

2019 ANNUAL REPORT

Reports and Financial
Statements

RIGHT TREE, RIGHT PLACE, RIGHT PURPOSE

SCION ANNUAL REPORT 2019

REPORTS AND FINANCIAL STATEMENTS

Presented to the House of Representatives pursuant to section 44 of the Public Finance Act 1989.

Our Annual Report is presented in two parts - Highlights (Part A) and Reports and Financial Statements (Part B). Together both documents fulfil our annual reporting responsibilities under the Crown Research Institutes Act 1992.

Highlights is an illustrated document containing the Chair and Chief Executive report, descriptions of our research performance, collaborations, work with Māori and outreach summary.

Our Annual Report is also available in digital format at www.scionresearch.com/annual-reports

Published by:

Scion

49 Sala Street, Private Bag 3020

Rotorua 3046

New Zealand

www.scionresearch.com

September 2019

© 2019 New Zealand Forest Research Institute Limited trading as Scion

ISSN 1177-1763 (print version)

ISSN 1178-5276 (online version)

CONTENTS

GOOD EMPLOYER AND EQUAL OPPORTUNITIES	4
1. Leadership, accountability and culture	4
2. Recruitment, selection and induction	4
3. Employee development, promotion and exit	5
4. Flexibility and work design	5
5. Remuneration, recognition and conditions	6
6. Harassment and bullying prevention	6
7. Safe and healthy environment	6
Achievements	7
ENVIRONMENTAL PERFORMANCE	8
CORPORATE GOVERNANCE	9
DIRECTORS' REPORT	10
Principal Activities	10
Summary of Group Financial Results to 30 June 2019	10
Remuneration and Compensation	11
Dividend	11
Directors' Profiles	12
Changes in Directors	12
Directors' Interests	13
Directors' Remuneration	13
Use of Company Information	13
The State of the Company's Affairs	13
Auditor	13
Directors' Indemnity and Insurance	13
Statement of Responsibility	13
PERFORMANCE TARGETS	15
NON-FINANCIAL INDICATORS	16
AUDIT REPORT	17
FINANCIAL STATEMENTS	20
BOARD OF DIRECTORS	47
REGISTERED OFFICE DETAILS	48

GOOD EMPLOYER AND EQUAL OPPORTUNITIES

Scion is committed to be a good employer and promoter of equal employment opportunities. Our people and performance practices and Scion values help build a culture and working environment that supports empowerment, diversity, equity, inclusion, innovation and accountability, which create an environment for the good employer principles to thrive.

We deliver on the good employer obligations through our Board Good Employer Policy and our Equal Employment Policy, along with our management policies, programmes and practices.

Progress against seven key good employer elements over the 2018-19 financial year is summarised below.

1. Leadership, accountability and culture

Promotion of Scion values continued, and we recognised the demonstration of values-aligned behaviours through our reward and recognition programmes.

Scion operates a three-dimensional leadership model: organisational, people and self-leadership. Respectively, these areas are supported by executive and management leadership development programmes, training courses for operational and supervisory leadership levels and DiSC profiling (see 3 below) for all employees. A succession map is developed within each team annually to identify and develop rising stars and future leaders.

Our people process and experiences significantly contribute to our overall organisational culture. We acknowledge the importance of including Māori in the DNA of Scion culture and continue to do so through building the appropriate knowledge, skills, behaviours and cultural awareness among our employees. Highlights in this area included Mihi 101, te reo Māori classes, powhiri and Māori talent development.

The introduction of pulse surveys in June will allow the business to review progress and the effect of programmes implemented as a result of this two-monthly employee climate survey and exit interview feedback.

2. Recruitment, selection and induction

Scion's recruitment and selection practices support our Equal Employment Policy to ensure that we recruit the best person for the job. We reject the use of terms that may be seen as discriminatory in our advertising, and our recruitment panels are informed on the principles of the Human Rights Act 1993. We also ensure that candidates have an opportunity to share any specific needs to be met in the recruitment process.

We continued to diversify how we recruit, and in pace with market trends utilise primarily electronic media platforms such as online job sites, social media, industry specific media and the Science New Zealand careers website. All Scion job advertisements, policies and careers site were updated to reflect our commitment to diversity, inclusion and EEO. Our People and Culture (P&C) Business Partners continued to support all hiring managers through the recruitment process alongside ongoing review of our recruitment processes and toolkit. The P&C Business Partners attended Employers and Manufacturers Association workshops to ensure our policies are kept up to date, for example, Domestic Violence Victim Protection Policy and employee contract offers.

During 2018-19, Scion remained stable at around 326 headcount for permanent and fixed term two-years plus, and recruitment was completed for executive level vacancies owing to the revised organisational structure.

At end of June 2019, the management complement was completed with the appointment of a General Manager Māori Forestry Futures, whose focus is on developing partnerships with iwi forestry interests as well as raising the profile and connection of Māori within Scion. Also, a Stakeholder and Policy Director was appointed to focus on the long-term strategic positioning of Scion at government level.

Ongoing recruitment to replace staff owing to termination and retirement continued alongside a staff turnover of 12%. Recruitment for short term, casual, temporary or vacation workers continued and included three post-doc positions, nine student vacation workers and 22 nursery workers. Focusing on continuous improvement, a recruitment tracker was implemented to assess recruitment turnaround times, success of various recruitment and advertising channels and provide clarity about where our talent is coming from.

Relocation allowances that assist newly appointed permanent employees were reviewed and streamlined. Employees from overseas who utilise this benefit are bonded for a minimum of two years, and 12-month bond applies for relocation within New Zealand.

The ratio between corporate to science positions is 1:2.6, and the ratio within the science environment between scientists and technicians is 1:1.7.

Scion's induction programme remained an essential element in successfully settling-in employees, particularly for international employees or those new to Rotorua. Our process is guided by a self-directed 'Induction Passport' that engages the employee with all key personnel, processes and policies.

Three whakatau were held to welcome new starters. Attendance at a whakatau, hosted by the Executive Management Team, is an important element demonstrating respect of Te Arawa, and for some of our employees offers their first experience of tikanga Māori. In addition, a powhiri was held to welcome the General Manager Māori Forestry Futures.

3. Employee development, promotion and exit

A significant change to our performance management tool known as ACE was initiated to simplify the process and refocus the performance conversation toward supported development, rather than "the ACE process". The ultimate goal is to delink remuneration increases, and the annual performance review, and shift toward a merit-based approach.

Organisational goals, both operational and cultural, will remain a focus although the new emphasis is on alignment with the individual, their team and the impact that they can genuinely achieve.

Scion-wide training utilising DiSC, a behavioural preference assessment tool, was introduced to lead our employees through change and to explore own and others' working styles in support of our drive for collaboration, wellbeing and engagement.

We discontinued use of the ACE performance management system for promotions, however, employees could continue to apply for career progression, into a higher job band, four times a year, with all applications reviewed by peers. Out of 14 applications, 11 employees were promoted via the progression process. During our remuneration round in November 2018, 22 people received band progressions linked to the ACE performance ratings criteria.

Turnover of permanent appointed employees was 12% (including redundancies). Employees have a choice between an online or face-to-face exit interview, which ensures feedback is collected on potential issues and how we may be able to do better or improve our practices. Exit survey results reflected an overall high positive outcome with individual positive indicators at 92% recommending Scion as an employer. Similar positive satisfaction levels were: commitment to Health and Safety 92%, learning and development 70%, leadership 70%, fairness and equity 65%, vision and strategy 60%, and towards Scion values at 89%.

Reasons for leaving varied between fixed term agreements coming to an end, retirements, promotional opportunities, family-related or ill-health related reasons and redundancy.

4. Flexibility and work design

Our employees have a high degree of autonomy and self-determination over their working time. We offer highly flexible work-times as well as the opportunity to work reduced hours.

At end of June, a total of 59 employees worked less than their contracted hours. One in five employees continued the previous year's trend of employees' working less than the conventional 40-hour work week.

We continuously explore opportunities to improve work/life balance using equal opportunities and equity design principles to offer a supportive workplace culture for the needs of our vastly diverse workforce ranging from working parents to those much older. This culture includes wellness programmes, with various events throughout the year, such as mindfulness, nutritionists, physical exercise, forest walks and so on.

We enjoy a very unique position with the Whakarewarewa Forest on our doorstep. Many staff head into the forest to run, walk or mountain bike on their breaks or after work. Walking meetings are encouraged, and our campus is dog-friendly, which is another reason to get outdoors.

Scion follows the Hay job evaluation methodology to align all roles, provide clarity in accountabilities and to improve learning and development opportunities, succession and mobility within the organisation.

5. Remuneration, recognition and conditions

Remuneration is based on job bands and remuneration ranges sourced from external market surveys produced by Korn Ferry Hay Group. Also, benchmarking of our internal position and salary data was done against five surveys and relevant international markets to accurately allow us to set a competitive 'pay position' for Scion. Annually we work with the PSA Union and the Scion Board of Directors to set the remuneration budget. In negotiation with the PSA Union we determine how this budget will be applied across all staff in the annual remuneration round.

This year, as in the past, we applied a performance-based increase and allocated a portion of the funding towards bringing pay parity where an employee's remuneration was below the band minimum. We believe that our remuneration process is free from discrimination, and we monitor for potential gender equity issues through an annual review of our remuneration, promotion and performance assessments conducted by an independent consultant.

Scion provides generous levels of paid sick leave to all employees. A total of 107 employees accessed sick and domestic leave beyond the legislative allowance. Scion also has an income protection and life insurance policy available to all permanent staff. One employee referral for income protection occurred. Three quarters of employees are in KiwiSaver. Seven Scion employees remain in the original Government Superannuation Fund where Scion contributes 16.6% per employee.

The Scion Annual Awards recognise individuals for their contribution and success. Two of the 14 awards went to project teams: the Scion Support Excellence award went to the Marketing and Communications Team, due to their professional and enthusiastic business-wide engagement; the Ligate™ team walked away with the Science Impact award for their tenacity, high quality of science, and impactful work over eight years, and specifically for their outstanding team work in 2017-18 leading to extraordinary outcomes under very challenging circumstances.

Monthly and quarterly all-staff meetings were held to share team and individual success stories, recognise long service contribution to Scion and to update the organisation on current projects.

Continuous recognition for employees also occurred through both Scion and team communication channels such as team meetings, Treehouse (staff intranet) and external *Scion Connections* newsletter plus online channels. Our team managers were also supported with a budget allowing them to celebrate success within their teams.

6. Harassment and bullying prevention

Scion believes in providing employees with the necessary skills to address relationship issues ensuring a proactive, efficient and effective workplace. Competency in these areas was improved through ongoing staff training in Mindfulness, Crucial Conversations, Essentials of Collaboration and Coaching for Managers. Guidelines around what constitutes bullying and the types of bullying, but with a positive message of "what it takes to not be only a good person but what makes you great" were well accepted and coincided with support for National Pink Shirt Day. This campaign was rolled out across the full organisation. The coaching focus for our leaders was on developing emotionally intelligent skills and attitudes to enable them to grow as facilitators and coaches.

The domestic violence policy was implemented, and information sessions held to ensure that all employees are informed on the availability and criteria. One request was made for time off since implementation.

Employees at Scion are able to access EAP for support for workplace and personal matters. The Christchurch mass shooting incident led to provision of site services, and ongoing monitoring is done through our People and Culture Business Partners, leadership and wellness teams. Trauma counselling was made available for both our Rotorua head office and Christchurch employees and families.

7. Safe and healthy environment

Scion has continued to advocate for a culture that promotes employee wellbeing and contribution to the Health and Safety environment. The appointment of an Health and Safety Manager and a Health and Wellness Advisor and the formalisation of a High-Hazard Safety Committee to address high risk areas and equipment supported our commitment to our staff.

Baseline health assessments of new staff continued, and biennial monitoring of staff exposed to hazards was completed. Emergency warden training was undertaken to ensure all wardens had received appropriate training.

The wellness calendar continued with a greater focus on key initiatives throughout the year, such as stress and anti-bullying. The year completed with 0 notifiable injuries and 1 notifiable near miss. There were 18 incidents and 42 near misses reported. In comparison for 2017-18, there were 2 notifiable injuries, 51 incidents and 32 near misses reported. Three staff were medically treated and 15 non-medically treated, compared to 18 and 31 respectively for 2017-18. A company-paid influenza vaccination was taken up by 190 staff, and 15 staff received paid tetanus vaccination in response to their risk exposure.

Achievements

- Wellness initiatives included activities and awareness around: Movember men's health month, Pink Shirt Day, BikeWise month, Cricket on the Oval, Ultimate Frisbee, Breast Cancer, Boot Camp and Zumba.
- Mindfulness training was delivered.
- Solo Protect Lone Worker devices were purchased for at-risk teams.
- H&S training for managers was delivered for all team managers and research leaders.
- Emergency warden procedure training was provided for all emergency wardens.
- A contractor management system was implemented.
- A new H&S software system was developed for launch in September 2019.
- The field work 'off-site' safety manual was relaunched.
- Critical risk reviews, focusing on high risk areas such as fire, mobile plant and vehicles and machine guarding, were commenced.

Work place profile as at 30 June 2019

Total staff	Total permanent employees 317 – 52.7% male and 47.3% female
FTEs	Full time equivalent employees total 300.46 (excludes fixed-term staff, students and post-docs – 28.51 (39 employees))
Disability	3.2% of employees are recorded as disclosing a disability
Age	29% of employees are in the under 40-years age group, 30% are in the 40 to 49 years age group and 41% in the 50 years and over age group
Māori	Māori represent 10.7% of permanent employees
Pacific Islander	1 employee is recorded as disclosing a Pacific Island nationality
Nationality	29% of employees are recorded as disclosing a nationality other than New Zealander or Māori, and represent 38 nationalities

ENVIRONMENTAL PERFORMANCE



Annual carbon emissions for the 2018-19 year were 233 tonnes CO₂eq lower than in 2017-18, and overall lower than in the previous four years of monitoring. This result was due to reduced emissions from air travel and gas usage, as well as a change in the emission factor related to electricity. The factor is 0.82 of last year's factor, so even though we used 204,368 more kWh in 2018-19 our emissions related to electricity were 61.88 tonnes CO₂eq lower. Gas usage remained the highest source of our emissions, and air travel and electricity came next at 28% and 20% respectively.

Following an energy audit by EnergyNZ in December 2017, we focussed on reducing gas usage in our steam boiler while still meeting our science needs. The first phase of this project was completed with the gas requirement for steam production reduced by 2500 m³ per month. Energy will continue to be a focus for reduction in 2019-20.

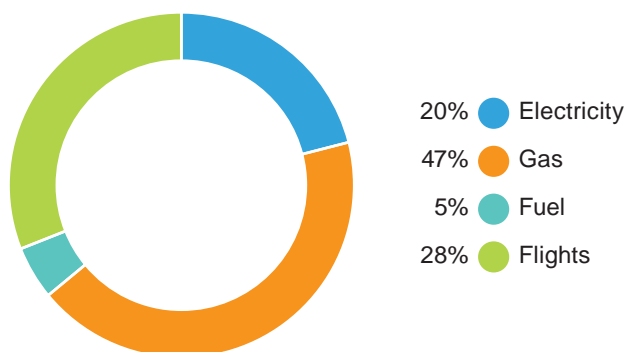
In line with our environmental policy to reduce waste to landfill, we successfully completed a two-month monitoring programme of waste bin pick-ups to determine the optimum frequency of bin pick-ups. We expect next year that a reduction in pick-up frequency should result in the 'bin volume picked-up' being more closely aligned with 'volume of waste to landfill'. The reduced pickup frequency should also decrease Scion's annual waste bill by up to 30%.

Our recycling programme at our Rotorua site continued with 33m³ of plastics, cans and glass recycling delivered to the Rotorua Recycling Centre during the year. Cardboard and paper recycling went directly to Oji Fibre Solutions for fibre recovery at the Kinleith and Penrose mills. E-waste was returned to HP through the HP recycling scheme or delivered directly to the Rotorua E-Waste centre. Some 1250kg of food waste from our café and tea areas was diverted from landfill to our on-site vermicompost system.

Chemical management on-site was improved this year with an updated inventory system that enabled barcoding of all chemicals on-site. Also, a single-point sign-off for receipt and disposal of chemicals through our Chemical Compliance Coordinator was introduced.

A Sustainability Committee was formed to increase the visibility and impact of activities at our Rotorua and Christchurch sites. A well-attended 'sustainability morning tea' raised the profile of sustainability actions already happening at Scion and encouraged staff to submit ideas for further improvement of Scion's environmental footprint.

Relative CO₂ loads from Scion activities for 2018-19



CORPORATE GOVERNANCE

Scion's Board of Directors is appointed by its shareholding Ministers, the Minister of Science and Innovation and the Minister of Finance. All members of the Board are independent. The responsibility of the Board is to guide and monitor the business of Scion and its subsidiaries including:

- reviewing and approving Scion's strategy and Statement of Corporate Intent;
- adopting policies of corporate conduct (including risk management and delegations of authority) and ensuring that systems and procedures are in place to carry out those policies;
- adopting annual operating and capital plans, and budgets;
- monitoring performance against key objectives and budgets on a monthly basis;
- ensuring Scion proactively meets all health and safety requirements;
- evaluating the performance of the Chief Executive; and
- reviewing and improving the effectiveness of the Board.

The Board operates in accordance with Scion's Constitution. It has up to seven directors who meet 11 times over the year either in person or by video conference. The Chief Executive and General Manager Finance and Corporate Services (who is also the Company Secretary) attend all meetings. The Board may retain independent advisers, including independent legal counsel or other experts, as it deems appropriate.

The Board has two standing committees, the Audit and Risk Committee and the Remuneration and Organisation Committee. These meet twice yearly but may meet more regularly if the need arises. In addition the Board has a special purpose committee to provide governance and guidance for the development of Scion's Rotorua campus.

The function of the Audit and Risk Committee is to assist the Board in discharging its responsibilities regarding financial reporting, regulatory conformance and matters of risk management. The committee is the liaison point for internal and external auditors, assesses the performance of financial management (the investment cases for major items of capital expenditure), reviews audit findings, the annual financial statements and interim financial information, and has oversight of the development and review of policies to ensure compliance with statutory responsibilities.

The function of the Remuneration and Organisation Committee is to assist the Board in the establishment and regular review of remuneration and organisation policies and practices, and to assist the Board in discharging its responsibilities relating to the appointment, remuneration setting and review of Scion's Chief Executive. The committee also approves the appointment and remuneration of senior executives and inputs into and monitors achievement of the annual Health and Safety Plan.

Each standing committee comprises no less than three members of the Board, appointed by the Board from time to time; and meets at least twice annually and intersessionally as required. While the Chair of the Board is an ex-officio member of each committee and has full voting rights, s/he may not be Chair of the Audit and Risk Committee.

All Directors are entitled to attend all committee meetings. Each committee establishes annual work plans and undertakes an annual review of its objectives and responsibilities, and its terms of reference. Each committee also makes regular reports to the Board.

The Board's risk management policy and procedures involve formal reporting by management of the most significant risks Scion is exposed to, and the Board regularly monitors management of those risks. There is also regular monitoring and reporting on progress in meeting recommendations made by external auditors.

DIRECTORS' REPORT

Principal Activities

New Zealand Forest Research Institute Limited (trading as Scion) is a company registered under the Companies Act 1993. Our principal activity is to conduct research in accordance with the purpose and principles specified in Sections 4 and 5 of the Crown Research Institutes Act 1992 (the Act). Scion has met all the obligations under the Act for the year ended 30 June 2019.

Scion is a commercially focused science and technology company, delivering solutions to both commercial and Crown clients. While the principal research facility is located in Rotorua there are also offices in Christchurch and Wellington.

Scion has two wholly-owned subsidiaries (Te Papa Tipu Properties Limited and Sala Street Holdings Limited), is a 50% shareholder in Terax 2013 Limited and is a 50% partner in Terax Limited Partnership, and has a 33% shareholding in an associate company Biopolymer Network Limited.

- Te Papa Tipu Properties Limited owns the Group's land assets.
- Sala Street Holdings Limited is a holding company, holding Scion's 50% share of Terax 2013 Limited and Terax Limited Partnership.
- Terax 2013 Limited is the general partner for Terax Limited Partnership.
- Terax Limited Partnership is a limited partnership jointly owned by Scion (through Sala Street Holdings Limited) and Rotorua District Council and has been set up to commercialise a waste minimisation process.
- Biopolymer Network Limited is an incorporated joint venture whose purpose is to create technologies for advancing the utilisation of renewable bio-based materials in industrial applications.

Summary of Group Financial Results to 30 June 2019

	2019 \$000	2018 \$000
Operating revenue	55,935	56,737
Surplus before taxation	2,212	3,083
Taxation expense	(590)	(890)
Net surplus attributable to the shareholders	1,622	2,193
Equity		
Issued and paid up capital	17,516	17,516
Retained earnings	24,955	23,333
Reserve	216	138
Total equity	42,687	40,987

Scion's strategy focuses on delivering science and technologies to help transition to a circular bioeconomy. Included within Scion's research activities are:

- Climate research and the environmental potential of forest systems
- Digital technology and precision forestry
- Wood products, engineering and the built environment
- Wood fibre, biopolymer and biochemical industries
- Genetics and the opportunity for realising genetic gain
- Biosecurity and forest resilience
- Bioenergy and energy security through forest biomass
- Biotechnology to redesign trees and microbes

The Statement of Corporate Intent maps out the strategic framework for Scion to achieve outcomes aligned to its Statement of Core Purpose, and the New Zealand Government's overarching objective for Crown Research Institutes to lead the country's economic growth with improved environmental, social and cultural outcomes; in particular increase export earnings to the equivalent of 40% of GDP by 2025.

Scion's science and commercial focus is strongly aligned with the opportunities being presented locally, nationally and globally, and when brought together, will continue to enable Scion to provide leadership on issues of local, national and global significance.

Remuneration and Compensation

Remuneration and compensation included performance awards, superannuation benefits, and KiwiSaver subsidy. Some other benefits were not quantified and are therefore excluded, including staff parking, home telephone, and membership of relevant professional societies.

Bands	Number in Each Band
\$520,000 – \$529,999	1
\$310,000 – \$319,999	1
\$290,000 – \$299,999	1
\$270,000 – \$279,999	1
\$260,000 – \$269,999	1
\$220,000 – \$229,999	1
\$200,000 – \$210,999	1
\$170,000 – \$179,999	1
\$150,000 – \$159,999	5
\$140,000 – \$149,999	7
\$130,000 – \$139,999	5
\$120,000 – \$129,999	10
\$110,000 – \$119,999	5
\$100,000 – \$109,999	18
Total	58

During the year ended 30 June 2019, \$563,020 was paid to nine employees in relation to cessation of employment with Scion (2018: \$148,574 to five employees). Cessation payments included \$223,489 for six employees of retirement benefits (2018: \$36,446).

Dividend

No dividend was recommended for the year ended 30 June 2019 (2018: \$0k).

Directors' Profiles

Dr Helen Anderson (Chair) is an experienced director and is currently chair of BRANZ, MBIE's Building Advisory Panel, and Wellington branch of the Institute of Directors. She recently chaired the technical inquiry into the performance of Statistics House during the Kaikoura earthquake. Dr Anderson is a Chartered Fellow of the Institute of Directors and she sits on the Institute of Directors National Council. She holds other directorships in the research, software and technology area including Massey University (Pro-Chancellor), NIWA, DairyNZ, Antarctica NZ, and ClearPoint Ltd. Dr Anderson commenced on 6 August 2018.

Mr Greg Mann (Director) has over 20 years' of management experience in organisations that conduct research and develop and market valuable new products, services and technologies globally. Currently, he is the General Manager of ArborGen Australasia. ArborGen is the leading global supplier of conventional and advanced genetic tree seedlings to the forestry sector. Greg has a BSc (Hons) from Victoria University and has completed executive training programmes at Darden Business School and the Massachusetts Institute of Technology.

Ms Colleen Neville (Waikato-Tainui) (Director) is the Rotorua-based Chief Executive Officer of Te Arawa Group Holdings Limited. She is a chartered accountant and has 20 years' experience in a range of financial roles for national and international companies. Colleen has governance experience as a Director of Te Arawa Group Holdings Limited subsidiaries, Te Kakano Whakatipu Limited, Matai Pacific Iwi Collective Ltd and Tourism New Zealand.

Dr Barry O'Neil (Director) is the principal Director of Keronlea Ltd, a company specialising in biosecurity consultancy. He is the Chair of Horticulture NZ, and of Tomatoes NZ. He also sits on the governance board of New Zealand's Biological Heritage National Science Challenge, and chairs the kauri dieback independent review panel. Barry's career experience includes policy and international standard setting, trade negotiations, biosecurity and food safety risk-management activities from leading MAF's Biosecurity NZ. He recently concluded six years as Chief Executive of Kiwifruit Vine Health, the kiwifruit biosecurity organisation that led the response to the vine disease PsA-V. Barry also owns a kiwifruit orchard in Katikati.

Ms Stana Pezic (Director) is currently Chief Financial Officer of CHT Healthcare Trust. She has over 20 years' experience in financial management, general management, business planning and strategy, process change and information systems spanning a broad range of industries including forestry and wood processing. Her previous governance roles include six years as a director and chair of the Audit & Risk Committee of Plant and Food Research Ltd. Stana is a chartered accountant and has a BCom and DipBus from Auckland University.

Dr Jon Ryder (Director) is currently the Chief Executive Officer of Oji Fibre Solutions (Oji FS) - Pulp, Paper and Packaging and is directly responsible for all activities of these businesses: health, safety and environment, EBIT, manufacturing, engineering, sales and marketing and strategic development. Jon has gained over 30 years' experience in the forestry, pulp and paper business. Jon's interest in the industry started from his biochemistry degree from Manchester University and then a PhD from UMIST in Pulp and Paper Manufacturing. His career has spanned international boundaries starting in the United Kingdom in technical and production management of fine coated papers mills, in New Zealand with packaging paper manufacturing at Kinleith and then pulp mill management experience at Tasman. He also managed the Pulp and Paper Mills in Australia as well as sales and marketing functions for Australian Papers. Jon returned to New Zealand in 2012 to take up the challenge as CEO of the business formerly known as Carter Holt Harvey Pulp, Paper and Packaging. The name changed to Oji Fibre Solutions (Oji FS) in November 2015 following the sale of the business on 1 December 2014 to a joint venture between Oji Holdings and Innovation Network Corporation of Japan (INCJ).

Mr Steve Wilson (Director) was awarded the New Zealand Order of Merit (MNZM) for services to industry, is a Fellow of the New Zealand Institute of Management Leadership and a Life Member of Plastics New Zealand. Steve is Managing Director and owner of Talbot Technologies Ltd, a technical plastics manufacturer based in Christchurch. His other current roles include Director, Holmes Solutions LP, and Chairman of the Advisory Board for the Product Accelerator. Steve is a graduate mechanical engineer (BE 1st Class, Canterbury). Steve has had 38 years' experience as a CEO of companies primarily in the engineering, garment and plastics industries. He has had a diverse range of governance roles on boards of technology companies, venture capital companies and of manufacturing exporters.

Changes in Directors

Dr Helen Anderson was appointed Chair from 6 August 2018. Mr Tony Nowell resigned as Chair on 5 August 2018.

Directors' Interests

Any business the company has transacted with organisations in which a Director has an association has been carried out on a commercial 'arms-length' basis.

Directors' Remuneration

	Scion 30 June 2019	
Tony Nowell	4,833	
Helen Anderson	52,387	
Greg Mann	28,500	
Colleen Neville	28,500	
Barry O'Neil ²	30,500	² Chair Remuneration and Organisation Committee
Stana Pezic ¹	30,500	¹ Chair Audit and Risk Committee
Jon Ryder	28,500	
Steve Wilson	28,500	
Total	\$232,220	

Use of Company Information

During the year no notices were received from members of the Board requesting to use Scion information received in their capacity as Directors which would not otherwise have been available to them. Additions to the Interests Register are noted in the profiles above.

The State of the Company's Affairs

A commentary on the year's performance is outlined in the Chair's and Chief Executive's Report and in the opinion of the Directors, the state of the company's affairs continues to be satisfactory and the outlook bright.

Auditor

In accordance with Section 21 of the Crown Research Institutes Act 1992, the Office of the Auditor General is Auditor for the Company and, pursuant to Section 29 of the Public Finance Act 1977, has appointed Ernst & Young to undertake the audit on its behalf.

Directors' Indemnity and Insurance

Scion has insured all Directors and the Directors of its subsidiaries against liabilities to other parties (except to Scion or a related party of Scion) that may arise from their position as Directors. The insurance does not cover liabilities that may arise from criminal actions.



For and on behalf of the Board
Dr Helen Anderson
Chair 4 September 2019

Statement of Responsibility

The following statement from the Board is made in accordance with Section 155 of the Crown Entities Act 2004:

1. The Board is responsible for the preparation of the annual financial statements and the judgements used in these.
2. The Board is responsible for establishing and maintaining a system of internal control designed to provide reasonable assurance as to the integrity and reliability of the financial reporting.
3. In the opinion of the Board, the annual financial statements for the year ended 30 June 2019 fairly reflect the financial position and operations of the New Zealand Forest Research Institute Limited.



Dr Helen Anderson
Chair



Ms Stana Pezic
Director

4 September 2019

PERFORMANCE TARGETS

	Calculation	Actual 2019	Budget 2019	Actual 2018
Efficiency:				
Operating margin	Earnings Before Interest, Tax, Depreciation, Amortisation and Fair-value (EBITDAF)/Revenue	10.7%	11.5%	10.7%
Operating margin per FTE	EBITDAF/FTE	\$17,882	\$20,012	\$19,658
Risk:				
Quick ratio	Current assets less inventory less prepayments/Current liabilities less revenue received in advance	1.79:1	1.39:1	2.28:1
Interest coverage	EBITDAF/Interest paid	N/A	N/A	N/A
Operating margin volatility	Standard deviation of EBITDAF for past five years/Average EBITDAF for the past five years	9.3%	6.4%	8.3%
Forecasting risk	Five-year average of return on equity less forecast return on equity	1.0%	1.0%	1.8%
Growth/Investment:				
Adjusted return on equity	NPAT excluding fair value movements (net of tax)/Average of share capital plus retained earnings	3.3%	4.0%	4.8%
Revenue growth	% change in revenue	-1.4%	3.9%	9.3%
Capital renewal	Capital expenditure/Depreciation expense plus amortisation expense	2.2x	3.2x	2.3x

NON-FINANCIAL INDICATORS

Non-financial targets

Indicator name	Measure	Frequency	2019 Target	2019 Actual
End user collaboration	Revenue per FTE (\$) from commercial sources	Quarterly	\$76,568	\$73,698
Research collaboration	Publications with collaborators	Quarterly	>90	108
Technology and knowledge transfer excellence	Commercial reports per scientist FTE	Annually	1.0	1.0
Science quality	Mean citation score	Annually	2.6	3.46
Financial indicator	Revenue per FTE (\$)	Quarterly	\$174,496	\$166,530
Stakeholder engagement	Relevant funding partners and other end users (number and %) that have a high level of confidence that Scion sets research priorities relative to the forest industry and biomaterials sector	Biennial	MBIE survey n>30; 85%	Survey not conducted in 2018/19
	National and international research providers (%) who are confident that Scion considers their organisation's research priorities when setting its own	Biennial	MBIE survey >85%	Survey not conducted in 2018/19
	Relevant end-users (%) who are satisfied with their experience of accessing knowledge or technology from Scion	Biennial	MBIE survey >90%	Survey not conducted in 2018/19
Māori economic development	Partnerships (number (n) and value (\$)) established with Māori entities to support economic development through the forest industry	Quarterly	n>5 >\$1m	\$2.8m
Accelerated commercialisation	Technologies in Scion's pipeline (number and co-investment (\$)); projects that progress to the business case stage (case studies)	Quarterly	25 & \$600k; Cases >4pa	27 \$1.9m 5
Internationalisation	Joint research and technology development programmes and staff exchanges with Scion's international strategic partner organisations	Six monthly	10 1	13 0
People and culture	Staff recruitment and retention (quality and days to fill); leadership development (assessment); health and safety; and internal staff satisfaction survey (biennial)	Annual and Biennial	Qualitative <50 days; Safety first	Recruitment 54 days Turnover 14.2% 0 notifiable injuries



Independent auditor's report

To the readers of New Zealand Forest Research Institute Limited's Group financial statements for the year ended 30 June 2019

The Auditor-General is the auditor of New Zealand Forest Research Institute Limited Group (the Group). The Auditor-General has appointed me, Simon Brotherton, using the staff and resources of Ernst & Young, to carry out the audit of the financial statements of the Group on his behalf.

Opinion

We have audited the financial statements of the Group on pages 20 to 46, that comprise the consolidated statement of financial position as at 30 June 2019, the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year ended on that date and the notes to the consolidated financial statements that include accounting policies and other explanatory information.

In our opinion, the consolidated financial statements of the Group:

- ▶ present fairly, in all material respects:
 - its consolidated financial position as at 30 June 2019; and
 - its consolidated financial performance and cash flows for the year then ended; and
- ▶ comply with generally accepted accounting practice in New Zealand in accordance with New Zealand Equivalents to International Financial Reporting Standards.

Our audit was completed on 4 September 2019. This is the date at which our opinion is expressed.

The basis for our opinion is explained below. In addition, we outline the responsibilities of the Board of Directors and our responsibilities relating to the consolidated financial statements, we comment on other information, and we explain our independence.

Basis for our opinion

We carried out our audit in accordance with the Auditor-General's Auditing Standards, which incorporate the Professional and Ethical Standards and the International Standards on Auditing (New Zealand) issued by the New Zealand Auditing and Assurance Standards Board. Our responsibilities under those standards are further described in the Responsibilities of the auditor section of our report.

We have fulfilled our responsibilities in accordance with the Auditor-General's Auditing Standards.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of the Board of Directors for the consolidated financial statements

The Board of Directors is responsible on behalf of the Group for preparing consolidated financial statements that are fairly presented and that comply with generally accepted accounting practice in New Zealand.

The Board of Directors is responsible for such internal control as it determines is necessary to enable it to prepare consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Board of Directors is responsible on behalf of the Group for assessing the Group's ability to continue as a going concern. The Board of Directors is also responsible for disclosing, as applicable, matters related to going concern and using the going concern basis of accounting, unless the Board of Directors has to cease operations, or has no realistic alternative but to do so.

The Board of Directors' responsibilities arise from the Crown Research Institutes Act 1992.

Responsibilities of the auditor for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements, as a whole, are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but it is not a guarantee that an audit carried out in accordance with the Auditor-General's Auditing Standards will always detect a material misstatement when it exists. Misstatements are differences or omissions of amounts or disclosures and can arise from fraud or error. Misstatements are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of readers taken on the basis of these consolidated financial statements.

For the budget information reported in the consolidated financial statements, our procedures were limited to checking that the information agreed to the Group's statement of corporate intent.

We did not evaluate the security and controls over the electronic publication of the consolidated financial statements.

As part of an audit in accordance with the Auditor-General's Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit. Also:

- ▶ We identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- ▶ We obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- ▶ We evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board of Directors.
- ▶ We conclude on the appropriateness of the use of the going concern basis of accounting by the Board of Directors and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- ▶ We evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- ▶ We obtain sufficient appropriate audit evidence regarding the financial statements of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with the Board of Directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Our responsibilities arise from the Public Audit Act 2001.



Other Information

The Board of Directors is responsible for the other information. The other information comprises the information included in Part A of the Annual Report, which we have not obtained prior to the date of this report, and in Part B of the Annual Report, which we have obtained prior to the date of this report, but does not include the financial statements, and our auditor's report thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of audit opinion or assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information. In doing so, we consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based upon the work we have performed on the other information obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Independence

We are independent of the Group in accordance with the independence requirements of the Auditor-General's Auditing Standards, which incorporate the independence requirements of Professional and Ethical Standard 1 (Revised): *Code of Ethics for Assurance Practitioners* issued by the New Zealand Auditing and Assurance Standards Board.

We provide advisory services to Scion in the ordinary course of business. Other than the audit and this work, we have no relationship with, or interests in, the Group.

A handwritten signature in black ink, appearing to read 'S Brotherton', is written over a horizontal line.

Simon Brotherton
Ernst & Young
On behalf of the Auditor-General
Auckland, New Zealand

FINANCIAL STATEMENTS

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME FOR THE YEAR ENDED 30 JUNE 2019

	Note	ACTUAL 2019 \$000	BUDGET (unaudited) 2019 \$000	ACTUAL (restated) 2018 \$000
Revenue	2 (a)	55,935	59,167	56,737
Other Income/(Expenditure)	2 (b)	267	o	280
Expenditure	3 (a)	(53,737)	(56,808)	(53,839)
Finance Costs	3 (b)	o	o	(1)
Share of Profit/(Loss) of Associates	14 (b)	(253)	o	(94)
Profit Before Tax		2,212	2,359	3,083
Tax Expense	9	(590)	(684)	(890)
Profit for the year after tax		1,622	1,675	2,193
Other comprehensive income that will not be reclassified to profit or loss in subsequent periods, net of tax				
Revaluation of Heritage Assets		12	o	o
Revaluation of Carbon Units		25	o	86
Remeasurement of gain/(loss) on defined benefit plan		41	o	(9)
Total other comprehensive income, net of tax		78	o	77
Total comprehensive income for the period attributable to the shareholders of the parent company		1,700	1,675	2,270

The accompanying notes form part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED 30 JUNE 2019

		Ordinary Shares	Asset Revaluation & Pension Reserve	Retained Earnings	Total	Ordinary Shares	Asset Revaluation & Pension Reserve	Retained Earnings	Total
	Note	2019 \$000	2019 \$000	2019 \$000	2019 \$000	2018 \$000	2018 \$000	2018 \$000	2018 \$000
GROUP									
Balance as at 1 July		17,516	138	23,333	40,987	17,516	61	21,140	38,717
Profit for the period		0	0	1,622	1,622	0	0	2,193	2,193
Other comprehensive income		0	78	0	78	0	77	0	77
Total comprehensive income		0	78	1,622	1,700	0	77	2,193	2,270
Balance as at 30 June	5	17,516	216	24,955	42,687	17,516	138	23,333	40,987

The accompanying notes form part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

AS AT 30 JUNE 2019

	Note	ACTUAL 2019 \$000	BUDGET (unaudited) 2019 \$000	ACTUAL (restated) 2018 \$000
Equity				
Share capital	5	17,516	17,516	17,516
Retained earnings	5	24,955	25,012	23,333
Revaluation reserve	5	216	61	138
		42,687	42,589	40,987
Non-Current Liabilities				
Provisions	6	490	475	475
Defined benefit plan	7(a)	705	787	682
Deferred tax liability	9(d)	919	980	828
		2,114	2,242	1,985
Current Liabilities				
Trade and other payables	8	10,265	10,768	13,158
Provisions	6	46	397	397
Defined benefit plan	7(a)	133	259	259
Tax payable		0	228	339
		10,444	11,652	14,153
Total Equity and Liabilities		55,245	56,483	57,125
Non-Current Assets				
Property, plant and equipment	10	38,314	41,407	32,398
Biological assets	11	1,095	548	828
Intangible assets	12	564	869	682
Investments in associates	14	241	369	494
Other investments		0	0	0
		40,214	43,193	34,402
Current Assets				
Cash and cash equivalents	15	5,789	4,460	13,934
Trade and other receivables	16	8,826	8,450	8,398
Inventories	17	337	380	391
Tax receivable		79	0	0
		15,031	13,290	22,723
Total Assets		55,245	56,483	57,125

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 4 September 2019.



Chair



Director

CONSOLIDATED STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED 30 JUNE 2019

		ACTUAL	BUDGET	ACTUAL
	Note	2019	(unaudited)	2018
		\$000	2019	2018
		\$000	\$000	\$000
Cash Flows from Operating Activities				
Cash was provided from:				
Receipts from customers		53,434	58,833	56,248
Interest received		293	187	506
		53,727	59,020	56,754
Cash was applied to:				
Payments to employees		29,668	30,486	27,054
Payments to suppliers		21,889	21,542	21,305
Income tax paid		938	691	1,175
		52,495	52,719	49,534
Net cash flows from operating activities	19	1,232	6,301	7,220
Cash Flows from Investing Activities				
Cash was provided from:				
Proceeds from sale of fixed assets		(23)	0	0
		(23)	0	0
Cash was applied to:				
Purchase of property, plant and equipment		9,400	14,600	8,640
Purchase of intangibles		0	150	38
Additional investment in associate		0	0	125
		9,400	14,750	8,803
Net cash flows used in investing activities		9,377	14,750	(8,803)
Net Increase/(Decrease) in Cash Held		(8,145)	(8,449)	(1,583)
Add opening cash brought forward		13,934	12,909	15,517
Ending Cash Carried Forward	15	5,789	4,460	13,934

The accompanying notes form part of these consolidated financial statements.

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2019

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. 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, and other applicable Financial Reporting Standards, as appropriate for profit-oriented entities. The consolidated financial statements comply with International Financial Reporting Standards (IFRS).

c) Basis of Consolidation

The consolidated financial statements comprise the financial statements of the Company 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.

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2019

c) Basis of Consolidation (cont.)

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 Group'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 profit 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/	Amortisation method reviewed at each financial year-end
Recoverable amount testing	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 (NZU's) 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 NZU's arises when the Group is entitled to claim the NZU's from the government.

NZU's are initially measured at fair value on entitlement as an intangible asset unless the Board have determined they are held for sale, in which case they would be recorded at fair value as inventory.

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2019

e) Intangible Assets (cont.)

Following initial recognition, the intangible asset is measured at fair value when the Board of Directors consider there is an active market for the sale of NZU's. NZU's 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 less accumulated impairment losses (if any). 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 a non-financial asset (except for biological assets and inventory) 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.

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2019

i) Trade Receivables

Trade receivables are classified as financial assets at amortised costs. Trade receivables are initially recognised at fair value and subsequently valued at amortised cost less impairment allowance.

The group applies a simplified approach in calculating expected credit losses (ECLs) for trade receivables, i.e. a loss allowance for trade receivables is based on lifetime ECLs at each reporting date. The group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment. The provision rates are based on days due for grouping of various customer segments with similar loss patterns. The calculation reflects the probability-weighted outcome, the time value of money and reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions.

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

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.

m) Employee Benefits

(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 through other comprehensive income 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.

n) 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.

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2019

n) Leases (cont.)

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.

o) 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.

p) Goods and Services Tax (GST)

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

q) 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.

r) Revenue Recognition

Revenue from contracts with customers

Research revenue

Research revenue from both Government and commercial sources (except for government grants) is recognised over time using an input method to measure progress toward complete satisfaction of the service, because the Group's performance does not create an asset with an alternative use and the Group has an enforceable right to payment for performance completed to date. Revenue is recognised by reference to costs incurred to date 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 under research revenue includes non-devolved revenue received from the Ministry of Business Innovation and Employment in the form of Endeavour Funding, and Preseed Accelerator Fund programmes. Government revenue has only been recognised after all appropriate conditions have been met.

Sale of goods and rendering services (Fee for services)

Revenue from work programmes under Commercial Testing Services and Nursery crops is recognised at the point of time when control is transferred to the customer, generally on dispatch of crops to the customer or when service is completed.

Other revenue

Government grants

Government Grants includes devolved revenue from the Ministry of Business Innovation and Employment in the form of Strategic Science Investment Funding. Government Grant revenue has only been recognised after all appropriate conditions have been met.

Rent revenue

Rent revenue is recognised when earned.

Interest revenue

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

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2019

s) **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. Current income tax relating to items recognised directly in equity is recognised in equity and not in profit or loss.

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.

t) **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).

u) **Interest-bearing Loans and Borrowings**

All loans and borrowings are classified as financial liabilities at amortised costs. They 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.

v) **Trade and Other Payables**

Trade and other payables are classified as financial liabilities at amortised costs. They 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**

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.

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 10 and 21.

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2019

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 to value the plan liability 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.

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:

	Date Applicable for Scion
• NZ IFRS 10 Consolidated Financial Statements	1 July 2020
• NZ IFRS 16 Leases	1 July 2019
• IAS8 Accounting Policies, Changes in Accounting estimates and Errors	1 January 2020
• NZ IAS 28 Investments in Associates and Joint Ventures	1 July 2020

There are no amendments to standards that affect Scion's Consolidated Financial Statements. The impact of NZIFRS 16 Leases which comes in from next financial year hasn't been completed but it isn't expected to have a material impact on the Groups accounts.

1.4 New Accounting Standards and Amendments

The Group adopted, for the first time, NZ IFRS 15 and NZ IFRS 9 in the current financial year. The new standards do not have a material impact on the Group's financial statements. For accounting policies under the new standards, refer to the relevant notes.

Scion have adopted the modified retrospective method in the implementation of IFRS 15.

1.5 Prior Period Restatement

Prior period balances have been adjusted to reflect the recognition of revaluation of carbon units and defined benefit obligations through other comprehensive income rather than the profit and loss. The 2018 input of this was \$77k net of deferred tax.

No adjustment of 1 July 2017 balances has been recorded.

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2019

	ACTUAL 2019 \$000	ACTUAL 2018 \$000
2. Revenue and Other Income		
(a) Revenue		
<i>Revenue from Research Contracts</i>		
Government research revenue	13,272	14,013
Commercial research revenue	23,578	23,618
	36,850	37,631
Government grants	17,733	17,733
<i>Other Income</i>		
Commercial lease revenue	788	767
Interest revenue	314	473
Other revenue	250	133
	1,352	1,373
Total Revenue and Other Income	55,935	56,737
(b) Other Income/(Expenditure)		
Change in fair value of plantation trees	267	280
	267	280
3. Expenditure and Finance Costs		
(a) Expenditure		
Personnel remuneration and expenses	29,192	27,077
Other personnel related costs	569	852
Contractors and subcontractors	9,321	10,056
Consumables	1,628	1,519
External services	3,306	3,432
Travel and accommodation	2,032	2,243
Lease and rental costs	278	285
Depreciation	4,199	3,576
Amortisation	143	163
Loss on disposal of fixed assets	(20)	257
Impairment of assets	0	300
Reversal of impairment	0	(2)
Premises	2,379	2,788
Directors' fees	240	236
Restructuring costs	(18)	418
Doubtful debt provision	0	0
Bad debts expense	3	(1)
Realised exchange fluctuations	(8)	2
Other	494	638
	53,738	53,839
(b) Finance Costs		
IRD use of money interest	0	1
	0	1
4. Auditor's Remuneration		
Amounts paid or due and payable to the auditors for:		
Auditing financial statements		
Parent entity auditor	152	116
	152	116

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2019

5. Equity

New Zealand Forest Research Institute Limited has authorised, issued and paid up capital of 17,516,000 (2018: 17,516,000) ordinary shares. Shares do not have a par value.

All shares have equal rights with respect to voting, dividends and distribution on winding up. There are no restrictions on the distribution of dividends or repayment of capital.

No dividends were declared or paid to shareholders during the year (2018: \$0).

The asset revaluation reserve is used to record increments and decrements in the fair value of heritage book assets, fair value movement in revaluation of carbon units and defined benefit plan. Movements in the asset revaluation reserve are not reclassified to the profit and loss in subsequent periods.

Capital Management

Scion is 100% Crown owned. Scion completes a five-year plan on an annual basis and as part of that five-year plan, any capital requirements for the future. When managing capital, management's objective is to ensure the entity continues as a going concern while balancing its financial goals of delivering returns in line with market cost of capital, with its public good goals of reinvesting in science that will benefit New Zealand. Management uses total equity as capital. The Group has no externally imposed capital requirements.

6. Provisions

The Group has provisions for long service leave and restructuring. The long service leave provision totals \$536k at June 2019 (2018: \$551k) and was actuarially valued by Aon Hewitt Consulting, an independent risk management and consulting organisation.

The Group has a restructuring provision of \$0k at June 2019 (2018: \$321k).

The provisions are made up as follows:

	ACTUAL 2019 \$000	ACTUAL 2018 \$000
Current Provision	46	397
Non-Current Provision	490	475
	536	872

Movement in each class of provision during the year is as follows:

	Long Service Leave 2019 \$000	Restructuring 2019 \$000	TOTAL 2019 \$000	Long Service Leave 2018 \$000	Restructuring 2018 \$000	TOTAL 2018 \$000
Balance 1 July	551	321	872	551	28	579
Provision reversed during the year	0	(18)	(18)	0	(8)	(8)
Amounts used during the year	(98)	(303)	(401)	(11)	(20)	(31)
Provisions made during the year	83	0	83	11	321	332
Balance 30 June	536	0	536	551	321	872

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2019

7. Pension Plans (cont.)

a) Defined Benefit Plan

The history of experience adjustments is as follows:

	2019 \$000	2018 \$000	2017 \$000	2016 \$000	2015 \$000
Experience adjustments on plan liabilities	(6)	(22)	(80)	(37)	(75)

The principal actuarial assumptions used in determining the defined benefit plan obligations are shown below:

	2019 \$000	2018 \$000
Discount rate	2.42%	3.70%
Future salary increases	3.20%	4.10%

At 30 June a change in the assumed rates of salary growth and resignation rates, all other assumptions remaining unchanged, would affect the balance of the liability as follows:

	ACTUAL 2019 \$000	ACTUAL 2018 \$000
Current obligation	838	941
Salary growth		
Reduction of 1% per annum	792	895
Increase of 1% per annum	886	991
Resignation rates		
150% of assumed rates	820	922
50% of assumed rates	856	961

Interest rate assumptions are based on Treasury's published risk-free discount rates.

b) Defined Contribution Plan

During the period defined contributions totalling \$702k (2018: \$703k) were made to the Government Superannuation Fund and KiwiSaver.

8. Trade and Other Liabilities

	ACTUAL 2019 \$000	ACTUAL 2018 \$000
Trade payables	5,310	6,033
Employee payables and accruals	2,319	2,430
Revenue in advance	2,636	4,695
	10,265	13,158

The carrying amount disclosed above is a reasonable approximation of fair value. Trade creditors are non-interest bearing and are normally settled within 60 days.

Revenue in advance includes advances received to 30 June each year. The outstanding balances of these accounts decreased in 2019 due to a number of projects coming to their end and not as many new large projects commencing. Total revenue recognised during the year that was in Revenue in Advance at the start of the year totals \$4,695k (2018: \$4,219k).

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2019

7. Pension Plans (cont.)

a) Defined Benefit Plan

The history of experience adjustments is as follows:

	2019 \$000	2018 \$000	2017 \$000	2016 \$000	2015 \$000
Experience adjustments on plan liabilities	(6)	(22)	(80)	(37)	(75)

The principal actuarial assumptions used in determining the defined benefit plan obligations are shown below:

	2019 \$000	2018 \$000
Discount rate	2.42%	3.70%
Future salary increases	3.20%	4.10%

At 30 June a change in the assumed rates of salary growth and resignation rates, all other assumptions remaining unchanged, would affect the balance of the liability as follows:

	ACTUAL 2019 \$000	ACTUAL 2018 \$000
Current obligation	838	941
Salary growth		
Reduction of 1% per annum	792	895
Increase of 1% per annum	886	991
Resignation rates		
150% of assumed rates	820	922
50% of assumed rates	856	961

Interest rate assumptions are based on Treasury's published risk-free discount rates.

b) Defined Contribution Plan

During the period defined contributions totalling \$702k (2018: \$703k) were made to the Government Superannuation Fund and KiwiSaver.

8. Trade and Other Liabilities

	ACTUAL 2019 \$000	ACTUAL 2018 \$000
Trade payables	5,310	6,033
Employee payables and accruals	2,319	2,430
Revenue in advance	2,636	4,695
	10,265	13,158

The carrying amount disclosed above is a reasonable approximation of fair value. Trade creditors are non-interest bearing and are normally settled within 60 days.

Revenue in advance includes advances received to 30 June each year. The outstanding balances of these accounts decreased in 2019 due to a number of projects coming to their end and not as many new large projects commencing. Total revenue recognised during the year that was in Revenue in Advance at the start of the year totals \$4,695k (2018: \$4,219k).

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2019

	ACTUAL 2019 \$000	RESTATED 2018 \$000
9. Income Tax		
(a) Income Tax Expense		
The major components of income tax expense in the Consolidated Statement of Comprehensive Income are:		
Current income tax		
Current income tax charge	598	1,079
Adjustments to prior year current income tax charge	(79)	(40)
	519	1,039
Deferred income tax		
Deferred tax expenses/(income) related to prior year	16	(3)
Relating to origination and reversal of temporary differences	75	(149)
Deferred tax on items recognised in OCI	(20)	3
	71	(149)
Income tax expense/(income) reported in the Consolidated Statement of Comprehensive Income	590	890
(b) Amounts charged or credited directly to other comprehensive income		
<i>Deferred income tax related to items charged (credited) directly to other comprehensive income</i>		
Net gain on revaluation of heritage assets	5	0
Remeasurement of gain/loss on defined benefit plan	15	(3)
Deferred tax charged to OCI	20	(3)
(c) Reconciliation between the aggregate tax expense recognised in the Consolidated Statement of Comprehensive Income to tax expense calculated at the statutory income tax rate		
Accounting profit before income tax	2,211	3,083
Heritage assets	17	0
Defined benefit plan	56	(12)
Adjusted accounting profit before tax	2,284	3,071
Tax at the statutory income tax rate of 28% (2018: 28%)	640	860
Adjusted by:		
Prior year income tax	(63)	(43)
Entertainment	16	19
Other	(3)	54
Income tax expense	590	890
(d) Deferred income tax relates to the following:		
<i>Deferred tax liabilities</i>		
Property, plant and equipment	(1,579)	(1,620)
Nursery inventory	(88)	(101)
Standing timber	(307)	(231)
	(1,974)	(1,952)
<i>Deferred tax assets</i>		
Patents and trademarks	221	211
Payroll provisions	748	853
Allowance for impairment loss	7	7
Income in advance	66	0
Other	13	53
	1,055	1,124
Net Deferred Tax Asset/(Liability) per Consolidated Statement of Financial Position	(919)	(828)

The Group has no unused tax losses (2018: \$0k).

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2019

10. Property, Plant and Equipment

GROUP	Land & Improvements \$000	Buildings \$000	Plant & Equipment \$000	Furniture & Fittings \$000	Motor Vehicles \$000	Books & Periodicals \$000	Capital Work in Progress \$000	Total \$000
At 1 July 2018								
Carrying amount net of accumulated depreciation and impairment at 1 July 2018	1,736	11,733	11,796	2,997	330	88	3,718	32,398
Additions	0	574	2,168	1,668	0	0	5,977	10,387
Transfers from CWIP	0	496	1,205	0	45	0	(1,746)	0
Disposals	0	(17)	(36)	21	0	0	(257)	(289)
Revaluations	0	0	0	0	0	17	0	17
Depreciation expensed	(61)	(523)	(3,101)	(440)	(73)	(1)	0	(4,199)
Carrying amount net of accumulated depreciation and impairment at 30 June 2019	1,675	12,263	12,032	4,246	302	104	7,692	38,314
At 30 June 2019								
Cost or fair value	2,357	24,072	48,266	5,750	1,039	107	7,692	89,281
Accumulated depreciation and impairment	(682)	(11,809)	(36,234)	(1,504)	(737)	(3)	0	(50,967)
Net carrying amount	1,675	12,263	12,032	4,246	302	104	7,692	38,314

Books and periodicals include some library books classified as Heritage Assets. The Group engaged Rowan Gibbs, an antiquarian bookseller of 37 years' experience of Smith's Bookshop Limited to determine the fair value of the heritage library books as at 30 June 2019. Fair value is the amount for which the books could be exchanged between a knowledgeable willing buyer and a knowledgeable willing seller in an arms-length transaction as at valuation date. Fair value is determined by reference to recent prices realised at national and international auctions and prices being asked for by specialist dealers for comparable items. Refer to Note 21 regarding other heritage assets. The heritage asset library books have been valued at \$104k (2018: \$88k).

Scion recognised no impairment loss during the year (2018: \$298k on Plant and Equipment).

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2019

10. Property, Plant and Equipment (cont.)

GROUP	Land & Improvements \$'000	Buildings \$'000	Plant & Equipment \$'000	Furniture & Fittings \$'000	Motor Vehicles \$'000	Books & Periodicals \$'000	Capital Work in Progress \$'000	Total \$'000
At 1 July 2017								
Carrying amount net of accumulated depreciation and impairment at 1 July 2017	1,798	11,503	10,839	931	315	82	2,333	27,801
Additions	0	508	2,881	2,279	94	7	3,222	8,991
Transfers from CWIP	0	291	1,278	0	0	0	(1,569)	0
Disposals	0	(208)	(30)	(14)	0	0	(268)	(520)
Impairment provision made	0	2	(300)	0	0	0	0	(298)
Depreciation expensed	(62)	(363)	(2,872)	(199)	(79)	(1)	0	(3,576)
Carrying amount net of accumulated depreciation and impairment at 30 June 2018	1,736	11,733	11,796	2,997	330	88	3,718	32,398
At 30 June 2017								
Cost or fair value	2,357	22,717	45,561	2,861	908	82	2,333	76,819
Accumulated depreciation and impairment	(559)	(11,214)	(34,722)	(1,930)	(593)	0	0	(49,018)
Net carrying amount	1,798	11,503	10,839	931	315	82	2,333	27,801
At 30 June 2018								
Cost or fair value	2,357	23,147	47,074	5,093	997	89	3,718	82,475
Accumulated depreciation and impairment	(621)	(11,414)	(35,278)	(2,096)	(667)	(1)	0	(50,077)
Net carrying amount	1,736	11,733	11,796	2,997	330	88	3,718	32,398

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2019

11. Biological Assets

Biological assets consist of tree plantations. The Group has 73.2 hectares of trees planted initially for experimental purposes. When experiments are completed, they are classified as biological assets. Trees will be harvested when they reach maturity.

	ACTUAL 2019 \$000	ACTUAL 2018 \$000
Carrying amount 1 July	828	548
(Loss)/Gain from changes in fair value less estimated point-of-sale costs	267	280
Carrying amount 30 June	1,095	828

The above biological assets are level 3 in the fair value hierarchy.

The Group has tree plantations at three locations:

- (a) 31 hectares of immature Radiata Pine is located at Puruki. The trees were planted for experimental purposes. The Group has a forestry right which expires in 2067.
- (b) 5.5 hectares of Mexican Cypress are located at Tikokino. The trees were planted for experimental purposes. The Mexican Cypress has a clear fell date of June 2033.
- (c) 34.5 hectares of immature Radiata Pine is located at Mamaku plus 2.2 hectares of mature Sitka Spruce. The trees were planted for experimental purposes. The Group has a forestry right which terminates when the trees are harvested or in 2024, whichever is the earlier.

The tree plantations were valued as at 30 June 2019 by PF Olsen Limited, an independent forestry management and consultancy company.

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.

Fair value is sensitive primarily to log prices. Significant increase (decreases) in log prices would result in a significantly higher (lower) fair value.

12. Intangible Assets

Software

	ACTUAL 2019 \$000	ACTUAL 2018 \$000
Opening balance 1 July		
At cost	2,984	4,214
Less accumulated amortisation	(2,722)	(3,829)
Opening net carrying amount 1 July	262	385
Opening carrying amount 1 July	262	385
Additions	4	40
Disposals	(1)	(1,271)
Current year amortisation	(146)	(163)
Amortisation write back	0	1,271
Closing carrying amount 30 June	119	262
Closing balance 30 June		
At cost	2,454	2,984
Less accumulated amortisation	(2,335)	(2,722)
Closing net carrying amount 30 June	119	262
Carbon Credits		
Carrying amount 1 July	420	334
Increase/(Decrease) in fair value	25	86
Carrying amount 30 June	445	420
Total intangible assets 30 June	564	682

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2019

13. Investments in Subsidiaries

	Shares	Percentage Held 2019	Percentage Held 2018	Balance Date
Subsidiaries				
Te Papa Tipu Properties Limited	100	100%	100%	30 June
Sala Street Holdings Limited	100	100%	100%	30 June

Te Papa Tipu Properties Limited was incorporated on 25 March 2004. The company owns the Group's land assets.

Sala Street Holdings Limited was incorporated on 9 November 2015. The company holds the Groups 50% investment in Scion Terax technologies.

All subsidiaries are incorporated in New Zealand.

14. Investments in Associates

(a) Investment Details

Biopolymer Network Limited
Terax 2013 Limited
Terax Limited Partnership

ACTUAL 2019 \$000	ACTUAL 2018 \$000
180	241
0	0
61	253
241	494

New Zealand Forest Research Institute Limited has a 33.33% (2018: 33.33%) shareholding in Biopolymer Network Limited, a company carrying on research, development and commercialisation of biopolymers.

New Zealand Forest Research Institute Limited Group has a 50% shareholding in Terax 2013 Limited. The company was incorporated in February 2012. Terax 2013 Limited manages Terax Limited Partnership in which Scion Group also has a 50% interest. Terax Limited Partnership was registered on 8 April 2013.

The Group's proportion of voting power held in each associate is the same as its ownership interest.

All of the companies are incorporated in New Zealand.

(b) Movements in the carrying amount of the Group's investments in associates

Opening carrying amount of investments
Prior period adjustment
Current year investment in associates
Current year share of increase/(decrease) in net assets of associates
Closing carrying amount of investments

ACTUAL 2019 \$000	ACTUAL 2018 \$000
494	433
(222)	30
0	125
(31)	(94)
241	494

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2019

14. Investments in Associates (cont.)

(c) Summarised financial information

The following table illustrates summarised financial information relating to the Group's associates:

Extract from the Associates' Statement of Financial Position:

	ACTUAL 2019 \$000	ACTUAL 2018 \$000
Current assets	382	529
Non-current assets	384	325
	766	854
Current liabilities	226	221
	226	221
Net assets	540	633
Share of associates' net assets	180	211

Note in relation to 14 (c) above figures only include Biopolymer Network Ltd as Terax 2013 Ltd and Terax Limited Partnership accounts were not available at the time of signing the accounts.

Extract from the associates' Statement of Comprehensive Income:

	ACTUAL 2019 \$000	ACTUAL 2018 \$000
Revenue	1,961	2,308
Net Profit/(Loss)	(94)	(90)

There are no known contingent liabilities relating to Associates.

15. Cash and Cash Equivalents

Cash on hand	5	4
Bank	1	1
Call deposits	1,096	4,997
Short-term deposits	4,687	8,932
	5,789	13,934

For the purposes of the Statement of Cash Flows, Cash and Cash equivalents are equivalent to Cash and Cash equivalents presented in the Consolidated Statement of Financial Position.

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2019

16. Trade and Other Receivables and Accrued Revenue

Trade receivables

Allowance for impairment loss

Other debtors

Prepayments

Accrued revenue

Related party receivables:

Associates

Carrying amount 30 June

ACTUAL 2019 \$000	ACTUAL 2018 \$000
6,341	6,121
(28)	(24)
81	60
1,064	811
1,276	1,327
92	103
8,826	8,398

- (a) The carrying amount of trade and other receivables disclosed above is a reasonable approximation of fair value due to the short-term nature of the receivables.
- (b) Accrued revenue is initially recognised for revenue earned from research projects as receipt of consideration is conditional on successful completion of projects. Upon completion of the project, the amounts recognised as accrued revenue are reclassified to trade receivables.
- (c) **Allowance for Expected Credit Loss**
Trade receivables are non-interest bearing and are generally on 30–60-day terms. A provision for expected credit loss is recognised when there is objective evidence that a trade receivable is impaired. No increase or decrease in the allowance for expected credit loss in the current year.

Movements in the allowance for expected credit loss for trade and other receivable and accrued revenue were as follows:

	ACTUAL 2019 \$000	ACTUAL 2018 \$000
Opening balance 1 July	24	35
Reversal of prior year provision	0	(11)
Charge for the year	3	0
Bad debts written off	0	0
Closing balance 30 June	27	24

At 30 June, the ageing analysis of trade receivables is as follows:

	Total \$000s	0-30 Days CNI* \$000s	0-30 Days CI* \$000s	31-60 Days CNI* \$000s	31-60 Days CI* \$000s	61-90 Days PDNI* \$000s	61-90 Days CI* \$000s	+91 Days PDNI* \$000s	+91 Days CI* \$000s
2019	6,341	5,960	0	269	0	25	0	59	28
2018	6,121	5,599	0	484	0	3	0	11	24

* Current not impaired (CNI)

* Past due not impaired (PDNI)

* Considered impaired (CI)

- (d) For related party terms and conditions refer to Note 23.

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2019

17. Inventories

Consumable stores (at cost)
Nursery stock
Closing carrying amount

ACTUAL 2019 \$000	ACTUAL 2018 \$000
23	29
314	362
337	391

Consumable stores recognised as an expense for the year are \$125k (2018: \$97k). The expense has been included in the "consumables" line item in Note 3 (a). Consumable inventory write-down in the period was \$0k (2018: \$0k).

18. Financial Instruments

Financial Instruments include:

Financial assets at amortised costs

Cash and cash equivalents
Trade receivables
Other debtors
Related party receivables

Financial Liabilities at amortised costs

Trade payables
Other payables
Related party payables

All the above financial instruments are measured at amortised cost. Due to their short-term nature their carrying amount is a reasonable approximation of their fair value.

Management have not identified any concentrations of risk for any of the below risk categories.

Liquidity Risk

The Group's objective is to maintain a balance between continuity of funding and flexibility through the use of a bank debt facility and a bank overdraft. Management monitors, on a monthly basis, our free capacity within the debt facility and our forecasted ability to pay for that debt.

Trade payables (\$1,400k) are non-interest bearing and are normally settled within 60 days. The company and Group liabilities all have contractual maturities of less than 120 days.

Credit Risk

Financial instruments that potentially subject the Group to credit risk consist of bank balances and accounts receivable. The Group generally does not require any security.

Significant new non-Government customers are credit checked. Trade receivable ageing is reviewed monthly and all aged trade receivables are followed up. Credit stops are used for non-paying customers.

Maximum exposures to credit risk as at balance date are:

	ACTUAL 2019 \$000	ACTUAL 2018 \$000
Current account	1	1
Call and short-term deposits	5,783	13,929
Trade receivables	6,313	6,121
Other debtors	81	60
Related party receivables	92	103

The above maximum exposures are net of any provision for impairment on these financial instruments.

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2019

18. Financial Instruments (cont.)

Market Risk

Market risk on financial instruments comprise the following three types of risk:

Interest Rate Risk

The Group's exposure to market interest rates relates primarily to cash deposits. Cash and cash equivalents have decreased during the year to a year ended 30 June 2019 Group balance of \$5,789k (2018: \$13,934k).

	ACTUAL 2019 \$000	ACTUAL 2018 \$000
Cash in hand	5	4
Current account	1	1
Call deposits	1,096	4,997
Short-term deposits	4,687	8,932
	5,789	13,934

The current account is managed at low levels and interest returns on the current account are not material. Cash funds in excess of our current requirements are invested in short-term bank deposits to attract improved interest returns. At 30 June 2019 bank call and short-term deposits were earning interest at rates between 1.25% and 3.53% (2018: 1.60% and 3.66%).

At 30 June 2019, if interest rates moved as indicated in the table below, with all other variables being held constant, post-tax profit and equity would have been affected as follows:

	2019 Change in Interest Rate	2019 Effect on Post Tax Profit & Equity \$000	2018 Change in Interest Rate	2018 Effect on Post Tax Profit & Equity \$000
Judgement of reasonably possible movements in interest rates	+1%	42	+1%	100
	-1%	(42)	-1%	(100)

Management has taken account of Reserve Bank of New Zealand indications of future interest rate movements in the Official Cash Rate and various other market indicators and after considering these indicators, believe the interest rate changes are reasonable and possible.

Currency Risk

Only small balances are held in currencies other than New Zealand dollars, materially all in debtors. Collection on all these debtors is expected within 60 days resulting in minimal foreign exchange risk.

Other Price Risk

Other price risk primarily relates to the market price of financial instruments. As Scion does not trade in financial instruments there is no perceived risk in this category.

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2019

	ACTUAL 2019 \$000	RESTATED 2018 \$000
19. Reconciliation of operating profit after taxation with cash flows from operating activities		
Reported profit/(loss) after taxation	1,622	2,193
Add/(less) non-cash items:		
Depreciation (Refer Note 3 and 10)	4,199	3,576
Amortisation	143	163
Compensation provision	(50)	0
Impairment provision	0	298
Provision for Doubtful Debts	3	0
Movement in deferred tax (Refer Note 9)	87	(152)
	4,382	3,885
Add/(less) items classified as investing activity:		
Investment contribution included in payables	0	0
(Gain)/loss on disposal of property, plant and equipment	(20)	257
Share in associate company (profit)/loss	253	94
Capital related items in creditors	(630)	(89)
Fair value movement in in biological assets	(267)	(280)
	(664)	(18)
Movements in working capital items:		
(Increase)/Decrease in debtors and prepayments	(399)	450
(Increase)/Decrease in inventories	53	(85)
Increase/(Decrease) in creditors and accruals	(3,345)	931
Increase/(Decrease) in taxation payable	(417)	(136)
	(4,108)	1,160
Net cash flows from operating activities	1,232	7,220
20. 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.		
21. Heritage Assets		
The company has identified its library, herbarium and germplasm collections as heritage assets. For the herbarium and germplasm collections the Directors believe that there is no practical basis upon which to reliably value these collections. For the books and periodic within the library refer to Note 10.		

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2019

22. Commitments

Operating Lease Commitments – Group as Lessee:

The Group has entered into commercial leases on buildings. The leases have lives of one or two years with renewal options included. There are no restrictions placed on the lessee by entering into these leases. In addition, the parent company leases land from its subsidiary Te Papa Tipu Properties Limited.

Future minimum rentals payable under operating leases as at 30 June are as follows:

	ACTUAL 2019 \$000	ACTUAL 2018 \$000
Lease commitments under operating leases:		
Within one year	149	132
One to five years	292	124
	441	8

Operating Lease – Group as Lessor:

The Group has entered into commercial property leases for buildings and land. These non-cancellable leases have remaining terms including rights to renew of up to 5 years on buildings and 13 years on land leases, with rights to renew for further 40 years. All leases include a clause to enable upward revision of the rental charge at a specified review date of between one and five years basis according to prevailing market conditions.

Future minimum rentals receivable under non-cancellable operating leases as at 30 June are as follows:

	ACTUAL 2019 \$000	ACTUAL 2018 \$000
Within one year	644	385
One to five years	755	491
Greater than five years	564	428
	1,963	1,304

Capital Commitments

Capital expenditure contracted for at balance date but not provided for

	ACTUAL 2019 \$000	ACTUAL 2018 \$000
	9,580	2,320

23. Transactions with Related Parties

(a) Parent

New Zealand Forest Research Institute Limited is wholly owned by the New Zealand Government (the ultimate parent). All transactions with the Government, Government departments and agencies and Government entities are conducted at arms-length. Government Endeavour Funding, Strategic Science Investment Funding and Preseed Accelerator funding from the Ministry of Business Innovation and Employment comprises of over 55% of research revenue earned by Scion.

	ACTUAL 2019 \$000	ACTUAL 2018 \$000
(b) Associates of Parent		
<i>Biopolymer Network Ltd</i>		
Supplied goods and services	990	1,213
Receivable at balance date	92	103
<i>Terax 2013 Ltd</i>		
Services provided	0	22
Cash contributions made	0	125

Terms and conditions of transactions with related parties

Outstanding balances at year end are unsecured and interest free. No guarantees are provided or received for any related party receivables or payables.

No related party debts were written off during the year (2018: \$0k) and no impairment allowance has been raised for any of these debts.

NOTES TO AND FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2019

24. Key Management Personnel
Short term employee benefits
KiwiSaver employee benefits

ACTUAL	ACTUAL
2019	2018
\$000	\$000
2,414	1,835
49	41
2,463	1,876

BOARD OF DIRECTORS

Dr Helen Anderson Chair (commenced 6 August 2018)

Mr Greg Mann

Ms Colleen Neville

Dr Barry O'Neil

Ms Stana Pezic

Dr Jon Ryder

Mr Steve Wilson

Mr Tony Nowell resigned as Chair from 5 August 2018

Mr Rob Trass (Company Secretary)

EXECUTIVE MANAGEMENT

Dr Julian Elder – Chief Executive Officer

Dr Bart Challis – Chief Operating Officer (commenced 30 July 2018)

Dr Elspeth MacRae – Chief Science and Innovation Officer

Mr Arron Judson – General Manager, Marketing and Partnerships

Mrs Adriana Botha – General Manager, People, Culture and Safety

Mr Hēmi Rolleston – General Manager, Māori Forestry Futures (commenced 25 February 2019)

Mr Rob Trass – General Manager, Finance and Corporate Services

AUDITORS

Simon Brotherton

Ernst & Young, Auckland, on behalf of the Auditor-General

BANKERS

ANZ Bank of New Zealand

SOLICITORS

Bell Gully, Auckland

REGISTERED OFFICE DETAILS

Te Papa Tipu Innovation Park
49 Sala Street, Private Bag 3020
Rotorua 3046, New Zealand

Contact Details

Telephone:	+ 64 7 343 5899
Facsimile:	+ 64 7 348 0952
Email:	enquiries@scionresearch.com
Website:	www.scionresearch.com

Scion – Christchurch

Telephone:	+ 64 3 363 0910
------------	-----------------

Scion – Wellington

Telephone:	+ 64 4 472 1528
------------	-----------------

