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ESR
Science for Communities

ESR HALF-YEARLY REPORT

for the six months ending 31 December 2018

DIRECTORY

ESR Board of Directors

Denise Church QSO	*Chair*
Quentin Hix	*Deputy Chair*
Dr Helen Darling	
Richard Gill	
Dr Andy Shenk	
Dr Cristin Print	
Kate Thomson	

ESR Senior Leadership Team

Dr Keith McLea	*Chief Executive*
Trish Bolger	*General Manager, People*
John Bone	*General Manager, Forensic*
Cas Carter	*Communications and Brand Manager*
Hamish Findlay	*General Manager, Commercial and International*
Dr Libby Harrison	*General Manager, Health and Environment*
Bryan Lau Young	*General Manager, Finance and Business Performance*
Steve Pyne	*Chief Information Officer*

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Auditor

Chris Ussher of PricewaterhouseCoopers on behalf of the Auditor-General

Banker

ANZ Bank New Zealand Limited

Solicitor

Buddle Findlay

Science for Communities

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

CHAIR'S REPORT

Transforming ESR to be ably positioned for the future is a key driver for the company in 2019. To position ESR for further and future success we are transforming the way we deliver our science services. In 2019 we are investing in areas of science which are evolving rapidly. Transformation will provide an environment for ESR to grow our research whilst continuing to deliver the science which is vital to the wellbeing of all New Zealanders.

Data science has quickly become an essential capability for ESR, enabling us to provide clients with greater insights to inform their decision making. In recognising the changing landscape of data science we have ensured ESR has future capability in this area. This year we have employed additional staff with specialist data science skills and provided courses in data carpentry to better prepare our existing staff for the new data driven world. This has been underpinned by additional investment in IT infrastructure and new data visualisation tools.

During the first 6 months ESR has commenced research into the impact of microplastics and the threat to New Zealand's ecosystems, flora, fauna and people. This multi-year $12.5m Endeavour Fund project will conduct a rigorous assessment of the extent of microplastics contamination and will advance research on the mitigation of that threat.

Delivering science that is vital to the wellbeing of New Zealanders, ESR continued to develop our pipeline of innovative new products and services such as:

- The Drugs in Wastewater programme, which provides New Zealand Police and other agencies with valuable intelligence on the use of illicit drugs in a region, was launched nationwide. The programme will expand from the 3 pilot sites to 38 sites covering over 80% of the New Zealand population.
- A new DNA Databank service identifying 'crime to crime' links using Y chromosome DNA techniques was launched. In the future the service will make an important contribution to the resolution of crimes where reoffending exists.
- The use of degraded RNA (ribonucleic acid) for enhanced forensic body fluid identification. This development enabled ESR to sign a licence allowing an international genetics company to use the technology.

During the 6 months ESR increased our investment in the innovative biotech start-up AuramerBio Limited, which took our shareholding to 20%. Since our initial investment, we have collaborated with AuramerBio on the development of aptamers to detect human pathogens (listeria) and illicit drugs (methamphetamine).

In commencing ESR's transformation we are maximising our research investments, making highly effective use of ESR's SSIF funding. Our relatively low level of SSIF funding (12% of our total revenue) has the potential to place some constraints on the speed of ESR's investment in science transformation.

The Indicative Business Case for the replacement of ESR's ageing science facilities in Kenepuru was finalised. We are now developing a workplace design in consultation with staff. This will identify workspaces that are best suited to ESR and New Zealand's future needs enabling agile, connected and flexible working environments.

Revenue for the 6 months was $36.4m, up slightly on the same period last year, but below budgeted revenue. Operating expenses were $36.6m, coming in below budget but up on the prior year due to increased investment in personnel in line with our transformative initiatives. This resulted in a net profit after tax (NPAT) of $0.1m for the half year. NPAT is expected to improve to $0.7m for the full year, with a focus on managing operating costs to mitigate lower revenues in the short term, while continuing to invest in science capabilities, strengthening our core contracts and expanding the presence of STRmix™ into new international markets.

Denise Church QSO
Chair

KEY FINANCIAL PERFORMANCE MEASURES

	6 months ended 31 December 2018 Actual	Year ended 30 June 2019 Plan	Year ended 30 June 2018 Actual	Year ended 30 June 2017 Actual
Revenue	$36.4m	$86.1m	$76.2m	$75.5m
Operating margin *Earnings before interest, tax, depreciation and amortisation (EBITDA) as a percentage of revenue*	7.2%	12.5%	14.2%	16.3%
Return on equity *Net profit after taxation as a percentage of equity*	0.6%	6.3%	8.2%	10.5%
Return on assets *Earnings before interest and tax as a percentage of total assets*	-0.6%	5.7%	7.2%	10.1%
Acid test, ratio *Current assets excluding prepayments and inventory to current liabilities excluding deferred revenue*	3.4	2.2	2.8	2.7
Equity ratio *Equity as a percentage of total assets*	72.5%	73.0%	71.4%	70.7%
Gearing *Debt (including finance lease liabilities) as a percentage of debt and equity*	0.1%	0.0%	0.1%	0.6%
Annualised operating margin per FTE *Earnings before interest, tax, depreciation and amortisation, per average full time equivalent employee for the year*	$13,400	$25,600	$28,300	$33,700

STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

for the six months ended 31 December 2018

	Note	Group unaudited 6 months ended 31 December 2018 $'000s	Group audited 12 months ended 30 June 2018 $'000s	Group unaudited 6 months ended 31 December 2017 $'000s
Operating revenue				
Revenue from rendering of services		32,483	66,925	31,904
Strategic science investment funding		3,941	9,234	4,093
		36,424	**76,159**	**35,997**
Operating expenses				
Scientific materials		2,646	5,940	2,875
Subcontracting, commissions & royalties		3,287	7,942	3,400
Personnel		20,656	37,065	18,653
Depreciation and amortisation		2,822	5,538	2,824
Other		7,216	14,361	6,895
		36,627	**70,846**	**34,647**
Operating (loss) / profit		**(203)**	**5,313**	**1,350**
Interest income		426	766	371
Interest expense		(10)	(10)	(6)
Net finance income		**416**	**756**	**365**
Share of net loss of associate accounted for using the equity method	**3**	(4)	(50)	–
Profit before income tax expense		**209**	**6,019**	**1,715**
Income tax expense	**4**	63	1,748	526
Profit for the period attributable to the Institute's shareholders		**146**	**4,271**	**1,189**
Other comprehensive income		–	–	–
Total profit and other comprehensive income for the period attributable to the Institute's shareholders		**146**	**4,271**	**1,189**

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

STATEMENT OF CHANGES IN EQUITY

for the six months ended 31 December 2018

	Note	Share capital $'000s	Retained earnings $'000s	Total $'000s
Balance at 1 July 2017		**8,494**	**41,505**	**49,999**
Profit for the period		–	1,189	1,189
Other comprehensive income		–	–	–
Total comprehensive income		**–**	**1,189**	**1,189**
Transactions with owners:				
Dividend		–	–	–
Balance at 31 December 2017		**8,494**	**42,694**	**51,188**
Balance at 1 July 2018		**8,494**	**45,776**	**54,270**
Change in accounting policy	**2**	**–**	186	186
Restated total equity at the beginning of the financial year		**8,494**	**45,962**	**54,456**
Profit for the period		**–**	146	146
Other comprehensive income		–	–	–
Total comprehensive income		**–**	**146**	**146**
Transactions with owners:				
Dividend		–	–	–
Balance at 31 December 2018		**8,494**	**46,108**	**54,602**

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

STATEMENT OF FINANCIAL POSITION

as at 31 December 2018

	Note	Group unaudited 6 months ended 31 December 2018 $'000s	Group audited 12 months ended 30 June 2018 $'000s	Group unaudited 6 months ended 31 December 2017 $'000s
Non-current assets				
Property, plant and equipment		29,047	29,992	29,527
Intangible assets		8,774	9,393	9,508
Investments accounted for using the equity method	3	246	250	300
Other investments		30	30	30
		38,097	**39,665**	**39,365**
Current assets				
Cash and cash equivalents		2,190	960	910
Investment cash		24,000	24,000	21,015
Trade and other receivables		8,702	9,420	7,443
Contract assets		666	844	752
Income tax receivable		597	–	30
Inventories		1,110	1,079	945
		37,265	**36,303**	**31,095**
Current liabilities				
Trade and other payables		6,632	7,677	5,341
Contract liabilities		5,086	4,569	4,970
Employee benefits		3,822	3,451	3,543
Finance lease liabilities		37	67	101
Derivative financial instruments		10	11	–
Income tax payable		–	903	–
		15,587	**16,678**	**13,955**
Net current assets		**21,678**	**19,625**	**17,140**
Non-current liabilities				
Employee benefits		1,520	1,367	1,380
Finance lease liabilities		–	–	50
Deferred taxation		3,653	3,653	3,887
		5,173	**5,020**	**5,317**
Net assets		**54,602**	**54,270**	**51,188**
Equity				
Share capital		8,494	8,494	8,494
Retained earnings		46,108	45,776	42,694
Total equity		**54,602**	**54,270**	**51,188**

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

STATEMENT OF CASH FLOWS

for the six months ended 31 December 2018

	Note	Group unaudited 6 months ended 31 December 2018 $'000s	Group audited 12 months ended 30 June 2018 $'000s	Group unaudited 6 months ended 31 December 2017 $'000s
Cash flows from / (used in) operating activities				
Cash was provided from:				
Customers		40,244	73,880	37,418
Interest received		280	592	183
		40,524	74,472	37,601
Cash was applied to:				
Suppliers and employees		(35,447)	(65,369)	(34,296)
Interest paid		(9)	–	–
Income tax paid		(1,635)	(1,695)	(1,175)
		(37,091)	(67,064)	(35,471)
Net cash inflow from operating activities	**5**	**3,433**	**7,408**	**2,130**
Cash flows from / (used in) investing activities				
Cash was provided from:				
Proceeds from sale of property, plant and equipment		–	2	–
Term deposit maturities		4,000	24,000	10,000
		4,000	24,002	10,000
Cash was applied to:				
Purchase of property, plant and equipment		(1,836)	(3,226)	(1,847)
Purchase of intangible assets		(336)	(1,470)	(692)
Investments		–	(300)	(300)
Investment in term deposits		(4,000)	(32,000)	(15,015)
		(6,172)	(36,996)	(17,854)
Net cash outflow from investing activities		**(2,172)**	**(12,994)**	**(7,854)**
Cash flows from / (used in) financing activities				
Cash was provided from / (applied to):				
Dividends paid		–	–	–
Repayment of finance lease liabilities		(31)	(227)	(139)
Net cash outflow from financing activities		**(31)**	**(227)**	**(139)**
Net increase / (decrease) in cash held		**1,230**	**(5,813)**	**(5,863)**
Cash and cash equivalents at the beginning of the period		960	6,773	6,773
Cash and cash equivalents at the end of the period		**2,190**	**960**	**910**

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

NOTES TO THE FINANCIAL STATEMENTS

1. Statement of significant accounting policies

Reporting entity

These financial statements of the Institute of Environmental Science and Research Limited and its subsidiaries ('ESR' and the 'Group') are for the six months ended 31 December 2018.

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

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

Statement of compliance

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

Basis of preparation of half yearly report

This condensed consolidated interim financial report for the half year reporting period ended 31 December 2018 has been prepared in accordance with Accounting Standard IAS 34 Interim Financial Reporting.

The interim report does not include all the notes of the type normally included in an annual financial report. Accordingly, this report is to be read in conjunction with the annual report for the year ended 30 June 2018.

The accounting policies adopted are consistent with those of the previous financial year and corresponding interim reporting period, except for the estimation of income tax and the adoption of new and amended standards as set out below.

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

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

The results for the six months ended 31 December 2018 and comparative period figures presented in these financial statements are unaudited.

New and amended standards adopted by the group

IFRS 9 Financial Instruments

NZ IFRS 9 addresses the classification, measurement and recognition of financial assets and financial liabilities. It replaces the guidance in NZ IAS 39 that relates to the classification and measurement of financial instruments. The Group adopted NZ IFRS 9 on 1 July 2018. There is no material impact from the adoption of this standard.

IFRS 15 Revenue from Contracts with Customers

The Group has adopted IFRS 15 *Revenue from Contracts with Customers* from 1 July 2018 which has resulted in changes in accounting policies and adjustments to the amounts recognised in the financial statements. In accordance with the transition provisions in IFRS 15, the Group has adopted the new rules using the modified retrospective approach and has restated opening retained earnings for the 2019 financial year.

The impact of the adoption of IFRS 15 and the new accounting policies are disclosed in note 2 below.

Standards issued but not yet applied by the group

IFRS 16 Leases

NZ IFRS 16 introduces a single lessee accounting model and requires a lessee to recognise right-of-use assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. The Group has yet to assess the full impact of NZ IFRS 16. The Group will apply this standard from 1 July 2019.

2. Changes in accounting policies

This note explains the impact of the adoption of IFRS 15 *Revenue from Contracts with Customers* on the Group's financial statements and details the accounting policies that have been adopted from 1 July 2018 where they are different to those applied in prior periods.

(a) Impact on the financial statements

The Group has adopted IFRS 15 using the modified retrospective approach. Under this method the Group has recognised the cumulative effect of initially applying this standard as an adjustment to the opening balance of retained earnings.

The Group has applied this standard retrospectively only to contracts that are not completed contracts as at 1 July 2018.

The following table shows the adjustments required for each individual line item in the financial statements. These adjustments are explained in 2. (b) below.

To aid comparability between reporting periods, accrued revenue, deferred costs and deferred revenue related to contracts reported within trade and other receivables and trade and other payables in FY18 have been reclassified as contract assets and liabilities.

	30 June 2018 originally presented $'000s	IFRS 15 adjustments $'000s	1 July 2018 restated $'000s
Non-current assets	**39,665**	**–**	**39,665**
Current assets			
Cash and cash equivalents	960	–	960
Investment cash	24,000	–	24,000
Trade and other receivables	9,420	–	9,420
Contract assets	844	(165)	679
Inventories	1,079	–	1,079
	36,303	**(165)**	**36,138**
Current liabilities			
Trade and other payables	7,677	–	7,677
Contract liabilities	4,569	(423)	4,146
Employee benefits	3,451	–	3,451
Finance lease liabilities	67	–	67
Derivative financial instruments	11	–	11
Income tax payable	903	72	975
	16,678	**(351)**	**16,327**
Non-current liabilities	**5,020**	**–**	**5,020**
Net assets	**54,270**	**186**	**54,456**
Equity			
Share capital	8,494	–	8,494
Retained earnings	45,776	186	45,962
Total equity	**54,270**	**186**	**54,456**

2. Changes in accounting policies *continued*

(b) IFRS 15 Revenue from Contracts with Customers - impact of adoption

	01 July 2018 $'000s
Retained earnings as at 30 June 2018	**54,270**
Recognition of revenue from software license sales	423
Recognition of costs associated with software licence sales	(165)
Increase in current tax liability	(72)
Opening retained earnings as at 1 July 2018	**54,456**

Accounting for software sales

The Group's sales of the forensic software product STRmix™ involve separate performance obligations covering the software licence, software upgrades, training and the provision of scientific support.

The Group's previous accounting policy was to defer the recognition of software licence revenues and the related contract acquisition costs until training had been delivered to the customer.

Under IFRS 15 the performance obligation in relation to the software licence is considered to be satisfied at the point in time the customer receives the software. As a result, on 1 July 2018 the Group's deferred revenue and cost balances were, respectively, $423k and $165k lower than that recognised under the previous accounting policy. Adjusting these balances resulted in a net transfer of $258k to retained earnings. This crystallised a current tax liability of $72k which was also charged to retained earnings.

(c) IFRS 15 Revenue from Contracts with Customers - accounting policies

Sale 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.

For some contracts revenue is recognised based on the actual service provided to the end of the reporting period as a proportion of the total services to be provided, as the customer receives and uses the benefits simultaneously or the Group has an enforceable right to payment for performance completed to date. The revenue recognised is typically determined based on actual labour hours and other costs incurred.

Estimates of revenues, costs or extent of progress toward completion are revised if circumstances change. Any resulting increases or decreases in estimated revenues or costs are reflected in profit or loss in the period in which the circumstances that give rise to the revision become known by management.

In case of fixed-price contracts, the customer pays the fixed amount based on a payment schedule. If the services rendered by the Group exceed the payment schedule, a contract asset is recognised. If the payments exceed the services rendered, a contract liability is recognised.

Sale of software

The Group sells expert forensic analysis software. Contracts for the sale of this software comprise several deliverables: software licence, software upgrades, training and support.

Revenue for each deliverable is recognised as the related performance obligation is satisfied, either at a point in time or over time. Revenue from software licences and training is recognised at a point in time when, respectively, the customer has been provided with access to the software licence and training has been delivered. Software upgrades and support revenues are recognised over time. Software upgrade revenue is recognised over time as the Group has a stand ready obligation to provide software upgrade and enhancements as and when they are available. Software support revenue is recognised as the customer utilises the support purchased with the software licence.

Invoicing or payment for software upgrades and support is generally made in advance of the satisfaction of these performance obligations. A contract liability is recognised to the extent payment received or due exceeds the services rendered by the Group.

The transaction price is allocated to each performance obligation based on the stand alone selling price or estimated based on industry benchmarks.

Financing components

The Group does not expect to have any contracts where the period between the transfer of the promised goods or services to the customer and payment by the customer exceeds one year. As a consequence, the Group does not adjust any of the transaction prices for the time value of money.

3. Investment in associates

The carrying amount of equity accounted investments has changed over the reporting period as below:

	Group unaudited 6 months ended 31 December 2018 $'000s	Group audited 12 months ended 30 June 2018 $'000s	Group unaudited 6 months ended 31 December 2017 $'000s
Beginning of the period	250	–	–
Additions	–	300	300
Profit / (loss) for the period	(4)	(50)	–
Dividends paid	–	–	–
End of the period	**246**	**250**	**300**

ESR's equity accounted investment is in AuramerBio Limited, a start up company focussed on the development of DNA aptamer sensors.

AuramerBio Limited completed a further investment round in the last quarter of 2018. ESR participated in this investment round, investing a further $240,000. Capital raise conditions were satisfied in January 2019 (refer note 6).

4. Profit and loss information

Income tax

Income tax expense is recognised based on management's estimate of the weighted average effective annual income tax rate expected for the full financial year. The estimated average annual tax rate used for the six months to 31 December 2018 is 30%, compared to 31% for the six months ended 31 December 2017.

5. Reconciliation of profit after taxation to cash flows from operating activities

	Group unaudited 6 months ended 31 December 2018 $'000s	Group audited 12 months ended 30 June 2018 $'000s	Group unaudited 6 months ended 31 December 2017 $'000s
Profit for the period	**146**	**4,271**	**1,189**
Non-cash items:			
Depreciation and amortisation	2,823	5,538	2,824
Equity accounted earnings from associate company investment	4	50	–
Bad debts written off	–	8	–
Increase / (decrease) in provision for doubtful debts	3	11	–
Increase / (decrease) in deferred tax liability	–	(232)	1
Fair value (gain) / loss on derivative financial instruments	(1)	79	68
	2,829	**5,454**	**2,893**
Items classified as investing and financing activities:			
Loss on disposal of property, plant and equipment	1	11	6
Decrease / (Increase) in payables related to property, plant & equipment	909	(896)	19
Finance charge on leases	1	10	6
	911	**(875)**	**31**
Changes in working capital:			
Decrease / (increase) in trade and other receivables	718	(2,544)	(548)
Decrease / (increase) in contract assets	178	(81)	11
(Increase) / decrease in inventories	(31)	(210)	(76)
(Decrease) / increase in income tax payable	(1,500)	283	(650)
Increase / (decrease) in employment benefits	524	304	409
(Decrease) / increase in trade and other payables	(1,045)	1583	(753)
Increase / (decrease) in contract liabilities	517	(777)	(376)
Increase in net working capital attributable to the adoption of IFRS 15	186	–	–
	(453)	**(1,442)**	**(1,983)**
Net cash inflow / (outflow) from operating activities	**3,433**	**7,408**	**2,130**

6. Capital commitments

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

	Group unaudited 6 months ended 31 December 2018 $'000s	Group audited 12 months ended 30 June 2018 $'000s	Group unaudited 6 months ended 31 December 2017 $'000s
Property, plant and equipment	310	417	272
Intangibles assets – software	–	–	13
Investment in associate company	240	–	–
Total capital commitments	**550**	**417**	**285**

7. Contingent liabilities

There are no known material contingent liabilities at 31 December 2018 (2017: nil).

8. Events subsequent to balance date

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

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