Appendix 4 | Science and Industry Endowment Fund Annual Report 2013–14

TRUSTEE'S REPORT

When CSIRO gifted $150 million to the Science and Industry Endowment Fund (SIEF) in 2009 from its WLAN patent, the Fund recognised that the proceeds of an invention of global significance need to be re-invested in science with worldwide importance and impact. Almost five years on, as Trustee of SIEF I am proud of the range of projects and initiatives the Fund has supported.

These years have been filled with intensive investment activities by the Fund, with almost $120 million committed. The Fund is now moving to a new phase – evaluating its impact. Over the past 12 months, along with regular progress reports, eight Research Projects have undergone major, mid-project reviews. These reviews provide a thorough assessment of path to impact, end-user engagement, intellectual property, future investment options and continued alignment to SIEF's strategic objectives.

It is my pleasure and privilege to share some of this year's highlights from the Fund.

Supporting research of global significance and impact

The Great Barrier Reef is subject to threats including climate change, water quality and coastal development. Timely access to accurate water quality information is essential to maintain a vibrant, healthy reef ecosystem. The *eReefs* Project is the first step towards comprehensive coastal information systems for Australia.

The SIEF Research Project, *Transforming the Science and Management of the Great Barrier Reef,* developed the first tool to come out of *eReefs*. The Marine Water Quality Dashboard was officially launched in March 2014, providing public access to over ten years of water quality information. It allows identification of changes over time, plus up-to-date assessments of the likelihood of events such as coral bleaching or the impact of sediment plumes from large rainfalls. The knowledge and tools generated through *eReefs* will be applicable across Australia's coastline as well as internationally.

The Marine Water Quality Dashboard provides public access to over ten years of water quality information. Image: iStock

Insight into fundamental plant breeding aspects could see unique hybrid plant traits preserved from generation to generation.

***Solving the Energy Waste Roadblock* is identifying new materials to capture carbon dioxide and convert it into useful products. Image: University of Sydney**

Hybrid crop production has been a major plant breeding strategy in many different crops for more than a century. Understanding the molecular and cellular basis of hybrid vigour and methods to preserve it in subsequent seed generations will provide new opportunities to enhance crops with existing hybrids and create opportunities for new hybrid crops. This is especially important as global food demand increases and is expected to double by 2050.

The SIEF-supported Research Project *New Methodologies in Plant Breeding for Creating and Perpetuating Major Yield Increases* (*Plant Breeding*) provided insight into two fundamental aspects of plant breeding that could see the unique traits of hybrids preserved from generation to generation. These discoveries attracted international attention, resulting in further international funding of over $14 million.

Annual global emissions of carbon dioxide have increased by approximately 80 per cent since 1970. A major challenge for reducing greenhouse gas emissions is developing new materials and processes to capture and store carbon dioxide. The SIEF *Solving the Energy Waste Roadblock* project is identifying new materials to capture carbon dioxide and convert it into useful products. To date the project is the first in the world to report an effective means to totally inhibit physical aging of membrane materials without any gas permeability or selectivity performance loss, leading to two provisional patents, as well as developed a material which, after absorbing carbon dioxide, will release it with simple irradiation by concentrated sunlight.

Supporting industry, sustainability and productivity

In selecting activities to be funded by SIEF I aim to ensure a broad spread of development maturity.

This includes research which is:

- *Emerging:* promising or new fields of research
- *Strategic:* applying new fields to threats, challenges or opportunities arising in or for Australia
- *Supporting:* established or long-term research programs that aim to deliver scientific advances by translating solutions to real world problems.

The final round of Research Projects (finalised in mid-2013) had a strong preference for proposals at the *supporting* level, with an emphasis on industry and end-user involvement. Projects selected were in:

- Manufacturing: *High performance solar cell technology with integrated nanoplasmonic thin film and thermal management systems* and *Manufacture of a small demonstrator aero-engine entirely through additive manufacturing*
- Resources: *Distal Footprints of Giant Ore Systems: UNCOVER Australia*
- Agriculture: *Forests for the future: making the most of a high CO_2 world*
- Digital age: *Big-Data Knowledge Discovery.*

Supporting development of Australian researchers

For Australia to remain scientifically and economically competitive, we must foster skilled, savvy, highly motivated early-career researchers as the leaders of tomorrow. The SIEF Promotion of Science Program supports outstanding candidates at the early-career stage, providing them with the financial support to reach their potential and allow them to undertake research across a broad spectrum and of national importance. Examples range from basic research in astronomy (*New Dimensions in galaxy evolution*) and biology (*Epigenetic regulation of gene expression by DNA methylation in insect models*) to practical solutions to real-world problems (*Recycling E-waste Metals and Polymers for Recovery of Value-Added Materials* and *Next generation biomedical materials based on highly ordered colloid crystals*).

Supported by SIEF advisory bodies

My role as Trustee has been greatly assisted by the Fund's Advisory Council, Expert Panel and Undergraduate Degree Panel. The loyal members of these bodies have supported the Fund by providing constant guidance and insight on a *pro bono* basis. Their contributions have ensured investments are directed to where the greatest achievement can be made for global significance and impact, sustainability and productivity of Australia's industries and valued development of our future science leaders.

My gratitude to these supporters of the Fund, both personally and on behalf of Australian science, is profound.

Advisory Council

Prof Alan Robson (Chair)
Prof Tom Spurling
Dr Ezio Rizzardo
Prof Margaret Sheil
Mr Nigel Poole

Expert Panel

Prof Tom Spurling (Chair)
Dr Ezio Rizzardo
Dr Oliver Mayo
Prof Elaine Sadler
Dr Trevor Powell

Undergraduate Degree Panel

Prof Margaret Sheil (Chair)
Prof David Symington
Dr Terry Lyons

I would also like to acknowledge the work of our reviewers, who generously donate their time to assessing proposals, reviewing progress of projects and providing expert advice to SIEF.

Science is an incremental endeavour. The true value of project outcomes may take years or decades to become clear. It has been a privilege to act as custodian of SIEF over the past five years and I look forward to seeing the fruits of this investment in coming years. SIEF's enduring legacy will be converting the proceeds of an invention of profound global impact into the globally significant science of the future.

Dr Megan Clark
Trustee SIEF

Australian National
Audit Office

INDEPENDENT AUDITOR'S REPORT

To the Trustee of the Science and Industry Endowment Fund

I have audited the accompanying financial report of the Science and Industry Endowment Fund for the year ended 30 June 2014, which comprises: a Statement by Trustee and Chief Finance Officer of CSIRO as Service Provider to the Science and Industry Endowment Fund; Statement of Comprehensive Income; Statement of Financial Position; Statement of Changes in Equity; Cash Flow Statement; and Notes to and forming part of the Financial Report including a Summary of Significant Accounting Policies.

Trustee's Responsibility for the Financial Report

The Trustee of the Science and Industry Endowment Fund is responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards (including Australian Accounting Interpretations), and for such internal control as is necessary to enable the preparation of the financial report that give a true and fair view and are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

My responsibility is to express an opinion on the financial report based on my audit. I have conducted my audit in accordance with the Australian National Audit Office Auditing Standards, which incorporate the Australian Auditing Standards. These auditing standards require that I comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance about whether the financial report is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial report. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial report, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Science and Industry Endowment Fund's preparation of the financial report that gives a true and fair view 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 Science and Industry Endowment Fund's internal control. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made by the Trustee as well as evaluating the overall presentation of the financial report.

GPO Box 707 CANBERRA ACT 2601
19 National Circuit BARTON ACT 2600
Phone (02) 6203 7300 Fax (02) 6203 7777

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Independence

In conducting my audit, I have followed the independence requirements of the Australian National Audit Office, which incorporate the requirements of the Australian accounting profession.

Opinion

In my opinion, the financial report of the Science and Industry Endowment Fund:

(a) has been prepared in accordance with Australian Accounting Standards (including Australian Accounting Interpretations); and

(b) gives a true and fair view of the Science and Industry Endowment Fund's financial position as at 30 June 2014 and of its financial performance and cash flows for the year then ended.

Australian National Audit Office

Puspa Dash
Executive Director

Delegate of the Auditor-General

Canberra
21 August 2014

SCIENCE AND INDUSTRY ENDOWMENT FUND

STATEMENT BY TRUSTEE AND CHIEF FINANCE OFFICER OF CSIRO AS SERVICE PROVIDER TO THE SCIENCE AND INDUSTRY ENDOWMENT FUND

In our opinion, the attached financial report for the year ended 30 June 2014 has been prepared based on properly maintained financial records and in accordance with Australian Accounting Standards and other mandatory financial reporting requirements in Australia, and give a true and fair view of the financial position of the Fund as at 30 June 2014 and of its performance for the year then ended.

In our opinion, at the date of this statement, there are reasonable grounds to believe that the Fund will be able to pay its debts as and when they become due and payable.

Megan Clark

Trustee of the Science and Industry Endowment Fund

21 August 2014

Hazel Bennett

Chief Finance Officer of CSIRO as service provider to the Science and Industry Endowment Fund

21 August 2014

SCIENCE AND INDUSTRY ENDOWMENT FUND
STATEMENT OF COMPREHENSIVE INCOME
For the period ended 30 June 2014

	Notes	2014 $	2013 $
EXPENSES			
Scientific research grants	5	23,162,983	25,659,369
Service fee under Services Agreement with CSIRO		474,318	466,090
Audit fees		7,900	7,000
Advertising and approval fees	6	5,226	4,873
Other fees		64	9,148
Total expenses		**23,650,491**	**26,146,480**
LESS:			
REVENUE			
Scientific grant program refunds		22,963	-
Interest		4,442,879	6,540,473
Resources received free of charge	6	5,226	4,873
Total revenue		**4,471,068**	**6,545,346**
Net deficit		**(19,179,423)**	**(19,601,134)**
Other comprehensive income		-	-
Total comprehensive loss		**(19,179,423)**	**(19,601,134)**

The above statement should be read in conjunction with the accompanying notes.

SCIENCE AND INDUSTRY ENDOWMENT FUND
STATEMENT OF FINANCIAL POSITION
As at 30 June 2014

	Notes	2014	2013
		$	$
ASSETS			
Cash	7	102,505,972	121,612,429
Interest receivable	8	742,562	1,438,235
GST receivable		576,643	1,350,269
Other receivables	8	19,184	-
TOTAL ASSETS		**103,844,361**	**124,400,933**
LIABILITIES			
Payables			
Creditors		1,947,492	2,937,997
Accrued expenses	9	155,883	542,527
Total payables		**2,103,375**	**3,480,524**
TOTAL LIABILITIES		**2,103,375**	**3,480,524**
NET ASSETS		**101,740,986**	**120,920,409**
EQUITY			
Contributed equity		200,000	200,000
Retained surplus		101,540,986	120,720,409
TOTAL EQUITY		**101,740,986**	**120,920,409**

The above statement should be read in conjunction with the accompanying notes.

SCIENCE AND INDUSTRY ENDOWMENT FUND

STATEMENT OF CHANGES IN EQUITY

For the period ended 30 June 2014

	Retained Surplus		Contributed Equity		Total Equity	
	2014 $	2013 $	2014 $	2013 $	2014 $	2013 $
Balance as at 1 July	**120,720,409**	**140,321,543**	**200,000**	**200,000**	**120,920,409**	**140,521,543**
Net deficit	(19,179,423)	(19,601,134)	-	-	**(19,179,423)**	**(19,601,134)**
Closing balance at 30 June	**101,540,986**	**120,720,409**	**200,000**	**200,000**	**101,740,986**	**120,920,409**

The above statement should be read in conjunction with the accompanying notes.

SCIENCE AND INDUSTRY ENDOWMENT FUND
CASH FLOW STATEMENT
For the period ended 30 June 2014

	Notes	2014 $	2013 $
OPERATING ACTIVITIES			
Cash received			
Scientific research grant refunds		3,780	-
Interest received		5,138,553	6,679,815
Net GST received		3,165,145	1,572,687
Total cash received		**8,307,478**	**8,252,502**
Cash used			
Payments to grantees		26,872,028	26,828,181
Other payments		541,845	517,158
Bank fees paid		62	62
Total cash used		**27,413,935**	**27,345,401**
Net cash provided/(used) by operating activities	10	**(19,106,457)**	**(19,092,899)**
Net increase/(decrease) in cash held		(19,106,457)	(19,092,899)
Cash at the beginning of the reporting period		121,612,429	140,705,328
Cash at the end of the reporting period		**102,505,972**	**121,612,429**

The above statement should be read in conjunction with the accompanying notes.

SCIENCE AND INDUSTRY ENDOWMENT FUND

NOTES TO AND FORMING PART OF THE FINANCIAL REPORT

For the period ended 30 June 2014

Note 1 Summary of Significant Accounting Policies

1.1 Basis of Preparation of the Financial Report

The financial report for the Science and Industry Endowment Fund (referred to as the 'Fund') is required by section 10 of the Science and Industry Endowment Act 1926 and has been prepared in accordance with Australian Accounting Standards, Australian Accounting Interpretations, and other authoritative pronouncements of the Australian Accounting Standards Board.

The financial report has been prepared on an accrual basis and is in accordance with the historical cost convention. No allowance is made for the effect of changing prices on the results or the financial position.

Assets and liabilities are recognised in the Statement of Financial Position when, and only when, it is probable that future economic benefits will flow and the amounts of the assets or liabilities can be reliably measured.

Revenues and expenses are recognised in the Statement of Comprehensive Income when, and only when, the flow or consumption or loss of economic benefits has occurred and can be reliably measured.

The financial report is presented in Australian Dollars and values are rounded to the nearest dollar unless otherwise specified.

1.2 Cash

For the purpose of the Cash Flow Statement, cash includes cash at bank and deposits at call. They are readily convertible to cash.

1.3 Revenue

Interest revenue is recognised using the effective interest method as set out in AASB 139 *Financial Instruments: Recognition and Measurement* .

1.4 Resources Received Free of Charge

Services received free of charge are recognised as gains when and only when a fair value can be reliably determined and the services would have been purchased if they had not been donated. Use of those resources is recognised as an expense.

1.5 Financial Instruments

Accounting policies for financial instruments are stated in Note 11.

1.6 Taxation

The Fund is exempted from all forms of taxation except the GST.

1.7 Events after the Reporting Period

At the time of completion of this note, the Trustee is not aware of any significant events occurring after the reporting date that could impact on the financial report.

1.8 Grant Payments

Scientific research grants are normally paid inclusive of the GST.

Note 2 Principal Activity

The Fund was established under the Science and Industry Endowment Act 1926 with the Trustee of the Fund being the CSIRO Chief Executive. An appropriation of 100 000 pounds was received at the time the Fund was established. The funds were invested and have subsequently earned interest over time.

The principal activity of the Fund is to provide assistance to persons engaged in scientific research and in the training of students in scientific research.

Gift made in October 2009

In October 2009, Senator Carr announced a gift of $150 million to be donated by CSIRO to the Fund. The gift is intended to be used for scientific research for the purposes of assisting Australian industry, furthering the interests of the Australian community or contributing to the achievement of Australian national objectives. The gift was made subject to the terms of a Deed of Gift between the Trustee and CSIRO dated 15 October 2009.

$100 million was received in financial year 2009–10. The final instalment of $50 million was received in financial year 2010–11.

The maximum amount to be disbursed from the Gift Fund in any one financial year does not exceed $25 million (GST exclusive)

Note 3 Schedule of Commitments

	2014	2013
	$	$
BY TYPE		
Grants payable	40,688,118	54,990,428
Total grants payable	**40,688,118**	**54,990,428**
BY MATURITY		
One year or less	18,773,257	19,512,086
From one to five years	21,839,061	35,326,742
More than five years	75,800	151,600
Total grants payable	**40,688,118**	**54,990,428**

Note: Commitments are GST exclusive.

Note 4 Contingent Assets and Liabilities

No contingent assets and liabilities existed as at 30 June 2014 (2013: nil).

Note 5 Scientific research grants

CREST Program awards	38,366	18,529
Macquarie University joint chair in Wireless Communication	256,339	-
Scholarships and Fellowships	1,657,800	1,906,800
Research Infrastructure Investment	200,000	7,900,000
Special Research Program	6,400,000	2,500,000
Research Project Grants	14,610,478	13,334,040
Total	**23,162,983**	**25,659,369**

The Fund is a subsidiary entity of the Commonwealth Scientific and Industrial Research Organisation (CSIRO). For the 2013-14 financial year, the Fund has recognised $15.1m in grant expenses as transferred directly to CSIRO to support scientific research and infrastructure projects within CSIRO and/or collaborative projects with external organisations (2012-13: $11.8m).

Note 6 Estimated value of resources provided free of charge by CSIRO are as follows:

advertising and approval fees	5,226	4,873
Total	**5,226**	**4,873**

Note 7	Cash	2014	2013
		$	$
	Cash at bank	3,026,514	3,391,594
	Deposits – at call	99,479,458	118,220,835
	Total	**102,505,972**	**121,612,429**

Note 8	Receivables		
	Interest receivable	742,562	1,438,235
	Other receivables	19,184	-
		761,746	**1,438,235**
	Gross receivables are aged as follows:		
	Not overdue	761,079	1,438,235
	Overdue by:		
	0 to 30 days	667	-
	Total receivables (gross)	**761,746**	**1,438,235**

Note 9	Accrued Expenses		
	Service fee under Services Agreement with CSIRO	109,617	120,883
	CREST Program awards	38,366	24,644
	Research Project Grant	-	390,000
	Audit fee	7,900	7,000
	Total	**155,883**	**542,527**

Note 10	Cash Flow Reconciliation		
	Reconciliation of operating surplus to net cash from/(used by) operating activities:		
	Operating surplus/(deficit)	(19,179,423)	(19,601,134)
	Changes in assets and liabilities		
	(Increase)/decrease in receivables	1,450,115	(879,011)
	(Increase)/decrease in prepayments	-	2,466
	Increase/(decrease) in payables	(1,377,149)	1,384,780
	Net cash from/(used by) operating activities	**(19,106,457)**	**(19,092,899)**

Note 11 Financial Instruments

11A: Categories of Financial Instruments	2014	2013
	$	$
Financial assets		
Cash	102,505,972	121,612,429
Interest receivable	742,562	1,438,235
Other receivables	19,184	-
Total financial assets	**103,267,718**	**123,050,664**
Financial liabilities		
Supplier payables	2,103,375	3,480,524
Total financial liabilities	**2,103,375**	**3,480,524**

The net value of the financial assets are their carrying amounts.

11B: Credit risk

The Fund is exposed to minimal credit risk with its financial assets. Cash represents cash at bank and short term deposits held at reputable Australian financial institutions. Other receivables comprises of grant refunds payable to the Fund due to grant recipients discontinuing the Fund's programs, or agreement that unspent grant funding at the completion of a program is to be returned to the Fund. For the purpose of this note, GST receivables are not disclosed as financial instruments as they do not meet the definition of a financial asset. The Fund has assessed the risk of default on payment to be nil as of 30 June 2014 (2013: nil).

11C: Liquidity risk

The Fund's financial liabilities are supplier payables. The exposure to liquidity risk is based on the notion that the Fund will encounter difficulty in meeting its obligations associated with financial liabilities. This is highly unlikely due to funding that is in place and internal policies and procedures to ensure that there are appropriate resources to meet its financial obligations (2013: nil).

11D: Market risk

The Fund holds basic financial instruments that do not expose the Fund to any market, currency or other price risk (2013: nil).

11E: Interest rate risk

The Fund maintains an operating bank account and short term deposits which are subject to short term interest rates. Funds are maintained in term deposits for short periods. In 2013–14 the average return on cash and short term deposits was 3.98% (2013: 4.97%).