





Part three **Our organisation**

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Part three: Our organisation

Management and accountability

Operating model

CSIRO's Operating Model supports the effective governance and management of the Organisation by defining the roles, relationships and accountabilities of leaders and operating units. It also outlines CSIRO's Policy Framework and processes for planning, investment, review and reporting. It is designed to support the successful execution of CSIRO's strategy and delivery of CSIRO's goals. The Model includes our commitment to the values which guide our interactions with colleagues and external partners and stakeholders.

The Model is documented in *CSIRO – the way we work* which was published in March 2010 and is available to everyone who works in CSIRO.

‘The CSIRO Operating Model should support individual creativity and flexibility and allow people to readily work together and across boundaries, within the context of our legislative framework.’

Megan Clark, Chief Executive

Further information on CSIRO's governance arrangements can be found at:
www.csiro.au/governanceoverview

Legislation and government policy

CSIRO is an Australian Government statutory authority constituted and operating under the provisions of the *Science and Industry Research Act 1949* (SIR Act).

CSIRO's **primary functions** are to:

- carry out scientific research to:
 - assist Australian industry and to further the interests of the Australian community

- contribute to national and international objectives and responsibilities of the Australian Government
- to encourage or facilitate the application and use of the results of CSIRO scientific research.

Our **secondary functions** include international scientific liaison, training of research workers, publication of research results, technology transfer of other research, provision of scientific services and dissemination of information about science and technology.

Reporting, accountability and other rules for CSIRO's operations are set out in the *Commonwealth Authorities and Companies Act 1997* (CAC Act).

Pursuant to a service agreement, CSIRO provides administrative support services to the Trustee of the Science and Industry Endowment Fund consistent with the *Science and Industry Endowment Act 1926*. The Fund has its own governance structure.

In October 2009, CSIRO submitted an annual Compliance Report to the Government regarding the Organisation's compliance with the CAC Act and its financial sustainability.

General policies of the Australian Government that applied to CSIRO in 2009–10 under Section 28 of the CAC Act are: Commonwealth Fraud Control Policy; Australian Government Foreign Exchange Risk Management Guidelines; and Outsourcing of IT Infrastructure Services. In addition, CSIRO has complied with the Commonwealth Procurement Guidelines as they apply to CSIRO.

The Quadrennium Funding Agreement 2007–08 to 2010–11 between CSIRO and the Government includes the principles of quadrennium funding, resourcing of outputs, performance reporting and other matters agreed by the parties.

Responsible Minister

In 2009–10, the Minister responsible for CSIRO was Senator the Honourable Kim Carr, Minister for Innovation, Industry, Science and Research.

Under the SIR and CAC Acts, the Minister has power to:

- add to the purposes for which CSIRO may carry out scientific research (SIR Act, section 9)
- provide to the CSIRO Board in writing, directions and guidelines with respect to the performance of the functions, or the exercise of the powers, of the Board or of the Organisation (SIR Act, section 13).

In February 2010, the Minister provided the CSIRO Board with a Statement of Expectations. This Statement outlines the Government's expectations on CSIRO's research and innovation priorities, strategic direction, governance and communication. The Minister expects the Board to position the Organisation to play an active role in Australia's innovation agenda, address national and global research challenges, and contribute to Australia's productivity and competitiveness. The Board responded with a Statement of Intent. The Statement of Expectations can be found at: www.csiro.au/resources/Statement-of-Expectations.html

CSIRO also operates in accordance with the Public Research Agency Charter signed by the Minister and the CSIRO Board in 2008. The Charter has provided guidance to CSIRO and its researchers when engaging in public debate on a broad range of topics including environmental sustainability and climate change. The Charter can be found out: www.csiro.au/resources/pfllc.html

Ministerial directions and notifications

No new directions were received in 2009–10. In 2008, the Minister directed the CSIRO Board to implement and comply with the Australian Government Employment Bargaining Framework and Supporting Guidance. The current CSIRO Enterprise Agreement was developed in accordance with the Employment Bargaining Framework.

During 2009–10, 20 notifications of significant events under Section 15 and 16 of the CAC Act were made to the Minister. These related to participation in partnerships, joint ventures or similar arrangements, the commencement of business activity, share transactions, the disposal of a business and the modification of existing contractual arrangements.

CSIRO Board

CSIRO is governed by a Board which is responsible to the Australian Government for the overall strategy, governance and performance of the Organisation.

The CSIRO Board comprises nine part-time, non-executive members including the Chairman and a full-time Chief Executive. All non-executive members are appointed by the Governor-General. The Chief Executive is appointed by the CSIRO Board, in consultation with the Minister.

The CSIRO Board operates partly through four standing committees:

- Board Audit Committee
- Board Commercial Committee
- Board Nominations and Remuneration Committee
- Board Endowment Committee.

Newly appointed Board members are informed of their responsibilities and rights through a formal induction process. In the

pursuit of their duties, Board members may take such independent professional advice as is considered necessary, and have complete access to senior management. The Board reviews its performance at least every 18 months. Every second review involves a review by an independent consultant commissioned by the Board. The Board Committees assess their performance at least once per year and report the outcomes to the Board. **Disclosure of interests** by Board members and the Chief Executive are made in accordance with the SIR Act and CAC Act, as appropriate.

Details of the 2009–10 Board members, including qualifications and terms of appointment are on page 90–91. Details of remuneration, membership of Board Committees and attendance at meetings are shown on pages 159–162 in the Financial Statements. The Board Charter and membership profiles are available at:

www.csiro.au/boardoverview

CSIRO Executive Management

The Chief Executive conducts the affairs of the Organisation in accordance with the strategy, plans and policies approved by the Board and the Board Directions to the Chief Executive. These Directions were reviewed in June 2010. The Chief Executive is supported by the Executive Team.

The Executive Team is assisted by a number of management and advisory committees, including the Science Committee, CSIRO Appraisal and Investment Committee and Commercial Executive (ComEx) Committee. The CSIRO Health, Safety and Environment Committee is accountable to the Chief Executive.

The Executive Management Council of senior managers provides a forum for sharing and discussing issues relating to the management and future strategy for CSIRO.

Policies, standards and procedures

The CSIRO Board approved a new Policy Framework for CSIRO which comprises:

- Policies: Define CSIRO's commitment and responsibilities in an area.
- Standards: Define minimum mandatory performance requirements for all CSIRO staff, sites and operations
- Procedures: Define the minimum mandatory actions or processes that must be followed by CSIRO staff in performing a particular task or activity.

The Framework will improve compliance by making the roles and responsibilities and performance requirements clearer. Documents will be easier to follow and access from a user perspective. Existing policy material is comprehensive but will be reviewed as part of the implementation of the new Framework.

Policies

As part of the Framework, the CSIRO Board approved five policy statements that represent the Organisation's commitment in relation to:

- Science and Delivery
- People
- Governance
- Risk
- Health, Safety, Environmental Sustainability and the Community.

Standards and procedures

Standards and procedures focus on essential steps and the parameters within which we should operate. The standards will be developed during 2010 as part of a review of all policies, standards and procedures.

CSIRO research supports the Murray-Darling Basin



Australia's Murray-Darling Basin, which generates 70 per cent of Australia's irrigated produce, is under enormous stress due to past water-allocation decisions, prolonged drought, and climate change, resulting in a loss of water security for communities and the environment. The Basin supports agriculture production of the order of \$15 billion annually and is the primary water supply for urban centres, including Adelaide and Melbourne.

The Murray-Darling Basin Authority is developing a Basin Plan to manage water resources and ensure there is sufficient water available to make sure key environmental assets and functions of the Basin are not compromised, while seeking to optimise social and economic outcomes.

CSIRO has a long history of undertaking important research in the Murray-Darling Basin to understand the region's ecology, support improved water management and to support the development of the Basin Plan.

In 2008, CSIRO's Murray-Darling Basin Sustainable Yields Project provided the world's first rigorous assessment of the potential impacts of development and climate change on surface water and groundwater availability across the Basin. This research has provided governments, industry and communities with an unprecedented level of water information to guide future resource planning, management and investment.

CSIRO researchers are also undertaking research:

- on the potential impacts of changes in water availability on Indigenous communities of the Basin
- to investigate the relationships between watering strategies and the health of vegetation, fish and other animals in the Basin to help water managers to improve and justify delivery of environmental water
- on groundwater resources in the Basin to support its future management
- on social and economic affects of changing water availability
- to investigate the impact of a changing climate on future water resources of the Murray-Darling Basin.



The Murtho Floodplain near Renmark, South Australia. Credit: Tanya Doody

The procedures reviewed and introduced this year included:

- Ethical Conduct in Human Research
- Indigenous Cadetships
- Indigenous Research Engagement Protocol
- Copyright and Publication
- Recordkeeping
- Workplace Discrimination and Bullying
- Whistleblower Scheme.

All staff must comply with the **CSIRO Code of Conduct** which sets out expected standards of behaviour in relation to dealing with the public, external clients and colleagues. CSIRO has an effective framework for the exercise of delegations and authorities.

Planning, investment, review and reporting

Our planning, investment, review and reporting processes are the way we decide how to invest our resources and then measure and report on our performance, including financial and publication performance.

The Organisation's broad vision for the future is set out in the 2007–2011 CSIRO Strategic Plan. The Plan, together with the science investment process, directs the development of the annual CSIRO Operational Plan and Portfolio Budget Statements. During 2010, the CSIRO Board and Executive Team will develop the 2011–15 Strategic Plan in consultation with stakeholders.

CSIRO's science investment process operates within the context of the planning system. Investment decisions are based on the criteria of relevance and impact for Australia.

The key steps in CSIRO's planning and investment processes are:

- **broad direction setting** – an annual review that guides the direction and timing of investment shifts and the specific role CSIRO plays in Australia's innovation system
- **enterprise level balancing** – an annual examination and balancing of portfolio, capability and functional investment priorities
- **performance and investment appraisals** – CSIRO's Appraisal and Investment Committee conducts Portfolio and Divisional appraisals to monitor progress and assess the level of ongoing investment in research themes and capability development
- **independent reviews** – external reviews of Divisions, Portfolios and Functions are conducted on a rolling 3–5 year basis. Eleven reviews were conducted in 2009–10. Further details of CSIRO's Science Assessment Reviews are shown on pages 106–107.

CSIRO's performance is regularly reported and reviewed by the CSIRO Board and Executive Team to assist with their decision-making and governance responsibilities.

Advisory mechanisms

CSIRO's Sector Advisory Councils provide advice on the high-level strategic directions for research and development for their sector. The Councils comprise external representatives from industry and other stakeholders and cover energy and transport; environment and natural resource management; health; information, communication and services; manufacturing; and mineral resources sectors.

There are also Advisory Committees for each of the National Research Flagships.

Details of the Sector Advisory Councils and Flagship Advisory Committees can be found at: www.csiro.au/SAC and www.csiro.au/FAC

Risk management

CSIRO's risk management framework sets out the responsibilities of all individuals across CSIRO, including the Board and management for identifying and managing risk. It also provides the methodology

by which CSIRO's risk profile is articulated and regularly updated. Risks are managed on an enterprise basis through mitigation strategies that include, in appropriate circumstances, insurance to transfer the financial impact of risk.

In 2010, the risk framework was revised, strengthening integration into organisational planning, commercial approval processes and performance management.

External audit and internal controls

Assurances about the Organisation's financial state of affairs, compliance issues and control environment are provided through a comprehensive range of processes including the internal Risk Assessment, Audit, Fraud Control and Security functions.

External audit is provided by the Australian National Audit Office (ANAO).

CSIRO maintains a Whistleblower Scheme and uses mechanisms such as Control Self-Assessment Questionnaires signed by senior managers to provide additional assurance.

The CSIRO Strategic Protective Security Risk Assessment was updated in February 2009 and was reviewed in February 2010. The Government released its new Protective Security Policy Framework in mid-June 2010 and, as a result, will lead to a revision of some CSIRO security policies.

Administrative law: Freedom of Information

The *Freedom of Information Act 1982* requires each Australian Government agency to publish a statement setting out the general right of access to documents. This statement is available in Appendix 3, page 180. There were 33 requests for information under the FOI Act during 2009–10.

Privacy legislation

CSIRO provides information as required to the Privacy Commissioner under section 36 of the *Privacy Act 1988*. During 2009–10 there was one investigation, which is subject to determination. See Appendix 3, page 180.

Commonwealth disability strategy

CSIRO recognises the importance of the Commonwealth's disability strategy. CSIRO is committed to identifying areas for improvement to meet its obligations under the Act. CSIRO's performance against the indicators issued by the Office of Disability during 2009–10 is detailed in Appendix 4, page 182.

Financial performance 2009–10

CSIRO's financial performance for 2009–10 is summarised in Table 3.1.

CSIRO's operating result for the year to June 2010 was a deficit of \$169 million, which includes the gift from CSIRO to the Science and Industry

Endowment Fund of \$150 million. Also contributing to the deficit were foreign exchange losses resulting from the wireless local area networks (WLAN) settlements recorded in 2008–09 and paid in 2009–10, write-down and impairment of assets resulting from asset valuations, and other operational expenses. The operating result comprised total revenue of \$1,164 million and total expenses of \$1,333 million.

Table 3.1: CSIRO's Financial performance

Financial performance					
Revenue Source	2005–06	2006–07	2007–08	2008–09	2009–10
Co-Investment, consulting and Services					
Australian Private Sector	67.6	58	68.2	76.3	71.8
Australian Government	96.5	116	119.5	148.3	169.8
Rural Industry R&D Corporations	44.3	43.2	30.2	36.5	31.8
Cooperative Research Centres	35.2	39.8	38.2	40.3	42.3
Overseas entities	36.4	37.2	35.3	61	78.3
Other	-	-	-	-	-
Work in progress / Deferred Revenue	-8	-8.5	-1.4	-14.5	-13.6
Total co-investment, consulting and services	272	285.7	290	347.9	380.4
IP - Royalty and licence revenues	32.4	30.6	81.7	229.6	46.7
Total Research and Services Revenue	304.4	316.3	371.7	577.5	427.1
Other External Revenue	43.9	44.5	41.3	40.1	32.1
Gain/(Loss) on sale of assets	15.5	2.7	4.8	17.2	
Other fair value gains and reversals	-	0.1	10.8	-	-
Total external Revenue	363.8	363.6	428.6	634.8	459.2
Revenue from Government	593.9	610.1	663.2	668.1	704.9
Total Revenue	957.7	973.7	1,091.8	1,302.9	1,164.1
Less: expenses	947.8	972.7	1,044.1	1,180.9	1,333.1
Operating Result	9.9	1.0	47.7	122.0	(169.0)

Australian Black Tiger prawn boosts local industry



CSIRO scientists have collaborated with the Australian prawn industry to develop a new prawn that is producing record yields and can be sustainably farmed. With around 50 per cent of all prawns in Australia currently imported from other countries such as China and Vietnam, this research will dramatically improve the production efficiency and profitability of locally produced seafood.

After ten years of research, the new Australian Black Tiger prawn is a major boost for both the local prawn industry and consumers wanting to buy Australian seafood. This Food Futures National Research Flagship project has combined selective breeding techniques with DNA fingerprinting to develop a naturally bred Black Tiger prawn that captures the best features nature can provide.

The new breed is grown and farmed in 'drought-proof' saltwater ponds, has improved growth and survival rates and greater disease resistance combined with improved taste, texture and colour. Its high yields could also play an important role in securing food supplies, both in Australia and globally, through the production of a more sustainable and high yielding source of healthy protein.

The average harvest yield from Australian Black Tiger prawn farms is five tonnes per hectare. The average yield of the new breed developed by CSIRO and Gold Coast Marine Aquaculture in 2010 was 17.5 tonnes per hectare, with 30 per cent of the ponds producing more than 20 tonnes per hectare – a world record yield result for Black Tiger prawns.

If the entire Australian Black Tiger prawn industry adopts this new breeding technology, it will increase the industry's production from 5,000 tonnes to 12,500 tonnes and add \$120 million per annum to the value of the industry by 2020.



The new breed is providing a real boost for the prawn farming industry in Australia resulting in job growth, more profitable and productive business, and fresher home-grown product. Credit: Darren Jew

Board membership 2009–10



Chairman
Dr John Stocker
AO

BMedSc MBBS
PhD FRACP FTSE
Company Director
28 June 2007 –
27 June 2010

Chairman
Mr Simon McKeon

BCom LLB FAICD
F FIN
28 June 2010 –
27 June 2015

Deputy Chairman
Dr Terry Cutler

BA(Hons) PhD
FTSE Hon DUniv
(QUT) FAIM
FAIPA
Principal
Cutler and
Company Pty Ltd
25 July 2002 –
24 July 2012

Chief Executive
Dr Megan Clark

BSc(Hons) PhD
DSc FTSE GAICD
Chief Executive
1 January 2009 –
31 December 2014

Ms Mary Boydell

BCom
Company Director
26 June 2009 –
25 June 2014



Professor Ian Chubb AC

MSc DPhil
Oxon, Hon
DSc Flinders
Vice-Chancellor
and President
The Australian
National
University
7 August 2008 –
6 August 2012

Dr Eileen Doyle

BMath(Hons)
MMath PhD
FAICD
Company
Director
15 February
2006 – 14
February 2011

The Honourable John Kerin AM

BA BEc Hon
DScAgr (UNE)
Hon DSc
(UWA) Hon
DLitt (UTas)
Company
Director
3 October
2008 – 2
October 2011

Ms Deborah O'Toole

LLB Company
Director 16
April 2003 – 15
April 2008
1 May 2008 –
30 April 2011

Mr Douglas Rathbone AM

DipChemEng
BCom
Nufarm Ltd
Managing
Director and
Chief Executive
26 September
2007 –
25 September
2010

Professor Tom Spurling AM

BSc(Hons) PhD
Research
Professor
Swinburne
University of
Technology
1 May 2008 –
30 April 2012

Executive Team membership 2009–10



Dr Megan Clark

BSc(Hons)
PhD DSc FTSE
GAICD
Chief Executive

Dr Alastair Robertson

BSc(Hons) PhD
FRSC CChem
FIFST
Deputy Chief Executive,
Science Investment Strategy and Performance

Mr Mike Whelan

BSc
Deputy Chief Executive,
Operations

Dr Beverley Ronalds

BE(Civil)(Hons)
MSc PhD
FIEAust FICE
FTSE FAICD
Group Executive,
Energy

Dr Andrew Johnson

BAgrSc(Hons)
PhD MPA
(Harvard)
Group Executive,
Environment

Dr James Bradfield Moody

BInfoTech(Hons)
BEng (Elec) PhD
Executive Director,
Development

Absent: **Mr Allan Gaukroger** BA FCPA
Chief Finance Officer (till November 2009)

Executive team profiles are available at:
www.csiro.au/executiveteam



Our Organisation

Dr Steve Morton

BSc(Hons) PhD
Group
Executive,
Manufacturing,
Materials and
Minerals

Mr Nigel Poole

LLB BCom
FAICD
Executive
Director,
Commercial

Dr Joanne Daly

BSc(Hons) PhD
PSM
Group
Executive,
Agribusiness

Mr Craig Roy

BSc MSc
MBA GAIDC
Executive
Director,
Human
Resources,
Safety and
Sustainability

Mr David Toll

BA,
MAccounting,
MBA, CPA
Acting Chief
Finance
Officer (from
November
2009)

Dr Alex Zelinsky

BMaths(Hons)
PhD FTSE
FIEEE FAICD
FIEAust
Group
Executive,
Information
Sciences

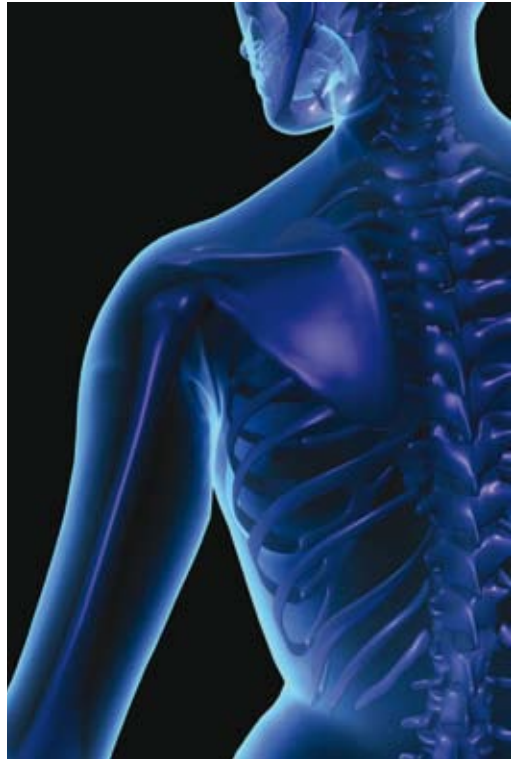
Health and safety

CSIRO is committed to the health and safety of its staff and recognises the importance of positive interventions aimed at improving staff health and safety. CSIRO acknowledges its responsibilities under Section 74 of the *Occupational Health and Safety Act 1991*.

Health, Safety, Environmental Sustainability and Community Policy

CSIRO's Health, Safety, Environmental Sustainability and Community Policy reflects our commitment to ensuring the safety and wellbeing of our staff, visitors and the communities in which we work. It reinforces our Health, Safety and Environmental (HSE) strategic goal of 'Striving for Zero Harm' to our people, the environment and the communities in which we operate.

A summary of CSIRO's performance and its compliance with Section 74 of the *Occupational Health and Safety Act 1991* is provided below.



Health and safety management arrangements

Health and safety management arrangements are documents concerning the management of health and safety in CSIRO. They are one of the mechanisms by which CSIRO demonstrates commitment to meeting its duty of care under the Act.

In recognition of this duty, CSIRO has developed these health and safety management arrangements in consultation with our staff and their representatives. The Act emphasises consultation and cooperation between employers and employees in regard to occupational health and safety issues by requiring the establishment of a framework incorporating:

- health and safety management arrangements
- designated work groups
- health and safety representatives
- health and safety committees
- dispute resolution processes.

These structures and arrangements are in place and effective within CSIRO.

Initiatives undertaken during the year to ensure the health, safety and welfare at work of employees and contractors

- The implementation and completion of phase two of CSIRO's health and safety leadership training will equip the next level of leaders to take a higher profile in growing the Organisation's *Zero Harm* culture.
- The implementation of a HSE Review Program for Business Units commenced. This program is primarily an engagement tool aimed at assessing the effectiveness of HSE management and operational controls, observing site HSE conditions, staff behaviours, physical controls and implementing corrective processes should gaps be identified.
- The Contractor HSE Management Training program for scientific managers who manage or engage contractors continued. The program highlights the specific HSE requirements necessary for safe completion of contracted works within CSIRO.
- The Gas Safety Review Program was completed across all sites to assess gas safety in relation to equipment, practices and behaviours.
- An enterprise wide policy and procedure simplification program is underway. Current procedures are being simplified and streamlined to ensure that they are easier for staff to access, understand and comply with.
- A re-structure of the HSE function to improve efficiency and effectiveness of our HSE service delivery commenced across the Organisation.
- A new Employee Assistance Program contract was engaged for the next five years providing confidential counselling services for staff and their families.
- As a component of the Health and Wellbeing Strategy, CSIRO sponsored and supported staff participation in the Global Corporate Challenge (GCC). The GCC has been developed specifically for the workplace. With a daily target of 10,000 steps and a journey that provides reward for effort, participants and their teams have an opportunity to maintain the long-term commitment and motivation needed to bring about positive habitual change in their fitness. With 840 participants, CSIRO was placed 53rd out of 1,000 global companies taking part in this year's 125-day challenge.

Health and safety outcomes

- An increased awareness of the roles and responsibilities and expected leadership behaviours for senior leaders is anticipated as a result of the HSE leadership training and Safety Contacts Program.
- An improvement in leadership behaviors and staff engagement through the HSE Review Program is expected.
- An overall improvement in health and safety performance is recognised in reduced injuries, illnesses and the workers compensation premium.
- An increased awareness and better understanding of how to manage contractors through completion of a three year training program explaining how to better manage contractors for safe work.
- An increased awareness of gas safety standards and requirements with significant improvements implemented to increase staff safety.
- Continued counselling support for staff and their immediate families.

Statistics of any accidents or dangerous occurrences during the year that arose out of the conduct of undertakings by CSIRO that required the giving of notice under section 68 (see Figure 3.1)

- The lost time injury frequency rate (LTIFR) increased from 1.4 in 2008–09 to 1.8 in 2009–10. The majority of the lost time injuries, 10 out of 21, relate to body stressing type injuries which are being addressed through our Musculoskeletal Management Strategy.
- The medical treatment frequency rate (MTFR) has improved from 7.9 in 2008–09 to 5.1 in 2009–10 meaning that less people have been injured to the extent that they need medical treatment for their injuries.
- The number of workers compensation claims shows a significant reduction from 87 in 2008–09 to 58 in 2009–10. Part of this improvement can be attributed to the introduction of the early intervention program designed to prevent relatively minor injuries progressing to a more disabling stage.
- The reporting of near misses has improved considerably from 396 in 2008–09 to 464 in 2009–10 reflecting a growing awareness among supervisors and staff of the value of reporting and rectifying risks before people get injured.
- The number of Notifiable Incidents has increased from 46 in 2008–09 to 50 in 2009–10.
- Improvements in our claims performance resulted in a reduction in the workers compensation premium from 0.37 per cent (\$1.7 million) to 0.34 per cent (\$1.49 million) of payroll. (This compares favourably with the average government rate of 1.20 per cent of payroll.)

Details of any investigations conducted during the year that relate to undertakings carried on by the employer, including details of all notices given to the employee under section 29, 46 or 47 during the year

- Comcare conducted three investigations of incidents during the reporting year:
 - Incident Investigation Number 4421 – Dangerous Occurrence – small scaffold collapse.
 - Incident Investigation Number 4221 – Serious Personal Injury – superficial burns to face, neck and arms resulting from a reaction following the mixing of hazardous substances.
 - Incident Investigation Number 4418 – Serious Personal Injury – ethanol ignition burning pads of two fingers. The investigation was completed to Comcare's satisfaction.
 - No Provisional Improvement Notices were served on CSIRO by Health and Safety Representatives.
 - No Prohibition Notices were served on CSIRO.
 - One Improvement Notice was served on CSIRO by Comcare Incident Investigation Number 4221.
-

Figure 3.1: CSIRO's injury frequency rates

¹Definitions:

- LTIFR is the number of incidents involving lost time from work greater than or equal to one full day or shift per million hours worked.
- MTFR is the number of compensation claims per million hours worked plus the number of injuries requiring medical treatment.

CSIRO's health and safety performance compares favorably with other Australian Government agencies. This is reflected in our workers' compensation premium (Figure 3.2). CSIRO's premium rate, determined on four year injury and claims performance, is one of the lowest amongst all agencies.

Figure 3.2: CSIRO's workers' compensation premium

Environmental performance

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) sets out the principles of ecologically sustainable development as:

- decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations
- if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation
- the principle of inter-generational equity – that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations
- the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making
- improved valuation, pricing and incentive mechanisms should be promoted.

Section 516A of the *EPBC Act* requires CSIRO to report on the following subsections of the Act in its Annual Report.

CSIRO's contribution to environment protection and biodiversity

CSIRO has a strong association over its 84-plus year history with the development of industry, agriculture, environment and social aspects of Australia's history. As a community leader and Australian government agency, CSIRO has an obligation, both statutory through the EPBC Act and morally, to minimise its environmental impact and to protect and maintain biodiversity and heritage within its control. CSIRO holds its responsibility in high importance and is pro-active in assessing and maintaining its assets with any architectural, natural, cultural or social significance.

How CSIRO's activities accord with the principles of ecologically sustainable development (Section 516A(6)(a))

CSIRO contributes to ecologically sustainable development (ESD) through its research activities and operations. For example, activities within the Sustainable Agriculture Flagship program include research to reduce the greenhouse gas emissions from livestock; increasing productivity while decreasing impact on ecosystems and increasing carbon capture.

Other CSIRO activities contribute to ESD through programs that:

- improve the management of native plant ecosystems, including the conservation of flora and fauna biodiversity
- increase carbon capture and improve water security
- reduce the environmental impact of electricity generation and improve building efficiency
- raise community awareness about environmental issues.

Outcome contribution to ecologically sustainable development (Section 516A(6)(b))

CSIRO has allocated funding to support the implementation of a seven-year environmental sustainability strategy (ESS). CSIRO's ESS aims to reduce carbon usage, halve mains water consumption and halve waste to landfill by 2015. The goals will be achieved through reduced energy and water demand, utilisation of alternative sources; utilisation of CSIRO research; and staff engagement and improvements to procurement practices. Through the strategy, CSIRO will demonstrate leadership in environmental sustainability associated with its operations.

Effects of CSIRO's activities on the environment

(Section 516A(6)(c))

CSIRO's electricity and gas consumption for 2009–10 is estimated at 734 Terajoules (TJ), which is a one per cent increase compared to 2008–09 (see Figure 3.3). Electricity consumption increased by five per cent, while gas consumption decreased slightly over the

same period. One site recorded a significant increase in electricity consumption, which is currently under investigation to ensure accuracy of the data. Over the past five years, energy consumption (electricity and gas only) has increased by two per cent, mainly due to the inclusion of electricity consumption attributed to the Tidbinbilla site in 2008–09, which now accounts for approximately eight per cent of CSIRO's electricity consumption.

Figure 3.3: CSIRO energy consumption (TJ)

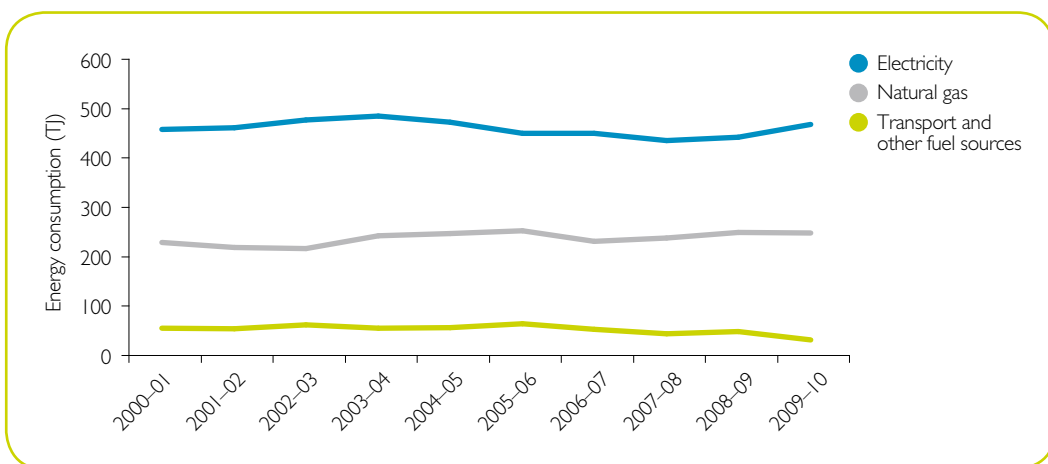


Figure 3.4: CSIRO greenhouse gas emissions (tonnes CO₂e)



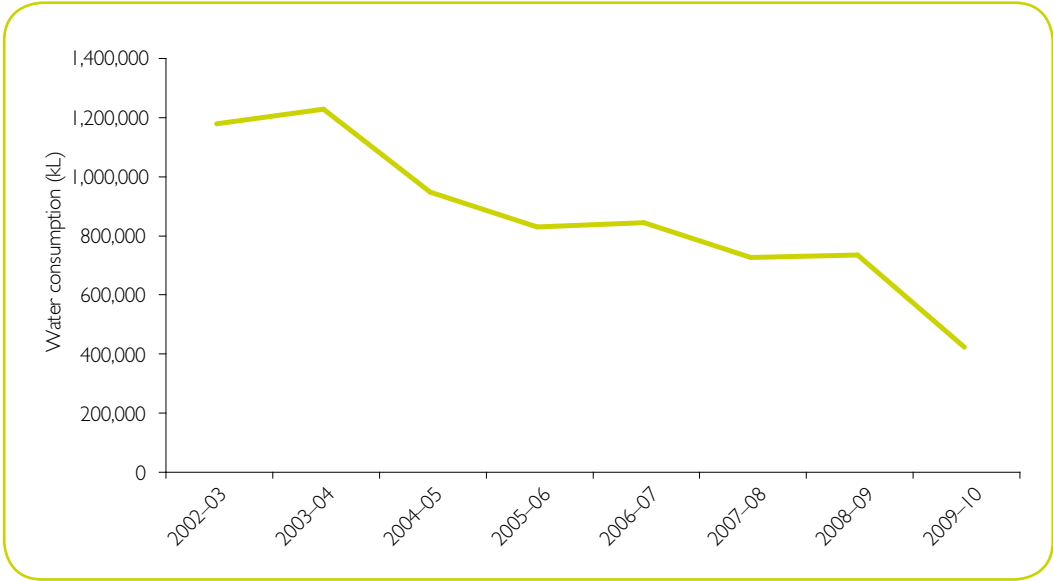
In January 2010, CSIRO increased its procurement of GreenPower to 20 per cent through its main electricity contract, equating to approximately 18 per cent GreenPower across the Organisation. Under the Environmental Sustainability Strategy (ESS), procurement of GreenPower will increase to 25 per cent in two years, ultimately accounting for 35 per cent of procured electricity by 2015.

CSIRO gradually decreased its greenhouse gas (GHG) emissions attributed to energy consumption during the period from 2003–04 to 2007–08 (see Figure 3.4, page 99) through increased utilisation of gas, site consolidation and smaller site-specific initiatives, such as installation of automated lighting and building optimisation. Inclusion of the Tidbinbilla site under CSIRO's energy reporting in 2008–09 resulted in an increase in total energy consumption of five per cent. In 2009–10, a significant increase in electricity consumption at one CSIRO site has resulted in an increase in GHG emissions. An investigation is underway to determine the reason for the increase.

During 2009–10, CSIRO sites consumed approximately 415 megalitres (ML) of potable water (see Figure 3.5). In previous years, CSIRO has reported total water consumption, based on potable water consumption and the irrigation water usage attributed to one of its Queensland sites. In alignment with the ESS, CSIRO has reported its potable water consumption only. Overall, water consumption has trended downwards over the past five years, mainly due to the implementation of improved management of building facilities, changes to processes, reduced landscape irrigation and the installation of water-saving fixtures, such as water-efficient toilets.

A detailed analysis of air travel profiles and associated greenhouse gas emissions is undertaken by CSIRO on a quarterly basis. The number of air kilometres travelled during 2009–10 decreased by an estimated 22 per cent compared to 2008–09, which equated to a similar reduction in greenhouse gas emissions attributed to air travel (domestic and international). Increased use of videoconferencing technologies, as an alternative to air travel, will further reduce the need for air travel and CSIRO's emissions.

Figure 3.5: CSIRO potable water consumption (kL)



Measures taken to minimise CSIRO's impact on the environment

(Section 516A(6)(d))

During 2009–10, a comprehensive audit program across 31 CSIRO sites was completed to identify improvement opportunities that minimise energy and water consumption and reduce waste generation. Key improvement opportunities included upgrading air-conditioning on some sites, modification of air conditioning programming and further installation of energy and water efficient fixtures. In addition, strategies to improve the diversion of waste from landfill and strategic procurement of goods to reduce packaging were highlighted. Implementation of priority recommendations will commence in early 2009–10.

Two CSIRO technologies called ComfortSense and OptiCool have been trialled in several CSIRO office-based buildings with the aim to improve the energy efficiency of those buildings. A number of parameters, including building internal environment and electricity consumption were monitored to achieve the optimal energy efficiency. Outcomes from the trials will be known in early 2010–11.

New CSIRO facilities are built with consideration for ESD principles, including building design, energy and water efficiency, and landscaping. The retrofit of existing buildings with energy and water-efficient fixtures forms a key component of the facility management of CSIRO buildings.

In addition, CSIRO has systems, such as risk assessment and fieldwork processes, in place to manage the potential environmental impacts of research activities. CSIRO also works with local indigenous communities to ensure that cultural aspects are protected during fieldwork or site development. A recent example was the environmental impact study undertaken as part of the Australian Square Kilometre Array project

in north-west Western Australia to identify areas of cultural and environmental significance, with the intent to minimise impact by the project.

Mechanisms for reviewing and improving measures to minimise CSIRO's impact on the environment

(Section 516A(6)(e))

CSIRO has implemented mechanisms for reviewing and increasing the effectiveness of the above measures. Progress towards achievement of the ESS goals is monitored via several mechanisms. These include progress reports to senior management and the Board Audit Committee.

Heritage protection

The CSIRO Heritage Strategy is used as the basis for the management of actions and activities associated with CSIRO's heritage. During the financial year, heritage assessments were performed by heritage consultants on Lindfield and North Ryde, New South Wales; and Hobart and Sandy Bay, Tasmania. The four New South Wales sites that are used for radio astronomy purposes, being Marsfield, Parkes, Culgoora and Mopra will have heritage assessments undertaken in July 2010.

The heritage program provides for recording and reporting of management, maintenance and expenditure on CSIRO's heritage assets. Prior to any development activity occurring on CSIRO owned or controlled property; heritage values are assessed and incorporated into the development proposal.

Collaboration and partnering

University collaboration

CSIRO has extensive collaborative relationships and arrangements with universities both in Australia and overseas.

We support the training of future researchers as a means of building Australia's scientific capability and capacity. CSIRO shares research infrastructure to maximise the efficiency and impact of its use, and collaborates extensively in delivering science-based solutions that increase Australia's competitive advantage.

Some examples of collaboration include:

- CSIRO staff supervise, co-supervise and/or sponsor 840 postgraduate students in conjunction with universities.
- Approximately 40 per cent of CSIRO's staff are currently located on, or directly adjacent to, university campuses, providing the means for sharing infrastructure, joint publications and improving opportunities for increased collaboration.
- Through the Flagship Collaboration Fund, CSIRO committed to the investment of \$17 million in research conducted by more than 36 universities. This complements and contributes to CSIRO's Flagship research, delivering to identified National Research Priorities.
- Throughout the year, CSIRO has undertaken a thorough review of all of its sites across Australia, paying particular attention to those co-located with Australian universities to explore opportunities for strengthening collaboration.
- CSIRO and James Cook University (JCU) with support from the Queensland Government have constructed the state of the art Tropical Sciences Innovation Precinct on the JCU campus in Townsville. The development, due for occupation in late 2010, will bring together scientists from the university and CSIRO working on the social, environmental and economic challenges facing northern Australia.

- In June 2010, the Australian Government announced a range of significant new initiatives under the Education Investment Fund for collaborative infrastructure. CSIRO is part of the new global centre in carbon fibre research at Deakin University in Geelong, as well as a significant marine research node in Western Australia in partnership with the University of Western Australia and Australian Institute of Marine Science.

Cooperative Research Centres

CSIRO remains the largest single participant in the Cooperative Research Centre (CRC) program. Throughout the life of the program, CSIRO has been a participant in 126 of the 169 CRCs that have existed, (rounds 1–10 inclusive).

When combined with funding from the Government and external sources provided specifically for CRCs, the total research commitment by CSIRO during 2009–10 was \$83 million or seven per cent of CSIRO's total portfolio. CSIRO's lifetime involvement in the program equates to around \$1.3 billion in total investment.

CSIRO is a participant in four of the ten Round 11 CRCs that were announced to receive funding in November 2009, of which three are extensions to existing CRCs: CRC for Antarctic Climate and Ecosystems; Poultry CRC; CRC for Greenhouse Gas Technologies; and one which is new: Deep Exploration Technologies CRC.

Round 12 funding was announced in November 2009. CSIRO is in the final stages of negotiation to participate in three CRCs, of which two are extensions and one is new.

The opening of Round 13 was announced in December 2009, with submissions to the Department of Innovation, Industry, Science and Research due on the 2 July 2010. CSIRO is in the early stages of negotiation with nine CRC bid teams, of which six are extensions to existing CRCs and three are new.

CSIRO engages in CRCs to build critical mass in research ventures which tackle clearly articulated major challenges for end users and Australia. It is an essential requirement for CSIRO's participation that the CRC program embraces and delivers on medium to long-term end-user driven collaborative research, end-user focused education, small to medium enterprise engagement and strategies to build their innovation and R&D capacity, and utilises research activities to achieve impact.

Customer engagement

During 2009–10, CSIRO continued to strengthen its commitment to working effectively with clients and partners. Over the course of the year, CSIRO commenced implementation of a Board Commercial Committee approved external and commercial engagement policy and supporting guidelines. This policy puts in place a framework and supporting material to improve the Organisation's approach to engaging externally. These guidelines cover a number of key areas, such as transactions and contract approvals, governance, delivery and capability identification, and pricing.

Throughout the year, CSIRO continued significant engagements with a number of key clients including the Department of Agriculture, Fisheries and Forestry, the Department of the Environment, Water, Heritage and the Arts, the Grains Research and Development Corporation, the Department of Climate Change and Energy Efficiency, the Australian Centre for International Agricultural Research and BHP Billiton.

In addition to further developing its existing relationships and external engagement framework, during 2009–10 CSIRO also implemented new strategic alliances with industry and government entities such as Centrelink, Orica Ltd and AusAID.

Flagship Collaboration Fund

The Flagship Collaboration Fund was externally reviewed by an independent expert panel during April 2010. The review included an examination of documentation and an intensive program of interviews and discussions with CSIRO and university staff. In its report, the panel strongly endorsed the continuation of the Fund and its broad objectives of contributing to the National Research Flagships Program goals, building capability across the National Innovation System and building longer-term research collaborations. See Appendix I, page 176 for information on Flagship Collaboration Fund Clusters, the most significant component of the Fund (see case study page 173).

Government engagement

A critical part of CSIRO's broader relationship with Government is its role as a trusted advisor, providing relevant scientific and technical input and advice to decision makers. Key activities during 2009–10 included:

- Membership on each of the Australian Government's seven Industry Innovation Councils, and membership on a range of other government boards and advisory bodies, for organisations including Commercialisation Australia and the Office of the Chief Scientist.
- Regular meetings with Ministers and parliamentarians and with senior staff from relevant government departments, and secondment of key staff into departments to provide scientific information and advice to inform policy development and program implementation and evaluation. An example during 2009–10 was ongoing strategic engagement with the Department of Agriculture, Fisheries and Forestry and relevant Ministers and parliamentarians on issues of agricultural sustainability and food security. CSIRO also convened workshops on Future Cities and on Oceans with a wide range of relevant departments and agencies.

- Development and maintenance of strategic alliances with government agencies, such as AusAID and Centrelink. CSIRO and Centrelink entered into a four year, \$20 million research alliance to address current and future challenges in human services delivery by applying evidence-based methods that integrate CSIRO's capabilities in information and communication technologies, mathematical and socio-economic sciences.
- CSIRO made 39 submissions to government inquiries and reviews (both Federal and State) and CSIRO officers attended 13 hearings to provide further evidence to these processes.
- CSIRO held five *Science for Breakfast* briefings at Parliament House and in parallel with these also provided targeted briefings for departments and individual parliamentarians.

International engagement

CSIRO is an active member of the global research community, with a commitment to strengthening strategic international engagement to improve both the quality and impact of its science. On average over the last five years, CSIRO has engaged in approximately 750 collaborative activities per annum with partners in 70 countries across the globe.

CSIRO has a four-year international strategy directed towards developing talent, science impact and networks. The strategy also focuses on enhancing CSIRO's engagement with China, India, North America and Europe, as well as in 'research for development' activities in the Asia-Pacific and Africa. Highlights during the reporting year include:

- An increase to approximately 48 per cent of CSIRO's peer-reviewed scientific publications in 2009 being co-authored with international partners, where our top publishing partner countries were the United States, the United Kingdom and China.
- An increase in the number of other collaborative activities under contract to approximately 850 in 2009–10, with leading partner countries the United States, China and New Zealand.
- In 2009–10, CSIRO received a total of \$77.6 million in external revenue for work with international partners. This was up from a total of \$59.2 million in 2008–09.
- The commencement of a researcher exchange program with CSIR India, promoting collaborative work on minerals processing, energy management, and regenerative medicine.

Key industry partnerships with large multinational corporations such as Boeing and Bayer CropScience are of continuing importance to CSIRO. Our collaboration with Bayer expanded during 2009–10 to include the development and application of models to assess the system-wide sustainability consequences of new generation cereals in the context of global environmental and food security challenges.

CSIRO is a founding member of the Global Research Alliance (GRA) – the aim of the GRA is to combine the scientific capabilities of nine leading applied research institutes worldwide to contribute to addressing the Millennium Development Goals through the application of research.

CSIRO also provides active support and scientific input to the international activities of a wide range of Australian Government departments, in line with bilateral and multilateral agreements and processes – this 'science diplomacy' role is an important part of CSIRO's overall international engagement.

Indigenous Engagement Strategy

2009–10 saw the completion of Phase 1 of the Indigenous Engagement Strategy (IES). In late 2009, the IES Steering Committee commissioned a review by the Leading the Research Enterprise (LRE) program to assess the success of the Strategy.

The LRE review team were impressed with the outcomes of the Strategy and recommended its extension for another three years. The review report concluded that the Strategy had made good progress and must be continued into a second phase to ensure Indigenous engagement is entrenched in CSIRO's culture. The Executive Team (ET) confirmed its continued support for the implementation of the Indigenous Engagement Strategy and has committed to resourcing Phase 2 for three years. The ET also confirmed support for a focus in Phase 2 on Indigenous employment and cultural learning and development.

During 2009–10, the four pillars of the IES continued to provide the focus of activities surrounding the Strategy.

Scientific opportunities: An Indigenous roundtable on health was held during the year that resulted in a partnership between CSIRO's Preventative Health Flagship and the Cooperative Research Centre on Aboriginal Health (now the Lowitja Institute) for collaborative research. During the year, a high-level Policy Reference Group comprising State and Federal Government departments and agencies was established as part of the Livelihoods Focal Project.

Indigenous employment: CSIRO's Indigenous Employment Strategy was finalised. The Employment Strategy includes processes for the provision of services to assist managers and Indigenous applicants and a mentoring program for Indigenous cadets with the aim of increasing

the attractiveness of CSIRO as an employer of choice for Indigenous Australians. Over the first phase of the IES, five Indigenous students have been engaged through cadetships and scholarships (including three PhDs) and two new employees.

Education outreach: Within the Indigenous Science Education Pathway project, CSIRO and the Queensland Department of Education and Training are now moving towards formalising an agreement aimed at increasing the participation and education and employment outcomes for Indigenous students in science. An Indigenous Science Expo aimed at attracting Indigenous students in Years 10–12 into the project was held in November 2009 and the P-3 phase of the project was launched in February 2010.

Cultural learning and development: A fifth Indigenous Strategic Awareness Program was held bringing the total to 150 people who have undertaken the program during Phase 1 of the IES. Indigenous culture awareness was also provided for the teachers participating in the Indigenous Science Education Pathway project. Throughout the year, work began on the development of an Indigenous Intellectual Property Protocol to replace the Indigenous Research Engagement Interim Protocol with the aim of providing a more comprehensive guide to researchers working for CSIRO with Indigenous people and communities.

Research capabilities – investment and review

The quality of CSIRO's research is critical to the Organisation's reputation and impact. CSIRO must therefore continue to develop and maintain high-quality scientific capabilities (including world-class researchers, research infrastructure and collaborative relationships).

Divisions are the 'home' of CSIRO research staff and infrastructure. Their primary role is to develop, build, maintain and deploy CSIRO's world-class research capabilities. Divisions manage professional development, staff succession and staff wellbeing. They are also responsible for deploying staff to research Themes. Individual Themes regularly draw on staff and resources from multiple Divisions for challenging multidisciplinary research. Divisions are responsible for the development of around 110 research capabilities.

In addition to the development of capability through the activities of research Themes, there are additional direct investments in capability development at both the Division and whole-of-enterprise levels. Direct capability investments include:

- **Transformational capability platforms** – described below
- **Divisional capability development funds** – provide Divisions with greater flexibility to explore opportunities for initiating new research capability areas or extending existing capabilities into new areas
- **Science Team programs** – encourage, promote and support science excellence through the development of scientists and communication of science.

Transformational capability platforms

Transformational capability platforms (TCPs) enable CSIRO to remain at the forefront of international science in the critical areas of transformational biology; advanced materials; computational and simulation sciences; and sensors and sensor networks.

The TCPs are cross-organisational, applicable across multiple areas of CSIRO research, and underpin sustained high-impact for the Organisation. They are aimed at enabling a step-change in CSIRO's research capabilities on a scale and scope beyond what is possible for individual Divisions. Funding is used to accelerate capability development and establish CSIRO science networks to foster connectivity and integration.

The TCPs in 2009–10 have performed well and funding will be increased in 2010–11 to \$33 million.

Science assessment reviews

CSIRO conducts a rolling cycle of science assessment reviews to ensure that the quality and relevance of its science base is maintained at a high-level. This robust, rigorous and independent assessment process involves a review of each Division's research capabilities by independent experts, from both Australia and overseas. Results of the reviews are considered and responded to by senior research leaders and implementation of each Division's response to the recommendations is monitored by the CSIRO Executive.

During 2009–10 the second cycle of reviews, which began in late 2008, continued. (The first cycle of reviews was undertaken between 2005 and 2007.) Science reviews were undertaken of seven Divisions: Earth Science and Resource Engineering; Entomology; Land and Water; Livestock Industries; Molecular and Health Technologies; Sustainable Ecosystems; and Plant Industry. Each review panel consisted of five scientific experts, usually three from overseas and two from Australia.

Overall, the panels were impressed with the quality of science across all the Divisions reviewed. The review panels found, without exception, that the Divisions had strong capability areas of

expertise, which were world-class. The panels recognised that the ability to conduct long-term programs in their research areas is a strength of CSIRO's research operations.

The importance of interacting with external stakeholders was recognised, and in discussions with industry and research collaborators, the panels found that there was a high-level of respect from these groups when working with CSIRO scientists.

All Divisions reported an improvement in the number of publications in high-level peer-reviewed international journals compared with the first cycle of reviews. However, panels recommended that continued attention needed to be paid to high-quality publications as an important component of the science process.

Postgraduate students and postdoctoral fellows; interaction with leading national and international research groups and research infrastructure were also common themes in the findings and recommendations of the review panels. The panels noted the importance of the appointments of the Office of the Chief Executive Science Leaders, Postdoctoral Fellows and Julius Awards granted to early career scientists for outstanding research which were of significance in the excellence of the research programs.

The desirability of an increase in the number of postgraduate students and postdoctoral fellows was a common finding. This would assist with refreshing CSIRO's research capabilities and lead to more extensive collaboration with university research teams, as well as provide training of skilled scientists for the future.

Collaboration with leading national and international research teams was evident; however, in some Divisions the review panel encouraged more extensive and deeper interaction with other leading research groups.

Some panels commented on deficiencies in research infrastructure which was limiting CSIRO's research. Others commented on the need for increased investment in building new priority areas of research capability.

These areas – collaboration; the number of postgraduate students and postdoctoral fellows; research infrastructure; and investment in high priority areas of new research capability – are all topics being considered in the development of CSIRO's strategy for 2011–15.

Our staff

CSIRO looks to its staff to support its values and to work together in a collaborative and positive way to achieve the Organisation's aims. CSIRO seeks to attract the best minds, and be a place where people want to work, where people are challenged. CSIRO also seeks to provide the environment, facilities and opportunities people need to meet those challenges.

CSIRO's Human Resources function provides support and leadership on people issues to leaders and staff across CSIRO. The goal is to develop high-performing teams working across the Organisation's boundaries. There are two key themes to this work:

- nurturing CSIRO's innovative culture by fostering a safe environment where innovation, collaboration, flexibility and performance flourish
- working effectively and efficiently by using common systems, structures and improved processes to support CSIRO's operations.

Services are delivered through a 'shared' service model.

Enterprise agreement

The CSIRO Enterprise Agreement 2008–2011 came into effect on 3 December 2008. It was developed in consultation with the CSIRO Staff Association, the Australian Manufacturing Workers Union and the Electrical Trades Union of Australia. The current Agreement provides terms and conditions of employment for CSIRO staff and reaches its nominal expiry date on 16 February 2011.

CSIRO People Policy

The CSIRO People Policy confirms our commitment to developing and supporting our staff members.

Code of Conduct standard

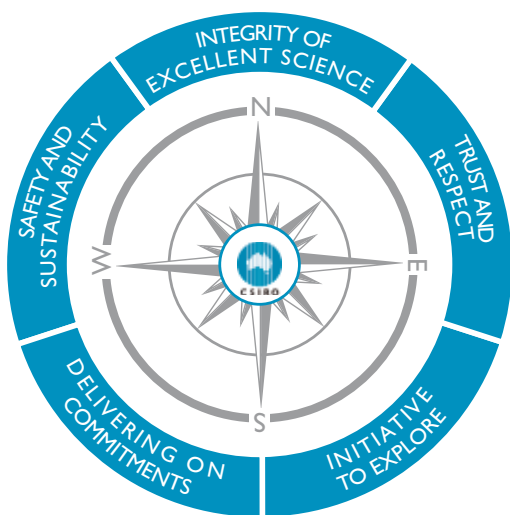
The CSIRO Code of Conduct reflects our roles, values and commitments. Our values guide our decisions and interactions with our colleagues and with our external partners and stakeholders. The code details how individuals are expected to behave in the context of the expectations we set ourselves collectively as an organisation. The Code contains principle based requirements and is a formal document that is binding on all staff members and CSIRO affiliates.

As an organisation we comply with applicable laws, regulations and Australian Government policies. We are committed to promoting a culture of fair and ethical behaviour and encourage the reporting of matters that are detrimental to CSIRO and our reputation. The consistent application of the Code will ensure that CSIRO is a great place to work and collaborate with.

CSIRO's values compass

CSIRO's values were launched by the Chief Executive through communication with staff in early 2009. CSIRO's values are symbolised through the CSIRO values compass:

- Embracing **scientific excellence** and working together ethically and with **integrity** in everything we do.
- Building **trust and respect** each day with our communities, collaborators, industry, research partners and colleagues.
- Taking the **initiative to explore** new horizons and taking responsibility to create an environment where innovation thrives.
- Consistently **delivering on our commitments**. 'Do what we say we will do'.
- Striving towards **a healthy, safe and sustainable** future.



CSIRO's values are symbolised through the CSIRO values compass.

A project team has developed a 3–5 year plan to embed these values using a whole-of-organisation systems approach.

Significant progress has been achieved in building awareness and in reinforcing the desired standards of organisational behaviour through refinement of (primarily Human Resources) systems and processes. Progress continues in activities to translate words to action and actions to behavioural change across the Organisation. Senior leadership role-modelling and advocacy of the values is the single most important intervention in achieving our values aspiration.

Staff surveys

Throughout 2009–10 we undertook to engage with staff in a focused, topic specific, qualitative way (for example, focus groups, reference groups). This was in response to a strategic review of our survey approach which led to the decision not to run a whole-of-organisation staff opinion survey.

An Enterprise Support Services performance feedback survey was undertaken for the fifth consecutive year. The trend over the last two years for the vast majority of the enterprise

functions has been positive. Satisfaction has improved from 75 per cent in 2005 to 86 per cent in 2010. A recent report by PricewaterhouseCoopers indicates that support services are in general performing strongly at or above relevant external benchmarks.

In a staff survey conducted for CSIRO by Towers Watson in June/July 2010, there was a ten point improvement in responses to the question: 'Taking everything into account, how satisfied are you with CSIRO as a place to work?' compared with responses to the same question in 2007. CSIRO's 2010 result is 16 points above the norm for R&D organisations used as a comparator by Towers Watson. Similarly, there was a 14 point improvement between 2007 and 2010 in positive staff responses to the statement: 'I would recommend CSIRO as a good place to work', and the 2010 result is 13 points above the norm for R&D organisations.

Learning and development

Twenty potential senior leaders from across the Organisation participated in CSIRO's senior leadership program, *Leading the Research Enterprise* in 2009–10. In addition to their personal development gains, program participants provided significant contribution to a number of strategic initiatives, through involvement in action learning projects.

Many emerging leaders took advantage of the CSIRO *'New People Leader Program'* to support their transition into people leadership positions.

The New Starter Orientation Program also continued to provide support to new employees transitioning into CSIRO. A review of the program will see future developments in CSIRO's approach to bringing on board new staff, including significant use of eLearning methodologies.

The Learning and Development team, in partnership with the CSIRO Project Management Office, developed a two-day Project Management program to build foundational skills and capability in effective project management.

Equal employment opportunities

CSIRO is developing a new Workplace Diversity Plan. The Plan builds upon the previous CSIRO Workplace Diversity Plans and includes a number of strategies in the areas of education and awareness raising, selection and recruitment and increasing the use of the family friendly work arrangements.

CSIRO has also implemented an Indigenous Engagement Strategy (see page 105), which aims to increase Indigenous participation in CSIRO's research and development agenda and activities. The Strategy addresses four focus areas: scientific opportunities, employment, education outreach and cultural learning and development. The Indigenous Employment Strategy, which is

one stream of the Engagement Strategy, aims to increase the employment of Indigenous peoples, reaching 2.7 per cent employment nationally within CSIRO by 2015 through the implementation of several new employment programs and targeted approaches.

Staff demographics

CSIRO staff are employed under section 32 of the *Science and Industry Research Act 1949*. At 30 June 2010, CSIRO had a total of 6,680 staff, which has an equivalent full time (EFT) of 5,956. Table 3.2 shows the number of staff employed in different job categories, called principal enterprise functions.

The total number of staff increased by 170 (2.6 per cent) over the last 12 months whilst the number of Research Scientists increased by 70 (3.8 per cent). The proportion of female staff in CSIRO has increased from 38.5 per cent to 39.1 per cent since 2005–06 and the proportion of female research staff has increased from 18.7 per cent to 22 per cent over the same period.

Table 3.2: Staff numbers (headcount) as at 30 June

Principal enterprise functions	2005–06	2006–07	2007–08	2008–09	2009–10	% Female
Research Scientists	1,630	1,688	1,727	1,837	1,907	23
Research Management	187	188	194	176	161	7
Research Consulting	33	28	29	26	34	18
Research Project Staff	2,358	2,199	2,246	2,215	2,241	42
Senior Specialists	38	25	13	13	15	13
Technical Services	622	581	542	545	630	12
Communication and Information Services	439	384	402	407	429	61
General Services	87	75	66	51	48	54
Administrative Support*	1,041	1,046	1,082	1,112	1,075	75
General Management	123	117	122	128	140	26
Total headcount	6,558	6,331	6,423	6,510	6,680	39
EFT equivalent	5,903	5,695	5,768	5,866	5,956	

*Administrative Support includes: Staff who provide science-based administrative and management services and systems.

