ESR

Institute of Environmental Science and Research

Annual Report 2014

Contents

ESR is a Crown research institute (CRI). It was incorporated in July 1992 and is wholly owned by the New Zealand Government. The two shareholding ministers appoint a board of directors to govern the organisation. ESR has scientific facilities in Auckland, Wellington (Porirua and Wallaceville) and Christchurch.

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Our purpose and role

ESR (The Institute of Environmental Science and Research) is a Government-owned Crown research institute that delivers world-class knowledge, research and laboratory services to help New Zealand get the most out of its investment in science and innovation.

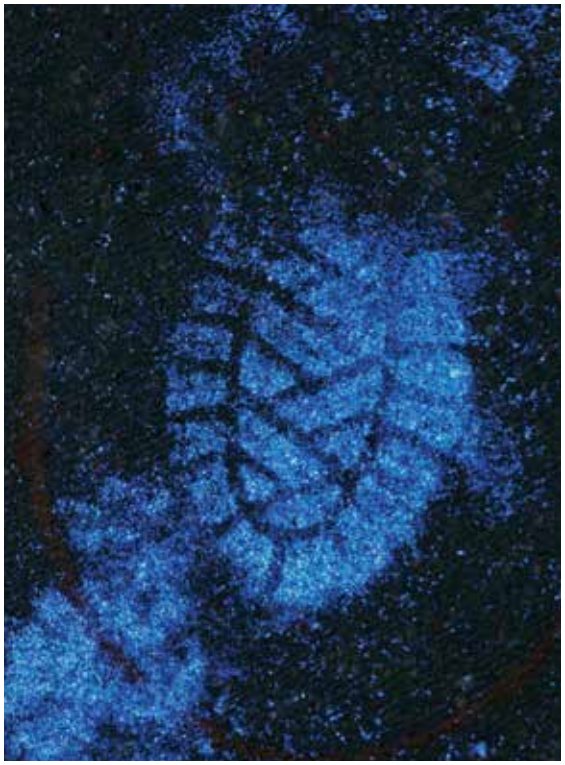
We employ around 400 staff to help our partners and clients solve complex problems and protect people and products in New Zealand, and around the world.

We provide expertise across a wide range of disciplines, including:

- crime scene investigation
- workplace drug testing
- radiation safety and emergency response
- biosecurity and public health surveillance
- drinking water surveillance and food science.

Much of our work comes from our position as the preferred supplier of scientific and radiological science services to the Ministry of Health, the sole forensic science provider to the New Zealand Police and the core food safety science provider to the Ministry for Primary Industries.

We also work with and for other government agencies, local government, tertiary institutes, industry organisations and the private sector. We manage a range of critical national science assets and facilities for New Zealand, including the national DNA Profile Databank and the Notifiable Disease Database.



8,750
TESTS PERFORMED FOR THE BILLION DOLLAR EXPORT BEEF INDUSTRY

5,875
SUPERBUGS TESTED IN THE ANTIBIOTIC REFERENCE LABORATORY

752
RADIATION-FREE CERTIFICATES ISSUED FOR FOOD EXPORTS

378
FTE STAFF ACROSS FOUR SITES

1,492
TESTS IDENTIFYING WATER CONTAMINATION SOURCES

70%
SUCCESS AT LINKING A PERSON TO A CRIME THROUGH DNA

Chair's report

Over the past year ESR has been faced with a number of challenges including flat revenues from core clients, growth in competition, increasing costs and internal leadership changes. As a consequence, the year culminated in a very thorough strategic refresh and detailed examination of both how we work and how we organise ourselves.

Great science remains at the heart of what ESR does, but the strategic refresh process has produced a blueprint for how we will not only come through a challenging period, but also grow and become more sustainable in the future.

Total operating revenue declined from $62.1m to $61.7m. Our core government customers, who comprise 80 percent of ESR's revenue, experienced tighter fiscal constraints, resulting in lower than planned volumes from key contracts such as the New Zealand Police and reduced Ministry for Primary Industries contracted services. Offsetting this to some extent was the increase in commercial revenues from $7.0m last year to $8.1m in 2014.

Largely due to inflation, redundancies, investment in growth areas and repositioning, our overall costs increased from $60.4m to $62.5m from last year, contributing to an overall loss of $553K for the 2014 financial year.

While this result is unsatisfactory, ESR continues to build long-term financial sustainability through growing our commercial revenue streams, growing our capability through investing in performance (key systems, the right people and the right locations) while tightly controlling our costs. We have also successfully implemented a new laboratory information management system into our environmental health labs to replace an ageing legacy system. We invested $8m in the STARLIMS Sunrise project, providing us with the ability to more efficiently and more effectively service our clients.

While it's been a challenging time, there have been a number of achievements this year that should put us in a strong position for the future. We have strengthened our relationships with key clients this year, which will have positive implications for science delivery in New Zealand.

For example, the new agreement signed with the Ministry of Health confirms ESR in the unique position as being the Ministry's preferred supplier of scientific services while also providing the opportunity to drive and lead new public health initiatives funded by the Ministry.

The Ministry of Health confirmed an extension of ESR's role in an innovative justice sector pilot project, the Alcohol and Other Drug Treatment Court. We also entered into a five-year contract with the Ministry for Primary Industries and secured work to test export meat for *E. coli* for a third season.

Our unique expertise led to ESR becoming a member of Food HQ, the international centre for collaborative food research, which we hope will be an important part of collaborative efforts to establish a centre for food safety science and research in New Zealand.

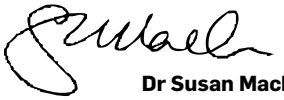
The Government's strategic initiative on science investment, the National Science Challenges, is now up and running and ESR is involved in three of the challenges. Over $1m of our core funding has been mapped to the challenges as well as some of our MBIE funded research programmes. Our Water programme is part of the "Our Land and Water" challenge and we have research interests in the Health Challenge "Healthier Lives" and in "New Zealand's Biological Heritage". The challenges provide an opportunity for us to continue to expand our collaborations with researchers in New Zealand and around the world.

In 2014, we launched a targeted marketing campaign to sell our DNA profiling software, STRmix™, overseas. Customer feedback has been positive with momentum continuing to build.

We also continue to work closely with New Zealand Customs Service and are eagerly awaiting the opening of a joint screening laboratory at Auckland Airport in August 2014 and seeing the full benefits of a front-line location being realised.

The efforts of our ESR staff and my Board colleagues have made a considerable difference to the organisation and to science throughout the year.

I would like to thank outgoing CEO Graham Smith for his efforts and acknowledge the leadership of Keith McLea who served as interim CEO for the latter part of the year and who has recently been appointed as CEO. I would also like to thank the Board for its support and guidance through the year. I especially acknowledge Ross Peat who has completed his term on the Board and welcome John O'Hara who is our newest Board member.



Dr Susan Macken, Chair

Chief executive's report

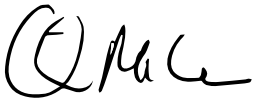
It's been a year of transition for ESR as highlighted in this annual report. Transitions have ranged from changes in our senior leadership team, to the completion of the Mount Albert Science Centre refurbishment, to several key contracts signed with key partners, including the Ministry for Primary Industries and the Ministry of Health. We have also successfully registered intellectual property for and commercialised our innovative STRmix™ forensic software.

As a Crown research institute, ESR generates unique data and intelligence and works with others to identify and manage public health threats from diseases and the environment. We also play a key role in New Zealand's justice system and are sole provider of forensic services to the New Zealand Police. Our work also includes advice on the impacts of the environment on human health, including radiation; groundwater, freshwater and drinking-water quality; and safe biowaste use.

During the year, the ESR Board and management developed a strategy that focuses on the opportunities presented in the current operating environment. It's an ambitious strategy and one that will ensure we continue to support New Zealand's science and innovation needs.

Earlier this year, ESR co-hosted the Minister for Primary Industries at the National Centre for Biosecurity and Disease Control as he announced the Government's decision to build a new $65m high-security bio-containment laboratory at our Wallaceville site that will be jointly run by ESR and the Ministry for Primary Industries. In many ways, this project is reflective of our strategic direction – it's based on partnership, centred on key priorities for New Zealand, and recognises the expertise that ESR offers.

As an organisation we have accomplished much this year and I am extremely proud of that. At the same time, I am looking forward to the challenges of next year and implementing our strategy in a way that continues to promote quality science, ensures our financial sustainability and capitalises on partnership to deliver our four outcomes.



Dr Keith McLea
Chief Executive

Outcome 1: **Health**

We help safeguard the health of New Zealanders through improvements in the management of human biosecurity and threats to public health.

We are at the forefront of protecting New Zealanders against new and emerging diseases and evolving viruses. We are commissioned by the Ministry of Health to provide an overview of the levels of infectious disease in New Zealand and help respond to critical health situations, such as pandemics. We also provide health science services to government health and biosecurity agencies, district health boards and local government.

A valued partner

Through our agreement with the Ministry of Health we provide surveillance of infectious diseases and pandemic preparedness and response services. This year, we signed a new agreement with the Ministry that increased both the value and the length of the contract, committing core revenue from our second largest client for almost six years.

The new agreement confirms ESR as the Ministry of Health's preferred supplier of scientific services, and also provides the opportunity to lead and drive new initiatives funded by the Ministry.

The Ministry of Health also funded the establishment of a New Zealand Microbiology Network to be managed by ESR and chaired by the Ministry of Health. The network had its inaugural meeting in April and will provide a secure platform for the discussion of national microbiological issues.

ESR's STARLIMS Sunrise health laboratory information management system went live in our environmental health labs earlier this year. The transition went smoothly and the new system is already delivering benefits to our clients.

Finding solutions

We lead the Southern Hemisphere Influenza Vaccine Effectiveness Research and Surveillance (SHIVERS) Project which is a multidisciplinary collaboration among ESR, Auckland District Health Board, Counties Manukau District Health Board, University of Otago, University of Auckland, the United States of America (USA) Centers for Disease Control and Prevention (CDC) and World Health Organization (WHO) Collaborating Centre at St Jude Children's Hospital in Memphis, Tennessee, USA.

Now in its second of five years, this year's SHIVERS study was expanded to capture data from patients visiting their GP in Auckland. The SHIVERS team expects this year's results to provide a clearer understanding of the "pyramid" of the disease from mild to severe illness, ICU admissions and deaths in the population, along with the impact on vulnerable subgroups. The SHIVERS study's findings are critical for New Zealand's response and planning including vaccine policy, as well as international preparedness.

Our Antimicrobial Reference and Nosocomial Infections Laboratories provide antimicrobial resistance surveillance surveys. Work this year has included several surveys to provide information to guide the threat of antimicrobial resistance in:

- Enterobacteriaceae
- *Staphylococcus aureus.*

Much of our work is focused on assessing health risks. For example, in 2013 we were commissioned by the Ministry of Health to lead a multidisciplinary team to conduct a health assessment on the import and release of 11 exotic species of dung beetle. The assessment was based on an application that had been approved by the Environmental Risk Management Authority in 2011. The team's final report is an independent assessment of the health benefits or risks that may arise from the introduction of the dung beetles. The team's report found that the introduction of the 11 species of dung beetles would not increase the burden of notifiable enteric diseases that may originate from ruminant dung on pasture. The report was used in combination with other studies for decision making about the release of the beetles.

Preparation and prevention

We work closely with communities and our partners to share the science behind biosecurity and public health. For example, we are leading a three-year research project funded by the Ministry of Business, Innovation and Employment (MBIE) that aims to strengthen ways for government and non-government social service providers to engage with families and whānau. The project is expected to improve the health, education and general well-being of high-needs families such as high-risk parents with young families, Pasifika youth with emerging mental health needs, and people facing family violence, alcohol and drug use or anger management issues, by helping them make better use of existing support services.

We were also involved with Ministry of Health workshops on rheumatic fever. The first was a surveillance workshop that brought together the key players in rheumatic fever surveillance with a view to identifying priorities. The second workshop was a primary prevention technical workshop and brought together those involved in the prevention of rheumatic fever including staff from laboratories, clinicians, and primary care staff.

National Centre for Radiation Science

Our National Centre for Radiation Science (NCRS) has been engaged by Forage Innovations Ltd, a joint venture between PGG Wrightson Seeds, and Plant & Food Research, to research crop mutational breeding, to explore the benefits of using ionising radiation to induce mutations as opposed to using chemical methods.

We are also working with Steritech, an Australian provider of irradiation services, and the New Zealand Fresh Produce

ESR virus hunters

Our virus hunters continue to be engaged in research that is changing our understanding of viruses. The aim of the core-funded project is to conduct a preliminary assessment of the use of our virus discovery solutions to end users in New Zealand and abroad.

Our work has included sharing human virus discoveries with the Ministry for Primary Industries, as well as viruses in animal species, including the circovirus-like virus (kiwi) and bovine parvovirus 3 (BPV3; cattle) which have been recorded as "new organisms" in New Zealand.

The team also published the results of an ESR-led study on samples taken from New Zealand short-tailed bats which may cause scientists to rethink how to predict and tackle viruses. The results of the study support a theory that viruses don't develop rapidly in nature when left on their own and it is more likely that human interference such as urbanisation and changing animal husbandry practices are what drive changes in viruses and allow them to jump between species and cause emerging diseases such as SARS or pandemic influenza. The results were published in the CDC journal *Emerging Infectious Diseases*.

The global reputation of ESR's virus hunter team has seen them become one of the first in the world to take part in the development of a revolutionary new portable tool that can identify and analyse the DNA sequence of any sample or material.

Importers Association on a research project focused on the irradiation of taro exported from the Pacific Islands.

Beyond our science services, we also offer radiation safety training through our Radiation Training Institute that was established during the year. Training ranges from medical radiation protection, to radiation incident and emergency response for first responders, to the safe transport of radioactive material, to laser safety. The training has been designed to assist participants in meeting the licensing requirements of the relevant regulatory authority.

This year, we helped ESR manage an International Atomic Energy Agency training course that was held in Christchurch. The training was aimed at helping small Pacific Island nations more effectively manage the import, export and transport of radioactive material needed for medical and industrial applications.

17,711
CASES OF NOTIFIABLE DISEASES

5,875
SUPERBUGS TESTED IN THE ANTIBIOTIC REFERENCE LABORATORY

1.25m
DOSES OF VACCINE DISTRIBUTED FOR NATIONAL IMMUNISATION

4,670
BACTERIA AND FUNGI STRAINS HELD IN THE NZ REFERENCE CULTURE COLLECTION

65,544
PERSONAL DOSEMETERS ISSUED FOR RADIATION WORKPLACE HEALTH

696
INFLUENZA VIRUSES ANTIGENICALLY TYPED AND SUBTYPED

Outcome 2: **Forensic science**

We increase the effectiveness of safety, security and justice investigation processes through forensic science.

Our forensic science services are used across the New Zealand justice system. We have strong working relationships with the New Zealand Police, the Department of Corrections, the courts service of the Ministry of Justice, along with the New Zealand Customs Service. We also work with the Ministry of Health on drug- and alcohol-related testing.

Our work has also led to the development of a number of innovative products that are assisting forensic work here in New Zealand and around the world.

DNA interpretation

This year we have worked to commercialise the expert software for forensic DNA interpretation, STRmix™.

We have confirmed sales with a number of customers around the world, including signing a distribution agreement with a US-based company. The latest version of STRmix™ has been validated and we started beta testing with our South Australia partners.

STRmix™ has been operational in New Zealand for two years and we continue to refine it to enhance the provision of valuable information to the New Zealand Police and wider criminal justice system.

An eye for evidence

Initial development of ESR's Integrated Evidence Viewing (IEV) software has been completed with the support of KiwiNet and MBIE's Pre-Seed Accelerator funding this year. Our analysis suggests this software has applications beyond forensics and that the technology would be well suited to commercialisation.

A further development to the platform is the Rapid Point Cloud Viewer (RPV) that supports virtual crime scene modelling. Early feedback has been positive and the Ministry of Justice is currently conducting an evaluation of the effectiveness and efficiencies associated with RPV in the courtroom. We are now seeking support from qualified parties in attracting investment.

Alcohol and Other Drug Treatment Court

Based on the success of the pilot of the Alcohol and Other Drug Treatment Court (AODTC), this year the Ministry of Health extended ESR's AODTC services. The AODTC pilot provided treatment and rehabilitation services to about 100 participants who would otherwise be serving custodial sentences. The extension allows for an increased number of participants and changes the testing method from "point of collection" to the internationally accepted best practice of lab-based screening.

Our services for the AODTC include urine testing for drug use and alcohol monitoring using secure continuous remote alcohol monitoring anklets that record or send data for interpretation and reporting.

Investing in the future

We opened the refurbished areas within the ESR Mt Albert Science Centre last year. The centre now has improved and more secure areas for the forensic teams who attend crime scenes, upgraded laboratories for analysing physical evidence and a new Firearms Testing Laboratory.

The Firearms Testing Laboratory is a state-of-the-art facility and has been designed with a number of health and safety features, including catchment of bullets in a specifically designed bullet trap, presence of a safety curtain to eliminate bullet ricochet, a ventilation system designed to reduce the possible inhalation of potentially harmful residues and a viewing area which enables observation from outside of the range. The space it occupies is large enough to accommodate research work, as well as the testing of firearms over a range of distances.

On the front line

ESR entered a collaborative venture with the New Zealand Customs Service to plan, build and staff a screening laboratory within the Customs Air Cargo Inspection Facility at Auckland Airport. The aim of the screening laboratory is to locate ESR staff within the New Zealand Customs Service facilities to provide immediate screening of concealed items or items with a suspicious origin and the identification of other unknown material imported into New Zealand.

We continue to provide training to front-line New Zealand Customs Service staff to ensure they have a good understanding of how the current screening instruments work, the processes required to ensure the instruments are functioning correctly on a day-to-day basis and an appreciation of the limitations of these instruments. Such training has ensured that the quality of the screening carried out by the New Zealand Customs Service staff is enhanced and that the instruments are used to their maximum capabilities.

152,691
INDIVIDUALS ON DNA PROFILE DATABANK

3,536
CORONIAL CASE SAMPLES

5,401
SAMPLES TESTED FOR ALCOHOL

84
PARTICIPANTS OF THE AODTC* PILOT MONITORED FOR DRUGS AND ALCOHOL

70%
SUCCESS AT LINKING A PERSON TO A CRIME THROUGH DNA

29%
SUCCESS AT LINKING A CRIME TO ANOTHER CRIME THROUGH DNA

**Alcohol and Other Drug Treatment Court*

Outcome 3: **Food safety**

We help protect New Zealand's food-based economy through the management of food safety risks associated with traded goods.

We work with the industry and regulators to help industry meet and exceed food safety standards set by importers of New Zealand products. We also help assure New Zealanders about the safety and integrity of the food they eat.

Our strength lies in the depth and breadth of our scientific knowledge, experience and expertise in food safety and security. Linking this to our clean water and public health operations means that foodborne contamination is rapidly identified and managed.

Keeping our food safe

Our specialist services include confirmation, subtyping and epidemiological analysis of foodborne pathogens including Super-7 *E. coli, Campylobacter, Listeria and Salmonella.* We routinely screen foodstuffs for radioactive contamination and provide radiation science and advice.

We maintain the New Zealand Reference Culture Collection, Medical Section, a critical national collection, which contains the majority of foodborne pathogenic bacteria isolated in New Zealand. We routinely supply national and international food sector clients with material and will be an accredited reference material producer later in 2014.

Recognised both nationally and internationally for our work on *Campylobacter*, New Zealand will host the 18th International Workshop on *Campylobacter*, *Helicobacter* and Related Organisms and developing tools to assist with risk management strategies for the seafood industry in 2015 based on a successful bid by ESR at the 2013 conference.

Working with industry

This year we delivered research, science and commercial services to over 650 food sector clients. Our principal industry clients include the Meat Industry Association of New Zealand, Seafood New Zealand and Fonterra, while also providing services to a range of other food companies and industry associations. We are the specialist science provider to commercial analytical laboratories Eurofins, AsureQuality and Hill Laboratories.

With KiwiNet and the Meat Industry Association we have commercialised STECleanz®, a phage technology to reduce *E. coli* O157 loads on meat for use with the beef sector. The product will be used on more than 40 percent of veal produced in New Zealand this year.

ESR's leading role in foodborne virology was confirmed this year with the announcement that the MBIE-funded project on Safe New Zealand Seafood had been approved to receive another seven years of funding. The project is led by the Cawthron Institute. The project capitalises on the unique capabilities of each of the participant organisations in supporting and protecting New Zealand's seafood industry. ESR's role in the project is to develop and evaluate new methods for detecting foodborne viruses such as *Norovirus* in shellfish-growing waters, and developing tools to assist with risk management strategies for the seafood industry.

Working with regulators

For regulators, we have a proven track record for delivering applied research to inform policies concerned with microbiological, chemical and radiological food safety issues. We are the preferred provider of core science services to the Ministry for Primary Industries and the preferred supplier of scientific services to the Ministry of Health.

This year, we provided reports ranging from risk analysis and advice to testing for *C. botulinum*. For the Ministry of Health we delivered risk modelling and assessment services on issues such as radioactivity in milk. We supported the Government inquiry into the whey protein concentrate contamination incident.

We have collaborated with other research providers on a number of MBIE-funded food safety projects, and successfully led the following:

- Promoting the Benefits of New Zealand Food Through Science
- Safeguarding Environmental Health and Market Access for New Zealand Foods
- IMproved PAthogen Control Technologies for New Zealand Meat (IMPACT).

Our research has also received external funding on *Campylobacter* epidemiology (Health Research Council) and *Campylobacter* risk assessment and attribution (Ministry for Primary Industries).

Working on a world stage

We have built an international reputation in food safety that allows us to maintain vigilance and to respond to emerging issues within New Zealand. Markets we work in include the USA, United Kingdom, European Union, China, Australia, along with global agencies, including WHO and the International Atomic Energy Agency. We participate in the WHO Foodborne Enteric Reference Group.

We have signed a collaborative agreement with Dutch biotechnology company MRC-Holland that developed and patented a technology called Multiplex Ligation-dependent Probe Amplification (MLPA) for rapid, high-throughput screening of targets involved in genetic diseases including kabuki syndrome, diabetes and various cancer types. ESR saw the potential of this approach for the food safety arena and, together with MRC-Holland, now have an assay for source tracking and outbreak investigations of *Campylobacter* – the most common bacterial cause of gastroenteritis worldwide – that is commercially available.

A scientific paper describing our assay will be published in the *Journal of Clinical Microbiology*. ESR will receive royalty payments from sales of the kits.

Notable internationally funded food safety research projects include:

- standardisation of methods to detect foodborne hazards (MoniQA Association – global food safety network)
- Symbiosis – novel control technologies (European Commission)
- Hepatitis A detection and control in tomatoes (Victoria Department of Health, Australia)
- PulseNet: a platform to track outbreaks of food- and waterborne pathogens (CDC).

267
SUSPECTED FOOD POISONING EPISODES INVESTIGATED

8,750
TESTS PERFORMED FOR THE BILLION DOLLAR EXPORT BEEF INDUSTRY

207
FOOD FORENSIC INVESTIGATIONS

752
RADIATION-FREE CERTIFICATES ISSUED FOR FOOD EXPORTS

5,160
FOOD OR BEVERAGE SAMPLES EXAMINED FOR CHEMICAL OR MICROBIAL HAZARDS

>1m
CASES OF FOODBORNE ILLNESS ESTIMATED

Outcome 4: **Water and the environment**

We improve the safety of freshwater and groundwater resources for human use, as well as improving biowaste management.

We support the many organisations in New Zealand responsible for environmental health. Our advice, analysis and research inform government policies on a range of critical environmental health issues. We lead groundwater research in collaboration with other CRIs and universities, and help integrate freshwater research in partnership with Māori.

Grounded in science

The ESR team involved in the MBIE-funded Groundwater Assimilative Capacity Research project has been participating in the Groundwater Science Panel for the National Objectives Framework to include concepts around groundwater assimilative capacity. The team has also been supporting our partner regional councils and other stakeholders participating in the Land and Water Forum by developing approaches that are designed to allow the assimilative capacity of New Zealand groundwater systems for nitrogen and microbes to be assessed. A catchment-based tool for predicting reducing zones in groundwater has been successfully developed and tested in the Waikato and Canterbury regions.

Supporting public health work

Based on health risk concerns, the Canterbury District Health Board asked us to prepare a report reviewing potential contaminant input from on-site wastewater disposal systems and the hydrogeology of the Darfield-Kirwee area. The report concluded that the existing septic tanks in the area make a relatively minor contribution to the nitrate input into the aquifer systems compared with diffuse agricultural input.

This year, ESR scientists also assisted in outbreak investigation of *Cryptosporidium* at a swimming pool in Selwyn, Canterbury. This work ensured the outbreak was stopped and appropriate steps taken to ensure public safety before the pool was reopened.

Reporting on our water

We prepared the *Annual Review of Drinking-water Quality New Zealand* which is published on the Ministry of Health's website. This report provides an analysis of the state of drinking water in New Zealand and progress towards the Ministry of Health's goals for increasing compliance with standards.

We also completed a number of reports on groundwater quality to assist with planning and policy decisions. For example, we prepared a feasibility study for DairyNZ on the use of wood-chip de-nitrification walls as a practical control measure for mitigating nitrate impacts in shallow groundwater systems.

Supporting Christchurch

The report on the MBIE-funded *Living in the colour-coded city: Understanding and building community resilience* research project will be published in September 2014. One of the outcomes of this research project has been the development of a conceptual model to look at local social connectedness. The project included looking at people's sense of place and social networks and whether that helped with building community resilience.

Working with our Pacific neighbours

We are publishing the first in a series of bilingual technical guidelines on safe rainwater harvesting in Tonga. The work is part of the Ministry of Foreign Affairs and Trade/ New Zealand Aid Programme funded "The Healthy Tonga Tourism" project which is aimed at helping secure the reputation of Tonga as a safe and sanitary holiday destination.

With drinking water as a top concern for many of our Pacific neighbours, we delivered two training courses on drinking-water safety planning for New Caledonia Health. We also prepared a New Zealand Aid project design document for a project on strengthening water security in vulnerable island states.

ESR researcher Jan Gregor conducted the final evaluation of the United Nations Environment Programme (UNEP)/ United Nations Development Programme (UNDP) project "Implementing Sustainable Water Resources and Wastewater Management in Pacific Island Countries" (the Pacific IWRM project) with Professor Richard Price from Kiri-ganai Research in Australia.

The Pacific IWRM project was a five-year project that began in 2009 and included 12 demonstration projects across four water themes: water resources assessment and protection, watershed management, water use efficiency and drinking-water safety, and wastewater management and sanitation. The evaluation involved travel to visit many of the demonstration projects and over 80 interviews. The evaluation report will be made public on the UNEP website.

Tonga rainwater

10
COLLABORATORS IN CIBR*

>250
PUBLIC HEALTH QUERIES ANSWERED

11
PACIFIC NATIONS ASSISTED TO IMPROVE PUBLIC HEALTH OUTCOMES

946
DRINKING WATER SUPPLIERS SUPPORTED TO MEET REGULATORY REQUIREMENTS

1,492
TESTS IDENTIFYING WATER CONTAMINATION SOURCES

7,340
WELLS THAT SUPPLY DATA FOR ANALYSIS

**Centre for Integrated Biowaste Research (CIBR)*

Human resources

Workforce profile

Our workforce is diverse and stable. Turnover for the year ending 30 June 2014 is 7.9 percent, down from the previous year. Women are well represented at all levels and roles across ESR (66 percent). The majority of our staff (81 percent) are employed in science.

Leadership and accountability

Our leadership team communicates the strategic direction and organisational goals to employees at all levels. This means that employees have clear goals and a line of sight to the higher level goals of their work group and the organisation. Our performance plan and review process is designed to build a high-performance culture through clearly defining work outputs and supporting individual development.

Development of leaders through a formal leadership programme and experiential learning is a key focus. Strong leaders will influence our performance and delivery of the strategic goals.

Recruitment, selection and induction

Our recruitment and selection processes are robust and support equal employment opportunities (EEO) principles. Our tools to support selection decision-making include behavioural and skill-based assessments through the interview process; psychometric assessment where appropriate; and comprehensive reference checking. Induction is thorough and consistent to bring new employees on board in a welcoming and supportive way.

Employee development

Our future success depends on deepening and broadening our science capabilities. This is achieved by on-the-job and structured learning and is enhanced by attendance at international and national science conferences. We have strong relationships with universities, other CRIs and science organisations – working on projects together and sharing knowledge.

Our workforce planning includes building our employees' knowledge and skills and expertise, acquiring new talent, and cultivating a culture of excellence in science.

Remuneration and recognition

Our terms and conditions of employment are consistent with the good employer philosophy. We believe that recognising the contribution of individuals is fair and supports and develops a high-performance culture. We reward people equitably on the basis of contribution regardless of gender, age or ethnicity.

66%
OF STAFF ARE WOMEN

7.9%
WORKFORCE TURNOVER

81%
OF STAFF ENGAGED IN SCIENCE

378
FTE STAFF ACROSS FOUR SITES

<1
HEALTH AND SAFETY INCIDENTS PER 100 FTES

4
STAFF RECOGNISED WITH EXCELLENCE AWARDS

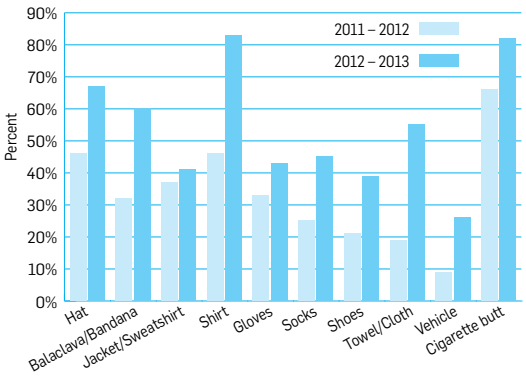
Non-financial performance measures and financial reporting

Non-financial performance measures

Health non-financial performance measures

Outcomes	Impact	Impact examples	Quality output examples
Safeguard the health of New Zealanders through improvements in the management of human biosecurity and threats to public health.	Early detection of public health hazards and disease outbreaks through accurate and timely identification of infectious disease events, leading to reduced incidences and impacts.	Monitoring for incidences of notifiable and non-notifiable diseases.	We have worked on a number of outbreaks this year, including an unsolved gastrointestinal disease outbreak. In this instance, our testing found the human parechovirus 3 (HPeV3) – the first time the virus has been recorded in Australasia. Once confirmed, our team began advising clinicians and diagnostic laboratories that they should consider testing for HPeV3 as it is known to cause severe disease, such as encephalitis and neonatal sepsis. HPeV3 is not currently tested for in New Zealand.
	Effective interventions are applied by public health organisations to manage and reduce risk and incidence of public health hazards and diseases including effective placement of vaccines.	Responses to potential and real contaminations.	ESR responded to the Fonterra issue around the possible contamination of milk powder with *Clostridium botulinum* by validating testing and contacting the Microbiological Diagnostic Unit, University of Melbourne in Australia who were available to perform the testing until ESR had established its own testing. The Health Intelligence Team monitored gastroenteritis, including verocytotoxigenic *Escherichia coli* (VTEC) notifications reported in EpiSurv and data from other syndromic surveillance systems, Healthline (data collected from phone calls to the health advice service – Healthline) and HealthStat (GP-based sentinel surveillance system) following the recent detection of *E. coli* in fresh cream distributed in the North Island. There has been no evidence in various surveillance systems of an increase in incidence of gastroenteritis illness in the regions that received the contaminated cream.
	Safer working environment for users and medical recipients of radiation sources.	Supporting improved work practices where non-compliances with radiation safety standards were identified and through accurate measurement of radiation doses.	Over 700 on-site inspections were carried out in 2013/14 under ESR's regulatory support services. 249 calibrations of dose measurement equipment were carried out.

Forensic non-financial performance measures

<table>
<tr><th>Outcome</th><th>Impact</th><th>Impact examples</th><th>Quality output examples</th></tr>
<tr><td rowspan="5">Increase effectiveness of forensic science services applied to safety, security and justice investigations and processes.</td><td rowspan="3">More efficient and effective delivery of evidence at trial.</td><td>STRmix™ has been used in casework for nearly two years. During this period we have had time to prepare objective evidence on the impact of STRmix™ on casework.</td><td>STRmix™ has increased percentage of loadable profiles across a wide range of sample types e.g. loadable profile obtained off a shirt has increased from 45% to over 80%. (See graph below.)</td></tr>
<tr><td colspan="2">Volume crime success rates
(Obtaining a loadable profile)
 
</td></tr>
<tr><td>The Rapid Point cloud Viewer (RPV) is a software tool developed by ESR that swiftly translates laser scan data captured at crime scenes into an immersive visualisation that can be enriched with analyses and results for court presentation.</td><td>A recent study has concluded that the future of ESR's court presentation technology has the potential to deliver clearer evidence, reduce perceived evidence complexity, lead to better jury decisions and fairer, shorter trials. The RPV is the next step in ESR's effort to assist the criminal justice process.</td></tr>
<tr><td></td><td>Effective use of the DNA Profile Databank.</td><td>70% success rate linking a person to a crime through DNA and 29% success rate linking a crime to another crime through DNA Profile Databank.</td></tr>
<tr><td>Immediate identification of unknown substances at the border.</td><td>Establishment of a New Zealand Customs Service ESR Screening Laboratory (CESL) at Auckland Airport funded from the Proceeds of Crime Act. CESL will enhance New Zealand Customs Service's capability and provide immediate, comprehensive, accurate and effective border control.</td><td>As part of our screening services, we have been contracted to provide specialist chemistry advice and interpretation. This service will greatly improve the technical ability of the New Zealand Customs Service to screen and identify items of interest that are crossing the New Zealand border.</td></tr>
<tr><td>Enhanced intelligence regarding illicit substance seizures.</td><td>Drug Signature Profiling project in collaboration with New Zealand Customs Service and New Zealand Police and funded from the Proceeds of Crime Act.</td><td>Intelligence mined from a cohort of drug samples which will help to inform the Government's Methamphetamine Action Plan.</td></tr>
</table>

Food non-financial performance measures

Outcome	Impact	Impact examples	Quality output examples
Enhance protection of New Zealand's food-based economy through the management of food safety risks associated with traded goods.	Prompt diagnosis of food borne microbial and chemical hazards.	Requests for investigating food samples for microbial, physical and/or chemical hazards. Number of suspected cases of foodborne disease investigated. Development of new methods to detect or characterise foodborne hazards.	5,367 food and related clinical or environmental samples examined, 267 suspected food poisoning cases investigated. Implementation of polymerase chain reaction (PCR)-based methods for confirming isolates as *Clostridium botulinum* on behalf of the dairy industry. Development and commercialisation of a world-leading (6h TAT) genotyping method for *Campylobacter*, the most frequent bacterial cause of gastroenteritis.
	Effective responses to food safety issues.	Extent to which client agencies adopt effective interventions based on advice and research received from ESR.	Extensive consultation (including invitation to expert panels) to Ministry for Primary Industries on the Whey Protein Contamination incident. Consultation, advice and testing in response to a high-profile contamination incident of cream with *Escherichia coli.*
	Maintaining and improving the integrity of New Zealand's food production systems.	Number of consignments (that were tested by ESR) stopped at overseas docks due to detection of *E. coli.* Industry perceptions of system integrity based on formal feedback from key industry players. Number of certificates issued certifying foods for export comply with safe radiation levels.	All consignments of beef tested by ESR before export to the USA to assure compliance: no shipments returned or recalled. ESR's bacteriophage-based solution "STECleanz®" for mitigation of *E. coli* O157 commercialised with over 40% of "bobby" veal producers committed to its use in the 2014 season. 752 radiation-free certificates issued.

Water non-financial performance measures

Outcome	Impact	Impact examples	Quality output examples
Improve the safety of freshwater and groundwater resources for human use and the safe use of biowastes.	Resource management decisions are well informed by the human health impacts relating to freshwater use.	ESR has improved the evidence base which Environment Court is using to specify conditions under which decisions made on changes to land use which might impact on surface- and groundwater.	ESR staff provided expert witness support to the Canterbury Public Health submission on Ngāi Tahu's Balmoral forest-to-farm conversion adjacent to the Hurunui River.
		ESR researchers developed a new model, StreamGEM (Streamflow Generation Eigen Model), that incorporates stream water chemistry data and uses a robust parameter estimation technique. This model can determine the water and nitrogen fluxes that go through dairy farming areas in lowland catchments.	The model was developed for Toenepi Catchment in the Waikato and has received support and backing from AgKnowledge, Massey University, Waikato Regional Council and Federated Farmers.
	Improved water management practice from the perspective of public health impacts.	New management practices are being undertaken by public swimming pool operators to reduce likelihood of contamination events resulting in illness. Enabled the farming industry to assess the likely cost of implementing nitrate mitigation measures that might allow for them to farm within water quality limits.	Gave advice and undertook analysis of *Cryptosporidium* outbreak linked to a public swimming pool in Rolleston. A feasibility study for DairyNZ was completed on the topic of using wood-chip denitrification walls as a practical control measure for mitigating nitrate impacts in shallow groundwater systems.
	Effective policy, regulation, standards and monitoring in New Zealand and the Pacific.	Rainwater harvesting systems are being improved in tourism businesses in Tonga.	Rainwater harvesting guidelines published under the joint auspices of NZ Aid, Tonga Ministry of Health, Tonga Ministry of Commerce, Tourism and Labour, and ESR.

Cross-cutting non-financial performance measures

<table>
<tr><th>Focus</th><th>Measures</th><th>Results</th></tr>
<tr><td rowspan="11">End user collaboration
Develop strong, long-term partnerships with industry, government and Māori, and work with them to set research priorities that are well linked to the needs and potential of their end users.</td><td>Percentage and number of relevant funding partners and other end users that have a high level of confidence in ESR's ability to set research priorities, and the effectiveness of the collaborations and partnerships (survey data) – measured annually.</td><td>58% of ESR stakeholders surveyed are satisfied with the way ESR sets research priorities.
68% of ESR stakeholders surveyed have confidence that ESR considers their sector's priorities when setting research priorities.</td></tr>
<tr><td>Total dollar value of revenue (in cash and in kind) and dollar value subcontracted to other organisations from each source category per annum from rolling five years (administrative data).</td><td>See table below.</td></tr>
<tr><td></td><td colspan="5">12 month period to</td></tr>
<tr><td></td><td>30 June 2014</td><td>30 June 2013</td><td>30 June 2012</td><td>30 June 2011</td><td>30 June 2010</td></tr>
<tr><td>Source category</td><td>$000s</td><td>$000s</td><td>$000s</td><td>$000</td><td>$000s</td></tr>
<tr><td>CRI</td><td>983</td><td>1,222</td><td>2,082</td><td>1,362</td><td>1,260</td></tr>
<tr><td>Non CRI govt</td><td>101</td><td>96</td><td>98</td><td>0</td><td>0</td></tr>
<tr><td>TEO</td><td>1,027</td><td>1,064</td><td>335</td><td>1,074</td><td>449</td></tr>
<tr><td>Private NZ business</td><td>194</td><td>186</td><td>144</td><td>162</td><td>97</td></tr>
<tr><td>Overseas</td><td>0</td><td>2</td><td>12</td><td>19</td><td>23</td></tr>
<tr><td>Other</td><td>0</td><td>0</td><td>23</td><td>0</td><td>71</td></tr>
<tr><td>Total</td><td>2,305</td><td>2,570</td><td>2,694</td><td>2,617</td><td>1,900</td></tr>
<tr><td rowspan="5">Research collaboration
Develop collaborative relationships with other CRIs, universities and other research institutions within New Zealand and internationally to form the best teams to deliver ESR's core purpose.</td><td>Percentage of relevant national and international research providers that have a high level of confidence in ESR's ability to form the best teams to deliver on ESR's outcomes (survey data) – measured annually.</td><td>73% of ESR stakeholders surveyed have confidence that the CRI has the ability to put together the most appropriate research teams.</td></tr>
<tr><td>Number and percentage of joint scientific peer-reviewed publications and intellectual property (IP) outputs with other New Zealand and international research institutions per annum (administrative data).</td><td>40 joint scientific peer-reviewed publications, which is 69% of all peer-reviewed publications.</td></tr>
<tr><td>Number of research collaborations with CRIs, universities and international organisations.</td><td>98 research collaborations.</td></tr>
<tr><td>Number of joint research projects.</td><td>147 joint research projects.</td></tr>
<tr><td>New revenue from expanded international collaborations (particularly Australia, Europe and the US).</td><td>Australia $98,866
Europe $15,797
Other $22,746
Total new revenue from international collaborations: $137,409</td></tr>
</table>

Focus	Measures	Results
Technology and knowledge transfer (science relevance) Transfer technology and knowledge from domestic and international sources to New Zealand industry, Government and Māori.	Total number and percentage of licensing deals of ESR-derived IP (including technologies, products and services) with New Zealand and international partners (administrative data).	Total number and percentage of licensing deals of ESR-derived IP: 0.
	Percentage of relevant end users who have adopted knowledge and/or technology from ESR (survey data) – measured annually.	85% of ESR stakeholders surveyed have adopted knowledge or technology from ESR in the past three years.
	Percentage change in the number of requests for and enquiries about ESR's publicly available collections (administrative data) – measured annually.	1,593 cultures were supplied, a 6% decrease from FY 2013.
	Number of training programmes delivered and number of officers trained.	40 training programmes or consultancies with a total of 720 participants.
Science quality Pursue excellence in all of ESR's activities.	Total number of international awards, invitations to participate on international committees, and editorial boards for ESR's published papers per annum.	One international award and eight invitations to participate on international committees and editorial boards.
	Average number of citations per ESR published paper – measured annually.	Using Scopus without self-citation – 6.74. Using Scopus with self-citation – 8.50. Using Web of Science with self-citation – 10.66.
	Proportion of published papers in the top 25 journals of international quality relevant to the scope of ESR – measured annually.	36 papers published in top 25 journals of international quality (62% of all ESR articles published).

Core-funded projects

The proportion of projects allocated to short term (one year), medium term (two years) and long term (three or more years) was 20:22:58. We invested $5.01 million in the 2013/14 financial year over a total of 18 projects in our four outcome areas as outlined in our Statement of Core Purpose. Examples of projects highlighting our science capabilities and value to the sectors we service are provided below.

Outcome 1: Safeguard the health of New Zealanders through improvements in the management of human biosecurity and threats to public health.

Project	Description	Achievement
Markers of Human Disease: applying 'omic' technologies to biomarker discovery, surveillance and diagnostics.	Using omics approaches to identify biomarkers for obesity and related co-morbidities such as type 2 diabetes and cardiovascular disease.	Identified candidate miRNA biomarkers for cardiovascular disease risk and type 2 diabetes in obese patients, and epigenetic markers potentially predictive of gastric bypass outcome. Project strategically aligned with Healthier Lives, National Science Challenge.
Reducing the burden of oral diseases and harm from alcohol and drugs through whole system change.	A model of the institutional, organisational, professional and individual factors that underpin the reorientation of health services will be developed by carrying out case studies on how health services are changing to address oral disease and chronic opioid dependence. The model will be able to be used by health boards and the Ministry of Health in policy and decision making.	Developed, piloted and administered a district health board (DHB) online survey of DHB oral health service reorientation. The survey was administered to 8,000 parents/caregivers and 21 DHBs. Analysis of the survey is currently underway. Successful proposal to Glenn Inquiry for a participatory systems analysis of a transformed system to address child abuse and family violence.

Outcome 2: Increase effectiveness of forensic science services applied to safety, security and justice investigations and processes.

Project	Description	Achievement
Capturing the Power: Genomics in Forensic Science.	Initiating the transformation of forensic DNA testing to a genomics (massively parallel processing) approach, combining existing forensic DNA markers used at ESR and many new markers into a single workflow. This project extends the technology to include non-human DNA analysis, e.g. wildlife crime and species identification.	DNA remaining from existing forensic DNA tests was successfully sequenced using massively parallel sequencing, establishing a protocol for revisiting historic and cold case samples. 280 forensic markers were selected and included in a custom marker panel which was sequenced using massively parallel sequencing on two alternative platforms providing options for increased DNA information in the future. ESR is included as a test site for a revolutionary new portable tool that can potentially identify and analyse DNA sequence in situ for forensic purposes. Species identification of difficult samples of non-human origin established by DNA sequencing methods including mixtures of plant and animal matter.
Transcriptomics in Forensic Science – taking RNA into new fields.	Next generation sequencing of the RNA in forensically important cell types will enable the development of cell-specific fluorescent probes that can be used to compare methods for sorting and collecting populations of specific cells from forensic samples.	Collaborative project initiated with Cellmark UK investigating effect of storage conditions of forensic samples and DNA profiling. cDNA libraries completed for investigating and comparing the use of massively parallel sequencing Ion Torrent™ and miSeq platforms are suitable for degraded RNA samples. New, potentially more stable markers, including one for menstrual blood, have been identified from this data and will be assessed as body fluid specific tools for operational implementation. Submitted grant to US National Institute of Justice on the use of RNA FISH to identify the origin of cells in collaboration with Erin Hanson and Jack Ballantyne (University of Central Florida, US).

Outcome 3: Enhance protection of New Zealand's food-based economy through the management of food safety risks associated with traded goods.

Project	Description	Achievement
ProveIt.	Work required to gain accreditation for DNA meat-testing service and developing proteomic approaches for quantification of constituent and contaminant matter.	Protein extraction from bone material producing good yields of protein which will be used to identify species-specific protein biomarkers. AgResearch providing professional development around Q-ToF, Maldi-ToF techniques and 2-d gel work.
Developing new products and markets for ESR biocontrol.	Development of new biocontrols for reduction or elimination of bacteria that are problems to the food industry and/or to public health.	A new *Streptococcus uberis* host has been isolated and identity confirmed by 16S RNA sequence and API test. Number of streptococcal phages being prepared for host range testing. Cooperation from a veterinary testing laboratory and a dairy farm to provide samples. Commercialisation of the phage cocktail – STECleanz®. The product was purchased by seven (of 10) leading meat processing companies, representing 42% of the forecast veal production capacity for the winter 2014 season. STECleanz® is the first line of defence in reducing pathogenic STEC O157 for beef and veal processors. It was developed over a number of years and specifically targets a pathogenic form of *E. coli.* Meat containing any amount of *E. coli* STEC O157 is prohibited from being imported in to the US. STECleanz® helps to protect New Zealand's multi-billion dollar meat export business.

Outcome 4: Improve the safety of freshwater and groundwater resources for human use and the safe use of biowastes.

Project	Description	Achievement
Microbial Early Warning Systems.	Understanding the microbial communities associated with groundwater and the changes that occur in the presence of contaminants will identify potential microbial indicators that can be used to assess water quality.	Established a method for extraction and amplification of DNA from groundwater, biofilm and sediment samples. Results from snap freezing method (for enzymatic activity measures of biofilm) look promising. Contacted by Marlborough Regional Council and Nelson District Council regarding research.
Greywater – developing the science and awareness to create a New Zealand guideline.	To investigate the fate of greywater contaminants, both bacterial and chemical, and their impact on the environment.	Alma Siggins invited to be advisory panel member for a BRANZ (Building Research Association NZ) study looking at greywater reuse in non-residential buildings. Ministry of Health are recognising our expertise and track record and are making referrals for advice on greywater.

Financials

Key financial performance measures

	Year ended 30/06/2014	Target	Year ended 30/06/2013
Revenue, $M	61.8	64.1	62.1
Operating margin, %	8.1	11.8	11.7
Return (NPAT*) on equity %	(1.4)	2.7	3.3
Return (EBIT) on assets, %	(1.3)	3.4	2.9
Acid test, ratio	1.3	0.9	1.4
Equity ratio %	67.8	73.7	66.4
Gearing	0.7	–	1.4
Interest cover	–	–	–
Annualised operating margin per FTE, $'000s	13.2	18.8	19.0

** Net profit (loss) after taxation*

Statement of responsibility

We certify that the Company has operated in accordance with the principles of the Crown Research Institutes Act 1992 and Companies Act 1993. The Company has also complied with all statutory environmental regulations.

We acknowledge responsibility for the preparation of these financial statements and for the judgements used therein.

Internal control procedures are considered to be sufficient to provide a reasonable assurance as to the integrity and reliability of the financial reports.

In our opinion these financial statements fairly reflect the financial position and operations of the Institute of Environmental Science and Research Limited (ESR) for the year ended 30 June 2014.

Dr Susan Macken
Chair

Tahu Potiki
Director

Report of the directors

The directors present the annual report and audited financial statements of the Institute of Environmental Science and Research (ESR) for the year ended 30 June 2014.

The Auditor-General is the statutory auditor pursuant to section 21 of the Crown Research Institutes Act 1992. The Auditor-General has appointed PricewaterhouseCoopers to audit the financial statements and to express an opinion on them. Their report is on page 26 and 27.

Principal activity

ESR is a Crown research institute that provides specialist scientific services and research, particularly to the health and justice sectors. Its purpose is to deliver enhanced scientific and research services to the public health, food safety, security and justice systems, and the environmental sector to improve the safety and contribute to the economic, environmental and social well-being of people and communities in New Zealand.

Dividends

No dividends have been declared or paid in respect of the 2014 financial year.

Directors' indemnity

ESR has arranged for directors' and officers' insurance for any act or omission in their capacity as a director of the Company.

Directors' use of information

No member of the Board of ESR, or any subsidiary, issued a notice requesting to use information received in their capacity as directors that would not otherwise have been available to them.

Donations

No donations were made during the year.

Remuneration of directors

The directors who held office in the period of this report and their total remuneration and other benefits were:

Dr Susan Macken	46,000
Mr Ross Peat	26,144
Mr Tahu Potiki	23,000
Professor Bill Denny	23,000
Dr Helen Darling	23,000
Patricia Schnauer	23,000
Marion Cowden	23,000
	187,144

Disclosure of interests by directors

As at 30 June 2014 the following directors had made the following general disclosures:

Dr Susan Macken (Chair)

Director, Tamaki Redevelopment Company

Independent non-executive director, Bank of New Zealand

Director, Fertility Associates

Managing director, STG Ltd

Director, Blossom Bear Ltd

Non-executive director, Treasury

Ross Peat (Deputy Chair)

Director, Healthsoft Ltd

Director, Healthsoft Australia Ltd

Director, Network Advantage Ltd

Director, YuVu Ltd

Member, University of Otago Business School Advisory Board

Trustee, Hi Tech Trust

Marion Cowden

Deputy Chair, Energy Efficiency and Conservation Authority (EECA)

Board member, St John of God Hauora Trust

National Council member, Student Job Search Aotearoa

Trustee, Nazareth Care Charitable Trust

Member, Audit and Risk Committee, Ministry for the Environment (MfE)

Chair, Daya Trust

Chair, Age Concern (Wellington)

Director, Co-operative Bank Ltd

Tahu Leslie Potiki

Director, Ngāi Tahu Tourism Ltd

Director, Māori Television Service

Elected representative, Te Rūnanga o Ngāi Tahu

Trustee, Ngāi Tahu Charitable Trust

Director, Arataki Associates Ltd

Patricia Schnauer

Trustee, North Harbour Stadium Trust

Director, Millife Trustee Ltd

Director, Millaw Services Ltd

Professor Bill Denny

Director, Auckland Cancer Society Research Centre, University of Auckland

Head, Scientific Advisory Committee, Australian Cancer Research Foundation Drug Discovery Centre, Sydney

Member, Scientific Advisory Group, Australian Cooperative Research Centre for Cancer Therapeutics, Melbourne

Member, Ministry of Health/Health Research Council Steering Committee for Cancer Research Partnership

Member, Management Group, Maurice Wilkins Centre for Molecular Bioscience, University of Auckland

Member, senior management team, Cancer Society Auckland

Shareholder, Proacta Inc, San Diego

Shareholder, Pathway Therapeutics Ltd, San Francisco

Member, National Science Challenge Panel

Board member, NZ Genomics Ltd

Dr Helen Darling

Advisory Board member, Export NZ

Director, International Food Authenticity Assurance Organisation

Shareholder, Oritain Global Limited

Director and shareholder, Cherry Futures Limited

Director and shareholder, Asia Pacific Centre for Food Integrity

Director and Shareholder, Darling & Associates

Directors' interests

No director held any interest in the shares of the Institute. The Institute has funding contracts with the Marsden Fund and the Ministry of Business, Innovation and Employment, which are negotiated at arm's length with appropriate directors' interest being declared. Except for these contacts no material contracts involving directors' interests were entered into during, or subsequent to, the period covered by this report.

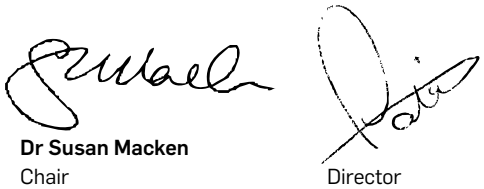
Remuneration

Total remuneration in respect of employees paid above $100,000 was as follows:

Remuneration range	No. of staff
$100,000 – $109,999	17
$110,000 – $119,999	15
$120,000 – $129,999	9
$130,000 – $139,999	5
$140,000 – $149,999	4
$150,000 – $159,999	2
$160,000 – $169,999	1
$170,000 – $179,999	2
$190,000 –$199,999	1
$200,000 – $209,999	1
$250,000 – $259,999	1
$300,000 – $349,999	1

Events subsequent to balance date

The directors are not aware of any matter or circumstance since the end of the financial year that has significantly affected, or may significantly affect, the operation of the Institute.



Dr Susan Macken
Chair

Director

Independent Auditor's report

To the readers of the Institute of Environmental Science and Research Limited's financial statements for the year ended 30 June 2014

The Auditor-General is the auditor of the Institute of Environmental Science and Research Limited (the 'Institute') and the Group. The Auditor-General has appointed me, Chris Barber, using the staff and resources of PricewaterhouseCoopers, to carry out an audit of the financial statements of the Institute and Group on her behalf.

We have audited the financial statements of the Institute and Group on pages 28 to 51, that comprise the statement of financial position as at 30 June 2014, the statement of profit or loss and other comprehensive income, statement of changes in equity and statement of cash flows for the year ended on that date and the notes to the financial statements that include accounting policies and other explanatory information.

Opinion

Financial Statements

In our opinion, the financial statements of the Institute and Group on pages 28 to 51:

- comply with generally accepted accounting practice in New Zealand;
- comply with International Financial Reporting Standards; and
- give a true and fair view of the Institute and Group's:
  - financial position as at 30 June 2014; and
  - financial performance and cash flows for the year ended on that date.

Other legal requirements

In accordance with the Financial Reporting Act 1993 we report that, in our opinion, proper accounting records have been kept by the Institute and Group as far as appears from an examination of those records.

Our audit was completed on 20 August 2014. This is the date at which our opinion is expressed.

The basis of our opinion is explained below. In addition, we outline the responsibilities of the Board of Directors and our responsibilities, and we explain our independence.

Basis of opinion

We carried out our audit in accordance with the Auditor-General's Auditing Standards, which incorporate the International Standards on Auditing (New Zealand). Those standards require that we comply with ethical requirements and plan and carry out our audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

Material misstatements are differences or omissions of amounts and disclosures that, in our judgement, are likely to influence readers' overall understanding of the financial statements. If we had found material misstatements that were not corrected, we would have referred to them in our opinion.

An audit involves carrying out procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgement, including our assessment of risks of material misstatement of the financial statements whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the Institute and Group's preparation of the financial statements that fairly reflect the matters to which they relate. We consider internal control 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 Institute and Group's internal control.

An audit also involves evaluating:

- the appropriateness of accounting policies used and whether they have been consistently applied;
- the reasonableness of the significant accounting estimates and judgements made by the Board of Directors;
- the adequacy of all disclosures in the financial statements; and
- the overall presentation of the financial statements.

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We did not examine every transaction, nor do we guarantee complete accuracy of the financial statements. Also we did not evaluate the security and controls over the electronic publication of the financial statements.

In accordance with the Financial Reporting Act 1993 we report that we have obtained all the information and explanations we have required. We believe we have obtained sufficient and appropriate audit evidence to provide a basis for our audit opinion.

Responsibilities of the Board of Directors

The Board of Directors is responsible for preparing financial statements that:

- comply with generally accepted accounting practice in New Zealand; and
- give a true and fair view of the Institute and Group's financial position, financial performance and cash flows.

The Board of Directors is also responsible for such internal control as it determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error. The Board of Directors is also responsible for the publication of financial statements, whether in printed or electronic form.

The Board of Directors' responsibilities arise from the Crown Research Institutes Act 1992 and the Financial Reporting Act 1993.

Responsibilities of the Auditor

We are responsible for expressing an independent opinion on the financial statements and reporting that opinion to you based on our audit. Our responsibility arises from section 15 of the Public Audit Act 2001 and the Crown Research Institutes Act 1992.

Independence

When carrying out the audit, we followed the independence requirements of the Auditor-General, which incorporate the independence requirements of the External Reporting Board.

In addition to the audit, we have carried out assignments in the areas of taxation compliance and other assurance services which are compatible with those independence requirements. Other than the audit and these assignments, we have no relationship with, or interests in, the Institute or any of its subsidiaries.

Chris Barber

On behalf of the Auditor-General
Wellington, New Zealand

PricewaterhouseCoopers

Statement of profit or loss and other comprehensive income

FOR THE YEAR ENDED 30 JUNE 2014

	Note	Group actual year ended 30 June 2014 audited $'000s	Group budget year ended 30 June 2014 unaudited $'000s	Group actual year ended 30 June 2013 audited $'000s
Operating revenue				
Revenue from rendering of services		54,042	56,418	53,892
Core funding		7,723	7,723	8,222
		61,765	**64,141**	**62,114**
Operating expenses				
Scientific materials		(5,798)	(6,316)	(6,204)
Subcontracting expenses		(5,954)	(6,334)	(6,065)
Employee benefit expense		(32,488)	(31,588)	(31,128)
Depreciation and amortisation expense	4/5	(5,741)	(6,193)	(5,598)
Other expenses	2	(12,524)	(12,342)	(11,435)
		(62,505)	**(62,773)**	**(60,430)**
OPERATING PROFIT/(LOSS)		**(740)**	**1,368**	**1,684**
Finance income – interest income		86	127	166
Finance expense		(13)	(14)	(27)
Net finance income		**73**	**113**	**139**
Profit before income tax expense		(667)	1,481	1,823
Income tax expense	3	114	(420)	(561)
Profit for the period attributable to the Institute's shareholder		**(553)**	**1,061**	**1,262**
Other comprehensive income		–	–	–
Total profit or loss and other comprehensive income for the period attributable to the Institute's shareholder		**(553)**	**1,061**	**1,262**

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

Statement of changes in equity

FOR THE YEAR ENDED 30 JUNE 2014

	Group actual audited Share capital $'000s	Group actual audited Retained earnings $'000s	Group actual audited Total $'000s
Balance at 1 July 2012	**8,494**	**29,362**	**37,856**
Profit for the period	–	1,262	1,262
Other comprehensive income	–	–	–
Total comprehensive income	**–**	**1,262**	**1,262**
Transactions with owners:			
Dividend	–	–	–
Balance at 30 June 2013	**8,494**	**30,624**	**39,118**
Balance at 1 July 2013	**8,494**	**30,624**	**39,118**
Loss for the period	–	(553)	(553)
Other comprehensive income	–	–	–
Total comprehensive income	**–**	**(553)**	**(553)**
Transactions with owners:			
Dividend	–	–	–
Balance at 30 June 2014	**8,494**	**30,071**	**38,565**

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

Statement of financial position

AS AT 30 JUNE 2014

	Note	Group actual 30 June 2014 audited $'000s	Group budget 30 June 2014 unaudited $'000s	Group actual 30 June 2013 audited $'000s
Non-current assets				
Property, plant and equipment	4	31,900	34,660	33,911
Investment		30	–	–
Intangible assets	5	8,979	8,315	8,207
		40,909	**42,975**	**42,118**
Current assets				
Cash and cash equivalents		1,897	2,731	2,136
Trade and other receivables	7	13,304	7,024	11,855
Derivative financial instruments		142	–	–
Income tax receivable	11	432	–	20
Inventories – scientific materials and consumables		1,027	1,458	725
		16,802	**11,213**	**14,736**
Current liabilities				
Trade and other payables	8	11,884	6,914	9,843
Employee benefits	9	2,571	2,579	2,713
Finance lease liabilities	10	223	–	309
Derivative financial instruments		–	–	58
Income tax payable	11	–	257	–
		14,678	**9,750**	**12,923**
Net current assets		**2,124**	**1,463**	**1,813**
Non-current liabilities				
Employee benefits	9	910	943	1,138
Finance lease liabilities	10	62	–	237
Deferred taxation	6	3,496	3,586	3,438
		4,468	**4,529**	**4,813**
Net assets		**38,565**	**39,909**	**39,118**
Equity				
Share capital	13	8,494	8,494	8,494
Retained earnings		30,071	31,415	30,624
Total equity		**38,565**	**39,909**	**39,118**

The Board of Directors of the Institute of Environmental Science and Research Limited authorised these financial statements for issue on 20 August 2014.

On behalf of the Board:

Dr Susan Macken
Chair

Tahu Potiki
Director

Dated 20 August 2014

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

Statement of cash flows

FOR THE YEAR ENDED 30 JUNE 2014

	Note	Group actual year ended 30 June 2014 audited $'000s	Group budget year ended 30 June 2014 unaudited $'000s	Group actual year ended 30 June 2013 audited $'000s
Cash flows from/(used in) operating activities				
Cash was provided from:				
Customers		61,515	63,998	59,154
Interest received		86	127	202
		61,601	**64,125**	**59,356**
Cash was applied to:				
Suppliers and employees		(56,792)	(55,862)	(53,352)
Interest paid		(14)	(13)	(25)
Income tax paid	11	(239)	(612)	(723)
		(57,045)	(56,487)	(54,100)
Net cash inflow from operating activities	14	**4,556**	**7,638**	**5,256**
Cash flows from/(used in) investing activities				
Cash was provided from:				
Proceeds from sale of property, plant and equipment		84	–	–
		84	–	–
Cash was applied to:				
Purchase of property, plant and equipment		(2,345)	(3,341)	(6,766)
Purchase of intangible assets	5	(2,188)	(3,502)	(3,010)
Acquisitions		(30)	–	(204)
		(4,563)	(6,843)	(9,980)
Net cash outflow from investing activities		**(4,479)**	**(6,843)**	**(9,980)**
Cash flows from/(used in) financing activities				
Cash was provided from/(applied to):				
Dividends paid		–	–	–
Repayment of finance lease liabilities		(316)	(172)	(372)
Net cash (outflow)/inflow from financing activities		**(316)**	**(172)**	**(372)**
Net (decrease)/increase in cash held		**(239)**	**623**	**(5,096)**
Cash and cash equivalents at the beginning of the period		2,136	2,108	7,232
Cash and cash equivalents at the end of the period		**1,897**	**2,731**	**2,136**
Comprising:				
– cash at bank		210	–	2
– short term deposits		1,687	2,731	2,134
Total cash and cash equivalents		**1,897**	**2,731**	**2,136**

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

Notes to the financial statements

1. Statement of significant accounting policies

Reporting entity

These financial statements of the Institute of Environmental Science and Research Limited and its subsidiaries ("ESR" and the "Group") are for the year ended 30 June 2014.

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

ESR is a Crown research institute that provides specialist scientific services and research, particularly to the health and justice sectors.

These financial statements have been approved for issue by the Board on 20 August 2014.

Basis of preparation

The financial statements are Parent (ESR) and Group financial statements. The two subsidiaries of ESR are dormant non-trading entities; consequently there is no difference between the financial statements of the Group and those of the Parent.

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

The financial statements are prepared on the basis of historical cost, except for financial instruments as identified in the specific accounting policies and accompanying notes.

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

Changes in accounting policies

Accounting policies have been applied on a basis consistent with the prior year.

Statement of compliance

These financial statements have been prepared in accordance with New Zealand Generally Accepted Accounting Practice (NZ GAAP). They comply with New Zealand equivalents to International Financial Reporting Standards (NZ IFRS) and other applicable financial reporting standards, as appropriate for profit-oriented entities. These consolidated financial statements comply with International Financial Reporting Standards (IFRS).

The Group has adopted External Reporting Board Standard A1 Accounting Standards Framework (For-profit Entities Update) (XRB A1). XRB A1 establishes a for-profit tier structure and outlines which suite of accounting standards entities in different tiers must follow. The Group is a Tier 1 entity. There was no impact on the current or prior year financial statements.

Adoption status of relevant new financial reporting standards and interpretations

The Group has elected not to early adopt any of the new standards and amendments to existing standards which have been issued as at 30 June 2014 but not yet effective. It is not anticipated that standards not yet effective will significantly impact the financial statements of the Group with the exception of NZ IFRS 15.

NZ IFRS 15, Revenue from contracts with customers (effective for annual periods beginning on or after 1 January 2017)

NZ IFRS 15 addresses recognition of revenue from contracts with customers. It replaces the current revenue recognition guidance in NZ IAS 18, Revenue, and NZ IAS 11, Construction contracts, and is applicable to all entities with revenue. It sets out a five step model for revenue recognition to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The Group has yet to assess NZ IFRS 15's full impact. The Group will apply this standard from 1 July 2017.

Accounting estimates and judgements

The preparation of financial statements in conformity with NZ IFRS requires judgements, estimates and assumptions that affect the application of policies and reported amounts of assets and liabilities, income and expenses. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances. Actual results may differ from these estimates.

Management's judgements, which have the most significant effect on amounts recognised in the financial statements, are found in Revenue and Employee Benefits.

Revenue

The Group uses the stage of completion method in accounting for its fixed price contracts to deliver scientific services. The use of stage of completion method requires the Group to estimate the services performed to date as a proportion of the total services to be performed. Stage of completion is calculated and reviewed monthly, and significant variances are investigated to ensure that the stage of completion estimate is reasonable in line with the overall project plan, estimated completion date and prior measurements of progress.

Principles of consolidation

Subsidiaries

The consolidated financial statements incorporate the assets and liabilities of all subsidiaries of ESR as at 30 June 2014 and the results of the operations of all subsidiaries for the year then ended.

Subsidiaries are those entities controlled, directly or indirectly, by the Parent. Subsidiaries are consolidated from the date on which control is transferred to ESR. They are de-consolidated from the date that control ceases.

The acquisition method of accounting is used to account for the acquisition of businesses by the Group. The cost of an acquisition is measured as the fair value of the assets given, equity instruments issued and liabilities incurred or assumed at the date of exchange. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date, irrespective of the extent of any non-controlling interest. The excess of the cost over the fair value of the Group's share of the identifiable net assets acquired is recorded as goodwill. If the cost of acquisition is less than the Group's share of the fair value of the identifiable net assets of the subsidiary acquired, the difference is recognised directly in the statement of profit or loss and other comprehensive income.

Property, plant and equipment

Items of property, plant and equipment are initially recorded at cost, and subsequently at cost less accumulated depreciation and impairment. The cost of property, plant and equipment includes the value of consideration given to acquire the assets and the value of other directly attributable costs that have been incurred in bringing the assets to the location and condition necessary for their intended use.

The carrying amounts of plant, property and equipment are reviewed at least annually to determine if there is any indication of impairment. Where an asset's recoverable amount is less than its carrying amount, it will be reported at its recoverable amount and an impairment loss will be recognised.

Losses resulting from impairment are reported in the statement of profit or loss and other comprehensive income.

Realised gains and losses arising from the disposal of property, plant and equipment are recognised in the statement of profit or loss and other comprehensive income in the periods in which the transactions occur.

Depreciation is charged on a straight-line basis at rates calculated to allocate the cost of an item of property, plant and equipment, less any estimated residual value, over its estimated useful life, as follows:

Type of asset	**Estimated useful life**
Land	Not depreciated
Freehold buildings	20 – 50 years
Leasehold improvements	10 years
Plant, equipment and vehicles	3 – 10 years
IT equipment and internal software	3 – 10 years

Intangible assets

Computer software

Items of computer software that do not comprise an integral part of the related hardware are treated as intangible assets with finite lives. Intangible assets with finite lives are recorded at cost, and subsequently recorded at cost less any accumulated amortisation and impairment losses. Amortisation is charged to the statement of profit or loss and other comprehensive income on a straight-line basis over the useful life of the asset (between 3 and 10 years).

Customer contracts

The intangible asset "customer contracts" represents the fair value of future revenue streams from customer contracts acquired under business combinations. Initial recognition of the intangible asset is stated at fair value. Subsequent to initial recognition, acquired intangible assets are stated at initially recognised amounts less accumulated amortisation and any impairment. Amortisation of acquired intangible assets is made according to the straight-line method over their estimated useful life, not exceeding 10 years.

Research and development costs – internally generated intangible assets

Expenditure on research is expensed when it is incurred.

Development expenditure incurred on an individual project is capitalised if the process is technically and commercially feasible, future economic benefits are probable and ESR intends to and has sufficient resources to complete development and to use or sell the asset.

Any expenditure capitalised is amortised over the period of expected future sales from the related project from the point the asset is ready for use.

Impairment of non-financial assets

Assets that are subject to amortisation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units).

Taxation

The income tax expense for the period is the tax payable on the current period's taxable income based on the national income tax rate for each jurisdiction. This is then adjusted by changes in deferred tax assets and liabilities attributable to temporary differences between the tax bases of assets and liabilities and their carrying amounts in the financial statements, and unused tax losses.

Deferred tax assets and liabilities are recognised for temporary differences at the tax rates expected to apply when the assets are recovered or liabilities settle. The relevant tax rates are applied to the cumulative amount of deductible and taxable temporary differences to measure the deferred tax asset or liability. An exception is made for certain temporary differences arising from the initial recognition of an asset or a liability. No deferred tax asset or liability is recognised in relation to temporary differences if they arose in a transaction, other than a business combination, and at the time of the transaction did not affect either accounting profit or taxable profit or loss.

Deferred tax assets are recognised for deductible temporary differences and unused tax losses only if it is probable that future taxable amounts will be available to utilise those temporary differences and losses.

Deferred income tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Cash and cash equivalents

Cash means cash on hand, demand deposits and other highly liquid investments in which ESR has invested as part of its day-to-day cash management. The following definitions are used in the statement of cash flows:

- Investing activities are those activities relating to the acquisition, holding and disposal of fixed assets and investments.
- Financing activities are those activities that result in changes in the size and composition of the capital structure of ESR and this includes both equity and debt not falling within the definition of cash. Dividends paid in relation to the capital structure are included in financing activities.
- Operating activities are the principal revenue-producing activities and other activities that are not investing or financing activities.

Trade and other receivables

Trade receivables are stated at their estimated realisable value after providing against debts where collection is doubtful. An estimate of the value of doubtful debts is made based on a review of debts at year end. Bad debts are written off in the period in which they are identified.

Inventories

Stocks of consumables and work in progress are stated at the lower of cost and net realisable value. Cost is determined on a first in, first out basis.

Trade and other payables

These amounts represent the best estimate of the expenditure required to settle an obligation arising from goods or services provided to ESR prior to period end. These amounts are unsecured and are usually paid within 30 days of recognition. Liabilities and provisions to be settled beyond 12 months are recorded at their present value.

Employee benefits

Wages, salaries and annual leave

Liabilities for wages and salaries, including annual leave, that are expected to be settled within 12 months of the reporting date are recognised in respect of employees' services up to the reporting date and are measured at the amounts expected to be paid when the liabilities are settled.

Obligations for contributions to defined contribution retirement plans are recognised in the statement of profit or loss and other comprehensive income as they fall due.

Long service leave, retirement leave and service leave

The liability for long service leave, retirement leave and service leave is recognised as an employee benefit liability 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. Consideration is given to the expected future salary levels, experience of employee departures and periods of service. Expected future payments are discounted using market yields at the reporting date for government bonds with terms to maturity and currency that match, as closely as possible, the estimated future cash outflows.

Leases

Finance leases transfer to ESR, as lessee, substantially all the risks and rewards incidental to ownership of a leased asset. Initial recognition of a finance lease results in an asset and liability being recognised at amounts equal to the lower of the fair value of the leased asset or the present value of the minimum lease payments. Each lease payment is allocated between the liability and finance charges so as to achieve a constant rate of finance charge over the term of the lease. Property, plant and equipment acquired under a finance lease are depreciated over the shorter of the assets' useful lives and lease terms.

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to the statement of profit or loss and other comprehensive income on a straight-line basis over the period of the lease.

Borrowings

Borrowings are initially recognised at fair value, net of costs incurred. Borrowings are subsequently measured at amortised cost. Any differences between the proceeds (net of transaction costs) and the redemption amount is recognised in the statement of profit or loss and other comprehensive income over the period of the borrowing using the effective interest rate method.

Borrowings are classified as current liabilities unless ESR has an unconditional right to defer the settlement of the liability for at least 12 months after the balance date.

Share capital

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown as appropriate in equity as a deduction, net of tax, from the proceeds.

Revenue

Sales of goods and services

Revenue is earned by ESR in exchange for the provision of outputs (services) to third parties.

Revenue from the supply of services is measured at the fair value of consideration received. Revenue from the supply of services is recognised in the accounting period in which the services are rendered, by reference to the stage of completion of the specific transaction assessed on the basis of the actual service provided as a proportion of the total services to be provided. Any revenue for which services have not been supplied as at the reporting date but for which payment has been received is deferred within the statement of financial position as revenue in advance.

Core funding

ESR receives core funding from the Government in order to perform scientific research activities. Core funding (Government grants) are recognised in the statement of profit or loss and other comprehensive income when the requirements under the grant agreement have been met. Any grants for which the requirements have not been completed are carried as liabilities until all conditions have been fulfilled.

Interest income

Interest income is recognised in the statement of profit or loss and other comprehensive income on a time proportion basis, using the effective interest rate method.

Vaccine revenue

ESR purchases vaccines on behalf of the Pharmaceutical Management Agency (PHARMAC). PHARMAC maintains the risks and rewards related to the inventory and as such no inventory is recognised within ESR's statement of financial position. ESR receives and recognises commission revenue only in relation to the services performed.

Amounts due for vaccine purchases are disclosed in trade and other payables whilst amounts due to vaccine sales are disclosed in trade and other receivables.

Foreign currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates. The Group financial statements are presented in New Zealand dollars, which is ESR's functional and presentation currency.

Foreign currencies transactions are recorded at the foreign exchange rates in effect at the dates of the transactions. Monetary assets and monetary liabilities denominated in foreign currencies are translated at the rates of exchange ruling at the end of each reporting period. Non-monetary assets and non-monetary liabilities denominated in foreign currencies that are measured at fair value are translated to the functional currency at the exchange rate at the date that the fair value was determined.

Goods and services tax

Items in the statement of profit or loss and other comprehensive income and statement of cash flows are disclosed net of Goods and Services Tax (GST). All items in the statement of financial position are stated net of GST with the exception of receivables and payables, which include GST invoiced.

Dividends

A provision is made for the amount of any dividend declared on or before the end of the financial year but not distributed at balance date.

Financial instruments

The designation of financial assets and financial liabilities by ESR into instrument categories is determined by the business purposes of the financial instruments, policies and practices of management, the relationship with other instruments and the reporting costs and benefits associated with each designation. The designations applied by ESR are reflected in the financial statements.

Financial assets

The Group classifies its financial assets as loans and receivables and at fair value through profit and loss. Management determines the classification of its financial assets at initial recognition.

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are included in current assets, except for maturities greater than 12 months after the reporting date. These are classified as non-current assets. ESR's loans and receivables comprise "trade and other receivables" and "cash and cash equivalents" in the statement of financial position.

Regular purchases and sales of financial assets are recognised on the trade-date – the date on which the Group commits to purchase or sell the asset. Financial assets are derecognised when the rights to receive cash flows from the investments have expired or have been transferred and the Group has transferred substantially all risks and rewards of ownership. Loans and receivables are carried at amortised cost using the effective interest method.

The Group assesses at each reporting date whether there is objective evidence that a financial asset or a group of financial assets is impaired.

Financial liabilities

Financial liabilities held by ESR include trade and other payables and derivatives.

Such financial liabilities are recognised initially at fair value less transaction costs and subsequently measured at amortised cost using the effective interest rate method. Financial liabilities entered into with durations less than 12 months are recognised at their nominal value.

Derivatives

Derivative financial instruments are recognised both initially and subsequently at fair value. They are reported as either assets or liabilities depending on whether the derivative is in a net gain or net loss position. ESR does not use hedge accounting, and as such derivatives are classified as held-for-trading financial instruments with fair value gains or losses recognised in the statement of profit or loss and other comprehensive income. Such derivatives are entered into for risk management purposes.

2. Other expenses include the following specific items:

	Note	Group 30 June 2014 $'000s	Group 30 June 2013 $'000s
Fees paid to PricewaterhouseCoopers for:			
– the audit of the statutory financial statements		109	103
– the audit for A133 compliance, SHIVERS Project		26	–
Total audit related fees paid to the auditors		135	103
– non audit related services – taxation compliance		22	14
Total fees paid to auditors		157	117
Defined contribution plan expense		820	612
Directors' fees	17	187	190
Bad debts written off		3	15
Communications (including phone, network, postage and courier)		716	846
IT systems maintenance and licence costs		1,401	1,537
Consultancy fees		2,101	1,393
Impairment of receivables (loans and advances)		–	57
Foreign exchange losses (gain)		(5)	12
Fair value loss/(gain) on forward exchange contract		(142)	58
Marketing and advertising		173	190
Office and administration		1,383	1,350
Occupancy		2,382	2,130
Rental and operating lease costs		754	659
Training and conferences		303	264
Travel (airfares and accommodation)		1,772	1,562
Restructuring expense		488	115

Given the nature of ESR's principal business activities, research comprises part of ESR's everyday business operations. As such, expenses relating to research are not separately identified. The cost of research to ESR is distributed between the relevant expense items, for example employee benefits and scientific materials used.

3. Taxation

	Note	Group 30 June 2014 $'000s	Group 30 June 2013 $'000s
The taxation charge has been calculated as follows:			
Profit/(loss) before income tax expense		**(667)**	**1,823**
Prima facie taxation at 28%		(187)	510
Plus taxation effect of:			
Net prior years under/(over) estimation		–	(27)
Non-deductible/(assessable) items		73	78
Tax/(credit) expense for the year		**(114)**	**561**
The tax expense for the year is represented by:			
Current taxation		(172)	330
Deferred taxation	**6**	58	231
		(114)	**561**

4. Property, plant and equipment

Group	Freehold land $'000s	Buildings and leasehold improvements $'000s	IT equipment and software $'000s	Plant, equipment and vehicles $'000s	Assets under construction $'000s	Total $'000s
At 1 July 2012						
Cost	476	24,882	9,894	27,708	969	63,929
Accumulated depreciation	–	(5,161)	(8,282)	(19,416)	–	(32,859)
Net book value at the beginning of the year	**476**	**19,721**	**1,612**	**8,292**	**969**	**31,070**
Year ended 30 June 2013						
Net book value at the beginning of the year	476	19,721	1,612	8,292	969	31,070
Additions	–	149	762	1,479	4,746	7,136
Transfers from assets under construction	–	4,096	240	997	(5,333)	–
Depreciation for the year	–	(749)	(1,021)	(2,525)	–	(4,295)
Net book value at the end of the year	**476**	**23,217**	**1,593**	**8,243**	**382**	**33,911**
At 30 June 2013						
Cost	476	29,128	7,456	30,097	382	67,539
Accumulated depreciation	–	(5,911)	(5,863)	(21,854)	–	(33,628)
Net book value at the end of the year	**476**	**23,217**	**1,593**	**8,243**	**382**	**33,911**
Year ended 30 June 2014						
Net book value at the beginning of the year	476	23,217	1,593	8,243	382	33,911
Additions	–		530	1,573	302	2,405
Transfers from assets under construction	–	401	–	49	(450)	–
Disposals	–	(7)	(13)	(71)	–	(91)
Depreciation for the year	–	(907)	(1,010)	(2,408)	–	(4,325)
Net book value at the end of the year	**476**	**22,704**	**1,100**	**7,386**	**234**	**31,900**
At 30 June 2014						
Cost	476	29,522	7,973	31,346	234	69,551
Accumulated depreciation	–	(6,818)	(6,873)	(23,960)	–	(37,651)
Net book value at the end of the year	**476**	**22,704**	**1,100**	**7,386**	**234**	**31,900**

IT equipment recognised under finance leases (where ESR is a lessee) included in the above table has the following values:

Group	30 June 2014 $'000s	30 June 2013 $'000s
Cost – capitalised finance lease assets	874	820
Accumulated depreciation	(598)	(317)
Net book value at the end of the year	**276**	**503**

ESR does not have any property, plant and equipment used as security for liabilities.

Restriction on title

In relation to the transfer of land owned by the Company, shareholding ministers shall have regard to the principles of the Treaty of Waitangi in accordance with section 10 of the Crown Research Institutes Act 1992. Properties owned by the Company in Christchurch, Wellington and Auckland have caveats on the land as required by section 31 of the Crown Research Institutes Act 1992, which maintains the general provisions of the Public Works Act 1981. The Company complies with section 31 of the Crown Research Institutes Act 1992.

5. Intangible assets

Group	Computer software – externally purchased $'000s	Computer software – internally generated $'000s	Customer contracts $'000s	Assets under construction $'000s	Total $'000s
At 1 July 2012					
Cost	3,108	2,908	1,338	3,804	11,158
Accumulated amortisation	(2,346)	(2,186)	(126)	–	(4,658)
Net book value at the end of the year	**762**	**722**	**1,212**	**3,804**	**6,500**
Year ended 30 June 2013					
Net book value at the beginning of the year	762	722	1,212	3,804	6,500
Additions	173	–	–	2,837	3,010
Transfers from assets under construction	1,669	3,712	–	(5,381)	–
Amortisation for the year	(607)	(469)	(227)	–	(1,303)
Net book value at the end of the year	**1,997**	**3,965**	**985**	**1,260**	**8,207**
At 30 June 2013					
Cost	7,610	6,620	1,338	1,260	16,828
Accumulated amortisation and impairment losses	(5,613)	(2,655)	(353)	–	(8,621)
Net book value at the end of the year	**1,997**	**3,965**	**985**	**1,260**	**8,207**
Year ended 30 June 2014					
Net book value at the beginning of the year	1,997	3,965	985	1,260	8,207
Additions	307	–	–	1,881	2,188
Transfers from assets under construction	–	2,261	–	(2,261)	–
Amortisation for the year	(634)	(559)	(223)	–	(1,416)
Net book value at the end of the year	**1,670**	**5,667**	**762**	**880**	**8,979**
At 30 June 2014					
Cost	7,917	8,881	1,338	880	19,016
Accumulated amortisation and impairment losses	(6,247)	(3,214)	(576)	–	(10,037)
Net book value at the end of the year	**1,670**	**5,667**	**762**	**880**	**8,979**

ESR does not have any intangible assets whose title is restricted or used as security for liabilities.

Assets under construction relates to the development of a new laboratory operational system. The completion and implementation of the system is expected in May 2015. Also included is the redevelopment of existing platforms and software.

6. Deferred taxation

Deferred tax assets and liabilities are attributed to the following:

	Group 30 June 2014 $'000s	Group 30 June 2013 $'000s
Balance at the beginning of the year	(3,438)	(3,255)
Transfer from current tax	–	48
Statement of profit or loss and other comprehensive income charge	(58)	(231)
Balance at the end of the year	**(3,496)**	**(3,438)**

	Accelerated tax depreciation $'000s	Employee benefits and provisions $'000s	Total $'000s
Year ended 30 June 2013			
Balance at the beginning of the year	(4,352)	1,097	(3,255)
(Under)/over provision in prior year	27	–	27
Transfer from current tax	111	(63)	48
Charged/(credited) to statement of profit or loss and other comprehensive income	(268)	10	(258)
Balance at the end of the year	**(4,482)**	**1,044**	**(3,438)**
Year ended 30 June 2014			
Balance at the beginning of the year	(4,482)	1,044	(3,438)
(Under)/over provision in prior year	–	–	–
Current year (charged)/credited to statement of profit or loss and other comprehensive income	(158)	100	(58)
Balance at the end of the year	**(4,640)**	**1,144**	**(3,496)**

There are no unrecognised deferred tax assets or liabilities.

Deferred tax liabilities expected to be settled within 12 months total $860,000 (2013: $696,000).

7. Trade and other receivables

	Group 30 June 2014 $'000s	Group 30 June 2013 $'000s
Trade debtors	12,175	10,944
Provision for doubtful debts	(77)	(77)
	12,098	10,867
Prepayments	1,206	988
	13,304	**11,855**

As at 30 June 2014, trade receivables of $1,223,000 (2013: $567,000) were past due but not impaired. These relate to a number of customers for whom there is no recent history of default. The ageing analysis of these trade receivables is as follows:

	Group 30 June 2014 $'000s	Group 30 June 2013 $'000s
Past due 1 – 30 days	435	220
Past due 31 – 60 days	431	115
Past due > 61 days	357	232
	1,223	**567**

8. Trade and other payables

	Group 30 June 2014 $'000s	Group 30 June 2013 $'000s
Accrued expenses	1,091	1,005
Payroll and GST accruals	1,602	1,466
Revenue in advance	732	787
Trade payables	8,459	6,585
	11,884	**9,843**

Payroll accruals include a provision of $273,000 for restructuring announced prior to 30 June 2014. Accrued expenses include a provision for $219,000 for roof repairs to the Mt Albert Science Centre. The provisions at 30 June 2014 are expected to be fully utilised during the first quarter of the 2015 financial year.

9. Employee benefits

	Group 30 June 2014 $'000s	Group 30 June 2013 $'000s
Annual leave accrual	2,261	2,357
Service leave accrual	299	338
Other	11	18
Current liabilities	**2,571**	**2,713**
Service leave accrual	765	864
Retirement leave accrual	139	268
Other	6	6
Non-current liabilities	**910**	**1,138**

10. Finance lease liabilities

Future minimum lease payments are as follows:

	Group 30 June 2014 $'000s	Group 30 June 2013 $'000s
Not later than one year	223	316
Later than one year and not later than five years	67	247
Later than five years	–	–
Total minimum lease payments	**290**	**563**
Future finance charges on finance leases	(5)	(17)
Present value of finance lease liabilities	**285**	**546**

The finance leases relate to IT equipment. Upon termination of the initial lease period, ESR can either choose to extend the term further, or return the leased assets to the lessor. There is no option to purchase the leased assets upon termination of the lease.

The present value of finance lease liabilities are as follows:

	Group 30 June 2014 $'000s	Group 30 June 2013 $'000s
Not later than one year	223	309
Later than one year and not later than five years	62	237
Later than five years	–	–
	285	**546**

11. Income tax receivable

	Group 30 June 2014 $'000s	Group 30 June 2013 $'000s
Balance at the beginning of the year	(20)	325
Current year charge	(172)	330
Prior period adjustment	–	48
Provisional taxation payments	(240)	(723)
Balance at the end of the year	**(432)**	**(20)**

12. Borrowings

ESR holds a multi-option credit facility with Westpac Banking Corporation for $6,000,000 (2013: $6,000,000), which is provided subject to ESR meeting an equity ratio covenant specified by the bank. The facility expires in March 2016. The facility has been used during the year to cover working capital movements. All amounts have been repaid by balance date.

There were no breaches of the equity ratio covenant during the year.

13. Equity

Share capital

	Group 30 June 2014 $'000s	Group 30 June 2013 $'000s
8,494,000 ordinary $1 shares (issued and fully paid)	**8,494**	**8,494**

All ordinary shares rank equally with one vote attached to each fully paid ordinary share.

No dividends were proposed or declared for the 30 June 2014 year (2013: nil).

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

	Note	Group year ended 30 June 2014 $'000s	Group year ended 30 June 2013 $'000s
Profit for the year after taxation		**(553)**	**1,262**
Non-cash items:			
Depreciation and amortisation expense	4/5	5,741	5,597
Provisions		480	–
Bad debts written off	2	3	15
Impairment of receivables (loans and advances)	2	–	57
Deferred tax charged to the income statement	6	58	231
Foreign exchange losses	2	(5)	12
Fair value loss/(gain) on derivatives	2	(142)	58
		6,135	**5,970**
Impact of changes in investing activities:			
Profit on sale of assets		(84)	–
		(84)	**–**
Financing			
Finance charge on leases		9	16
		9	**16**
Changes in working capital:			
Decrease/(increase) in trade and other receivables		(1,647)	1,243
(Decrease)/increase in income tax receivable		(412)	(347)
Decrease/(increase) in inventories		(302)	517
(Decrease)/increase in employment benefits		(370)	14
(Decrease)/increase in financial liabilities		(261)	86
(Decrease)/increase in trade and other payables		2,041	(3,505)
		(951)	**(1,992)**
Net cash inflow/(outflow) from operating activities		**4,556**	**5,256**

15. Investments

Subsidiary companies

ESR has two wholly owned, non-trading, subsidiary companies:

Name	Balance date	Country of incorporation
ESR Limited	30 June	New Zealand
The Institute of Environmental Science and Research Limited	30 June	Australia

All subsidiaries have remained non-trading during the period.

At balance date the investment in these subsidiaries had a nil carrying value.

Investments

ESR purchased 18 shares in Kiwi Innovation Network Limited during the period. The investment has a carrying value of $30,000.

16. Commitments

Capital commitments	Group year ended 30 June 2014 $'000s	Group year ended 30 June 2013 $'000s
Property, plant and equipment	1,346	565
Total capital commitments	**1,346**	**565**

Included in the above table as at 30 June 2014 is an amount of $1,266,000 (30 June 2013: nil) which relates to the development of a laboratory information systems software development.

Operating lease commitments

The future aggregate minimum lease payments under non-cancellable operating leases are as follows:

	Group 30 June 2014 $'000s	Group 30 June 2013 $'000s
Not later than one year	818	569
Later than one year and not later than five years	517	917
Later than five years	–	–
Total operating commitments	**1,335**	**1,486**

ESR leases land, buildings, equipment and vehicles. There is a renewal option in respect of the land and building lease. There are no renewal options or options to purchase in respect of vehicles held under operating leases.

ESR has a number of standard operational agreements for the purchase of materials and consumables that have both fixed and variable components, some of which extend beyond one year.

17. Related party transactions and key management personnel

Related party transactions

ESR is a wholly owned entity of the Crown. ESR enters into transactions with other Crown entities and government departments.

Related parties include the subsidiary entities disclosed in note 15. There have been no transactions with these related parties in the year ended 30 June 2014 (30 June 2013: Nil).

The following transactions were carried out with related parties:

- There are close family members of key management personnel employed by ESR. The terms and conditions of those arrangements are no more favourable than those ESR would have adopted if there were no relationship with key management personnel.
- Fees paid to directors during the year were $187,144 (30 June 2013: $190,000), with no balances outstanding at balance date (30 June 2013: Nil).

No provision has been required, nor any expense recognised, for impairment of receivables from related parties.

Key management personnel compensation

Key management personnel comprise the chief executive officer, members of the senior leadership team and the directors. Key management personnel compensation is disclosed below.

	Group 30 June 2014 $'000s	Group 30 June 2013 $'000s
Salaries and other short-term employee benefits	1,471	1,650
Termination benefits	74	86
Other long-term employee benefits	31	32
Directors' fees	187	190
Total key management personnel compensation	**1,763**	**1,958**

18. Financial instruments by category

	Loans and receivables $'000s	Fair value through profit or loss $'000s	Total $'000s
30 June 2013			
Assets as per balance sheet			
Trade and other receivables excluding prepayments	10,867	–	10,867
Cash and cash equivalents	2,136	–	2,136
Total	**13,003**	**–**	**13,003**

	Financial liabilities at amortised cost $'000s	Fair value through profit or loss $'000s	Total $'000s
Liabilities as per balance sheet			
Finance lease liabilities	546	–	546
Derivative	–	58	58
Trade and other payables	9,056	–	9,056
Total	**9,602**	**58**	**9,660**

	Loans and receivables $'000s	Fair value through profit or loss $'000s	Total $'000s
30 June 2014			
Assets as per balance sheet			
Trade and other receivables excluding prepayments	12,098	–	12,098
Derivative	–	142	142
Cash and cash equivalents	1,897	–	1,897
Total	**13,995**	**142**	**14,137**

	Financial liabilities at amortised cost $'000s	Fair value through profit or loss $'000s	Total $'000s
Liabilities as per balance sheet			
Finance lease liabilities	285	–	285
Derivative	–	–	–
Trade and other payables	11,152	–	11,152
Total	**11,437**	**–**	**11,437**

19. Financial risk management

ESR's activities are exposed to a variety of financial risks: market risk, credit risk, liquidity risk, cash flow risk and fair value interest-rate risk. ESR's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on ESR's financial performance. The policies approved and financial instruments being utilised at balance date are outlined below.

a) Market risk

In accordance with its Treasury Management Policy, ESR uses derivative financial instruments to economically hedge its exposure to foreign exchange risks from its operational, financing and investment activities. These derivatives are classified at fair value through profit or loss, and gains and losses are recognised in the statement of profit or loss and other comprehensive income.

i) Foreign exchange risk

Foreign exchange risk occurs as a result of transactions denominated in a currency other than ESR's functional currency of New Zealand dollars. Currencies commonly transacted in, and giving rise to foreign exchange risk, include the United States dollar, Australian dollar and the pound sterling. ESR is subject to foreign currency risk through its trade receivables and trade payables balances.

Where a material foreign currency balance is entered into (exposures equivalent to greater than New Zealand dollar $100,000), ESR is required by the Treasury Management Policy to hedge its exposure to the currency through the use of forward exchange contracts.

ESR held one forward exchange contract of US $1,176,307 at 30 June 2014 (30 June 2013: US $1,034,000).

The carrying amounts of the Group's trade and other receivables denominated in foreign currencies are:

	Group 30 June 2014 $'000s	Group 30 June 2013 $'000s
Australian dollar	257	149
Euro	4	263
US dollar	881	285
Others	28	13
	1,170	**710**

The carrying amounts of the Group's trade and other payables denominated in foreign currencies are:

	Group 30 June 2014 $'000s	Group 30 June 2013 $'000s
Australian dollar	34	40
Pound sterling	–	10
US dollar	194	36
Others	7	4
	235	**90**

ii) Interest rate risk

As at reporting date, ESR is subject to interest rate risk through the holding of cash and cash equivalents. ESR uses a mixture of call and short-term deposit investment accounts to hold excess funds. Available interest rates are monitored to ensure the best return on cash.

When ESR is required to draw down its credit facilities, interest rate risk is managed through entering into a predetermined mixture of floating and fixed rate borrowings, depending on the level of borrowings entered into. ESR does not have any borrowings as at 30 June 2014 (30 June 2013: Nil).

iii) Market risk sensitivity analysis

ESR is exposed to market risk through the holding of the following financial instruments: cash, trade receivables and trade payables. ESR management has analysed the below sensitivities in market risk factors over a 12 month period:

- proportional foreign exchange rate movement of -10% (depreciation of New Zealand dollar) and +10% (appreciation of New Zealand dollar) against the foreign currencies; and
- a parallel shift of +1% / -1% in market interest rates in New Zealand.

If these movements were to occur (all other variables held constant), the impact on ESR's reported profit before income tax expense and equity at balance date is:

– foreign currency $93,000 (30 June 2013: $62,000)

– interest rate $17,000 (30 June 2013: $21,000).

b) Credit risk

Credit risk refers to the risk that a counterparty will default on its contractual obligations, resulting in financial loss to ESR. The financial instruments, which expose ESR to credit risk, are principally cash and cash equivalents, and trade receivables.

Bank balances and short-term investments (comprising cash and cash equivalents) are held with New Zealand registered banks in accordance with ESR's Treasury Management Policy. The majority of high value trade receivables comprise government entities and therefore the potential risk of default is low. ESR has a Contracts Policy which requires assessment of credit worthiness of potential clients, where the value of the contract is material as defined in the policy.

A provision for doubtful debts is maintained in respect of trade receivables and this is reassessed on a regular basis. No collateral is held by ESR in respect of cash and cash equivalents, and trade receivables as at 30 June 2014 (30 June 2013:nil).

The carrying amount of financial assets recognised in the statement of financial position best represents ESR's maximum exposure to credit risk at the reporting date.

As at 30 June 2014 the trade receivables balance included $9,965,000 (30 June 2013: $8,527,000) owed by entities within, or owned by, the New Zealand Government. It is not believed that there is any material risk of loss with these receivables.

c) Liquidity risk

Prudent liquidity risk management implies the availability of funding through adequate levels of committed credit facilities. Liquidity risk is monitored through the forecasting of cash flows, and ensuring that the committed credit lines in place remain adequate for requirements.

Contractual undiscounted maturity analysis of financial liabilities is presented below:

Group	30 June 2014					30 June 2013				
	Carrying value $'000s	Less than 1 year $'000s	1 – 2 years $'000s	2 – 5 years $'000s	Greater than 5 years $'000s	Carrying value $'000s	Less than 1 year $'000s	1 – 2 years $'000s	2 – 5 years $'000s	Greater than 5 years $'000s
Trade payables	11,152	11,152	–	–	–	9,056	9,056	–	–	–
Finance lease liabilities	285	223	49	13	–	546	309	205	32	–
	11,437	**11,375**	**49**	**13**	**–**	**9,602**	**9,365**	**205**	**32**	**–**

d) Fair values

The carrying value of financial assets and liabilities recorded in the financial statements approximate their fair values.

Fair value is generally based on the contracted amount payable/receivable of financial assets and financial liabilities, being the amount for which the financial instrument is to be exchanged. Fair value includes the impact of any assessed impairment of the financial instruments – please refer to the statement of significant accounting policies for details of each financial instrument and their recognition criteria.

e) Capital risk management

ESR's objectives when managing capital are to maintain financial stability, achieve sustainable growth and to realise its strategic goals and targets, all within the risk appetite of its shareholder and management.

In line with Government requirements, ESR monitors its capital structure through the return on equity and gearing ratios. Government provides ESR with guidelines with the expectation that an appropriate average return is achieved over time, rather than requiring that ESR meet the specified targets annually.

Each year ESR internally sets return on equity and gearing ratio targets, bearing in mind the overall results expected by Government. The ratios are reported in the Statement of Corporate Intent.

The return on equity and gearing ratios as at 30 June 2014, and 30 June 2013, were as follows, along with the relevant annual targets set by ESR.

	Group 30 June 2014 $'000s	Group 30 June 2013 $'000s
Profit/(loss) for the year	(553)	1,262
Average equity	38,842	38,487
Actual ratio	**(1.4%)**	**3.3%**
Target ratio	**2.7%**	**8.0%**
Gearing ratio		
Net debt		
Finance lease liabilities – current	223	309
Finance lease liabilities – non current	62	237
	285	**546**
Equity	**38,565**	**39,118**
Actual ratio	**0.7%**	**1.4%**
Target ratio	**0.0%**	**0.0%**

20. Contingent liabilities

The directors are satisfied that there are no claims outstanding that would have a material impact on ESR's financial position, as at 30 June 2014 (30 June 2013: Nil).

21. Subsequent events

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

Directory

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Patricia Schnauer
Professor Bill Denny
Tahu Potiki
Marion Cowden
Dr Helen Darling

Chief Executive

Dr Keith McLea

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Dr Fiona Thomson-Carter, General Manager, Environmental Health

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