

Half Year Report 2022/23

This report presents highlights and financial statements for the six months ending 31 December 2022

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www.scionresearch.com

February 2023

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HIGHLIGHTS

Scion's *Strategy to 2030* centres on driving the research and innovation needed to help Aotearoa New Zealand make the transition to a low-carbon circular bioeconomy. As well as helping

us meet our climate change targets, a forest-based circular bioeconomy is a \$30 billion economic opportunity that can enrich our economy, environment and communities.

Implementation of our strategy is a long game. Key to progress is starting, and the following highlights indicate we are on the right path.

Creating new, regional manufacturing sectors

Research and innovation from Scion will unlock the potential for regional New Zealand to prosper following the launch of a roadmap for the forestry and wood processing sector.

Minister for Forestry Hon. Stuart Nash unveiled the Forestry and Wood Processing Industry Transformation Plan (ITP) at National Fieldays last November. Increasing New Zealand's onshore wood processing capability and investment in transforming and developing our domestic woody

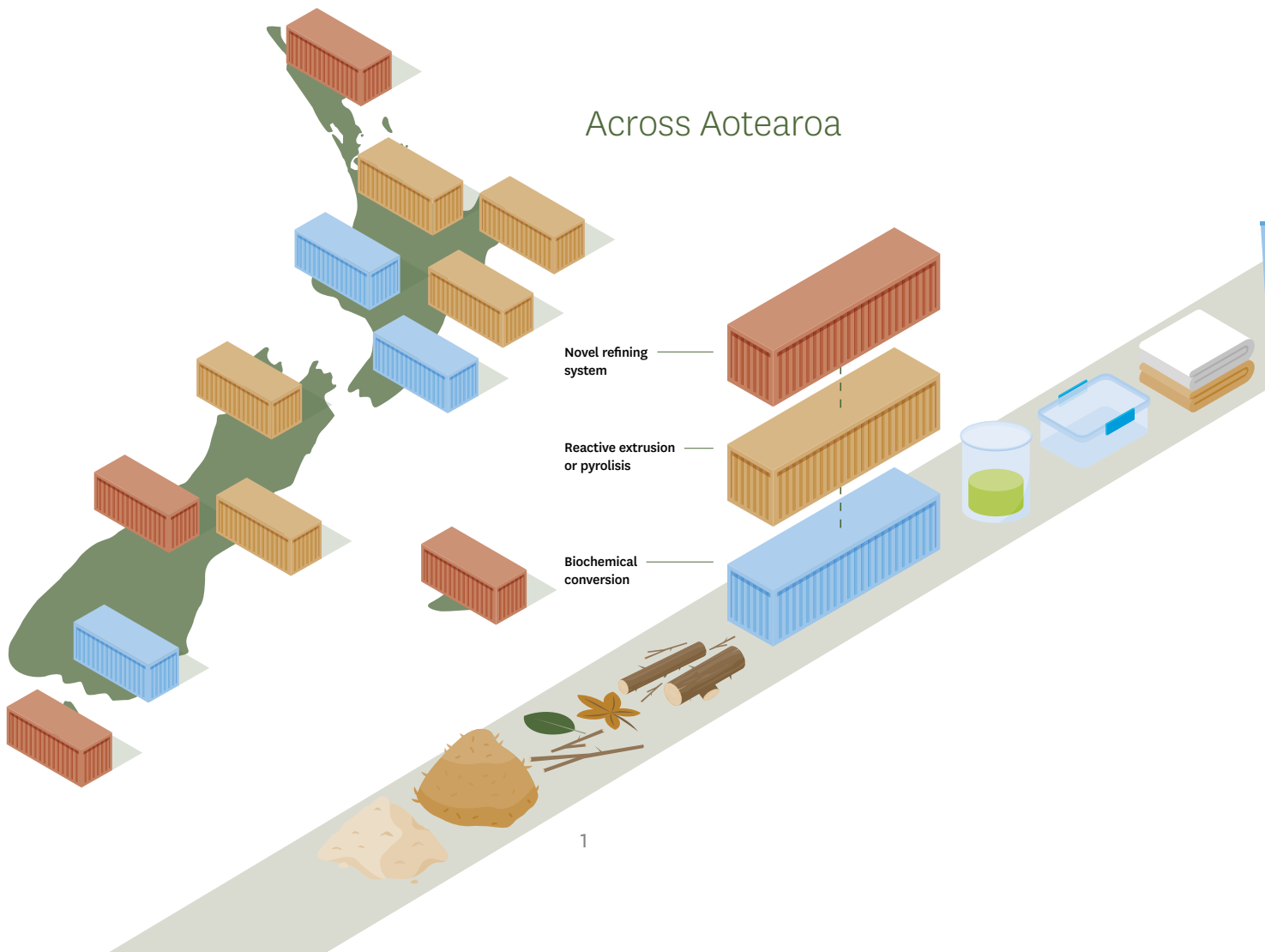
biomass industry are two target areas identified in the ITP that will drive sector growth, create jobs and reduce emissions across the economy.

Within the ITP, Scion is leading development of an approach called 'distributed manufacturing', which involves placing small processing units, or mini factories, on or near the sources of available biomass.

Distributed manufacturing is one solution to increase on-shore manufacturing and can play a major

role in the tree-based value chain. Mini factories can be tailored to process biomass such as wood waste, horticultural and farm shelterbelt thinnings or crop residues into high-value wood-based products, biochemicals or pharmaceuticals.

A biomass processing sector distributed across New Zealand will allow us to not only reduce waste, pollution and greenhouse gas emissions but also to grow prosperity, jobs and community resilience.



Standing tall at Fieldays

A standalone Forestry Hub at the 2022 National Agricultural Fieldays was a first, bringing together 35 sector organisations and companies under one roof. The hub was the successful outcome of a partnership between Te Uru Rākau and the Forest Growers Levy Trust.

Scion was heavily involved in the advisory group behind the hub. We invested in a large site in the hub where visitors could see our innovations, hear our stories and engage with our science staff, executive leaders and board directors. The four days of the event provided many discussions and interactions with our various stakeholders including Federated Farmers, Māori forestry entities, landowners, the public plus MPs, EU representatives and UK innovation office and media outlets.

The National Fieldays TV host wore the world's first pine bark tanned shoes during an interview with one of our science leaders. The shoes are a great example of how woody 'waste' products can be used to create high-value products – locally and sustainably. The shoe leather was tanned using Scion's pine bark tannin

(rather than imported, toxic tanning agents) in partnership with the New Zealand Leather and Shoe Research Association and the shoes were handcrafted in Dunedin. As a proof of concept, the shoes show the potential to initiate a new bioproduct value chain from forestry to luxury leather goods.



Strengthening partnership with Kawenata signing

The growing partnership between tangata whenua and Scion was formalised by the signing of a Kawenata / Memorandum of Understanding in a special ceremony last August.

The Kawenata was signed by Ngāti Hurungaterangi, Ngāti Taeotu and Ngāti Te Kahu (Ngā Hapū e Toru) and Scion at Te Whare Nui o Tuteata – the Great House of Tuteata. In 2020, Ngā Hapū e Toru had gifted the name of their ancestor, Tuteata, to Scion for its new building in Rotorua to signify the importance of the partnership that they were building together.

The Kawenata and gifting of the name Tuteata are two of the many positive outcomes to emerge from conversations that started many

years ago involving Ngā Hapū e Toru on a collective vision to restore their physical connection to the whenua around Whakarewarewa Forest.

Ngā Hapū e Toru trustee Veronica Butterworth said that when the land was used by the Crown as a forest nursery from 1898 and then for forestry research from 1947 onwards, physical connection of the hapū to this land was severed. The spiritual connection, however, remained. For Ngā Hapū e Toru, the signing was a significant step forward in the partnership with Scion, which in turn was a step towards strengthening the mana of the land and hapū.

Scion chair Dr Helen Anderson said the signing marked a significant

milestone for Crown research institute Scion and its enduring relationship with tangata whenua.

The Kawenata signing was followed by the launch of a new permanent visitor display in the building's atrium. This shares the Kawenata and connection that Ngā Hapū e Toru have to the whenua, while also explaining the significance of forestry science and innovation to New Zealand and the world.

Co-funded by Scion and Te Uru Rākau, the displays are a creative bilingual storytelling experience that explore the history of tangata whenua, forestry and the future.

New ventures arise from Scion science

Scion science provided the backbone to new, regionally based enterprises taking great strides towards diverting organic wastes from landfills to produce sustainable low-carbon gas and materials alternatives.

Clean-tech start up Cetogenix is using technology originally developed at Scion to boost the production of ‘renewable’ natural gas from an existing process used to break down organic waste called anaerobic digestion. Launched last July, Cetogenix has attracted seed capital

investment that may generate up to \$120 million per year in revenue for the company when its flagship technology is fully commercialised. Cetogenix is located at Scion’s Te Papa Tipu Innovation Park in Rotorua where it has 12 staff, a dedicated laboratory and a pilot-scale prototyping system. With a memorandum of understanding in place, Scion and Cetogenix strive to accelerate innovation in the lab to deployment in the market.

At nearby Reporoa, Ecogas officially opened its new organics processing

facility last October after the technology was researched and piloted at Scion. Fully operational, the \$30 million plant can turn 75,000 tonnes of organic food waste collected annually from households and businesses around the North Island into 185,000 GJ of energy in the form of biogas and 200 tonnes of nitrogen as a biofertiliser. Scion has continued to partner with Ecogas on commercialisation of science and de-risking technologies that enhance bioenergy production.

Aligning to 2050 carbon zero targets through research and influence

Carbon reduction or sequestration features among the goals of all three of Scion’s research impact areas.

Recent forest soil carbon research revealed exciting findings, now published, that highlight the importance of quantifying subsoil carbon stocks for accurate carbon accounting. The research provided the evidence to conservatively

estimate that more than 35 per cent of soil carbon stocks are present in subsoil layers below 30cm. The subsoil environment is a significant component of forest ecosystems adding to the carbon sponge provided by permanent and planted forests.

Our Integrated Bioenergy Portfolio vision is to position bioenergy as part of the transition away from

fossil fuels, which are a huge source of carbon. The last six months saw Scion’s expertise elevated to places of influence. The portfolio leader, who is also chair of the International Energy Agency Bioenergy, was sought after for research knowledge and insights into transport biofuels, process heat bioenergy and bioenergy value chains at formal gatherings in New Zealand and internationally.

SUMMARY OF KPI AND RISK REPORTING

Indicator name	Measure	Frequency	2022/2023 Target	As at 31 December 2022
End user collaboration	Revenue per FTE (\$) from commercial sources (Note, the definition of commercial sources changes across these periods.)	Quarterly	\$60,377	\$75,260
Research collaboration	Publications with collaborators	Quarterly	90	55
Technology and knowledge transfer excellence	Commercial reports per scientist FTE	Annually	>2.0	0.56
Science quality	Mean citation score	Annually	3.5	Calculated at 30 June 2023
Financial indicator	Revenue per FTE	Quarterly	\$175,208	\$185,769

FINANCIAL STATEMENTS

For the half year ended 31 December 2022

Statement of Comprehensive Income (Unaudited)

For the six months ended 31 December 2022

<i>in thousands of New Zealand dollars</i>	Note	Half Year 31 Dec 2022	Half Year 31 Dec 2021	Full Year 30 Jun 2022
Revenue	2a	31,263	26,802	58,716
Other income/(expenditure)	2b	-	-	13
Expenditure	3a	(31,170)	(28,663)	(58,145)
Finance costs	3b	(6)	(9)	(16)
Share of profit/(loss) of associates		-	-	(58)
Profit/(loss) before tax		87	(1,870)	510
Tax expense		(24)	521	(87)
Profit/(loss) for the year after tax		63	(1,349)	423
Other comprehensive income that will not be classified to profit or loss in subsequent periods net of tax				
Remeasurement gain/(loss) on defined benefit plan		-	-	121
Revaluation of carbon units		-	-	336
Total other comprehensive income net of tax		-	-	457
Total comprehensive income for the period attributable to the shareholders of the parent company		63	(1,349)	880

The accompanying notes form part of these consolidated financial statements.

Statement of Financial Position (Unaudited)
As at 31 December 2022

<i>in thousands of New Zealand dollars</i>	Half Year 31 Dec 2022	Half Year 31 Dec 2021	Full Year 30 Jun 2022
Equity			
Share capital	17,516	17,516	17,516
Revaluation reserves	1,039	582	1,039
Retained earnings	35,435	33,600	35,372
Total equity	53,990	51,698	53,927
Non-current liabilities			
Provisions	396	459	396
Defined benefit plan	538	522	508
Deferred tax liability	-	-	-
Lease liability	170	256	183
Total non-current liabilities	1,104	1,237	1,087
Current liabilities			
Trade and other payables	15,602	15,651	15,470
Provisions	30	38	30
Defined benefit plan	110	106	110
Lease liability	82	142	141
Tax payable	-	-	19
Total current liabilities	15,824	15,937	15,770
Total equity and liabilities	70,918	68,872	70,784
Non-current assets			
Property, plant and equipment	44,344	45,707	45,696
Biological assets	1,374	1,391	1,374
Intangible assets	1,521	902	1,529
Investments in associates	-	61	-
Investments in fair value through P&L	170	140	170
Right-of-use assets	204	341	270
Tax	222	932	-
Deferred tax asset	261	117	261
Total non-current assets	48,096	49,591	49,300
Current assets			
Cash and cash equivalents	13,127	12,066	12,727
Trade and other receivables	9,415	6,859	8,572
Inventories	280	356	185
Total current assets	22,822	19,281	21,484
Total assets	70,918	68,872	70,784

The accompanying notes form part of these consolidated financial statements.

For and on behalf of the Board, who authorised the issue of these accounts on 13 February 2023.



Dr Helen Anderson QSO
Chair



Stana Pezic
Director

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

<i>in thousands of New Zealand dollars</i>	Note	Half Year 31 Dec 2022	Half Year 31 Dec 2021	Full Year 30 Jun 2022
Cash received from operating activities				
Receipts from customers (excluding government grants)		19,355	16,424	32,774
Receipts from government grants		10,339	11,893	27,354
Interest received		234	48	81
		<u>29,928</u>	<u>28,365</u>	<u>60,209</u>
Cash disbursed on operating activities				
Payments to employees		17,515	15,201	32,033
Payments to suppliers		10,201	9,803	22,028
Interest paid		6	9	-
Restructuring costs		-	71	-
Income tax paid		265	1,658	1,460
		<u>27,987</u>	<u>26,742</u>	<u>55,521</u>
Net cash flow from operating activities	4	<u>1,941</u>	<u>1,623</u>	<u>4,688</u>
Cash received from investing activities				
Proceeds for sale property, plant and equipment		-	1	-
Government grant		-	-	-
		<u>-</u>	<u>1</u>	<u>-</u>
Cash disbursed on investing activities				
Investment in property, plant & equipment		1,458	4,132	6,567
Purchase of other investments and intangible assets		12	-	(107)
		<u>1,470</u>	<u>4,132</u>	<u>6,460</u>
Net cash flow from investing activities		<u>(1,470)</u>	<u>(4,131)</u>	<u>(6,460)</u>
Cash received from financing activities				
Term loan drawdown		-	-	-
Total cash received from financing activities		<u>-</u>	<u>-</u>	<u>-</u>
Cash disbursed on financing activities				
Repayment of the lease liabilities		71	69	144
		<u>71</u>	<u>69</u>	<u>144</u>
Net cash flow from financing activities		<u>(71)</u>	<u>(69)</u>	<u>(144)</u>
Total net cash flow		<u>400</u>	<u>(2,577)</u>	<u>(1,916)</u>
Net increase/(decrease) in cash held		<u>400</u>	<u>(2,577)</u>	<u>(1,916)</u>
Add opening cash brought forward		<u>12,727</u>	<u>14,643</u>	<u>14,643</u>
Cash carried forward		<u>13,127</u>	<u>12,066</u>	<u>12,727</u>

The accompanying notes form part of these consolidated financial statements.

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

	Ordinary Shares	Asset Revaluation & Pension Reserve	Retained Earnings	Total	Ordinary Shares	Asset Revaluation & Pension Reserve	Retained Earnings	Total	Ordinary Shares	Asset Revaluation & Pension Reserve	Retained Earnings	Total
	Half Year	Half Year	Half Year	Half Year	Half Year	Half Year	Half Year	Half Year	Full Year	Full Year	Full Year	Full Year
<i>in thousands of New Zealand dollars</i>	31 Dec 2022	31 Dec 2022	31 Dec 2022	31 Dec 2022	31 Dec 2021	31 Dec 2021	31 Dec 2021	31 Dec 2021	30 Jun 2022	30 Jun 2022	30 Jun 2022	30 Jun 2022
GROUP												
Opening balance per reporting period	17,516	1,039	35,372	53,927	17,516	582	34,949	53,047	17,516	582	34,949	53,047
Profit for the period	-	-	63	63	-	-	(1,349)	(1,349)	-	-	423	423
Other comprehensive income	-	-	-	-	-	-	-	-	-	457	-	457
Total comprehensive income	-	-	63	63	-	-	(1,349)	(1,349)	-	457	423	880
Balance as at 31 December	17,516	1,039	35,435	53,990	17,516	582	33,600	51,698	17,516	1,039	35,372	53,927

The accompanying notes form part of these consolidated financial statements.

Statement of Accounting Policies

For the half year ended 31 December 2022

1. Statement of Accounting Policies

Reporting entity

New Zealand Forest Research Institute Limited is a Crown Research Institute registered under the Companies Act 1993. The registered office is Te Papa Tipu Innovation Park, 49 Sala Street, Rotorua. The consolidated financial statements consist of New Zealand Forest Research Institute Limited and its subsidiaries (the Group). The consolidated financial statements of New Zealand Forest Research Institute Limited for the year were authorised for issue in accordance with a resolution of the directors on the date as set out on the Consolidated Statement of Financial Position.

New Zealand Forest Research Institute Limited (the Company) is domiciled and incorporated in New Zealand and is wholly owned by the Crown.

The activities of New Zealand Forest Research Institute Limited include a range of research and development programmes aimed to drive innovation and growth from New Zealand's forestry, wood-derived materials and other biomaterial sectors to create economic value and contribute to beneficial environmental and social outcomes for New Zealand.

New Zealand Forest Research Institute Limited trades as Scion and these names have identical meaning in this report.

1.1 Summary of significant accounting policies

a. Basis of preparation

The consolidated financial statements have been prepared in accordance with generally accepted accounting practice in New Zealand (NZ GAAP) and the requirements of the Companies Act 1993, the Financial Reporting Act 2013, the Public Finance Act 1989, the Crown Entities Act 2004 and the Crown Research Institutes Act 1992. The consolidated financial statements have also been prepared on a historical cost basis, except for forestry assets, carbon credits and certain heritage assets that have been measured at fair value.

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

b. Statement of compliance

The consolidated financial statements have been prepared in accordance with NZ GAAP. For the purpose of complying with NZ GAAP, the Group is a for profit entity. They comply with New Zealand equivalents to International Financial Reporting Standards (IFRS), and other applicable Financial Reporting Standards, as appropriate for profit-oriented entities. The consolidated financial statements comply with IFRS.

1.2 Significant accounting judgements, estimates and assumptions

The preparation of the Group's consolidated financial statements requires management to make judgements, estimates and assumptions that effect the reported amounts of revenue, expenses, assets and liabilities, and the accompanying disclosures.

a. Revenue recognition from contracts with customers

Revenue is predominately recognised based on the percentage of work completed on a project basis over time. Percentage of work completed is based on costs incurred from inception of the project as a percentage of total forecasted project costs. Management judgement is required in estimating total forecasted costs which impacts the revenue recognised (Note 2), the revenue in advance (Note 8) and accrued revenue (Note 17).

In determining if a customer contract can be recognised over time, management have considered their right to receive payment for work done up to the point of any termination of contract. In the absence of a termination clause management has assessed that the Group has a clear right to be paid for work completed up to the point of termination.

b. Heritage assets

The Group holds several heritage assets which have significant value due to being both rare, and having importance to the nation. Where a heritage cost can be measured reliably they are revalued at least every five years and included as part of property plant and equipment.

The increase/decrease in value is recognised in the Consolidated Statement of Financial Position through other comprehensive income.

Due to the nature of some heritage assets, management does not believe they can be valued reliably. These assets have been identified and disclosed. Details of heritage assets can be found in Note 11 and 22.

c. Biological assets

The Group's biological assets consist of tree plantations. These are valued at the net present value of future net harvest revenue less estimated costs of owning, protecting, tending and managing trees. The valuation process includes several judgements and estimations around discount rates, future costs, and future prices. Management used the experience of a registered forestry valuer to reduce the risk of misstatement resulting from these judgements and estimates.

1.3 Accounting standards issued but not yet effective

The following standards that have been issued but not yet effective and have not been earlier adopted by the Group and may have an impact on the Group's financial statements:

NZ IAS 1 Classification of Liabilities as Current and Non-Current	Date Application for Scion 1 July 2023
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There are no new accounting standards or amendments adopted this financial year.

Notes to and forming part of the consolidated financial statements
For the half year ended 31 December 2022

<i>in thousands of New Zealand dollars</i>		Half Year 31 Dec 2022	Half Year 31 Dec 2021	Full Year 30 Jun 2022
2	Revenue and other income			
	(a) Revenue			
	<i>Revenue from research contracts</i>			
	Ministry of Business, Innovation and Employment revenue	8,122	6,191	12,955
	Other Government and Crown Research Institute revenue	5,866	4,374	9,355
	Commercial research revenue	6,193	5,227	11,384
		20,181	15,792	33,694
	<i>Government grants</i>			
	Strategic Science Investment Fund	10,339	10,441	23,786
	COVID Response and Recovery Fund	-	-	-
		10,339	10,441	23,786
	<i>Other revenue</i>			
	Commercial lease revenue	544	503	1,036
	Interest revenue	189	57	145
	Other revenue	10	9	55
		743	569	1,236
	Total revenue	31,263	26,802	58,716
	(b) Other income/(expenditure)			
	Change in fair value of plantation trees	-	-	(17)
	Revaluation of non-controlling interests	-	-	30
		-	-	13
3	Expenditure and finance costs			
	(a) Expenditure			
	Personnel remuneration and expenses	16,694	15,852	31,196
	Other personnel related costs	467	316	767
	Contractors and subcontractors	7,946	6,865	14,536
	Consumables	534	679	1,645
	Travel and accommodation	718	344	711
	Rental and equipment hire costs	79	70	153
	Depreciation on leases	75	67	134
	Depreciation	2,810	2,759	5,665
	Amortisation	11	14	26
	(Gain)/loss on disposal of fixed assets	1	2	6
	Impairment of assets	-	-	-
	Premises	1,460	1,272	2,467
	Directors' fees	112	92	195
	Other	263	331	644
		31,170	28,663	58,145
	(b) Finance costs			
	IRD use of money interest	-	-	-
	Lease interest	6	9	16
		6	9	16

<i>in thousands of New Zealand dollars</i>	Half Year 31 Dec 2022	Half Year 31 Dec 2021	Full Year 30 Jun 2022
4 Reconciliation of operating profit after taxation with cash flows from operating activities			
Reported profit/(loss) after taxation	63	(1,349)	423
Add/(less) non-cash items:			
Depreciation	2,870	2,759	5,667
Amortisation	26	14	26
Movement on employee provision	30	-	(288)
Provision for doubtful debts	-	-	-
Movement on lease liability	-	67	-
Movement in deferred tax	-	-	(144)
	<u>2,926</u>	<u>2,840</u>	<u>5,261</u>
Add/(less) items classified as investing activity:			
(Gain)/loss on disposal of property, plant and equipment	1	-	6
Share in associate (profit)/loss	-	-	58
Capital related items in creditors	-	211	-
Fair value movement in biological assets	-	-	(13)
	<u>1</u>	<u>211</u>	<u>51</u>
Movements in working capital items:			
(Increase)/decrease in debtors and prepayments	(841)	1,246	(441)
(Increase)/decrease in inventories	(95)	(21)	151
Increase/(decrease) in creditors and accruals	128	875	471
Increase/(decrease) in taxation payable	(241)	(2,179)	(1,228)
	<u>(1,049)</u>	<u>(79)</u>	<u>(1,047)</u>
Net cash flows from operating activities	<u><u>1,941</u></u>	<u><u>1,623</u></u>	<u><u>4,688</u></u>

5 Contingencies

Treaty of Waitangi issues

Two verified land claims affecting the Group currently exist:

- (i) Ngati Whakaue – covering the whole Rotorua campus
- (ii) Ngati Wahiao – covering the southern end of the Rotorua campus

No reliable estimates can be made of the impact of these contingencies.

6 Reporting period

These financial statements cover the period 1 July 2022 to 31 December 2022 and have not been audited.

DIRECTORY

DIRECTORS

Dr Helen Anderson QSO (Chair)
Mr Brendon Green
Mr Greg Mann
Ms Stana Pezic
Dr Jon Ryder (Deputy Chair)
Mr Steve Wilson

EXECUTIVE MANAGEMENT

Dr Julian Elder	Chief Executive
Dr Henri Baillères	General Manager, Forests to Timber Products
Dr Roger Dungan	General Manager, Strategic Partnerships and Communication
Dr Florian Graichen	General Manager, Forests to Biobased Products
Mr Cameron Lucich	General Manager, People, Culture and Safety
Mr Hēmi Rolleston	General Manager, Te Ao Māori and Science Services
Dr Tara Strand	General Manager, Forests and Landscapes
Ms Justine Wilmoth	General Manager, Finance and Corporate Services

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on behalf of the Auditor-General
SOLICITORS: Bell Gully, Auckland