



Half-year Report

for the year ending 31 December 2022



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Presented to the House of Representatives pursuant to section 18 of the Crown Research Institutes Act 1992.

The Institute of Environmental Science and Research Limited (ESR) is a Crown research institute. It was incorporated in June 1992 and is wholly owned by the New Zealand Government. The two shareholding Ministers appoint a Board of Directors to govern the organisation. ESR has science facilities in Auckland, Wellington (Porirua and Wallaceville) and Christchurch.

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Published February 2023.

ESR's half-year scorecard

There are 28 performance measures set out in ESR's current Statement of Corporate Intent (2022-2027).

Below is a summary of progress against these performance measures as at 31 December 2022:

Half-year result	Total
Achieved	2
On track	19
In progress/being monitored	3
Only able to be reported annually	4

Performance measure	Measure purpose and intention	FY23 Target	Reporting frequency	Half-year progress result	Commentary
Strategic Objective: Re-shaping ESR's science and integrated thought leadership: Establish and embed methods and systems that enable a pipeline of innovation science ideas to deliver services and products for customers.					
Investment area: Demonstrating co-design and innovation					
New measure: Number of project proposals that are approved for Innovation Funding by the NZ Police/ ESR Strategic Governance Board	Gives insight into the effectiveness of innovation and commercialisation pipeline development.	4 projects	Reported annually	On track	Two projects have been approved and funded that aim to reduce drug harm.
New measure: Number of projects where co-designed workshops are undertaken between NZ Police and ESR	Gives insight into how ESR is developing its innovation programme through co-design with stakeholders.	2 co-design workshops	Reported annually	In progress	A co-designed workshop with the Police Service Design team is in discussion and is anticipated to take place in March 2023.
Investment area: Building an innovation pipeline					
New measure: Number of research projects awarded KiwiNet Tier 1 Pre-Seed funding by the KiwiNet Investment Committee	KiwiNet Tier 1 funding provides funding for costs (e.g., business case preparation, market validation) related to research that can become commercially viable.	4 projects	Reported annually	On track	Two Tier 1 project proposals have been submitted and approved. A third project proposal is in development for submission.
New measure: Number of research projects awarded KiwiNet Tier 2 Pre-Seed funding by the KiwiNet Investment Committee	This funding supports research that is ready for commercialisation (private sector).	2 projects	Reported annually	On track	Two project proposals are being developed to be submitted for assessment in the second half of FY 2022 - 2023.
New measure: Number of Emerging Innovator applications awarded by KiwiNet	KiwiNet's Emerging Innovator Programme provides targeted support to early-stage career scientists who will become the future innovators of New Zealand. The Emerging Innovator Programme provides funding to enable scientists to build industry connections and demonstrate a proof-of-	2 researchers	Reported annually	On track	We received approval in September 2022 for one ESR forensic scientist to enter the KiwiNet Emerging Innovator intake to receive targeted support for a project focused on reducing drug harm.

Performance measure	Measure purpose and intention	FY23 Target	Reporting frequency	Half-year progress result	Commentary
	principle of a disruptive invention.				
Upskill ESR's scientists in achieving impact through innovation	Participation in foundational innovation workshops is essential for upskilling ESR's scientists and fostering collaborative approaches that will strengthen an innovation mindset.	≥20% of ESR's science staff have participated in science innovation workshops	Reported annually	On track	A second cohort of science innovation workshops is planned for late Q3/early Q4 FY23.
Investment area: Shaping and developing ESR's commercialisation approach					
New measure: ESR's commercialisation framework proposal is developed and implemented: <ul style="list-style-type: none"> Innovation pipeline structure defined Project mapping completed 	The ability of ESR to take advantage of commercialisation opportunities is key for financial sustainability. The purpose of this activity measure is to understand what projects could be commercialised into products or services that improve wellbeing and economic outcomes through science and technology.	Innovation pipeline structure defined and project mapping completed	Six monthly	On track	A draft innovation pipeline model is in development. This focuses on upskilling our science workforce, designing project funding and stage-gate mechanisms, and establishing commercialisation expertise to work alongside scientists within projects.
Strategic Objective: Re-shaping ESR's science and demonstrating commitment to Māori: Māori-led research programmes and increasing Māori collaboration and partnership					
Investment area: He Wai Māpuna programme					
Co-designed projects with iwi increase from the FY22 target of 5	To increase the number of iwi-led co-designed projects. This is a companion measure to the percentage increase in co-designed research projects with iwi.	≥8	Reported annually	On track	Our focus continues to be on delivering co-designed and co-led science requested by Iwi. Several rohe-specific projects are continuing with all milestones met. We continue to investigate the development of wider programmes of work that meet the requests driven from Iwi and the community.
Investment area: Kaupapa Māori or Māori-led research projects or services across ESR					
New measure: Percentage increase from FY2022 baseline in the number of co-designed research projects with iwi	This SSIF platform measure's purpose is to demonstrate growth in ESR's investment in a pipeline of mātauranga Māori research.	≥ 12%	Reported annually	On track	We have established the FY22 baseline at 20 percent, which we will report against at the end of FY23.
Investment area: Strategic Science Investment (SSIF) funding allocation					
Percentage SSIF funding allocated to projects led by / co-designed with Māori	This SSIF platform measure's purpose is to demonstrate growth in ESR's investment in a pipeline of mātauranga Māori research.	≥ 12%	Reported annually	Achieved	Approximately 22 percent of SSIF funding is currently allocated to building a pipeline of iwi co-designed research.

Performance measure	Measure purpose and intention	FY23 Target	Reporting frequency	Half-year progress result	Commentary
Strategic Objective: Re-shaping ESR's science and demonstrating commitment to Māori: Māori-led research programmes and increasing Māori collaboration and partnership					
Investment area: SSIF research impact					
New measure: Percentage SSIF investment in cross-platform multi-disciplinary projects	This measures ESR's ability to take a holistic approach to solve problems by taking integrating innovation approaches through greater collaboration internally and externally.	≥10%	Reported annually	Achieved	There are seven SSIF projects (ongoing and current FY23 projects) that total approximately 19% of current SSIF funding
Strategic Objective: Re-shaping ESR's science and demonstrating commitment to Māori: Māori data sovereignty					
Investment area: Māori data sovereignty programme					
New measure: Develop a Māori data sovereignty treaty in practice framework	This is a key, ongoing workstream that is critical for the ethical use, ownership, access, storage and consent of Māori data for research.	Phase two of the programme is delivered by the end of FY23	Reported annually	On track	Together with ESR's external Māori Leadership roopu, we have developed a draft Māori data sovereignty framework that is in the process of being reviewed. The final draft of the guiding principles that are under development as part of the pan-CRI approach, is on track to be completed by Q4.
Strategic Objective: Investment in science capabilities and reshaping ESR's science: Investment in Mātauranga Māori					
Investment area: Uplifting Mātauranga Māori capability					
New measure: Number of new scientists employed as full-time equivalents to uplift mātauranga Māori capability	This is a measure of the ability to integrate mātauranga Māori capability in our science. It is also a measure of establishing ESR as an employer of choice for Māori.	5 FTE	Reported annually	Reported annually	This measure will be reported at the end of the financial year.
Strategic Objective: Re-shaping the future of science, investment in science capabilities and e-infrastructure: Uplifting data science and development capability					
Investment area: Strengthening ESR's data science and uplifting capability					
New measure: Develop and implement ESR's data science strategy	This strategy will enable ESR to better understand how data is to be used, shared and made accessible.	Strategy implemented	Reported annually	On track	In addition to strengthening ESR's data management capability and data governance practices, we are developing a governance framework. This includes supporting definition work to underpin the framework. ESR's data science strategy is being developed, focusing on building leadership, accessibility and reach.

Performance measure	Measure purpose and intention	FY23 Target	Reporting frequency	Half-year progress result	Commentary
Strategic Objective: Investment in science capabilities and re-shaping ESR's science: Growing research collaboration					
Investment area: Increasing international research collaboration					
Number of international proposals submitted and accepted	This is a measure of ESR's science collaboration and raises national and international reputation.	≥3	Reported annually	Reported annually	Due to the timing of various international funding rounds, this measure can only be reported annually.
Investment area: Overall success rate of external research bids					
The overall success rate of external research bids	This measures ESR's ability to secure external funding as an indicator of the quality and impact of ESR's research.	≥15%	Reported annually	Reported annually	Due to the timing of various funding rounds, this measure can only be reported annually.
Strategic Objective: Investment in science capabilities and re-shaping ESR's science: Extended research capacity					
Investment area: Extending ESR's research capacity and strengthening ties with New Zealand universities					
New measure: Number of science graduates recruited to support research activity, innovation and increase ESR's research paper output	The ability to attract high-quality students to ESR will help further lift the quality of ESR's science and create new opportunities for collaboration and innovation with universities and other science organisations.	2 PhD students 2 post-doctoral students 1 Summer intern undergraduate 2 graduate students	Reported annually	On track	Most of the positions for this initiative are in the process of being filled. To ensure participation from a larger pool of students, we have advertised for a Master's student to support climate change research at ESR.
Strategic Objective: Creating a thriving organisational culture: Developing a workforce capability framework to assess workforce skills, development needs, and priority areas for investment					
Investment area: Ensuring a workforce capability framework is in place to assess workforce skills, development needs to identify priority areas for investment to grow capability					
Develop ESR's Workforce capability framework.	Developing a workforce strategy is vital to identifying the organisation's current and future needs.	Workforce capability framework developed and implemented	Reported annually	In progress	With the rollout of the joint ESR-GNS Workday business platform and the work to implement Phase II relating to talent identification, management and staff retention, this programme of work is still to be scoped and resourced. However, these ongoing workstreams will be key to informing ESR's workforce capability framework. Once those workstreams are completed, we will reassess and rescope requirements.
Strategic Objective: Creating a thriving organisational culture: ESR employee diversity is reflective of New Zealand society					
Investment area: Establish employee diversity baseline and monitor					
Establish employee diversity baseline and monitor	This measure will help provide a more relevant picture that ESR is a fair and equitable employer and that any biases are identified and eliminated in the workplace.	Improving against an established baseline	Reported annually	In progress	Work is underway to ensure that Workday (the joint ESR-GNS business enterprise platform) is configured to help us collect more comprehensive data on ethnicity, diversity and disability information. This will help us build a more accurate picture of and insights into ESR's diversity profile.

Performance measure	Measure purpose and intention	FY23 Target	Reporting frequency	Half-year progress result	Commentary
Strategic Objective: Creating a thriving organisational culture: Building cultural capability and competency					
Investment area: Building foundational cultural capability and competency					
Percentage of staff who have participated in introduction Te Reo courses	This measures ESR's commitment to growing cultural capability, awareness of, and proficiency in the use of te reo. This measure also serves as an indicator of the effectiveness of the te reo courses.	≥ 40%	Reported annually	On track	As of 30 November 2022, 34 percent of ESR's staff completed introduction Te Reo courses.
New measure: Percentage of ESR's permanent staff who have participated in a minimum of two foundational cultural capability courses	ESR's foundational cultural capability courses are central to ESR's overall cultural capability programme. Measuring staff participation and evaluating feedback will be important for ensuring ESR's cultural capability programme is effective.	≥ 50%	Six monthly / Reported annually	On track	As of 30 November 2022, 41 percent of ESR's staff have participated in a minimum of two foundational cultural capability courses. We anticipate that we will achieve this target by 30 June 2022.
Strategic Objective: Creating a thriving organisational culture: Improving the health, safety, and wellness of ESR's people					
Investment area: Improving ESR's health and safety processes and procedures					
New measure: Continue to evolve ESR's critical risk management programme	The critical risk management programme is a key component of ESR's health, safety and wellbeing work programme. Implementing critical risk control plans is essential for closing gaps and minimising risk to staff.	Implement control plans for ESR's critical HSW risks and top events by the end of FY23	Six monthly / Reported annually	On track	Several significant work streams are in progress as part of ESR's overarching Health, Safety and Wellbeing Assurance programme. These include ESR's Hazardous Substance Programme and the work that is being done to strengthen ESR's framework for investigating and managing laboratory safety issues. A monitoring dashboard has been developed. Phase 5 to 9 of the critical risk programme is underway.
Strategic Objective: Strengthening Business Systems and Processes: Strengthening integrated decision-making and targeted investment in capabilities and e-infrastructure					
Investment area: Establishing and implementing a Programme Management Office (PMO) to support integrated decision-making					
New measure: PMO is resourced and implemented by the end of FY23	An effective PMO is essential for ensuring integrated project planning to underpin ESR's science and build good project management practice across the organisation.	PMO implemented	Reported annually	On track	ESR's PMO is now fully resourced. The PMO's objectives and work programme are under development.

Performance measure	Measure purpose and intention	FY23 Target	Reporting frequency	Half-year progress result	Commentary
Strategic Objective: Strengthening Business Systems and Processes: Improving ESR's strategic business resilience and continuity maturity					
Investment area: Strengthening ESR's business resilience and continuity maturity					
ESR's business resilience and continuity maturity are managed or enhanced	To ensure that ESR's business resilience planning is in place to enable effective operation in emergencies.	Resilience is maintained at level 4	Reported annually	Reported annually	Several workstreams contribute to ESR's business continuity and resilience. Progress will be reported at the end of the financial year.
Strategic Objective: Strengthening Business Systems and Processes: Technology roadmap: Developing a future IT operating model for ESR					
Investment area: Deliver initiatives in ESR's Enterprise Technology Roadmap					
New measure Investment decisions are recommended based on the ESR-wide technology roadmap –focus areas are cloud-based services and security and public health surveillance	ESR's IT Cloud Roadmap is part of its wider Technology Roadmap. ESR is migrating old/legacy IT systems to cloud-based alternatives.	Strategic investments are implemented and system resilience improved	Reported annually	On track	ESR continues to make progress to migrate systems to the Cloud as funding allows and ESR expresses a Cloud preference for all new technology solutions procured.
Investment area: Strengthening ESR's cyber security maturity					
ESR's cyber security maturing rating is managed or enhanced	ESR assesses its cyber security maturity rating across five areas: IDENTIFY, PROTECT, DETECT, RESPOND and RECOVER. The average percentage increase (or decrease) across the five criteria is reported as the score.	Improving or maintained	Reported annually	On track	We assess ESR's cyber security maturity rating every quarter. ESR's cyber security maturity continues to improve across all five areas we assess against.
Strategic Objective: Strengthening Business Systems and Processes: Information management governance and management					
Investment area: Information management governance and maturity					
New measure: ESR's information management maturity is managed or enhanced	This measure demonstrates how ESR's information management practices strengthen over time.	Establish baseline	Six monthly / Reported annually	On track	The information management work programme is aimed at supporting and aligning best practice information management across ESR. The work programme is progressing well and an assessment of ESR's information practices will be undertaken by 30 June 2023.
Strategic Objective: Strengthening Business Systems and Processes: Sustainability and reducing carbon emissions					
Investment area: Sustainable business practices and participating in the pan-CRI sustainability initiative					
New measure: ESR's total corporate emissions of carbon dioxide (CO2) are managed or improved	The purpose of this measure is to track ESR's total Co2e over time.	Establish baseline	Reported annually	On track	Several initiatives are under way to support ESR's goal of reducing carbon emissions. A sustainability policy has been developed and a sustainability strategy and performance measures are being developed.

Financial statements

For the six months ended 31 December 2022

Key Financial Performance Measures

	6 months ended 31 December 2022 Actual	Year ended 30 June 2023 Plan	Year ended 30 June 2022 Actual	Year ended 30 June 2021 Actual
Revenue	\$60m	\$124m	\$111m	\$97m
Operating margin <i>Earnings before interest, tax, depreciation and amortisation (EBITDA) as a percentage of revenue</i>	4.3%	8.0%	6.8%	9.5%
Return on equity <i>Net profit after taxation as a percentage of equity</i>	(1.0%)	3.5%	0.8%	2.0%
Return on assets <i>Earnings before interest and tax as a percentage of total assets</i>	(1.7%)	(0.5%)	0.5%	1.7%
Acid test ratio <i>Current assets excluding prepayments and inventory to current liabilities excluding deferred revenue</i>	3.1	2.3	2.3	2.8
Equity ratio <i>Equity as a percentage of total assets</i>	62.4%	67.0%	63.1%	67.6%
Gearing <i>Debt (including finance lease liabilities) as a percentage of debt and equity</i>	5.8%	5.0%	6.0%	5.5%
Annualised operating margin per FTE <i>Earnings before interest, tax, depreciation and amortisation, per average full-time equivalent employee for the year</i>	\$9,554	\$17,808	\$14,300	\$19,500

Statement of Profit or Loss and Other Comprehensive Income
For the six months ended 31 December 2022

Group	Note	Group unaudited 6 months ended 31 December 2022 \$'000s	Group audited 12 months ended 30 June 2022 \$'000s	Group unaudited 6 months ended 31 December 2021 \$'000s
Operating Revenue				
Operating Revenue	2	55,320	98,531	45,885
Strategic science investment funding		5,171	12,234	5,256
		60,491	110,765	51,141
Operating expenses				
Scientific materials		5,339	10,153	4,521
Subcontracting, commissions and royalties		7,172	11,683	4,955
Personnel		34,156	61,688	29,271
Depreciation and amortisation		3,455	7,061	3,606
Other		11,211	19,753	10,056
		61,333	110,338	52,409
Operating profit / (loss)		(842)	427	(1,268)
Interest income		506	516	214
Interest expense	3	(75)	(138)	(60)
		431	378	154
Profit / (loss) before income tax expense		(411)	805	(1,114)
Income tax (benefit) / expense	3	(118)	310	(271)
Profit / (loss) for the period attributable to the Shareholder of the parent		(293)	495	(843)
Other comprehensive income		-	-	-
Total profit or loss and other comprehensive income for the period attributable to the shareholder of the parent		(293)	495	(843)

The accompanying notes form an integral part of these financial statements.

Statement of Changes in Equity
For the six months ended 31 December 2022

Group	Share capital \$'000s	Retained earnings \$'000s	Total \$'000s
Balance at 1 July 2021	8,494	51,633	60,127
Profit / (loss) for the period	-	(843)	(843)
Other comprehensive income	-	-	-
Total comprehensive income	-	(843)	(843)
Transactions with owners:			
Dividend	-	-	-
Balance at 31 December 2021	8,494	50,790	59,284
Balance at 1 July 2022	8,494	52,128	60,622
Profit / (loss) for the period	-	(293)	(293)
Other comprehensive income	-	-	-
Total comprehensive income	-	(293)	(293)
Transactions with owners:			
Dividend	-	-	-
Balance at 31 December 2022	8,494	51,835	60,329

The accompanying notes form an integral part of these financial statements.

Statement of Financial Position
As at 31 December 2022

	Group unaudited 6 months ended 31 December 2022 \$'000s	Group audited 12 months ended 30 June 2022 \$'000s	Group unaudited 6 months ended 31 December 2021 \$'000s
Non-current assets			
Property, plant and equipment	30,779	29,382	26,132
Intangible assets	4,811	4,979	5,472
Right-of-use-assets	3,643	3,844	4,006
Investment cash	500	8,000	1,000
Other investments	30	30	30
Deferred taxation	1,743	1,743	180
	41,506	47,978	36,820
Current assets			
Cash and cash equivalents	8,982	2,037	3,361
Investment cash	28,500	31,023	32,523
Trade and other receivables	12,900	9,442	11,825
Contract assets	2,938	4,616	2,648
Income tax receivable	667	-	1,021
Inventories – scientific materials and consumables	1,035	1,035	953
Derivative financial instruments	125	-	-
	55,147	48,153	52,331
Current liabilities			
Trade and other payables	12,259	14,233	11,144
Contract liabilities	12,322	8,892	7,531
Employee benefits	6,118	5,674	4,909
Lease liabilities	350	344	335
Income tax payable	-	802	-
Derivative financial instruments	-	15	11
	31,049	29,960	23,930
Net current assets	24,098	18,193	28,401
Non-current liabilities			
Employee benefits	1,913	2,010	2,260
Lease liabilities	3,362	3,539	3,677
	5,275	5,549	5,937
Net assets	60,329	60,622	59,284
Equity			
Share capital	8,494	8,494	8,494
Retained earnings	51,835	52,128	50,790
Total equity	60,329	60,622	59,284

The accompanying notes form an integral part of these financial statements

Statement of Cash Flows
For the six months ended 31 December 2022

	Note	Group unaudited 6 months ended 31 December 2022 \$'000s	Group audited 12 months ended 30 June 2022 \$'000s	Group unaudited 6 months ended 31 December 2021 \$'000s
Cash flows from / (used in) operating activities				
<i>Cash was provided from:</i>				
Customers		64,660	110,741	50,522
Interest received		265	502	232
		64,925	111,243	50,754
<i>Cash was applied to:</i>				
Suppliers and employees		(61,488)	(99,893)	(49,389)
Income tax paid		(1,351)	(1,819)	(1,498)
		(62,839)	(101,712)	(50,887)
Net cash (outflow) / inflow from operating activities	4	2,086	9,531	(133)
Cash flows from / (used in) investing activities				
<i>Cash was provided from:</i>				
Term deposit maturities		15,773	36,049	18,549
		15,773	36,049	18,549
<i>Cash was applied to:</i>				
Purchase of property, plant and equipment		(3,009)	(6,641)	(1,940)
Purchase of intangible assets		(1,901)	(1,066)	(491)
Investment in term deposits		(5,750)	(37,523)	(14,523)
		(10,660)	(45,230)	(16,954)
Net cash inflow / (outflow) from investing activities		5,113	(9,181)	1,595
Cash flows from / (used in) financing activities				
<i>Cash was applied to:</i>				
Repayment of lease liabilities		(254)	(495)	(283)
Net cash outflow from financing activities		(254)	(495)	(283)
Net increase / (decrease) in cash held		6,945	(145)	1,179
Cash and cash equivalents at the beginning of the period		2,037	2,182	2,182
Cash and cash equivalents at the end of the period		8,982	2,037	3,361

The accompanying notes form an integral part of these financial statements

Notes to the financial statements

1. Statement of significant accounting policies

Reporting entity

These financial statements of the Institute of Environmental Science and Research Limited and its subsidiaries ('ESR' and the 'Group') are for the six months ended 31 December 2022.

ESR is a Crown Entity incorporated and based in New Zealand. Its registered office is at 34 Kenepuru Drive, Porirua.

ESR is a Crown research institute that provides specialist scientific services and research, particularly to the public health, food safety, security and justice systems and the environmental sector.

Statement of compliance

The interim financial statements have been prepared in accordance with the requirements of the Crown Entities Act 2004, the Crown Research Institutes Act 1992, the Companies Act 1993 and the Financial Reporting Act 2013.

Basis of preparation of half yearly report

The condensed consolidated interim financial report for the half year reporting period ended 31 December 2022 has been prepared in accordance with Accounting Standard IAS 34 Interim Financial Reporting.

The interim report does not include all the notes of the type normally included in an annual financial report. Accordingly, this report is to be read in conjunction with the annual report for the year ended 30 June 2022.

The accounting policies adopted are consistent with those of the previous financial year and corresponding interim reporting period, except for the estimation of income tax.

The financial statements are prepared on the basis of historical cost, except for financial instruments and long service leave.

The financial statements are presented in New Zealand dollars and all values are rounded to the nearest thousand dollars (\$000).

The results for the six months ended 31 December 2022 and comparative period figures presented in the financial statements are unaudited.

Changes in accounting policies

The accounting policies set out in the 2022 Annual Report have been applied consistently to all the periods in these interim financial statements. There have been no changes in accounting policies from those applied in ESR's 2022 Annual Report. Where necessary, comparative figures have been reclassified for consistency with current year disclosures.

2. Revenue

a) Total operating revenue

	Group unaudited 6 months ended 31 December 2022 \$'000s	Group audited 12 months ended 30 June 2022 \$'000s	Group unaudited 6 months ended 31 December 2021 \$'000s
Revenue from contracts with customers	55,320	98,531	45,885
Total operating revenue	55,320	98,531	45,885

b) Revenue from contracts with customers

i) Disaggregated revenue information

Group – 6 months ended 31 December 2022	Domestic \$'000s	International \$'000s	Total \$'000s
Core government contracts	38,473	-	38,473
Research	3,585	2,522	6,107
Commercial products and services	3,446	7,294	10,740
	45,504	9,816	55,320
Group – year ended 30 June 2022	Domestic \$'000s	International \$'000s	Total \$'000s
Core government contracts	71,239	-	71,239
Research	8,668	3,846	12,514
Commercial products and services	3,915	10,863	14,778
	83,822	14,709	98,531
Group – 6 months ended 31 December 2021	Domestic \$'000s	International \$'000s	Total \$'000s
Core government contracts	33,225	-	33,225
Research	3,945	1,521	5,466
Commercial products and services	1,939	5,255	7,194
	39,109	6,776	45,885

Note that the overall research output of the Group includes activity funded by \$5,171,000 (2021: \$5,256,000) of Strategic Science Investment Funding. This funding is accounted for as a government grant and not included in the table above.

3. Other profit and loss information

a) Interest expense

	Group unaudited 6 months ended 31 December 2022 \$'000s	Group audited 12 months ended 30 June 2022 \$'000s	Group unaudited 6 months ended 31 December 2021 \$'000s
Lease liability interest	75	138	60
Total interest expense	75	138	60

b) Income tax

Income tax expense is recognised based on management's estimate of the weighted average effective annual income tax rate expected for the full financial year. The estimated average annual tax rate used for the six months to 31 December 2022 is 29%, compared to 24% for the six months ended 31 December 2021.

4. Reconciliation of profit / (loss) after taxation to cash flows from operating activities

	Group unaudited 6 months ended 31 December 2022 \$'000s	Group audited 12 months ended 30 June 2022 \$'000s	Group unaudited 6 months ended 31 December 2021 \$'000s
Profit / (loss) for the period after taxation	(293)	495	(843)
Non-cash items:			
Depreciation and amortisation expense	3,455	7,061	3,606
Depreciation on right-of-use assets	201	506	259
Gain on modification of lease contracts	-	(110)	(21)
Increase/(decrease) in provision for expected credit losses	4	4	(7)
Increase in deferred tax asset	-	(1,563)	-
Fair value (gain) / loss on derivative financial instruments	(140)	24	11
Other non-cash items	7	(5)	-
	3,527	5,917	3,848
Changes in working capital:			
Increase in trade and other receivables and contract assets	(1,784)	(2,417)	(2,825)
Increase in inventories	-	(161)	(79)
Increase in trade and other payables and contract liabilities	1,456	5,480	1,030
(Decrease) / increase in income tax payable	(1,469)	54	(1,769)
Increase in employment benefits	347	809	294
	(1,450)	3,765	(3,349)
Items classified as investing and financing activities:			
Loss on disposal of property, plant and equipment	8	6	3
Decrease / (increase) in payables related to property, plant and equipment	219	(790)	148
Finance charge on leases	75	138	60
	302	(646)	211
Net cash inflow / (outflow) from operating activities	2,086	9,531	(133)

5. Capital commitments

The following amounts have been committed to by ESR but have not been recognised in the financial statements.

	Group unaudited 6 months ended 31 December 2022 \$'000s	Group audited 12 months ended 30 June 2022 \$'000s	Group unaudited 6 months ended 31 December 2021 \$'000s
Property, plant and equipment	3,557	3,354	638
Intangible assets - software	148	41	10
Total capital commitments	3,705	3,395	648

6. Contingent liabilities

The directors are satisfied that there are no other claims outstanding that would have a material impact on ESR's financial position as at 31 December 2022 (30 June 2022: Nil).

7. Events subsequent to balance date

There were no events subsequent to reporting date that require disclosure in the financial statements.

Key management personnel remuneration

Key Management Personnel Remuneration

Key management personnel are those with responsibility and authority for planning, directing and controlling the activities of the Group. Key management personnel of the Group are considered to be the Directors, Chief Executive and the senior management team.

Chief Executive's remuneration

The remuneration of our Chief Executive is reviewed annually by the Board and is determined by factors such as advice from external remuneration specialists, including job sizing and market relativity exercises. These are also undertaken on a regular basis and drawn on to inform the determination of salary package.

Chief executive remuneration summary 2019 – 2023

	Financial year	Salary ^a	STI ^b	Percentage STI against maximum	Benefits ^c	Total
Peter Lennox	HY2023	\$276,873	n/a	n/a	\$8,643	\$285,516
	2022	\$504,858	n/a	n/a	\$15,594	\$520,452
	2021	\$454,372	n/a	n/a	\$14,048	\$468,420
Keith McLea	2021	\$134,961	n/a	n/a	\$19	\$134,980
	2020	\$508,210	n/a	n/a	\$533	\$508,743
	2019	\$394,746	\$89,200	81%	\$599	\$484,545

^a CE remuneration since 2020 has not included a short-term incentive (STI) component.

^b STIs are shown for the year to which they relate but were unpaid as at that balance date.

^c Benefits comprise insurance cover and employer KiwiSaver contributions.

Key management remuneration

The total combined remuneration of our key management team (excluding the Chief Executive's remuneration) from 2019 – 2023.

Financial year	Salary & STI ^a	Benefits ^b	Total
HY2023	\$1,122,489	\$35,040	\$1,157,529
2022	\$2,223,603	\$68,629	\$2,292,232
2021	\$2,104,372	\$57,595	\$2,161,967
2020	\$1,463,900	\$42,189	\$1,506,089
2019	\$1,827,863	\$55,489	\$1,883,352

^a Senior management remuneration since 2020 has not included a short-term incentive (STI) component. STIs are shown for the year to which they relate but were unpaid as at that balance date.

^b Benefits comprise insurance and employer KiwiSaver contributions.

Directory

ESR's science centres are located in Auckland, Wallaceville and Kenepuru (Wellington region) and Christchurch



