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Part three: Our organisation

Management and accountability

OPERATING MODEL

CSIRO's Operating Model underpins the governance of the Organisation by defining the roles, relationships and accountabilities of leaders and operating units. It includes our processes for planning, investment, review and reporting, and outlines CSIRO's Policy Framework.

The Model is complemented by the CSIRO Code of Conduct. The Code aligns with our Values Compass and sets the standard for behaviour expected of CSIRO and of everyone working in CSIRO. It forms a key component of our staff induction programs.

Further information on the Operating Model and the Code of Conduct 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 Commonwealth
- ♦ 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 Fund Act 1926*. The Fund has its own governance structure.

In October 2011, CSIRO submitted an annual Compliance Report to the Australian 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 2011–12 under Section 28 of the CAC Act are: Commonwealth Fraud Control Policy; Australian Government Foreign Exchange Risk Management Guidelines; and Outsourcing of Information Technology Infrastructure Services. In addition, CSIRO has complied with the Commonwealth Procurement Guidelines as they apply to CSIRO.

RESPONSIBLE MINISTER

In 2011–12, the Ministers responsible for CSIRO were Senator the Hon Kim Carr, Minister for Innovation, Industry, Science and Research till December 2011 followed by Senator the Hon Chris Evans, Minister for Tertiary Education, Skills, 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).

The Minister's Statement of Expectations and the Board's Statement of Intent can be found at: www.csiro.au/resources/Statement-of-Expectations.html.

The Public Research Agency Charter, signed by the Minister and the Board, provides guidance to CSIRO and its researchers on providing scientific advice and engaging in public debate. The Charter can be found at: www.csiro.au/resources/pf1lc.html.

The Government has approved CSIRO's funding for the 2011–12 to 2014–15 period and the Quadrennium Funding Agreement confirming the terms of that funding should be signed in the third quarter of 2012.

MINISTERIAL DIRECTIONS AND NOTIFICATIONS

No new directions were received in 2011–12. The CSIRO 2011–14 Enterprise Agreement was developed in accordance with the Minister's direction regarding compliance with the Australian Government Employment Bargaining Framework.

Twenty-one notifications of significant events under Section 15 and 16 of the CAC Act were made to the Minister during 2011–12. These related to participation in research centres and alliances, licence agreements, equity transactions and major research and infrastructure projects.

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 plus 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 three standing committees:

- ◆ Board Audit Committee
- ◆ Board Commercial Committee
- ◆ Board Nominations and Remuneration Committee

In response to a performance review in 2011, the Board implemented a range of improvements and reviewed its charters. It decided to close the Board Endowment Committee in June 2011 and the Board Commercial Committee in June 2012. Their responsibilities will be subsumed by the Board. From July 2012, the importance of overseeing risk and health and safety will be recognised by reconstituting the remaining committees as a Board Audit and Risk Committee and Board People, Health and Safety Committee.

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 2011–12 Board members, including qualifications and terms of appointment are on page 82. Details of remuneration, membership of Board Committees and attendance at meetings are shown on pages 147–148 in the Financial Statements. The Board Charter and membership profiles are available at:

www.csiro.au/boardoverview.

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.

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.

The Chief Executive is supported by the Executive Team. As a team and through their individual roles, the members lead, direct, coordinate and control CSIRO's operations and performance. Details of the members are on page 83.

The Executive Team is assisted by the Science Sub-committee, Flagship Oversight Committee and Commercial Executive Committee. The CSIRO Health, Safety and Environment Committee is accountable to the Chief Executive. In 2011 a Precinct Oversight Committee was also formed to steer the implementation of that key element of the CSIRO strategy.

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 Policy Framework comprises policies, standards and procedures. It is supported by the CSIRO Delegations and Authorities Framework.

The policy statements, approved by the Board, cover the Organisation's commitment in relation to:

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

The statements are available at:

www.csiro.au/org/Key-policy-statements.html.

In 2011–12 there was a comprehensive review of all human resources procedures; finance; procurement and property procedures; and intellectual property (IP) and commercial procedures.

Other standards and procedures introduced or amended this year include:

Standards

- ♦ Major projects
- ♦ IP and licensing

Procedures

- ♦ Advisory committees
- ♦ Australian Growth Partnerships
- ♦ Aviation safety and small boats safety
- ♦ Individual flexibility arrangements
- ♦ Mobile devices
- ♦ Major projects
- ♦ Platform IP management

In June 2012, the Delegations and Authorities Framework was amended to further support CSIRO's Operating Model. The framework aligns delegations more closely with roles and responsibilities, provides more flexibility, streamlines and improves the clarity of the delegation schedules, tightens some controls and reduces administration.

PLANNING AND MONITORING PERFORMANCE

The implementation of a new Strategic Plan for the period 2011–15 was a major focus for the Organisation in 2011–12. (see: www.csiro.au/resources/CSIRO-Strategy-2011-2015.html)

The plan conveys the broad objectives for the Organisation, and sets out the broad policies and strategies to be pursued to achieve those objectives. In brief, the strategy emphasises CSIRO's intent to maintain its focus on addressing national challenges and opportunities through an enhanced program of National Research Flagships, and to continue developing Australia's scientific capability and preparedness by investing in the people and infrastructure required to meet current and future challenges.

Within the context provided by the Strategic Plan, CSIRO's portfolio of research is decided through a science investment process that is guided by the twin imperatives of seeking relevance and impact for Australia.

The actions to achieve the strategic objectives and investment priorities are described in the annual CSIRO Operational Plan (see: www.csiro.au/operational-plan).

Performance is reported against annual key executive actions, the Strategic Plan Enterprise Strategy Measures, CSIRO's Portfolio Budget Statements and other internal performance indicators.

In addition, our Divisions and Flagships are subject to regular review by panels chaired by independent experts who assess the strength of our capability, as well as the relevance and impact of our research. The quality of our research is subject to scientific peer review mechanisms and the Chief Executive conducts an annual review of all research portfolios, Divisions and functional areas.

ADVISORY MECHANISMS

CSIRO's Strategic Advisory Committees provide advice on CSIRO's longer-term strategic directions and research and development priorities and on how CSIRO can meet the research, technical and business needs of customers or communities. Whilst the Flagship Advisory Committees, established for each Flagship, focus on how to maximise the effectiveness of the Flagship portfolio to achieve its goals. The Committees comprise representatives from industry, government, non-government organisations and other stakeholders.

Committee details can be found at: www.csiro.au/SAC and www.csiro.au/FAC.

RISK MANAGEMENT

CSIRO's Risk Policy recognises that the identification and management of risk is central to delivering the functions of CSIRO and delivering benefits to Australia.

CSIRO's risk management framework provides the methodology by which CSIRO's risk profile is articulated and regularly updated. It also sets out the responsibilities of all individuals across CSIRO, including the Board and management for identifying and managing risk.

Risks are managed on an enterprise basis through mitigation strategies that include, in appropriate circumstances, insurance to transfer the financial impact of risk.

General insurance including General Liability and Professional Indemnity insurance and Directors and Officers Liability insurance is through Comcover. CSIRO's workers' compensation liability is covered by a premium paid to Comcare.

EXTERNAL AUDIT AND INTERNAL CONTROLS

Assurances about the Organisation's financial state of affairs, compliance issues and control environment are provided through a range of processes including internal Audit and Security functions, compliance reporting by senior managers and the operation of a Whistleblower Scheme. External audit is provided by the Australian National Audit Office.

CSIRO complies with Commonwealth Fraud Control Guidelines (revised 2011). A Fraud Risk Assessment was completed in February 2010 and an updated Fraud Control Plan incorporating guideline amendments was released in September 2011.

The CSIRO Strategic Protective Security Risk Assessment was updated in February 2009 and is currently under review. As a result of the release of the Commonwealth Protective Security Policy Framework in June 2010, a CSIRO wide Security Committee has been established chaired by General Counsel. This Committee will oversee and endorse all changes to security policies and procedures with CSIRO. A review of security within CSIRO is currently underway and is expected to be completed by October 2012.

Board membership 2011–12 *(From L to R)*



CHIEF EXECUTIVE

Dr Megan Clark

BSc (Hons) PhD Hon DSc Hon DAPSc FTSE GAICD
1 January 2009 – 31 December 2013

MEMBER

Professor Peter Høj

MSc PhD DUniv (honoris causa) FTSE
Vice Chancellor and President
University of South Australia
7 December 2011 – 6 December 2014

MEMBER

Dr Eileen Doyle

BMath (Hons) MMath PhD FAICD
Company Director
15 February 2006 – 14 February 2016

MEMBER

Dr Don Russell

BEC (Hons) MEC PhD CFA
Secretary, Department of Industry, Innovation,
Science, Research and Tertiary Education
19 October 2011 – 8 February 2016

MEMBER

Ms Mary Boydell

BCom FCA
Company Director
26 June 2009 – 25 June 2014

CHAIRMAN

Mr Simon McKeon AO

BCom LLB FAICD
Company Director
28 June 2010 – 27 June 2015

MEMBER

Mr Hutch Ranck

BSc Economics FAICD
Company Director
1 May 2011 – 30 April 2016

MEMBER

Ms Shirley In't Veld

BCom LLB
Company Director
28 June 2012 – 27 June 2015

MEMBER

Professor Tom Spurling AM

BSc (Hons) PhD FRACI FTSE
Research Professor
Swinburne University of Technology
1 May 2008 – 30 April 2012
Reappointed 28 June 2012 – 27 June 2015

DEPUTY CHAIRMAN ABSENT

Dr Terry Cutler

BA (Hons) PhD Hon DUniv FAHA FIPA
Principal
Cutler and Company Pty Ltd
25 July 2002 – 24 July 2012

MEMBERS ABSENT

Professor Ian Chubb AC

MSc DPhil Oxon Hon DSc
Chief Scientist of Australia
7 August 2008 – Resigned 8 December 2011

The Hon John Kerin AM

BA BEc Hon DScAgr Hon DSc Hon DLitt FTSE
FAIAST
Company Director
3 October 2008 – 2 October 2011

Executive Team membership 2011–12 (From L to R)



Mr Craig Roy

BSc MSc MBA FAICD
Deputy Chief Executive, Science
Strategy and People

Dr Calum Drummond

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

Ms Hazel Bennett

BSc (Hons) ACA FAIM
Chief Finance Officer

Dr Andrew Johnson

BAgrSc (Hons) PhD MPA
Group Executive, Environment

Dr Tom Hatton PSM

BSc MSc PhD
Group Executive, Energy (from April 2012)

Dr Alastair Robertson

BSc (Hons) PhD FRSC CChem FIFST
Group Executive, Food, Health and Life
Science Industries

Dr Megan Clark

BSc (Hons) PhD Hon DSc Hon DAPSc FTSE GAICD
Chief Executive

ABSENT

Mr Rod Bloom

BA
Acting Executive Director, Development
(from March 2012)

Mr Nigel Poole

LLB BCom FAICD
Acting Group Executive, Information Sciences
(from March 2012)

Mr Mike Whelan

BEC
Deputy Chief Executive, Operations

Dr James Bradfield Moody

BInfoTech (Hons) BEng (Elec) PhD
Executive Director, Development (to March 2012)

Dr Beverley Ronalds

BE (Civil)(Hons) MSc PhD FIEAust FICE FTSE FAICD
Group Executive, Energy (to March 2012)

Dr Alex Zelinsky

BMaths (Hons) PhD FTSE FIEEE FAICD FIEAust
Group Executive, Information Sciences
(to March 2012)

Executive Team profiles are available at:

www.csiro.au/executiveteam

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* and the *Work Health and Safety Act 2011*.

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.

The *Occupational Health and Safety Act 1991* was rescinded on 31 December 2011 and replaced by the *Work Health and Safety Act (Commonwealth) 2011* which became effective on 1 January 2012. A summary of CSIRO's performance and its compliance with these Acts is provided below.

HEALTH AND SAFETY MANAGEMENT ARRANGEMENTS

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

In recognition of this duty, CSIRO developed these health and safety management arrangements in consultation with 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 (HSMAs)
- ♦ 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. A review of the HSMAs in line with the expected changes to Workplace Health and Safety laws commenced in June 2011 and was completed in September 2011.

INITIATIVES UNDERTAKEN DURING THE YEAR TO ENSURE THE HEALTH, SAFETY AND WELFARE AT WORK OF STAFF MEMBERS AND AFFILIATES

- ♦ An HSE supervisors training program was introduced.
- ♦ A safety leadership training program for CSIRO's top 250 leaders was implemented.
- ♦ Contractor training, electrical safety training, and incident and investigation programs were deployed.
- ♦ A gas safety review was finalised.
- ♦ A freezer safety review was finalised.
- ♦ A hazardous substances gap analysis was carried out.
- ♦ A quad bike safety survey was conducted.
- ♦ New work health and safety laws were incorporated into internal procedures.
- ♦ An aviation safety procedure was developed.
- ♦ A small boat safety procedure was developed.
- ♦ Safe travel and work overseas guidelines were deployed.
- ♦ Safe overseas travel by staff was enhanced through a staff international travel system upgrade.
- ♦ Divisional HSE risk profiles were updated.
- ♦ An on-line health and wellness program was piloted.

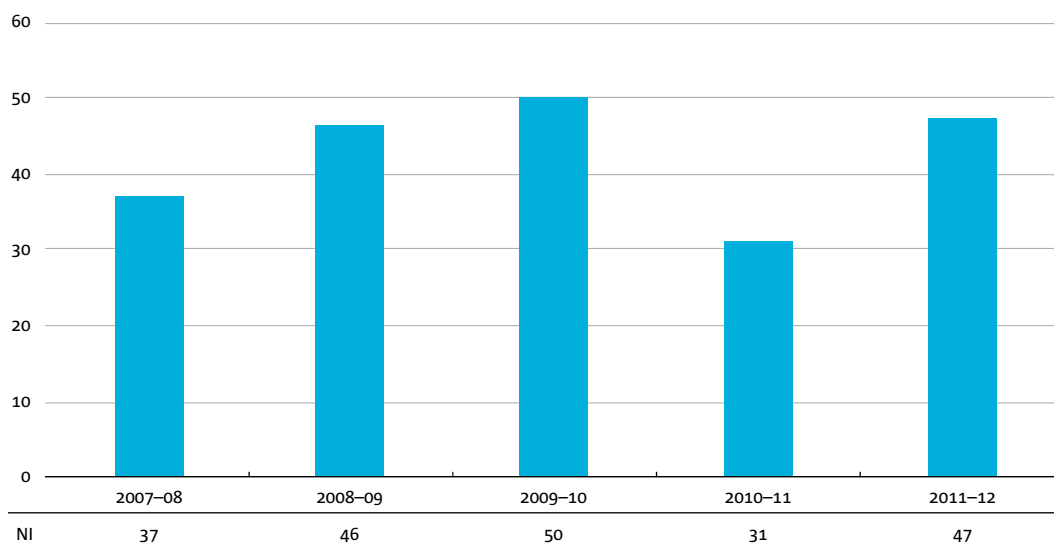
STATISTICS OF ANY ACCIDENTS OR DANGEROUS OCCURRENCES DURING THE YEAR THAT AROSE OUT OF THE CONDUCT OF UNDERTAKINGS BY CSIRO THAT REQUIRED THE GIVING OF NOTICE UNDER SECTION 68 (SEE FIGURE 3.1)

- ♦ A significant change in the method for classifying lost time injuries (LTIs) and medical treatment injuries (MTIs) commenced in 2010–11 to ensure reliable, accurate, standardised injury classification. CSIRO is now in the process of re-establishing its injury performance baseline, hence LTI and MTI comparisons with data prior to 2010–11 are not considered meaningful (for more information see page 6).
- ♦ Fifty-three LTIs were reported during the year, resulting in an LTI frequency rate of 4.8.
- ♦ Eighty MTIs were reported during the year, resulting in an MTI frequency rate of 7.2.
- ♦ There were 47 Comcare Notifiable Incidents reported during the year. Comcare changed the definitions and requirements for Notifiable Incidents on 1 January 2012. Of the 47 incidents reported during the year, 28 were under the old definitions (pre 1 January 2012) and 19 came under the new requirements (post 1 January 2012).
- ♦ The number of workers' compensation claims with injury dates in the reporting period increased from 56 in 2010–11 to 60 in 2011–12.
- ♦ CSIRO's premium for 2011–12 was 0.47 per cent of payroll compared to the Commonwealth agency rate of 1.41 per cent.

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 SECTIONS 29, 46 OR 47 DURING THE YEAR

- ♦ There were no Prohibition Notices or Provisional Improvement Notices issued in 2011–12.
- ♦ There was one Improvement Notice issued by Comcare at the end of the 2011–12 reporting period. CSIRO is working with Comcare regarding the required improvements.
- ♦ There were 11 compliance monitoring interventions and one investigation of Notifiable Incidents conducted by Comcare in 2011–12. All were completed to Comcare's satisfaction.
- ♦ There were no notifiable environmental incidents in the reporting period.

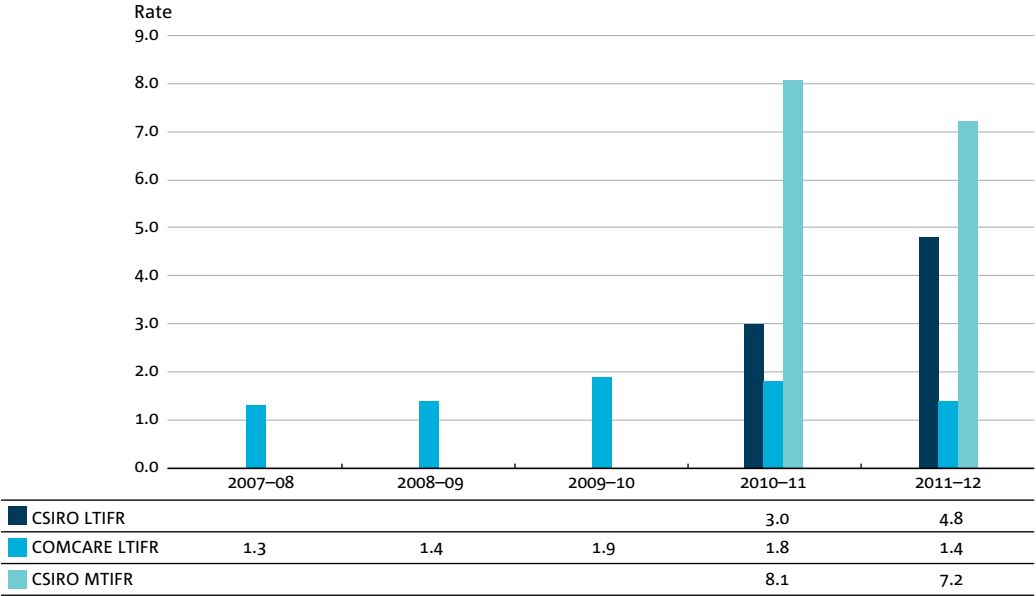
FIGURE 3.1: NUMBER OF NOTIFIABLE INCIDENTS



During 2010–11, CSIRO re-established its injury performance baseline to ensure all injuries resulting in time lost from work, or where medical treatment has been necessary, are identified and correctly classified using international best practice criteria. The Comcare

derived LTIFR in Figure 3.2 shows what CSIRO’s lost time performance would have been if Comcare workers’ compensation data was still used as the basis for measuring CSIRO’s performance. We are seeing a decreasing LTIFR trend using historic Comcare derived data.

FIGURE 3.2: CSIRO LTIFR AND MTIFR AND COMCARE DERIVED LTIFR ANNUAL TRENDS



Environmental performance

CONTRIBUTION TO ECOLOGICALLY SUSTAINABLE DEVELOPMENT

CSIRO upholds the principles of ecologically sustainable development (ESD) outlined in the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) through both its operations and research activities.

To achieve its research goals, CSIRO operates numerous types of infrastructure, such as laboratories, glasshouses, farm properties and telescope facilities, as well as managing plants and livestock. These activities require significant quantities of energy and water and produce waste. Examples of the work undertaken to support our ESD principles are set out in Table 3.1.

TABLE 3.1: EXAMPLES OF CSIRO’S CONTRIBUTION TO ESD PRINCIPLES

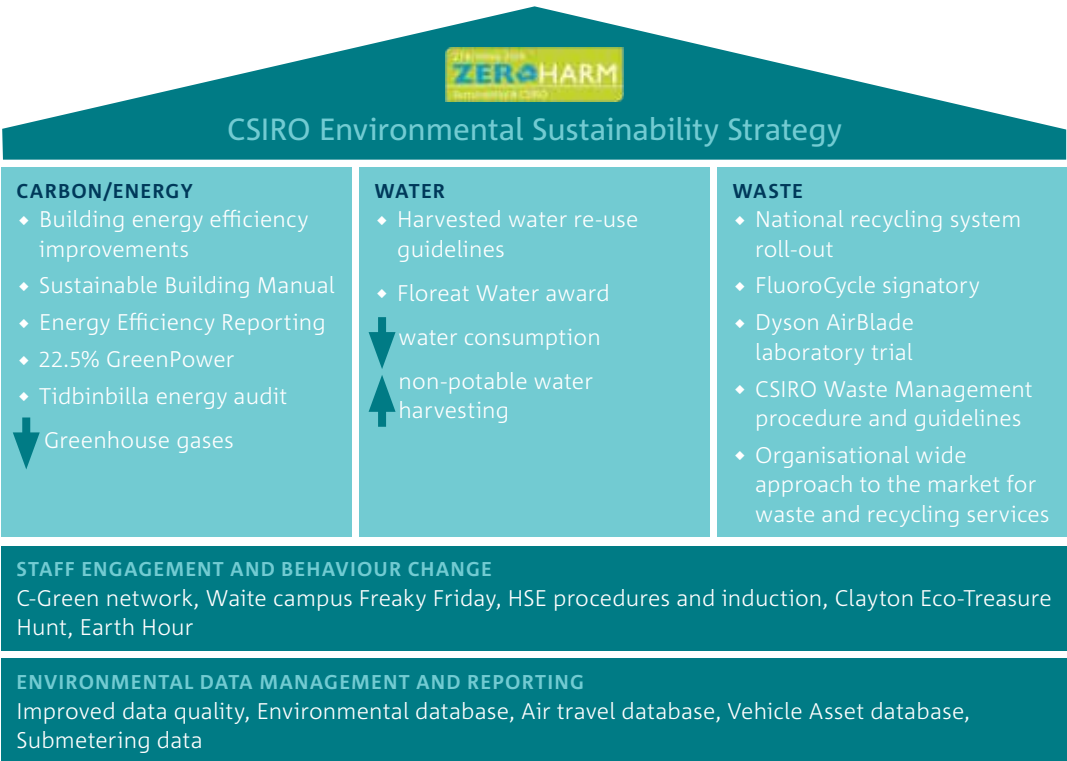
PRINCIPLES	EXAMPLES OF RELEVANT CSIRO WORK
Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.	<p>CSIRO’s Values Compass identifies health, safety and sustainability as key values that guide the way CSIRO undertakes its business activities.</p> <p>To reinforce these values, CSIRO introduced an updated Health, Safety and Environmental course for Leaders in 2011–12. The course assists managers understand the expectations that CSIRO places on its managers with respect to Health, Safety and Environmental leadership.</p>
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.	<p>CSIRO published the first (Australian and global) guidelines for developing management plans in Indigenous Protected Areas (IPAs). An IPA is an area of Indigenous-owned land or sea where traditional owners have entered into an agreement with the Australian Government to promote biodiversity and cultural resource conservation.</p> <p>IPAs make a significant contribution to Australian biodiversity conservation and help Indigenous communities protect their cultural values for future generations and receive spin-off health, education, economic and social benefits.</p> <p>The research has been translated into a resource as part of the IPA Manager’s toolkit on the Department of Sustainability, Environment, Water, Population and Communities website. <i>Our Country Our Way</i> is an illustrated guide that can be used by anyone interested in developing a management plan for an IPA.</p>
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.	<p>Our Healthy Water Ecosystems Theme, conducts research to inform the sustainable protection and rehabilitation of Australia’s creeks, rivers, wetlands, floodplains and estuaries.</p>
The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making.	<p>In planning for the divesting of CSIRO’s Highett site in Victoria, CSIRO is working with the Bayside City Council for the preservation and on-going maintenance of the Remnant Woodlands on the Highett site.</p>
Improved valuation, pricing and incentive mechanisms should be promoted.	<p>In 2011, CSIRO in collaboration with Aecom, investigated the impact of the Government’s carbon price on the cost of living for Australian households. They found that the projected impact of the carbon price is within the range of changes in consumer prices and household cost of living, and that most households would receive assistance that offset all or a significant portion of the carbon price impact.</p> <p>More information about the findings of the report can be found at: www.csiro.au/CarbonPriceCostOfLiving</p>

EFFECTS OF CSIRO’S ACTIVITIES ON THE ENVIRONMENT

During 2011–12, CSIRO continued towards achieving its Environmental Sustainability Strategy (ESS) goals, focusing on reductions in carbon emissions, mains water consumption

and waste to landfill, as represented in Figure 3.3. The programs and initiatives also serve to increase alignment between CSIRO’s sustainability-focused research and innovation, and how we operate in our daily work practices.

FIGURE 3.3: KEY ENVIRONMENTAL SUSTAINABILITY INITIATIVES IMPLEMENTED DURING 2011–12



CARBON/ENERGY

CSIRO continued to improve its energy-efficiency at its sites and to reduce its greenhouse gas emissions. In 2011–12, CSIRO undertook studies to identify options to reduce energy consumption, manage demand and reduce associated costs. CSIRO improved the energy-efficiency of its printers through a printer refresh and improved its understanding of energy consumption of selected data centres.

In November 2011, CSIRO conducted an Eco Treasure Hunt at our Clayton site, Victoria, to identify energy and water saving opportunities. The event resulted in positive engagement between a number of business units and their staff, service suppliers and General Electric as a strategic partner. The recommendations will contribute to the generation of national programs engaging staff in our carbon and water reduction targets, while also creating cost savings.

WATER

Reducing mains water consumption continues to be a focus, with on-going roll out and upgrades of bore and mains water sub-meters and leak detection programs. Opportunities to capture and reuse rainwater, reverse osmosis reject water and other non-potable water sources will be expanded in future years with the development of a water reuse guide that was commissioned in 2011–12.

STAFF ENGAGEMENT AND BEHAVIOUR CHANGE

During 2011–12, engaging staff in the Organisation’s ESS was a major focus for CSIRO. A ‘green’ ambassador network, called C-Greens was developed to assist with the implementation of current and future ESS projects. The C-Green network consists of site-based CSIRO volunteers drawn from all staff levels and roles, representing geographical locations and business units.

WASTE

The C-Green network introduced green workplace recycling stations on most sites and has begun to engage staff at specific CSIRO sites in a sustainable laboratory program. Part of the program focuses on ovens, fridges and freezers to reduce our energy consumption.

To reduce our waste to landfill, CSIRO will source an organisation-wide solution for waste and recycling services, including hazardous waste in early 2012–13. This will assist the Organisation to reach its target of a 50 per cent reduction of waste to landfill.

A CSIRO Get Wasted Workshop was held in November 2011, to connect expertise and build networks across CSIRO. The workshop focused on research related to avoidance, minimisation and utilisation of waste in industrial and manufacturing processes, plus improved understanding of initiatives to achieve CSIRO’s waste-related goal.

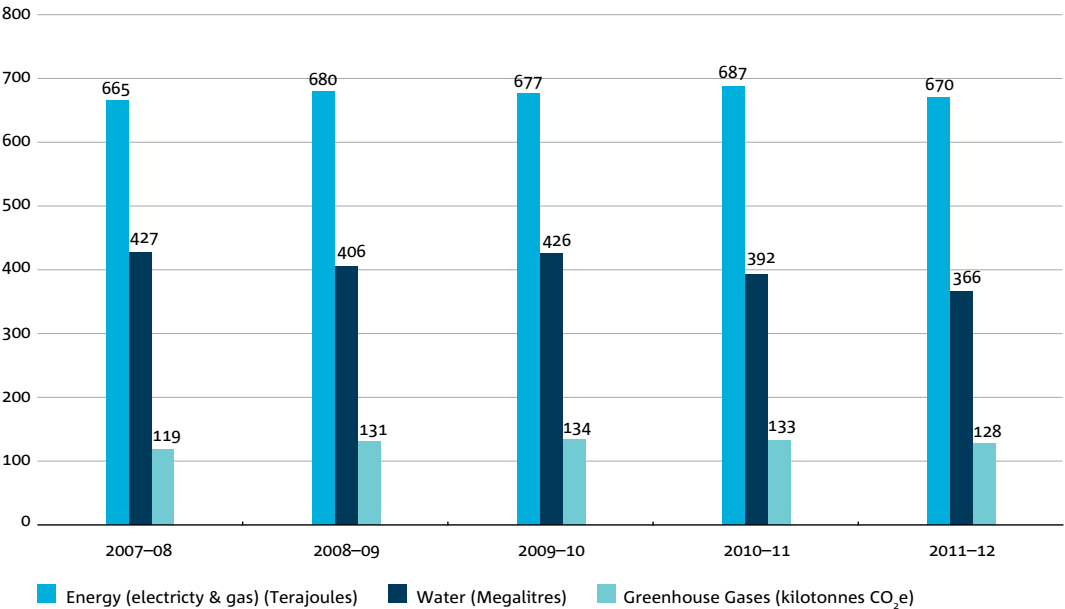
ENVIRONMENTAL REPORTING

CSIRO implemented an integrated environmental data management system to support ESS projects and to meet its external environmental reporting obligations, including submissions to the following programs: National Greenhouse and Energy Reporting Scheme; Government Greenhouse and Energy Reporting, Energy-Efficiency Opportunities program, the National Pollution Inventory and relevant National Environmental Protection Measures.

CSIRO ENVIRONMENTAL PERFORMANCE INDICATORS

CSIRO’s electricity and gas consumption has remained relatively stable over the last five years (see Figure 3.4). Changes to CSIRO’s property portfolio and implementation of energy-efficiency measures in the design or retrofit of infrastructure has enabled the Organisation to stabilise its energy consumption over that period. For example, on-going plant upgrades at sites such as the Australian Animal Health Laboratory, have resulted in a 20 per cent reduction at that site in the past five years.

FIGURE 3.4: CSIRO’S ENVIRONMENTAL PERFORMANCE



The slight reductions in electricity and gas consumption during 2011–12 resulted in a slight decrease in greenhouse gas emissions (four per cent) attributed to energy sources. CSIRO's net emissions decreased due to increased procurement of certified GreenPower purchased under its major electricity contracts.

CSIRO's air travel reduced slightly during 2011–12 compared to 2010–11, noting the large reduction in air travel that occurred in 2009–10. CSIRO remains committed to minimising the need for air travel through the on-going use of video-conferencing and webcam facilities.

Mains water consumption has trended down over the past five years, reducing by approximately seven per cent per annum. Over the past five years, CSIRO has achieved significant water reductions at specific sites, and was recognised by the Western Australian Water Corporation with a Bronze Certificate of Recognition for a sustained water reduction of 4,000 kilolitres (kL) over the past five years.

Additional Information on CSIRO's performance is shown in Table 3.2.

TABLE 3.2: CSIRO'S ENERGY, AIR TRAVEL AND WATER INTENSITIES

THEME	PERFORMANCE MEASURE	INDICATOR(S)	2007–08	2008–09	2009–10	2010–11	2011–12 ¹
Energy	Consumption of green energy	Green energy purchased (TJ)	43	56	74	77	84
	Relative energy uses	Green energy purchased divided by the amount of electricity purchased	10%	13%	17%	18%	19%
		Amount of energy (electricity and gas) consumed per employee (gigajoule (GJ)/FTE ²)	115	116	114	119	117
Air travel	Air travel	Air travel (million kilometres (km))	Not available		82	116	114
		Air travel per employee (km/FTE)	Not available		13,768	20,069	19,930
Water	Relative mains water use	Amount of total water use per employee (kL/FTE)	74	69	72	68	64

1 Data as at 10 August 2012.

2 FTE – Full time equivalent

Our people

CSIRO looks to its staff to support its values and to work in a collaborative and positive way to achieve the Organisation's mission and purpose. CSIRO seeks to attract the best minds and to be a place where creativity and innovation can flourish. We provide the environment, facilities and opportunities people need to respond to national challenges.

CSIRO's People Policy confirms our commitment to developing and supporting our staff, and 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. Two key themes are:

- ♦ 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.

ENTERPRISE AGREEMENTS

Enterprise Agreements set the terms and conditions of employment for CSIRO staff. Two Enterprise Agreements are in operation at CSIRO – CSIRO Enterprise Agreement 2011–14 (CSIRO EA) and the Canberra Deep Space Communication Complex (CDSCC) / Combined Unions Enterprise Agreement 2011 (CDSCC EA). The CSIRO EA was negotiated with relevant unions and staff bargaining agents. It came into operation on 7 July 2011 following formal approval processes and a staff vote. This Agreement will reach its nominal expiry date in August 2014. The CDSCC EA covers non-managerial CSIRO staff employed at CDSCC, Tidbinbilla, Canberra, and was negotiated with relevant unions. It came into operation on 8 July 2011 and will reach its nominal expiry date in July 2013.

Throughout 2011–12, CSIRO has used focus groups, reference groups and other qualitative methodologies to engage with staff in a focused, topic specific way. These activities provided valuable insights to support the development of CSIRO's 2011–15 Strategy.

LEARNING AND DEVELOPMENT

CSIRO's Enterprise Agreement provides all staff the opportunity to participate in at least five development days each year. This learning can be accessed through work experience, networking, coaching, mentoring, or through participation in formal programs.

CSIRO's Learning and Development formal programs are offered in three broad areas:

- ♦ Working in CSIRO
- ♦ Science in CSIRO
- ♦ Leading in CSIRO

Working in CSIRO helps individual staff members learn about CSIRO's processes and develops an individual's team skills. This year 164 programs were facilitated, for 1,778 participants, with an average participation rate of 70 per cent.

Science in CSIRO provides a range of programs from proposal writing, to data analysis through to project management, paper writing and presentation skills for scientists. This year 53 programs were facilitated for 821 participants, with a participation rate of 85 per cent.

Leading in CSIRO provides programs for new, experienced and high potential leaders. This year 24 high-potential leaders participated in the Leading the Research Enterprise program, 49 in the New Experienced Leader Program and 94 in the New People Leader Program. In total, CSIRO offered seven modularised leadership programs with a participation rate of 100 per cent. In addition, 145 new leaders accessed the Guidance for New Leaders eLearning suite available to support their transition to leadership at CSIRO.

DIVERSITY AND INCLUSION

During 2011–12, CSIRO developed a renewed Diversity and Inclusion Plan for implementation over the 2012–15 strategy period. The Plan builds on the foundations of past Plans and seeks to produce a step-change in our diversity and inclusion performance through enhanced leader responsibility, visibility and engagement.

CSIRO's Indigenous Engagement Strategy, which aims to increase Indigenous participation in CSIRO's research and development agenda and activities, continues to be progressed (see page 14–15). The Indigenous Employment Strategy aims to increase the employment of Indigenous peoples through the implementation of several new employment programs and targeted approaches. CSIRO's commitment is reflected in the CSIRO Enterprise Agreement.

STAFF DEMOGRAPHICS

CSIRO staff are employed under section 32 of the *Science and Industry Research Act 1949*. At 30 June 2012, CSIRO had a total of 6,492 staff, which has a full-time equivalent (FTE) of 5,720.

Table 3.3 shows the number of staff employed in different functional areas and Table 3.4 shows staff by state. Overall, the total number of staff decreased by 0.3 per cent (22) over the last 12 months. Research Science staff increased by 4.5 per cent (83). Voluntary staff turnover was at a

record low of 4.24 per cent. The proportion of female staff in CSIRO increased from 39 to 40 per cent as did the proportion of female Research Science staff, increasing from 24 to 25 per cent (up from 21 per cent in 2007–08).

TABLE 3.3: STAFF NUMBERS (HEADCOUNT) AS AT 30 JUNE

FUNCTIONAL AREA	2007–08	2008–09	2009–10	2010–11	2011–12	% FEMALE FOR 2011–12
Research Scientists	1,727	1,837	1,907	1,865	1,948	25
Research Project Staff	2,246	2,215	2,241	2,166	2,094	43
Senior Specialists	13	13	15	12	11	27
Research Management	194	176	161	165	166	11
Research Consulting	29	26	34	40	42	14
Technical Services	542	545	630	643	613	12
Communication and Information Services	402	407	429	375	391	64
General Services	66	51	48	56	40	60
Administrative Support ¹	1,082	1,112	1,075	1,048	1,057	75
General Management	122	128	140	144	130	28
Total headcount	6,423	6,510	6,680	6,514	6,492	40
FTE	5,768	5,866	5,956	5,780	5,720	37

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

TABLE 3.4: STAFF NUMBERS BY STATE AS AT 30 JUNE 2012

STATE	METROPOLITAN	REGIONAL	TOTAL
ACT	1,394		1,394
NSW	802	320	1,122
NT	29	10	39
QLD	735	128	863
SA	397		397
TAS	383		383
VIC	1,446	343	1,789
WA	498	7	505
Grand Total	5,684	808	6,492

STAFF SURVEY

In March 2012, an all Staff Survey was conducted by independent survey partners Towers Watson. The purpose of the survey was to collect feedback from staff on their experiences of working in CSIRO. The survey also gauged cultural aspects of the Organisation's performance in terms of supportive conditions and barriers to the implementation of the 2011–15 CSIRO Strategy.

A response rate of 68 per cent was achieved. CSIRO's performance was favourable in the engagement, values and diversity categories (see Figure 3.5 for a snapshot of the key survey results). Relative to other global research organisations, CSIRO's staff satisfaction rated highly in relation to:

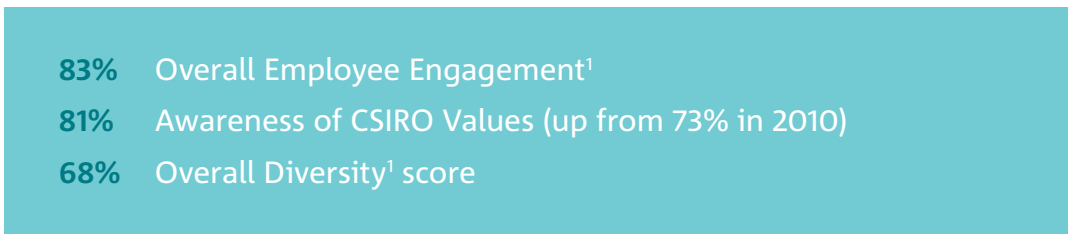
- ♦ engagement with and pride in CSIRO
- ♦ a strong belief in the Organisation's goals and values
- ♦ support by immediate managers that help staff achieve work-life balance

- ♦ continued development of skills and abilities
- ♦ involving team members in decisions that affect their work.

CSIRO is committed to continuously improving its position as an employer of choice through better understanding and responding to the challenges staff face in their roles. The survey identified some key areas for improvement, such as increasing our internal collaboration and knowledge transfer across teams; consulting more widely about change management and its implementation; and our processes in relation to resource allocation and client engagement.

We will be addressing these challenges over the next 12 months, working with staff to improve our performance in these areas. In summary, there has been considerable support for our strategic direction, our goals and values, and the pride we share in our Organisation.

FIGURE 3.5: SNAPSHOT OF KEY SURVEY RESULTS



1 Scale performance reflects the average percentage respondents responded as favourable across multiple questions.