zealand. AgResearch operates under the Crown Research Institutes Act 1992, the Companies Act 1993 and the Crown Entities Act 2004.

- Research Priorities are:
- Sustainable Agriculture in a changing climate
 - Thriving Intergenerational landscapes and wellbeing
 - Transitioning agri-food systems
 - Biosecurity threats
 - Enabling emerging foods

- Key points:
- Won the Supreme Science New Zealand Award for Agricultural Greenhouse Gas Inventory Development research.
- Free and frank opinions**
- AgResearch has the largest asset base of all the CRIs (predominantly research farms). It is currently reviewing its asset portfolio.
 - AgResearch is currently undergoing a strategy refresh, with the intention of focusing its science delivery on fewer areas at greater depth.



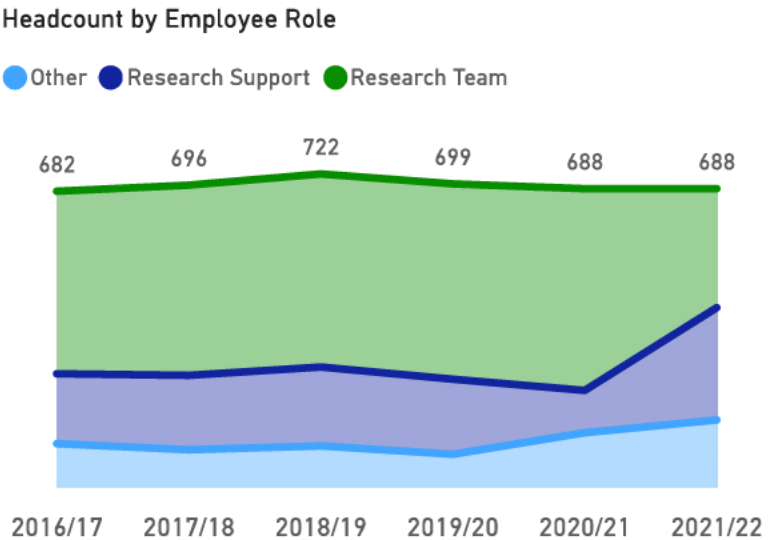
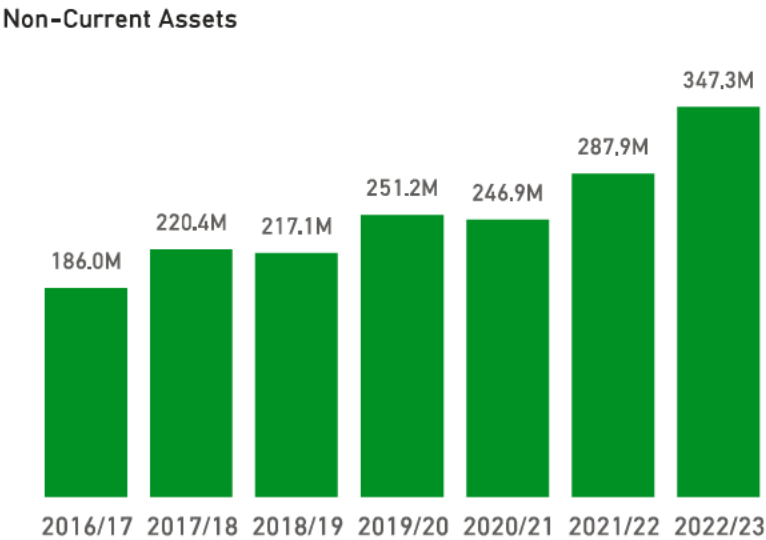
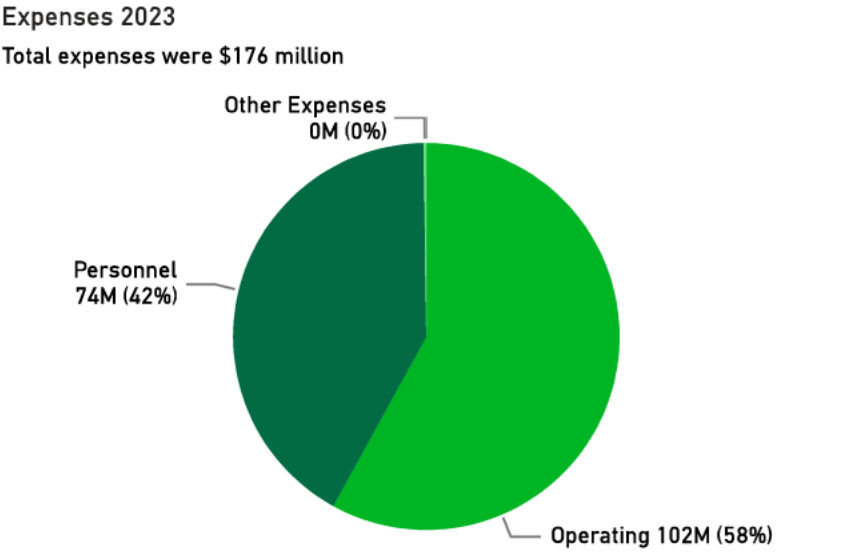
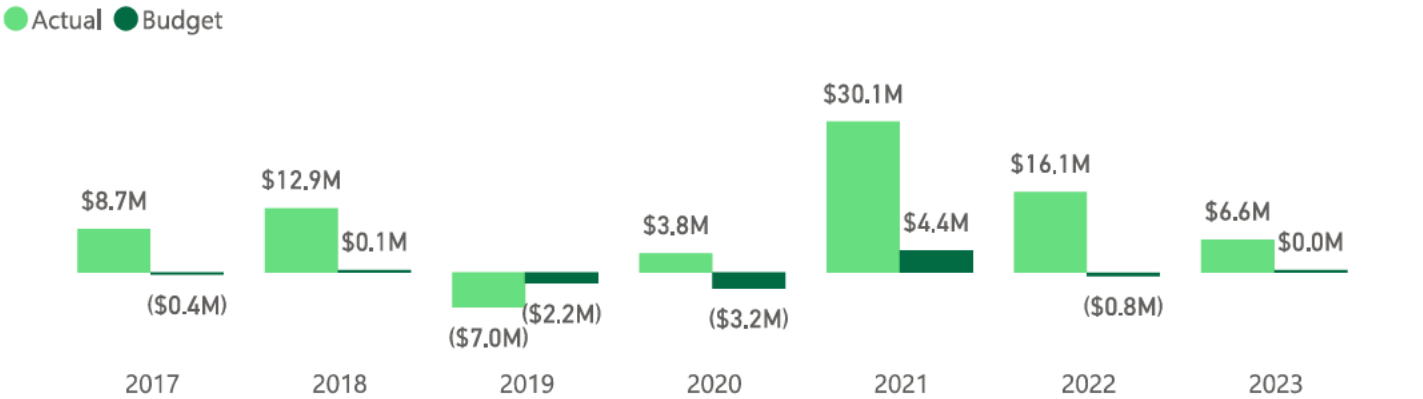
Data sourced from Dimensions, an interlinked research information system provided by Digital Science.

Quality (FCR) of Publications in Main Research Areas 2018 - 2022

Field of Research	% of Publications	Average FCR
Animal Production	19.0	2.9
Crop and Pasture Production	14.0	2.9
Microbiology	10.6	2.2
Genetics	8.6	1.7
Agriculture, Land and Farm Management	7.1	3.2
Ecology	6.9	2.5
Plant Biology	6.0	2.7
Food Sciences	5.7	3.2
Zoology	5.1	2.1
Veterinary Sciences	5.0	2.5

Surplus (Deficit)

AgResearch's Net Profit After Tax for 2020, 2021, 2022, 2023, were \$5.9M, \$24.5M, -\$1.2M, and \$1.6M, respectively. However, revaluation of properties found -\$2M, \$6.8M, \$20.9M, and \$6.4M, respectively.





ESR's purpose is to deliver world class knowledge, research and laboratory services to help New Zealand get the most out of its investment in science and innovation. ESR uses the power of science to help its partners and clients solve complex problems and protect people and products in New Zealand, and around the world. ESR's science lies behind the decisions that safeguard people's health, protect our food-based economy, improve the safety of our freshwater and groundwater resources and provide the justice sector with expert forensic science.

ESR is a Crown Research Institute, which is a 100% Crown-owned company that carries out scientific research for the benefit of New Zealand. ESR operates under the Crown Research Institutes Act 1992, the Companies Act 1993 and the Crown Entities Act 2004.

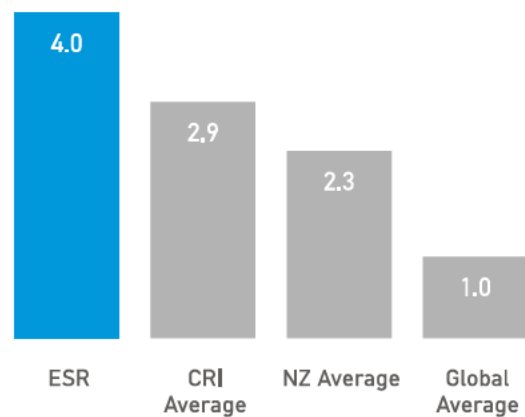
Focus areas are:

- Public health and biosecurity
- Forensic related to safety, security and justice
- Environmental safety of freshwater and groundwater
- Environmental food safety risks
- Radiation security

Key Points

- Provides nationally critical science services to the health and justice systems
 - \$3 billion economic cost avoided in COVID-19 due to ESR's genome sequencing and wastewater work*
 - STRMix™ forensic science software used globally in 106 organisations and Police uses Lumi™ Drug Scan nationally*
- Publications are very high quality - Field Citation Ratio (FCR) is highest of any CRI and four times the global average.
- ESR has the lowest SSIF funding of any CRI.
- To be financially resilient ESR will need to ensure that stakeholders pay full cost for the services provided
- ESR is replacing its functionally obsolete Kenepuru Science Centre facilities, and costs have escalated.

Field Citation Ratio (FCR) of Publications



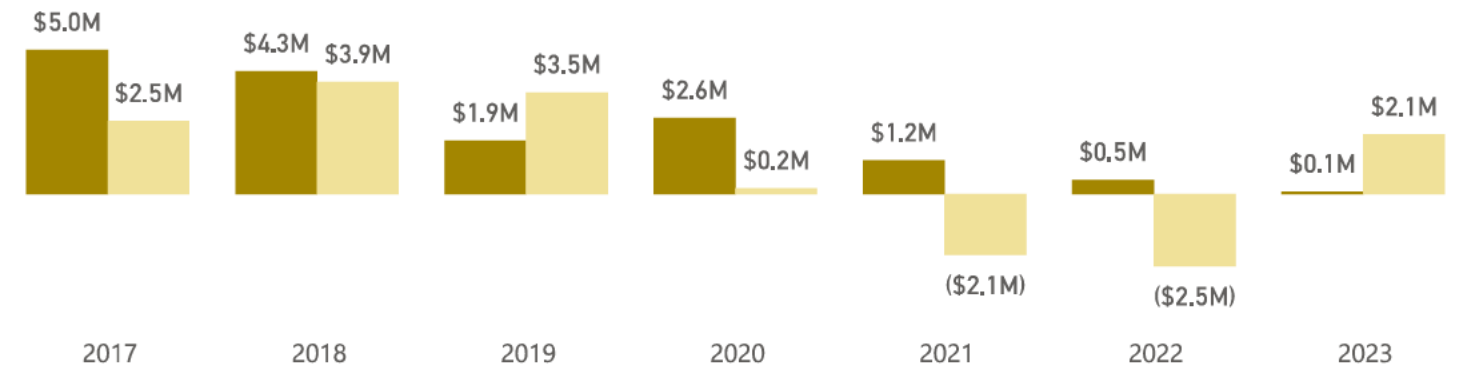
Data sourced from Dimensions, an interlinked research information system provided by Digital Science.

Quality (FCR) of Publications in Main Research Areas 2018 - 2022

Field of Research	% of Publications	Average FCR
Clinical Sciences	17.2	4.9
Genetics	14.7	1.7
Microbiology	12.7	2.9
Medical Microbiology	11.0	5.5
Ecology	4.8	2.2
Pollution and Contamination	4.2	3.6
Public Health	3.5	3.5
Hydrology	3.3	2.9
Environmental Engineering	2.9	0.8
Criminology	2.5	7.3

Surplus (Deficit)

● Actual ● Budget



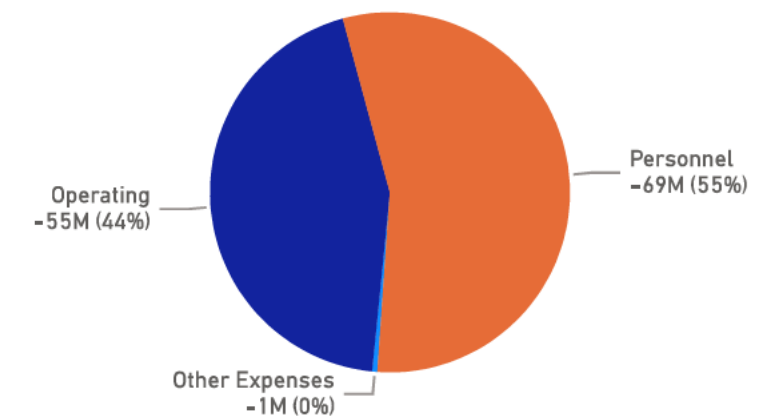
Monitoring Status: **Standard**

Revenue 2023

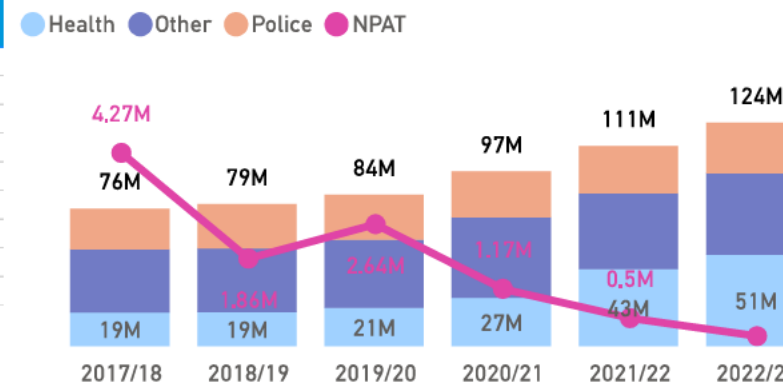


Expenses 2023

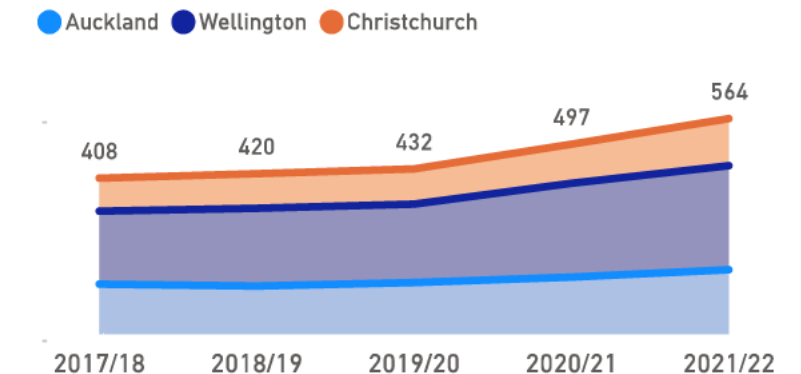
Total expenses were ~\$125 million



Revenue Source and Margin (NPAT)



Number of staff by location



Free and frank opinions
Commercial Information



GNS Science’s purpose is to undertake research that drives economic growth in Aotearoa New Zealand’s geologically-based energy and minerals industries, develop industrial and environmental applications of nuclear science, and increase resilience to natural hazards through enhanced understanding of geological and Earth system processes.

GNS Science is a Crown Research Institute, which is a 100% Crown-owned company that carries out scientific research for the benefit of New Zealand. GNS Science operates under the Crown Research Institutes Act 1992, the Companies Act 1993 and the Crown Entities Act 2004.

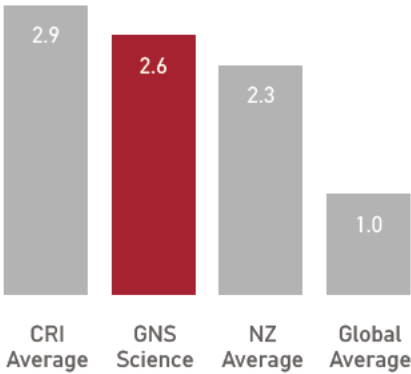
GNS Science's focus areas are:

- Environment and Climate
- Hazards and Risk
- Future energy needs
- Land and marine geoscience.

Key points

- GNS are seen as world class leaders in hazards research and management.
- GeoHazard funding ceases at the end of 2023/24. Long term funding options are being considered.
- GNS’s facilities at its Avalon, Gracefield and Wairakei sites require investment or replacement in the short to medium term.
- Following the Whakaari, White Island eruption, GNS have been unable to return to the island to do critical maintenance work on monitoring equipment.

Field Citation Ratio (FCR) of Publications



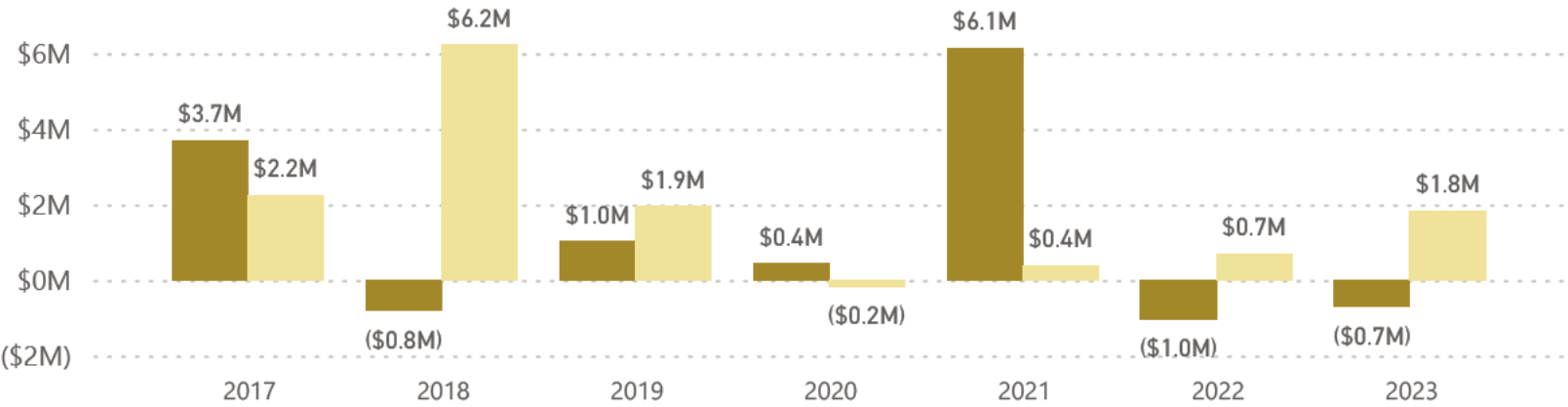
Data sourced from Dimensions, an interlinked research information system provided by Digital Science.

Quality (FCR) of Publications in Main Research Areas 2018 - 2022

Field of Research	% of Publications	Average FCR
Geology	57.0	2.8
Geophysics	43.4	2.7
Geochemistry	22.7	3.1
Physical Geography and Environmental Geoscience	17.9	2.7
Civil Engineering	4.8	2.0
Climate Change Science	4.6	3.0
Ecology	4.1	1.8
Hydrology	4.0	2.1
Atmospheric Sciences	3.1	2.0
Oceanography	2.5	3.8

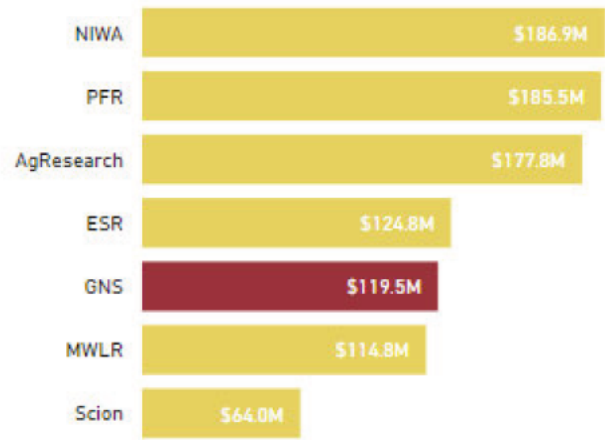
Surplus (deficit)

Actual Budget



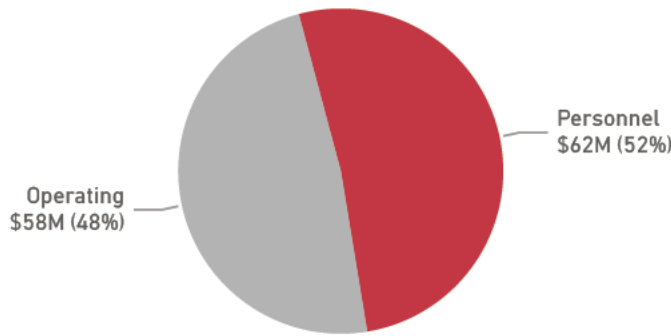
Monitoring Status: **On-Watch**

Revenue 2023

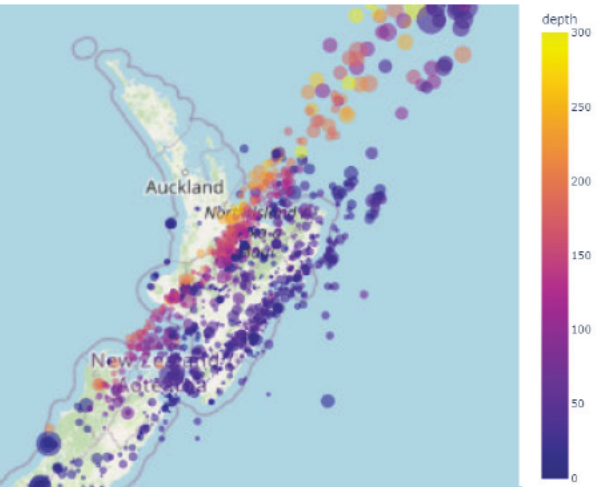


Expenses 2023

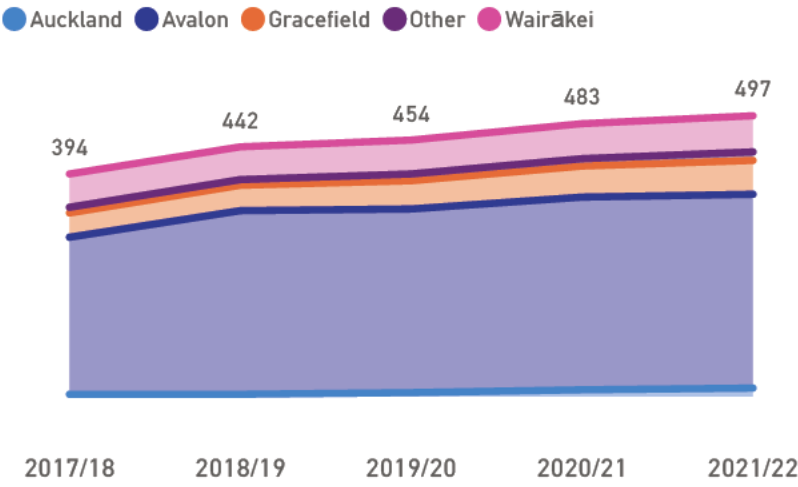
Total Expenses: \$121m



North Island earthquakes mapped by GeoNet in the last 30 days



Number of staff by location





Drive innovation in New Zealand's management of terrestrial biodiversity and land resources, to protect and enhance the terrestrial environment and grow New Zealand's prosperity

Manaaki Whenua Landcare Research (MWLR) is a Crown Research Institute, which is a 100% Crown-owned company that carries out scientific research for the benefit of New Zealand. Manaaki Whenua Landcare Research operates under the Crown Research Institutes Act 1992, the Companies Act 1993 and the Crown Entities Act 2004.

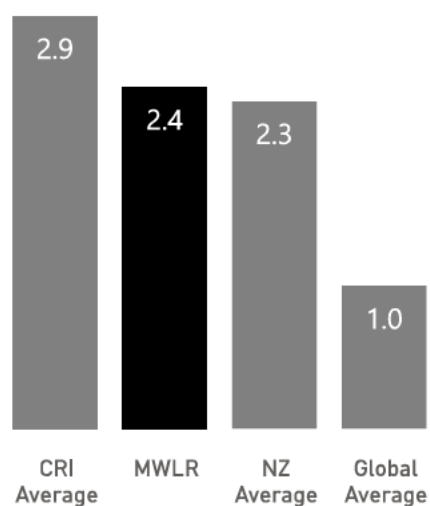
Manaaki Whenua Landcare Research focus areas are:

- Enhancing soil, water and land
- Restoring biodiversity; beating invasive species
- People and environment
- Action on climate change

Key points:

- MWLR' science protects and enhances the terrestrial environment and land resources
- Significant growth prospects with Toitū's (MWLR subsidiary) science-based carbon certification programmes.
- A proposal to redevelop in **Commercial Information** is expected.
- Revenue source is largely from public sector.

Field Citation Ratio (FCR) of Publications



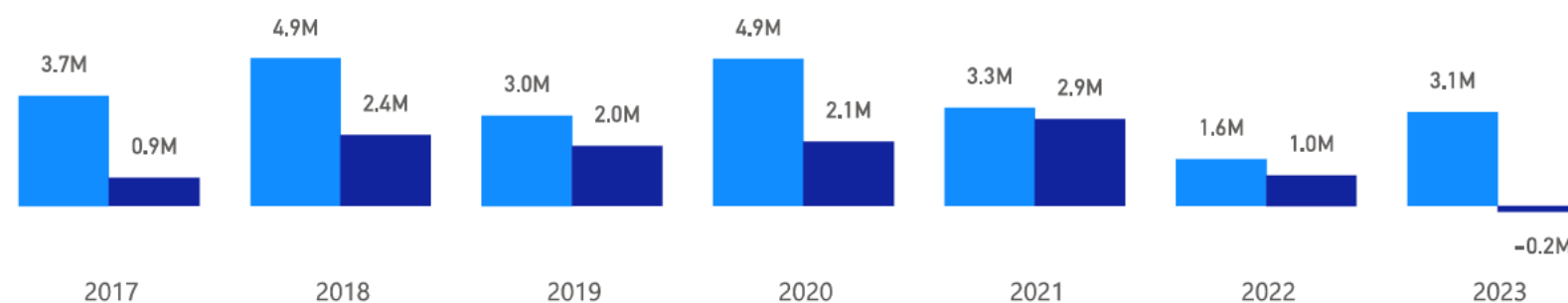
Data sourced from Dimensions, an interlinked research information system provided by Digital Science.

Quality FCR Of Publication in Main Research Areas 2018-2022

Field of Research	% of Publications	Average FCR
Ecology	37.10	2.30
Evolutionary Biology	15.20	1.80
Climate Change Impacts and Adaptation	8.90	3.50
Environmental Management	8.40	2.70
Genetics	7.30	2.30
Zoology	6.80	1.70
Plant Biology	6.60	1.90
Soil Sciences	6.40	3.80
Crop and Pasture Production	6.00	2.80
Ecological Applications	5.10	2.00

Surplus/(Deficit)

● Actual ● Budget



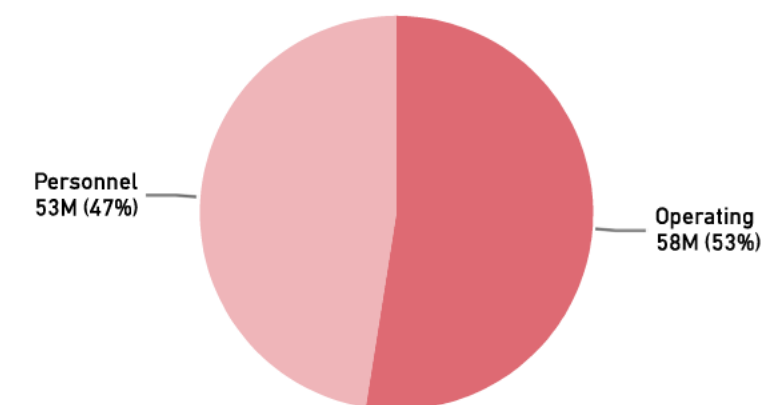
Monitoring Status: **Standard**

Revenue 2023



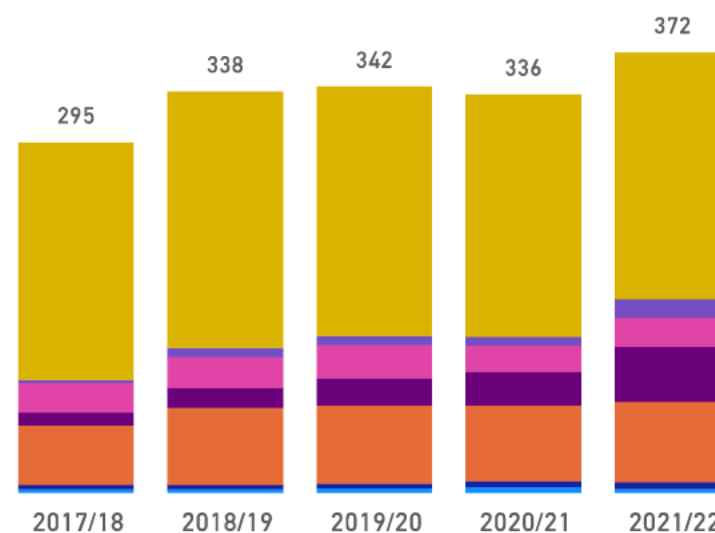
Expenses 2023

Total Expenses = \$111m



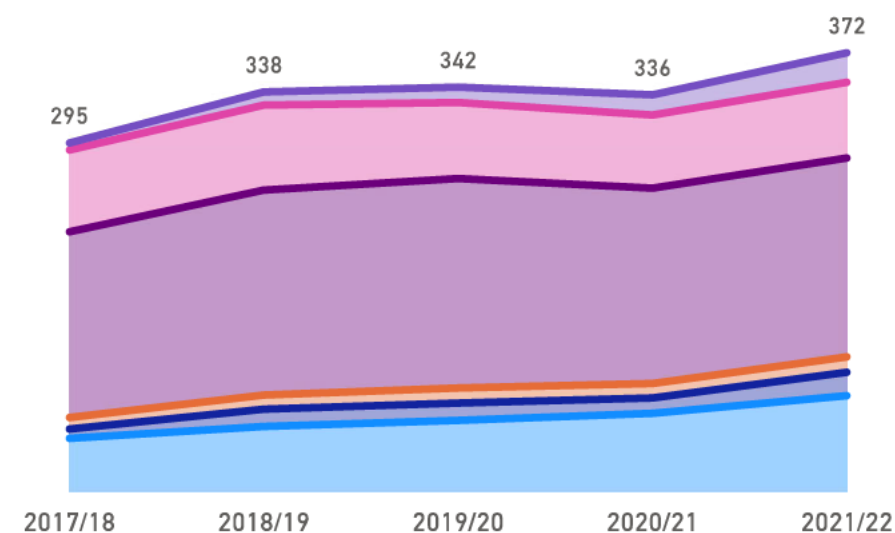
Number of FTE by Type

● Administration ● Executive ● General Support Staff ● Operations



Number of FTE by Location

● Auckland ● Christchurch ● Dunedin ● Lincoln ● NZ Other ● Wellington





Enhance the economic value and sustainable management of New Zealand's aquatic resources and environments, to provide understanding of climate and the atmosphere and increase resilience to weather and climate hazards to improve safety and wellbeing of New Zealanders.

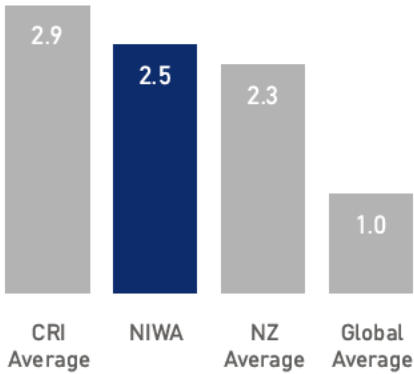
NIWA is a Crown Research Institute, which is a 100% Crown-owned company that carries out scientific research for the benefit of New Zealand. NIWA operates under the Crown Research Institutes Act 1992, the Companies Act 1993 and the Crown Entities Act 2004.

NIWA focus areas are:

- Climate change and variability
 - High-precision weather forecasting
 - Weather-related weather forecasting
 - Adaptation and mitigation
- Freshwater quality and quantity
 - Biodiversity and biosecurity
 - Sustainable use
 - Flood forecasting
- New Zealand's Marine Estate
 - Fisheries stock assessment
 - Sustainable use of marine resources
 - Biodiversity and biosecurity
 - High-value finfish aquaculture

- Key Points:
- NIWA has been a consistent financial performer, but relies heavily on public sector revenue.
 - NIWA is not immune to the current constrained economic environment and has announced a reduction of 85-90 staff.
 - NIWA's surplus was behind budget in 2022/23 for first time in at least a decade.
 - NIWA is exploring options to fund its property development programme.
 - Hamilton and Northland developments were completed this year.
 - The Kaharoa research vessel replacement is expected to arrive in Wellington in June.
 - NIWA is potentially impacted by both the Forecasting review and future decisions on computing infrastructure.

Field Citation Ratio (FCR) of Publications



Quality (FCR) of Publications in Main Research Areas 2018 - 2022

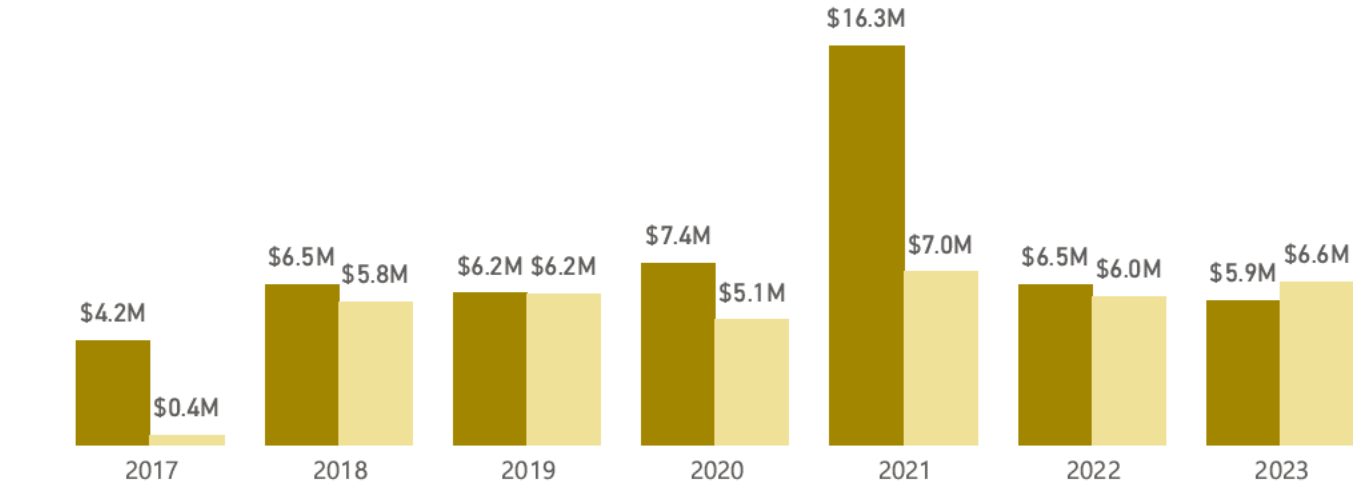
Field of Research	% of Publications	Average FCR
Ecology	29.5	2.3
Atmospheric Sciences	17.6	2.4
Oceanography	14.3	2.6
Geology	12.0	2.9
Environmental Management	11.1	2.8
Physical Geography and Environmental Geoscience	10.5	2.2
Climate Change Impacts and Adaptation	6.5	2.9
Evolutionary Biology	6.0	1.4
Hydrology	5.2	2.2
Geophysics	5.1	3.3

Data sourced from Dimensions, an inter-linked research information system provided by Digital Science.

Surplus (Deficit)

Actual Budget

Monitoring Status: Standard

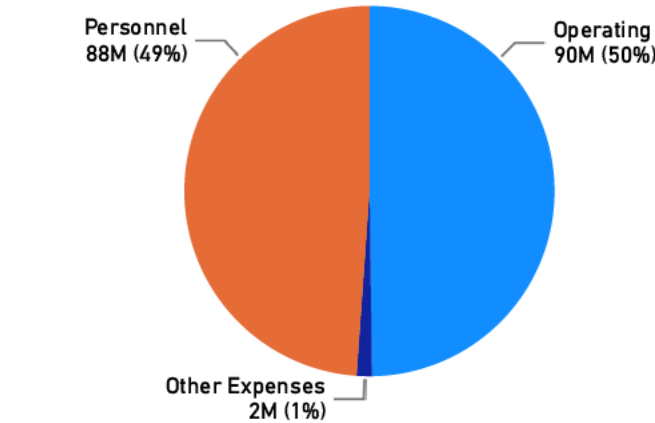


Revenue 2023



Expenses 2023

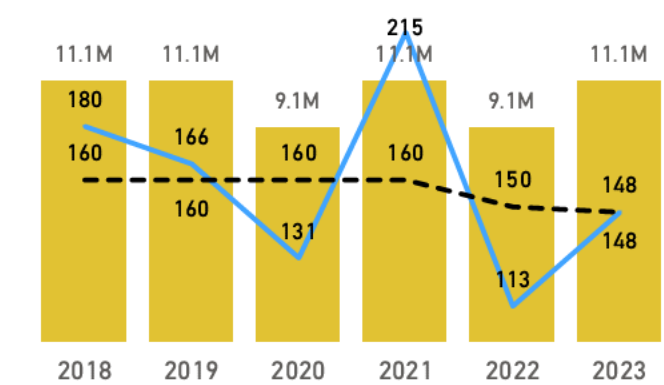
Total expenses were \$181 million



Vessel days funded via Strategic Science Infrastructure Fund

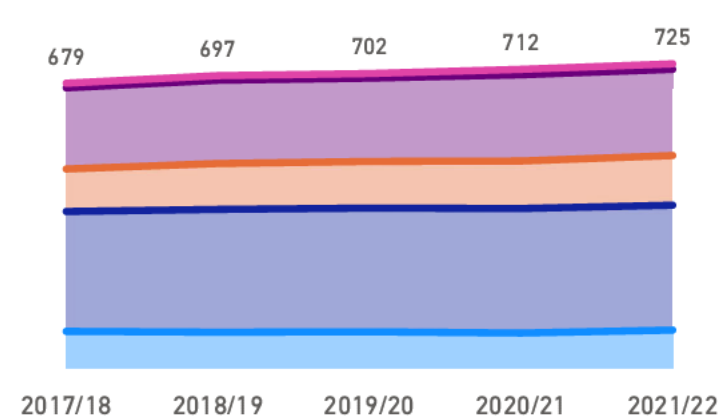
Base contract is \$9.1m plus \$2m for years with Antarctic voyage

Funding Vessel days completed Vessel days target



Number of staff by location

Auckland Wellington Christchurch NZ Other Australia





Enhance the value and productivity of New Zealand's horticultural, arable, seafood and food and beverage industries to contribute to economic growth and the environmental and social prosperity of New Zealand.

Plant & Food Research (PFR) is a Crown Research Institute, which is a 100% Crown-owned company that carries out scientific research for the benefit of New Zealand. Plant & Food Research operates under the Crown Research Institutes Act 1992, the Companies Act 1993 and the Crown Entities Act 2004.

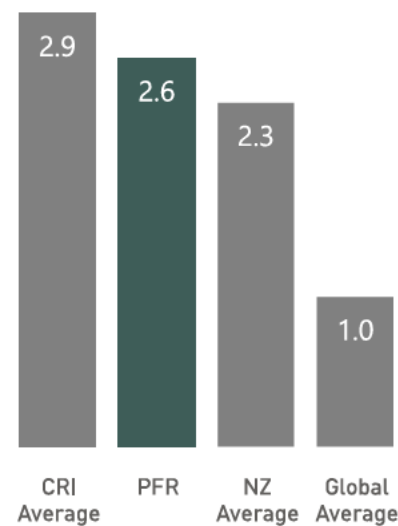
PFR's focus areas are:

- Horticulture
- Seafood
- Arable
- Food and beverage

Key points

- Uses world-leading science to improve the way we grow, fish, harvest and share food and enhances value and productivity to create the world's most sustainable food systems
- Is diversifying apple growing regions with Tutti™, the world's first apple variety bred specifically for production in hot climates
- PFR are currently undergoing a strategy refresh that envisages and reflects on long-term commitment to investing for impact
- PFR's royalty revenue has grown from \$18 million in 2013 to \$64 million, representing 34% of total revenue in 2023.
- Commercial and royalty revenue was adversely impacted by North Island weather events and required Shareholders support in the short term to be repaid via a dividend in the future.

Field Citation Ratio (FCR) of Publications



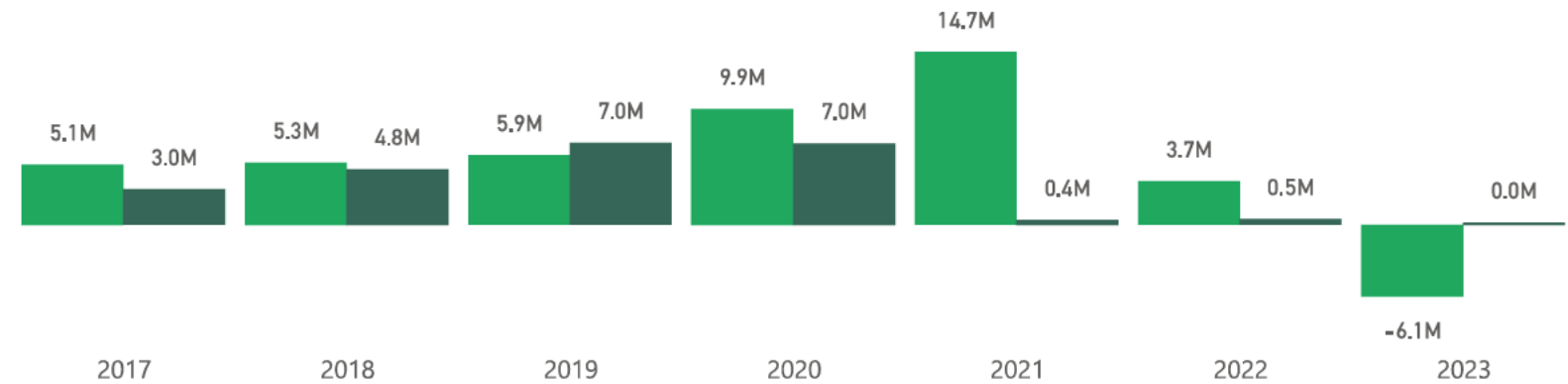
Data sourced from Dimensions, an interlinked research information system provided by Digital Science.

Quality (FCR) of Publication in Main Research Areas 2018 - 2022

Field of Research	% of Publications	Average FCR
Plant Biology	17.30	2.90
Horticultural Production	16.00	3.70
Genetics	12.60	2.90
Crop and Pasture Production	12.20	2.70
Ecology	11.00	2.20
Food Sciences	9.80	2.60
Microbiology	6.40	1.70
Agriculture, Land and Farm Management	5.00	2.70
Zoology	5.00	1.90
Soil Sciences	4.60	3.20

Surplus (Deficit)

● Actual ● Budget



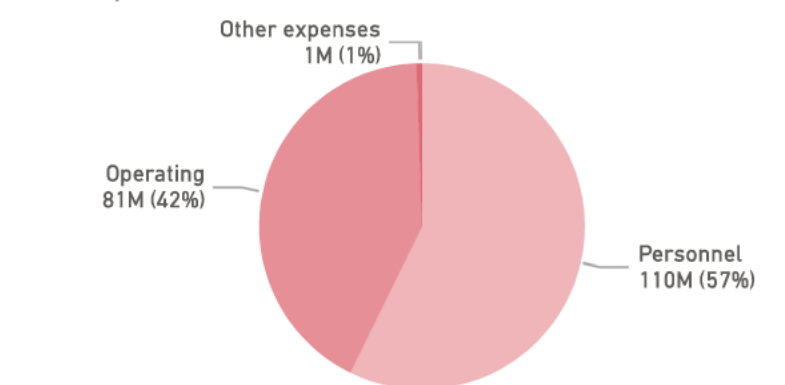
Monitoring Status: **On - watch**

Revenue 2023



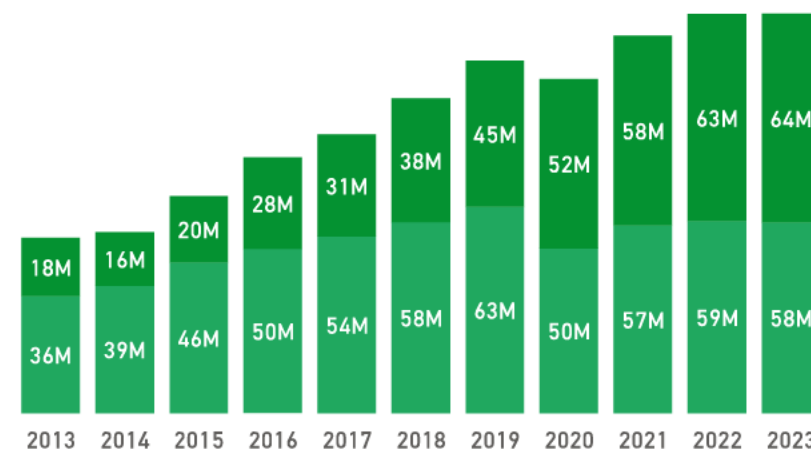
Expenses 2023

Total Expenses were \$192 million



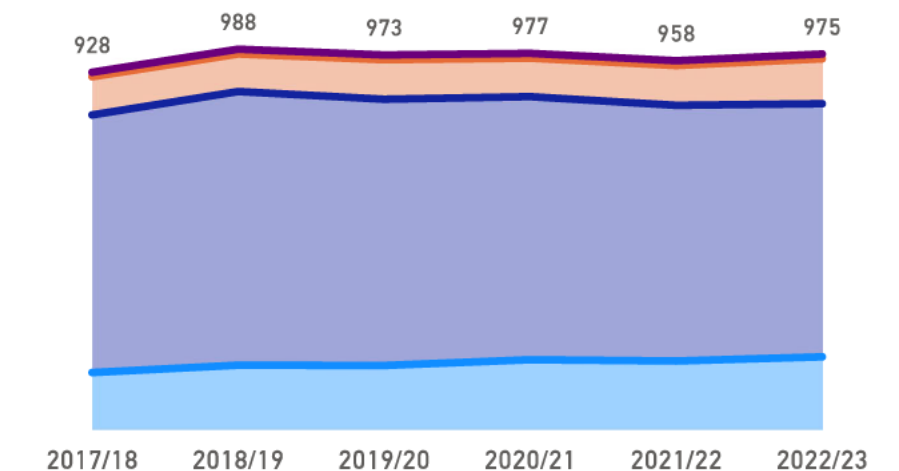
Commercial and Royalty Revenue

● Commercial ● Royalties



Headcount by Employee Category

● General ● Research ● Research Support ● Senior Leadership





"To drive innovation and growth from New Zealand's forestry, wood product and wood-derived materials and other biomaterial sectors, to create economic value and contribute to beneficial environmental and social outcomes for New Zealand"

Nature, purpose and focus

Scion is a Crown Research Institute, which is a 100% Crown-owned company that carries out scientific research for the benefit of New Zealand. Scion operates under the Crown Research Institutes Act 1992, the Companies Act 1993, and the Crown Entities Act 2004.

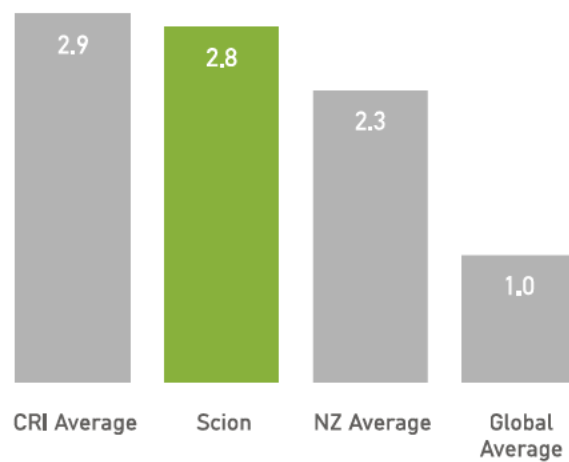
Scion's focus areas are:

- Sustainable forest management
- Tree improvement
- Forestry biosecurity
- Wood processing
- Wood-related bioenergy
- Waste and other biomaterials
- Forestry and services to inform land-use decision making

Key Points

- Scion's scientists have won an array of awards for contributions to fields such as: forestry protection, biosecurity, wildfire and hazard management over the years.
- Scion has been in the process of undergoing strategic change following the findings of the 2019 Science Review. It has relatively low levels of forestry industry investment and it is attempting to position itself into areas such as the circular bio-economy and waste and emissions reduction.
- Government agency stakeholders consider that Scion's long-term strategy in these areas is sound, but that it needs to better understand and adapt to stakeholders' shorter-term research needs.
- A focus on strengthening net earnings will be important for long term financial resilience and sustainability.

Field Citation Ratio (FCR) of Publications



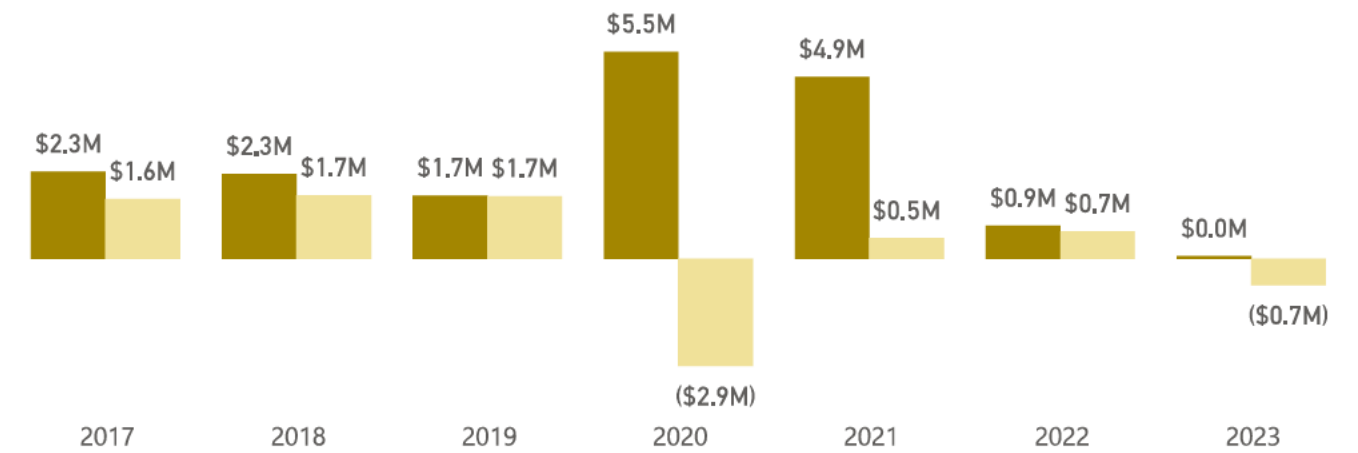
Data sourced from Dimensions, an inter-linked research information system provided by Digital Science.

Quality of Publications in Main Research Areas 2018 - 2022

Field of Research	% of Publications	Average FCR
Criminology	5.2	3.0
Environmental Management	5.9	2.7
Ecological Applications	6.0	2.4
Materials Engineering	6.0	2.5
Chemical Engineering	6.4	2.3
Microbiology	6.6	1.8
Plant Biology	9.0	1.7
Genetics	9.9	2.5
Forestry Sciences	11.4	2.8
Ecology	18.2	2.3

Surplus (Deficit)

● Actual ● Budget



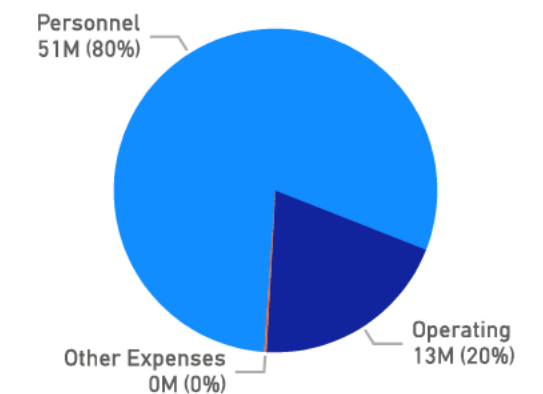
Monitoring Status: **On-watch**

Revenue 2023



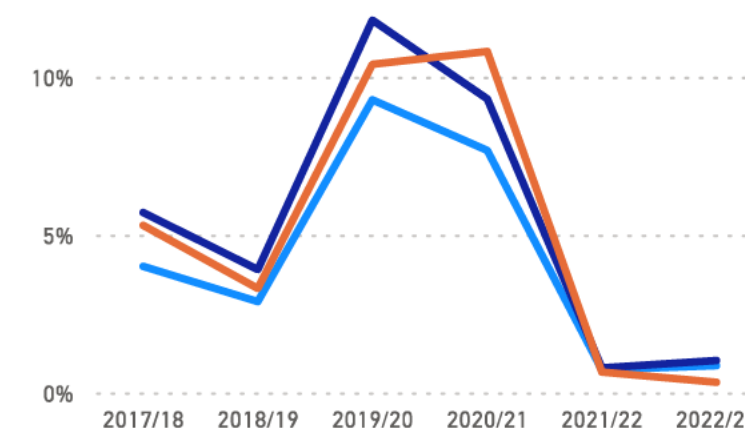
Expenditure 2023

Total expenditure was \$64 million



Return Metrics by Year

● Return on Assets ● Return on Equity ● EBIT Margin



FTEs by Year and Role

● Scientists/Researcher ● Support

