2019/20 Addendum to

Statement of Corporate Intent 2018-2023

In 2050, through the power of forestry, New Zealand will have:

- 10-fold increase in GDP from forests and manufacturing
- Zero carbon emissions
- Erodible land planted in permanent forests
- Water quality issues from land use mitigated
- Sustainable communities and economies in all regions
- High OECD household net wealth ranking
- A top five ranking in OECD better life index

Profile

New Zealand Forest Research Institute Limited	Trading as Scion
Ownership	Crown owned entity (established under the Crown Research Institutes Act 1992).
Head Office	49 Sala Street, Rotorua
Postal Address	Private Bag 3020, Rotorua 3046
Web address	www.scionresearch.com
Governance	Shareholder-appointed Board: Chair, Helen Anderson (2018); Directors Greg Mann (2017), Barry O'Neil (2012), Colleen Neville (2014), Stana Pezic (2017), Jon Ryder (2016), Steve Wilson (2016).
Executive Management	Chief Executive, Julian Elder; Chief Operating Officer, Bart Challis; Chief Innovation and Science Officer, Elspeth MacRae; General Manager People, Culture and Safety, Adriana Botha; General Manager Marketing and Partnerships, Arron Judson; General Manager Māori Forestry Futures, Hemi Rolleston; General Manager Finance and Corporate Services, Rob Trass.
Staff	321 full-time-equivalent staff at four sites: Rotorua (288), Christchurch (31), Wellington (1), Dunedin (1) as at 30 June 2018.
Vision	Prosperity from trees - Mai i te ngahere oranga
Core Purpose	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.
Values	Ingenuity, Collaboration, Excellence, Manaakitanga.
Reporting	Financial and non-financial performance against SCI targets is reported to the Shareholder quarterly and to the public via a six-month and annual report.
Shareholder Funds	Total book value of $40,987 million at 30 June 2018.

Shareholdings

Company	Company type	Scion shareholding %
Te Papa Tipu Properties Limited	A land holding subsidiary	100.00
Biopolymer Network Limited	An incorporated joint venture	33.30
WQI Limited (T/A Solid Wood Innovation)	An MBIE-industry partnership in wood processing. WQI Limited is in voluntary liquidation and is not trading	5.05
Terax Limited Partnership	A limited partnership to commercialise the Terax technology	50.00
Terax (2013) Limited	The General Partner in Terax Limited Partnership	50.00
Sala Street Holdings Limited	Holds Scion's 50% share in both Terax (2013) Limited and Terax Limited Partnership	100.00

Contents

Foreword

2019/20 Addendum to the Statement of Corporate Intent 2018 - 2023

Scion is presenting this addendum to our Statement of Corporate Intent published last year (2018/19). Please refer to the *Scion Strategy to 2030 incorporating Statement of Corporate Intent 2018-2023* which contained our view of the longer-term direction and benefit to New Zealand that can be enabled by Scion's activities.

Scion has critical capability to support the delivery of the Government's goals for the future through the circular bioeconomy and our top-quality research. We strongly believe that the circular bioeconomy, a new economic approach with global uptake, has significant opportunity for New Zealand. Not only will these principles be central to our transition to a low emission economy, this approach will also bring environmental, regional and social benefits to our country.

Scion is committed to making progress on achieving successful outcomes in relation to the opportunity for New Zealand and the Government's priorities. Our strategy remains as published in the current Scion Strategy to 2030. In that strategy we emphasised the large contribution that the circular bioeconomy approach, including forests, trees and all that we can make from trees, could make to New Zealand.

In 2050, through the power of forestry, New Zealand will have:

- 10-fold increase in GDP from forests and manufacturing
- Zero carbon emissions
- Erodible land planted in permanent forests
- Water quality issues from land use mitigated
- Sustainable communities and economies in all regions
- High OECD household net wealth ranking
- A top five ranking in OECD better life index

Scion's role in this is encapsulated in three impact areas shown below.

Enhancing New Zealand's prosperity, well-being and environment through trees
Kia piki te ora, te taiao me te whai rawa o Aotearoa mā te ngāherehere

Imperatives

- Grow New Zealand's exports
- Meet climate change commitments
- Reduce environmental stress and land erosion and enhance water quality
- Accelerate Māori economic development
- Increase disposable household incomes
- Build more affordable homes in our cities and regions
- Meet consumer demand for products that are sustainable and do not harm the environment
- Respond to global trade changes and competition

2030 Impact Areas

Forests and landscapes
Development of healthy, resilient forests that are planted primarily for their standing-forest benefits

+

High-value timber manufacturing and products
Development of products, manufacturing, high-value trees and healthy, resilient forests that capture an increasing share of the global high-end market for timber

+

Biobased manufacturing and products
Development of products, processes, manufacturing, trees, other biomaterials and healthy, resilient forests to replace petrochemicals and non-sustainable materials

Impacts

- Strong Treaty-based science partnerships
- Increased value from land managed for wood and fibre production and ecosystem services, including carbon sequestration
- Increased resilience of forests to biotic and abiotic risks
- Diversified forests supporting local and distributed manufacturing and regional growth, leading to healthy and flourishing communities
- Increased use of timber and fibre in the built environment
- Growth in manufacture of biobased products including energy
- Maintained licence to operate across the value chain and export markets

Since the publication of our strategy we have developed and circulated the next level detail on the areas of R&D that we believe Scion needs to lead on if we are to enable the future we see for New Zealand. The summary of Scion's 2050 goals that links the above three impact areas to Government objectives and then details the platforms and research areas is attached in Appendix 1. We are in discussion with the Ministry of Business, Innovation and Employment (MBIE) over this to explore ways to execute on our strategy.

For several years, Scion has been highlighting the upcoming roll-off of a number of MBIE-funded programmes. Additionally, in our Strategy to 2030 and 2018/19 Statement of Corporate Intent (SCI) we highlighted the very significant future opportunities for New Zealand in our areas of activity as defined in our Statement of Core Purpose.

During the past year we have been working with MBIE officials to explore both the funding roll off and future opportunities and how we might better enable outcomes for New Zealand. While these discussions are progressing positively there is a wide range of possible outcomes and therefore significant uncertainty.

Within this context, Scion has agreed with MBIE officials that an appropriate approach at this point is to prepare a transitionary budget for the coming year reflecting assumptions about the science funding available to the company. This transitionary budget is presented in this Interim SCI that is provided as an addendum to last year's SCI.

The Scion Board has determined that this approach and the one-year budget will need to be reviewed in October when more certainty is available.

Financial indicators

	Forecast 2018/19	Budget 2019/20
Efficiency:		
Operating margin	11.0%	1.9%
Operating margin per FTE	$18,934	$2,902
Risk:		
Quick ratio	1.68:1	0.82:1
Interest coverage	N/A	N/A
Operating margin volatility	8.4%	46.9%*
Forecasting risk	1.9%	0.7%
Growth/Investment:		
Adjusted before reinvestment	6.0%	(7.0%)
Adjusted return on equity	4.0%	(7.0%)
Revenue growth	3.3%	(12.0%)
Capital renewal	2.2x	2.3x

Definitions of financial indicators can be found on the MBIE website: https://www.mbie.govt.nz/science-and-technology/science-and-innovation/agencies-policies-and-budget-initiatives/research-organisations/cri/toolkit/monitoring-and-indicators/

*The large increase in Operating Margin Volatility reflects the budgeted loss for the 2019/20 year when compared to the profits achieved over the last four years.

Organisational performance targets

Indicator name	Measure	Frequency	2015/2016 Actual	2016/2017 Actual	2017/2018 Actual	2018/2019 Forecast	2019/2020 Budget
End user collaboration	Revenue per FTE ($) from commercial sources	Quarterly	$67,034	$72,495	$79,441	$80,118	$69,479
Research collaboration	Publications with collaborators	Quarterly	98%	73%	89%	≥90	≥90
Technology and knowledge exchange excellence	Commercial reports per scientist FTE	Annual	n/a	4.23	2.05	>1.50	>2.00
Science quality	Mean citation score	Annual	n/a	2.29	2.76	2.6	2.6
Financial indicator	Revenue per FTE ($)	Quarterly	$174,340	$175,976	$183,971	$171,905	$151,275
Stakeholder engagement	Percentage of funding partners that have a high level of confidence that Scion sets research priorities relative to the forest industry and biomaterial sector	Biennial	75%	No survey conducted	80%	No survey conducted	>85%
Stakeholder engagement	Percentage of national and international research providers who have a high level of confidence in Scion's ability to assemble the most appropriate research team	Biennial	84%	No survey conducted	79%	No survey conducted	>85%
Stakeholder engagement	Percentage of relevant end users who have adopted knowledge and/or technology from Scion	Biennial	94%	No survey conducted	89%	No survey conducted	>90%
Māori economic development	Partnerships (number and value) established with Māori entities to support economic development through the forest industry	Quarterly	n>15; >$1.9m	n=9; >$1.0m	n=5; >$1m value	n>10; >$1.5m	n>10; >$1.5m
Accelerated commercialisation	Technologies in Scion's pipeline (number and co-investment ($)); projects that progress to the business case stage (case studies)	Quarterly	28 and $625,000; Cases 5	12 and $385,000; Cases 2	27 and $183,300; Cases 4	26 and $300,000; Cases ≥2	25 and $400,000; Cases ≥4
People and culture	Staff engagement	Annual	n/a	n/a	n/a	>70%	>75%
People and culture	Staff retention - staff turnover	Annual	7.1%	8.7%	12.3%	14.0%	12%
People and culture	Health and safety - serious harm events	Annual	1	1	0	0	0
People and culture	Staff diversity - percentage of permanent staff of Māori decent	Annual	6.3%	8.2%	8.2%	9.4%	>8.0%

Financials

The purpose of this 2019/20 Addendum to the Statement of Corporate Intent 2018-2023 is limited to providing an update to the financial and operational metrics for the 2019/20 year, together with fulfilling other related statutory reporting requirements. This document should be read in conjunction with the Statement of Corporate Intent 2018-2023, and owing to funding uncertainty any information not updated in this SCI Addendum (including financial information for the out-years of the SCI period) should be taken as unchanged from that which appeared in last year's SCI.

Revenue

In 2019/20, Scion Group revenue is budgeted at $51.1 million, down $7.0 million compared with our forecast for the 2018/19 year. The decrease is primarily associated with reduction in Endeavour Funding along with two significant commercial contracts. Additional risk associated with budgeted revenue exists with levels of contracted revenue 5% to 10% lower than in prior years' budgets.

Operating expenditure

In 2019/20 expenses are budgeted at $55.1 million. Prudent examination of our expenses has resulted in total expenditure reducing by $0.6 million on the 2018/19 year forecast and $4.2 million on the plan included in last year's Statement of Corporate Intent (including reinvestment).

A key assumption in the 2019/20 budget outlined in this SCI Addendum is that the capability (people) critical for delivery of our long-term strategy and value proposition will be retained via funding from cash reserves.

Balance sheet management

Scion's science is capital intensive and requires an ongoing investment in scientific equipment if we are to secure revenue, be financially sustainable and deliver research outcomes that meet the needs of stakeholders.

As was discussed in last year's SCI, beyond this underlying capital spending requirement Scion must now plan to renew and develop some of its most significant strategic assets, notably our wood processing workshops, nursery and forest protection laboratories.

This SCI Addendum assumes that Scion will delay commencement of these projects for between 12 and 24 months to manage lower than plan results and resulting cash reserves and contemplates capital spending of $12.3 million during the year, of which $8.3 million relates to the construction of the Innovation Hub, which is largely being funded from cash reserves.

Cash flow

The budget for the 2019/20 year contemplates an operating cash flow of $1.6 million, down from the $4.1 million forecast for the 2019/20 year, due to the reduction in profitability noted earlier offset by the fact that the 2018/19 cash flows were also low as revenue in advance was reduced during the year. Scion expects future years' operating cash flows to return to the levels indicated in the 2018/19 SCI. The reduced cash flows for 2019/20 have resulted in Scion forecasting to move into a net debt position during the 2019/20 year and as noted above this is being managed through the deferral of the next stage in facility developments (Scion's 50-plus-year-old wood processing laboratories) for at least 12 months. Timing will be reconsidered when more certainty of Scion's financial future is possible.

Dividend

Based on the strategic capital investment needs identified above, no dividends are planned during the period of this SCI; however, the Scion Board will review this on an annual basis.

Financial performance

	2018/19 Forecast $000	2019/20 Budget $000
Revenue		
SSIF	17,733	17,773
Other MBIE revenue	13,291	9,874
Commercial and other	26,980	23,469
Royalties	100	15
Total revenue	58,104	51,131
Operating expenditure		
Personnel	29,756	30,484
Other operating costs	25,101	24,637
Total operating expenditure	54,857	55,121
Scion margin	**3,247**	**(3,990)**
Loss on disposal of fixed assets	0	0
Restructuring costs	82	100
EBIT-R*	3,165	(4,090)
Reinvestment	1,100	0
EBIT	**2,065**	**(4,090)**
Net interest income/(expense)	300	100
Profit before tax	**2,326**	**(3,990)**
Tax	691	(1,115)
Group profit after tax	1,675	(2,875)

*EBIT-R is EBIT before reinvestment

Other matters required by the CRI Act 1992

Information to be reported to shareholders

Scion will provide information that meets the requirements of the:

- Crown Research Institutes Act 1992 (the Act)
- Companies Act 1993
- Financial Reporting Act 1993
- Crown Entities Act 2004, and
- New Zealand Institute of Chartered Accountants (NZICA) with regards to Generally Accepted Accounting Practice (GAAP).

The following information is made available to enable our shareholders to make an informed assessment of Scion's performance:

- A Statement of Corporate Intent (SCI) which sets out Scion's strategy for delivering against its core purpose and the company's financial and non-financial performance targets.
- An Annual Report containing sufficient information to allow an informed assessment to be made against the performance targets in the SCI. This report includes comments on our core business and how we communicate our science, financial statements (including audit report), and a report from the directors to the shareholders. The Annual Report is to be provided within three months of the financial year ended 30 June. A public Annual General Meeting (AGM) is to be held no later than six months after balance date and not later than 15 months after the previous AGM.
- A Half-Yearly Report containing unaudited financial statements (including comparatives of the same period in the previous year) and major highlights during the period. The Half-Yearly Report is due within two months of the first half of each financial year ended 31 December.
- A Quarterly Report containing information such as unaudited financial statements (including current quarter and year-to-date budgets and a forecast for the financial year ended 30 June). The Quarterly Report also includes financial performance measures and progress towards meeting non-financial performance targets. The Quarterly Report is currently requested within one month of each financial quarter ended 30 September, 31 December, 31 March, and 30 June.
- Any other information relating to the affairs of the company, as reasonably required by shareholders, under section 20 of the Act and section 45B of the Public Finance Act 1989.

Accounting policies

Scion adopts generally accepted accounting practice in New Zealand by the External Reporting Board. The accounting policies for the measurement and reporting of financial performance, movements in equity, financial position and cash flows are detailed in Appendix 2.

Dividend policy

Profit retention and dividend distribution will be determined from year to year by the Scion Board. The policy's objective is to ensure that an appropriate level of funds is maintained in the company to sustain financial viability, while providing an adequate return to the shareholders.

In considering this objective, the Scion Board each year determines the level of surplus funds by reference to Scion's:

- medium- and long-term capital investment requirements (including equity investments);
- ability to maintain and expand operational capability;
- ability to repay debt (if any);
- funding requirements for subsidiaries;
- working capital requirements;
- legislative requirements, e.g. ensuring section 4 of the Companies Act 1993 (solvency test) has been satisfied.

Any dividend would be paid within three months of the financial year-end.

Shareholder consent for significant transactions

The Scion Board will obtain prior written consent of Shareholding Ministers for any transaction or series of transactions involving full or partial acquisition, disposal, or modification of property (buildings, land and capital equipment) and other assets with a value equivalent to or greater than $10 million of the company's total assets (prior to the transaction).

The Scion Board will obtain the prior written consent of Shareholding Ministers for any transaction or series of transactions with a value equivalent to or greater than $5.0 million of the company's total assets (prior to the transaction) associated with:

- the acquisition, disposal or modification in a joint venture, partnership or other similar association;
- the acquisition or disposal in full or in part of shares or interests in external companies, subsidiaries and business units;
- transactions that affect the company's ownership of a subsidiary or a subsidiary's ownership of another equity;
- other transactions that fall outside the scope of the definition of the company's core business or may have a material effect on the company's science capabilities.

The Scion Board will advise the Shareholding Ministers in writing (in the Quarterly Report) before entering into any transaction below this threshold related to property or to a specific commercialisation venture which involves change in intellectual property ownership or control.

Ratio of shareholders' funds to total assets

The target ratio of shareholders' funds to total assets is as follows:

As at 30 June	
2019 Forecast	74.9%
2020 Plan	71.6%

Shareholders' funds are defined as the sum of the 'share capital' and 'equity reserves' (otherwise called 'total equity').

Total assets are defined as the sum of the net book value of 'current' and 'non-current' assets. This is 'as disclosed' in the company's balance sheet as per the Annual Report, prepared in accordance with the accounting policies adopted by the Scion Board.

Shareholders' funds and total assets are averaged over two years.

Commercial value of the shareholders' investment

Section 16(3) of the Act requires the Scion Group to furnish an estimate of the current commercial value of the Crown's investment.

The Scion Board is satisfied that the net asset position (or shareholders' funds) as at 30 June 2018 is a fair and reasonable indication of the commercial value of the Group. The net asset position as shown in accordance with the company's accounting policies for 30 June 2018 was $41.0 million.

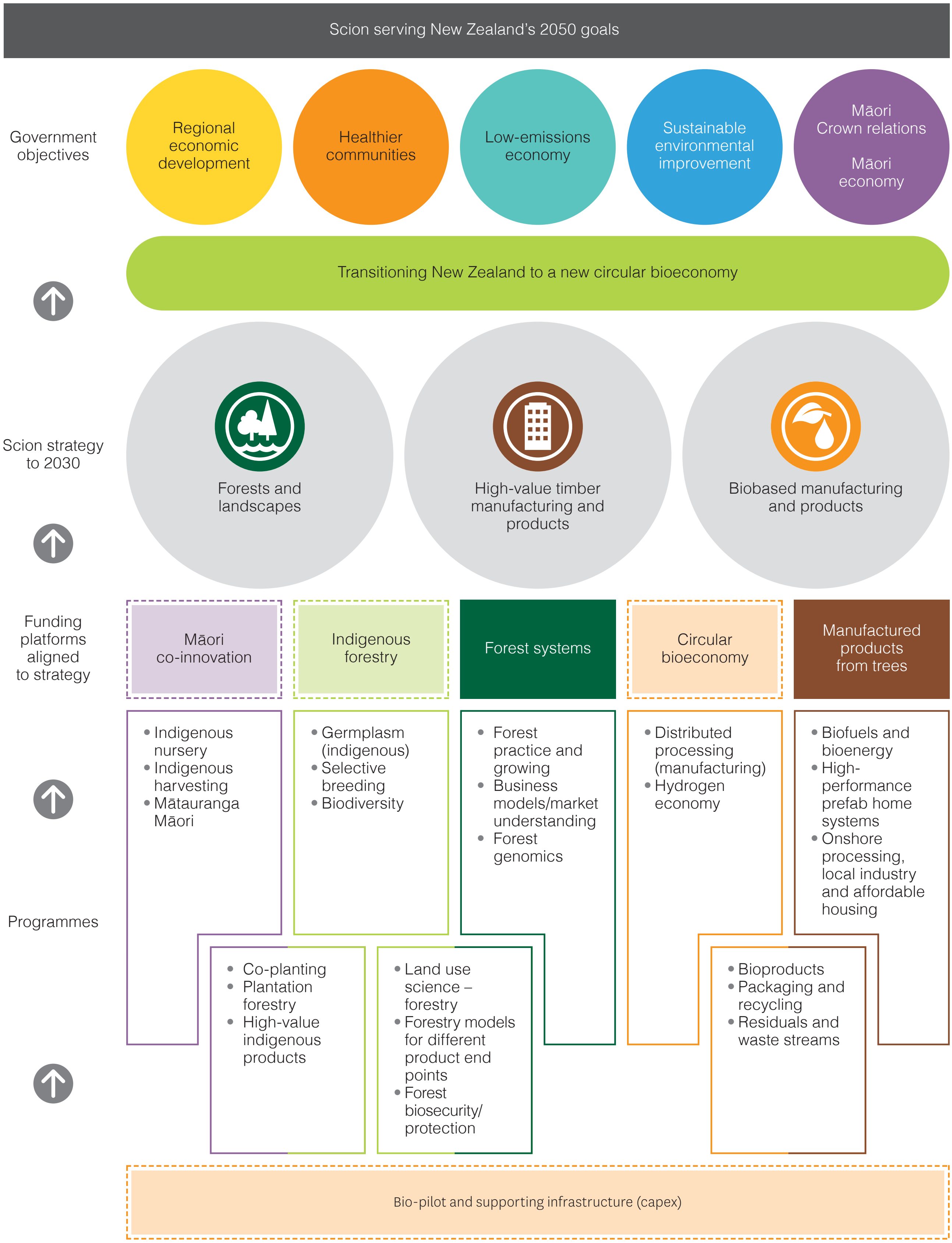
Helen Anderson

Dr Helen Anderson
Chair

J Elder

Dr Julian Elder
Chief Executive

Appendix 1 - Summary of Scion's 2050 goals



Appendix 2 - Accounting policies

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).

New Zealand Forest Research Institute Limited (the Company) is a reporting entity for the purposes of the Financial Reporting Act 2013. It is domiciled and incorporated in New Zealand and is wholly owned by the Crown.

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.

The activities of New Zealand Forest Research Institute Limited include a range of research and development programmes aimed at using plant-based renewable resources and waste streams to create new materials, energy sources and environmentally sustainable products and processes.

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 and the Financial Reporting Act 2013. 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. 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.

c) Basis of consolidation

The consolidated financial statements comprise the financial statements of the Group and its subsidiaries as at 30 June. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Specifically, the Group controls an investee if and only if the Group has:

- Power over the investee (i.e. existing rights that give it the current ability to direct the relevant activities of the investee);
- Exposure, or rights, to variable returns from its involvement with the investee; and
- The ability to use its power over the investee to affect its returns.

When the Group has less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:

- The contractual arrangement with the other vote holders of the investee;
- Rights arising from other contractual arrangements;
- The Group's voting rights and potential voting rights.

The Group re-assesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control. Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Assets, liabilities, income and expenses of a subsidiary acquired or disposed of during the year are included in the statement of comprehensive income from the date the Group gains control until the date the Group ceases to control the subsidiary.

All intra-Group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction. If the Group loses control over a subsidiary, it:

- Derecognises the assets (including goodwill) and liabilities of the subsidiary;
- Derecognises the carrying amount of any non-controlling interests;
- Derecognises the cumulative translation differences recorded in equity;
- Recognises the fair value of the consideration received;

- Recognises the fair value of any investment retained;
- Recognises any surplus or deficit in profit or loss;
- Reclassifies the parent's share of components previously recognised in OCI to profit or loss or retained earnings, as appropriate, as would be required if the Group had directly disposed of the related assets or liabilities.

d) **Associate companies**

The Group's investment in its associates is accounted for using the equity method of accounting in the consolidated financial statements. The associates are entities over which the Group has significant influence and that are neither subsidiaries nor joint ventures.

The Group deems it has significant influence if it has over 20% of the voting rights. The reporting dates of the associates and subsidiaries, and the Company, are identical, and the associates' accounting policies conform to those used by the Company for like transactions and events in similar circumstances.

Associate companies have been reflected in the consolidated financial statements on an equity accounting basis which shows the Group's share of surpluses in the Consolidated Statement of Comprehensive Income and its share of post-acquisition increases or decreases in net assets, in the Consolidated Statement of Financial Position.

e) **Intangible assets**

Intangible assets acquired separately are capitalised at cost and those acquired from a business combination are capitalised at fair value as at the date of acquisition. Following initial recognition, the cost model is applied to the class of intangible assets.

The useful lives of these intangible assets are assessed to be either finite or indefinite.

Where amortisation is charged on assets with finite lives, this expense is recognised in profit and loss.

Intangible assets created within the business are not capitalised and expenditure is charged to profit and loss in the year in which the expenditure is incurred.

Intangible assets are tested for impairment where an indicator of impairment exists, and in the case of indefinite life intangibles, annually, either individually or at the cash generating unit level. Useful lives are also examined on an annual basis and adjustments, where applicable, are made on a prospective basis.

A summary of the policies applied to the Group's capitalised intangible assets is as follows:

	Software
Useful lives	Finite
Method used	4 years - Straight line
Type	Acquired
Impairment test/ Recoverable amount testing	Amortisation method reviewed at each financial year-end; reviewed annually for indicators of impairment

Gains or losses arising from de-recognition of an intangible asset are measured as the difference between the net disposal proceeds and the carrying amount of the asset and are recognised in the profit and loss when derecognised.

Carbon credits. New Zealand emission reduction units (NZUs) are recognised when the Group controls the units, provided that it is probable that economic benefits will flow to the Group and the fair value of the units can be measured reliably. Control of the NZUs arises when the Group is entitled to claim the NZUs from the government.

NZUs are initially measured at fair value on entitlement as an intangible asset unless the Board of Directors has determined they are held for sale, in which case they would be recorded at fair value as inventory.

Following initial recognition, the intangible asset is measured at fair value when the Board of Directors considers there is an active market for the sale of NZUs. NZUs determined as held for sale at recognition and recorded as inventory, are subsequently measured at the lower of cost and net realisable value.

The liability arising from the deforestation of eligible land is measured using the market value approach. A liability exists and is recognised on pre-1990 forests if the land use changes from forestry.

f) **Biological assets**

Biological assets consist entirely of tree plantations which are measured at fair value less any point of sale costs. Gains and losses arising on initial recognition or change in fair value, less estimated point of sale costs, are included in profit and loss in the period in which they arise.

The fair value of tree plantations is determined by an independent valuer.

The valuation method for immature trees is the net present value of future net harvest revenue less estimated costs of owning, protecting, tending and managing trees. For mature trees fair value is deemed to be the net harvest revenue value.

g) Property, plant and equipment

All items of property, plant and equipment are valued at the cost of purchase from the Crown as at 1 July 1992 adjusted for subsequent additions at cost, disposals, depreciation and impairment. Plant and equipment are recorded at cost less accumulated depreciation. Land and capital work in progress are recorded at cost. Some library books have been identified as heritage assets and are recorded at fair value as determined by an independent valuer. Valuations are obtained every five years or more often where circumstances indicate that a significant change in fair value has occurred.

Expenditure incurred on property, plant and equipment is capitalised where such expenditure will increase or enhance the future benefits provided by the asset. Expenditure incurred to maintain future benefits is classified as repairs and maintenance.

When an item of property, plant and equipment is disposed of the difference between the net disposal proceeds and the carrying amount is recognised as a gain, or loss, in profit and loss.

Depreciation is provided for using the straight-line method to allocate the historical cost, less an estimated residual value, over the estimated useful life of the asset.

The useful lives of the major classes of assets have been calculated as follows:

Buildings and land improvements	20 - 60 years
Plant and equipment	3 - 20 years
Furniture and fittings	10 - 20 years
Motor vehicles	3 - 7 years
Library books and periodicals	20 years

h) Recoverable amount of non-current assets

At each reporting date, the Group assesses whether there is any indication an asset may be impaired. Where an indicator of impairment exists, the Group makes a formal estimate of recoverable amount. Where the carrying amount of an asset exceeds its recoverable amount the asset is considered impaired and is written down to its recoverable amount.

Recoverable amount is the greater of fair value less costs to sell and value in use. It is determined for an individual asset, however, if the asset's value in use cannot be estimated to be close to its fair value less costs to sell, and it does not generate cash inflows that are largely independent of those from other assets or groups of assets, it is determined for the cash-generating unit to which the asset belongs.

In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

i) Trade receivables

Trade receivables are initially recognised at fair value and subsequently valued at amortised cost less impairment allowance.

Collectability of trade receivables is reviewed on an ongoing basis. Debts that are known to be uncollectible are written off when identified. An allowance for doubtful debts is raised when there is objective evidence that it is probable the Group will not be able to collect the debt. Financial difficulties and payment defaults without explanation are considered objective evidence of impairment.

j) Inventories

Consumable stores are valued at the lower of cost, on a weighted average price of stock on hand, and net realisable value.

Nursery stocks are valued at lower of cost or net realisable value. Changes in net realisable value are recognised in the profit and loss account in the period in which they occur.

k) Research costs

Research costs are expensed in the period incurred.

l) Provisions and employee benefits

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

Provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at the Consolidated Statement of Financial Position date using a discounted cash flow methodology.

i) Wages, salaries and annual leave. The liability for wages, salaries and annual leave recognised in the Consolidated Statement of Financial Position is the amount expected to be paid at balance date. Provision has been made for benefits accruing to employees for annual leave in accordance with the provisions of employment contracts in place at balance date.

ii) Long service leave. The liability for long service leave is recognised and measured as the present value of expected future payments to be made in respect of services provided by employees up to the reporting date using the projected unit credit method. Consideration is given to expected future wage and salary levels, experience of employee departures, and periods of service. Expected future payments are discounted using market yields at the reporting date on national government bonds with terms to maturity and currencies that match, as closely as possible, the estimated future cash outflows.

iii) *Defined benefit plan.* The defined benefit plan is unfunded. The cost of providing benefits under the defined benefit plan is determined using the projected unit credit actuarial valuation method. Actuarial gains and losses are recognised in the profit and loss account in the period in which they arise.

The defined benefit liability recognised in the Consolidated Statement of Financial Position represents the present value of the defined benefit obligations.

Long service leave and defined benefit plan provisions are based on an actuarial valuation.

m) Leases

The determination of whether an arrangement is or contains a lease is based on the substance of that arrangement at inception date.

Group as a lessee. Operating lease payments, where the lessors effectively retain substantially all the risks and benefits associated with ownership of the leased items, are included as an expense in the profit and loss in equal instalments over the lease term.

Group as a lessor. Leases in which the Group retains substantially all the risks and benefits of ownership of the leased asset are classified as operating leases. Initial direct costs incurred in negotiating an operating lease are expensed as incurred.

n) Cash and cash equivalents

Cash and short-term deposits in the Consolidated Statement of Financial Position comprise cash at bank and in hand and short-term deposits with an original maturity of three months or less.

For the purposes of the Consolidated Statement of Cash Flows, cash and cash equivalents consist of cash and cash equivalents as defined above, net of outstanding bank overdrafts.

o) Goods and Services Tax (GST)

All items in the financial statements are stated net of GST, except for trade receivables and payables, which are inclusive of GST invoiced.

p) Foreign currencies

Functional and presentation currency. Both the functional and presentation currency of New Zealand Forest Research Institute Limited and its subsidiaries is New Zealand dollars.

Transactions and balances. Transactions in foreign currencies are initially recorded in the functional currency by applying the exchange rates ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at the rate of exchange ruling at the Consolidated Statement of Financial Position date.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate as at the date of the initial transaction. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined.

q) Revenue recognition

Research revenue. Research revenue from both government and commercial sources is recorded when earned based on the percentage of work completed. Percentage of work completed is based on management judgement, after considering costs incurred and other contracted commitments. Work completed but not invoiced is recorded as accrued revenue while work invoiced but not completed is recorded as revenue in advance.

Government revenue includes revenue received from the Ministry of Business, Innovation and Employment in the form of Strategic Science Investment Funding, Endeavour Funding, and Preseed Accelerator Fund programmes. Funding includes both devolved and milestone related programmes. Government revenue has only been recognised after all appropriate conditions have been met.

Rent revenue. Rent revenue is recognised when earned.

Sale of goods. Revenue is recognised when the significant risks and rewards of ownership of the goods have passed to the buyer. Risk and reward are considered passed to the buyer at the time of delivery.

Interest revenue. Interest revenue is recognised when earned based on applicable interest rates applied to the Group's cash deposit balances.

r) Taxation

The income tax expense charged to the profit and loss includes both the current year's provision and the income tax effects of temporary differences calculated using the liability method.

Tax effect accounting is applied on a comprehensive basis to all temporary differences. A debit balance in the deferred tax account, arising from temporary differences or income tax benefits from income tax losses, is only recognised if it is probable there will be taxable profits available in the future against which the deferred tax asset can be utilised.

Subsequent realisation of the tax benefit is subject to the requirements of income tax legislation being met.

s) Borrowing costs
Borrowing costs are recognised as an expense when incurred except for those borrowing costs determined as directly attributable to the acquisition, construction or production of a qualifying asset (i.e. an asset that necessarily takes a substantial period of time to get ready for its intended use or sale).

t) Interest-bearing loans and borrowings
All loans and borrowings are initially recognised at the fair value of the consideration received net of issue costs associated with the borrowing.

After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortised cost using the effective interest method. Amortised cost is calculated by taking into account any issue costs, and any discount or premium on settlement.

For the purpose of valuing bank borrowings, the bank interest rate is taken as the discount rate. As such the bank borrowings are carried at the value of the debt with the bank.

u) Trade and other payables
Trade and other payables are carried at amortised cost and due to their short-term nature they are not discounted. They represent liabilities for goods and services provided to the Group prior to the end of the financial year that are unpaid and arise when the Group becomes obliged to make future payments in respect of the purchase of these goods and services. The amounts are unsecured and are usually paid within 60 days of recognition.

1.2 Significant accounting judgements, estimates and assumptions

a) Revenue recognition
Revenue is recognised based on the percentage of work completed on a project basis. Percentage of work completed is based on management judgement after considering such things as hours completed, costs incurred, milestones achieved, costs to complete and actual results to date.

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

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 Notes 10 and 21 of the Annual Report 2018.

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.

d) Defined benefit scheme
The Group operates an unfunded defined benefit plan. Significant assumptions used involving the plan include the discount rate and future salary increases as set out in the notes to the financial statements. Management used the experience of a registered actuary to reduce the risk of misstatement resulting from these judgements and estimates.

Published by Scion
49 Sala Street, Private Bag 3020, Rotorua 3046, New Zealand
www.scionresearch.com