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This document was created in response to a Freedom of Information request made to CSIRO.

FOI Number: FOI2016/16

Date: 21 March 2016

Request: Any briefing or correspondence from CSIRO to the Minister of Industry, Innovation and Science or his staff, in the year prior to February 4 2016, relating to the “strategic alignment” that chief executive of CSIRO Larry Marshall announced to staff in his email dated February 4, 2016.

Document(s): 1-6

For more information, please refer to CSIRO’s FOI disclosure log at www.csiro.au/FOILog



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Minister for Information
Routine

Min ID: MS15-000607
CSIRO Ref: C2015/1782

DEVELOPMENT OF THE CSIRO STRATEGY 2025

Recommendation: That you note the following information concerning the development of the CSIRO Strategy 2025.

Key Points:

- The CSIRO 2011-2015 strategy ends in June 2015. CSIRO is currently developing its next strategy for 2015-2019 to take effect on 1 July 2015. In developing the strategy, CSIRO is looking beyond the immediate four years and out to 2025.
- Planning for the strategy has been underway over the past 12 months with the CSIRO Board and Executive, science leaders and others contributing to strategy formulation, implementation planning and the mechanisms for consultation with staff and external stakeholders.
- Consultation with all CSIRO staff has now begun using a combination of crowd sourcing techniques, targeted workshops and feedback through normal communication channels and interactions between staff and their managers (refer Attachment A for more information).
- A variety of processes are also underway to consult external stakeholders including key clients, government, influential members of sectors CSIRO engages with including CSIRO's advisory committees, and the broader science community. A quantitative survey of CSIRO staff and stakeholders is also planned (refer Attachment A for more information).
- Based on input from these consultation processes and advice from the CSIRO Executive, the Board will make the final choices for CSIRO's future strategic directions by May 2015, for approval in June 2015.

Sensitivities: Senator the Hon Kim Carr, Shadow Minister for Higher Education, Research, Industry and Science, provided a written question on notice from the 2015 Additional Estimates (AI-61) regarding the development of CSIRO's decadal strategy for 2015-2025. The Senator's questions referred to the current status of the strategy, your involvement in its development, whether CSIRO staff had been consulted and if its implementation would result in site closures.

Background - Refer to Attachment A

Regulatory Implications: NO.

Consultation: NO.

Jack Steele s 22
A/g Deputy Chief Executive
CSIRO
31 March 2015

PS version NOTED/PLEASE DISCUSS
2/4/2015

Contact: Kimberley Shrives s 22

Ian Macfarlane / /

Attachments:

Attachment A: Development of the CSIRO Strategy 2025

Noted in the
Minister's Office
15 APR 2015

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Development of the CSIRO Strategy 2025

Planning

Preparation for the 2015 – 2025 CSIRO strategy has been underway over the past 12 months. During this period and through an iterative engagement program, the CSIRO Board, the CSIRO Executive, science leaders and others have contributed to laying the foundations for future strategy discussions. This foundation has been informed by key issues such as the changing external environment, CSIRO reform program and emerging government priorities.

As a result, a series of key strategy questions have been identified that are being used to test ideas and thinking.

Consultation

Significant stakeholder consultation under the leadership of CSIRO Executives is being rolled out over March and April 2015 to ensure that CSIRO staff and external customers, partners and colleagues have a clear line of sight to the process and an opportunity to provide input and feedback. The stakeholder groups being consulted include CSIRO staff, representatives from government, customers, industry partners, CSIRO's advisory committees and the broader science community.

Internal consultation

CSIRO has made a conscious decision to instigate mechanisms that allow involvement of the entire organisation in the consultation process for this strategy. "OurCSIRO", a crowd-sourcing platform, has been established to allow all CSIRO staff to contribute ideas, perspectives and to help shape the strategy. OurCSIRO is a cloud-based innovation tool that will allow all staff to make whatever contribution they see fit to the development of the strategy. OurCSIRO-based staff engagement will be conducted in three phases and each phase will focus on harnessing collective thinking on specific strategic 'challenge' questions. The challenge question for phase one concerns megatrends and was open for comment on 17 March 2015. The second phase began on 31 March 2015, looking at ideas and opportunities. The final phase will begin the week of 4 May 2015, with the topic to be decided.

In addition to OurCSIRO, a number of locally organised site based workshops and other events to bring people together and encourage conversation are being run. Staff are also being encouraged to submit their ideas into the strategic plan process through normal communication and interaction with their managers.

External consultation

A variety of forums are also being undertaken to consult with external stakeholders including:

- Meetings with the Flagship advisory committees.
- Strategic conversation by the Executive Management Council (EMC) members with 3-5 of their key partners or clients. This will result in some 100-150 conversations.
- 'Heavy hitter dinners' with key influencers in industry, Government and academia will be held over the next six months. There is one planned for each state to be hosted by CSIRO Board and Executive Team (ET) members.

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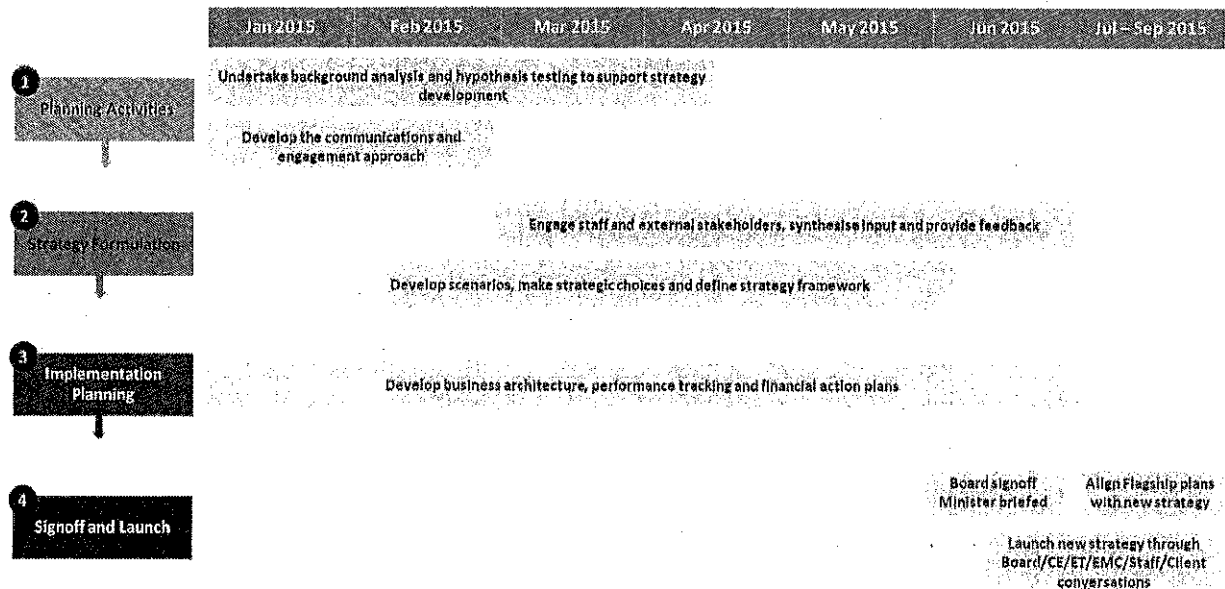
3

- The two yearly community attitudes survey is currently being prepared which will seek responses from 1200 members of the public for their views on CSIRO and will ask several questions concerning CSIRO strategy.

Timing

The strategy development process from January 2015 through to its implementation from July 2015 is shown in the graphic below:

Strategy 2025 Development Process and Timeline





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Minister for Information
Routine

Min ID: MS15-000760
CSIRO Ref: C2015/2273

CSIRO AGENCY UPDATE – APRIL 2015

Recommendation: That you note the current key activities and priorities for CSIRO.

Key Points:

- Current key activities/priorities
 - Progression of development of the CSIRO 2015-2025 Strategic Plan (MS15-000607).

s 22

Regulatory Implications: No.

Consultation: NO.

Craig Roy s 22
Deputy Chief Executive
CSIRO
22 April 2015

PS version
22/4/2015

NOTED/PLEASE DISCUSS

Contact: Kimberley Shrives

s 22

Ian Macfarlane /

Noted in the
Minister's Office

05 MAY 2015

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Minister for Information
Routine

Min ID: MS15-001297
CSIRO Ref: C2015/4532

CSIRO AGENCY UPDATE – JULY 2015

Recommendation: That you note the current key activities and priorities for CSIRO.

Key Points:

- Current key activities/priorities

s 22

- Launch the CSIRO 2015-2025 Strategic Plan (refer to MS15-000607 for background).

s 22

Regulatory Implications: No.

Consultation: No.

Craig Roy s 22
Acting Chief Executive
CSIRO
8 July 2015

PS version
8/7/2015

NOTED PLEASE DISCUSS

s 22

Contact: Kimberley Shrives

s 22

Ian Macfarlane 20/7/15

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Minister for Event

Min ID: MB15-000894
CSIRO Ref: C2015/5641**CSIRO STRATEGY START UP LEADERS FORUM – 2 SEPTEMBER 2015****Event Arrangements:**

Date: Wednesday, 2 September 2015
Time: 7.00 pm onwards
Venue: Sydney Cricket Ground, Gate A, Driver Avenue, Moore Park, New South Wales
Attendees: CSIRO's Business Unit leadership teams

Lobbyist Register: NO.**Key Points:**

- As part of a broader strategy change and engagement programme CSIRO is hosting its inaugural (internal) strategy forum, Strategy Start-up, to engage its top leadership group on the new CSIRO Strategy 2020. The event will take place on 2-3 September 2015 at the Sydney Cricket Ground and you will be attending on the evening of the first day.
- The objective of the forum is to build understanding and business unit alignment with the new strategic plan which will require a major mindset shift to achieve the vision that has been set.
- Attendees at the forum include CSIRO executive and business unit leaders, their next level reports (including research and support function leads) and leaders from the corporate support functions (such as human resources, finance, legal, governance, administrative services, organisational development, performance and evaluation).
- You will be met by Dr Larry Marshall and talk for approximately 10 minutes on the broader innovation system context to which CSIRO's strategy seeks to respond, followed by a 10 minute question and answer session.
- Media are not invited to the event.

Sensitivities: Nil.**Background:** MS15-001176 refers.**Consultation:** NO.

Hazel Bennett **s 22**
Chief Finance Officer
CSIRO
26 August 2015

PS Version NOTED/PLEASE DISCUSS
27/8/2015

Contact: Kimberley Shriver

s 22

Ian Macfarlane / /

Attachments:

Attachment A: Strategy Start-up Forum agenda (includes biographies of key attendees)
Attachment B: Event Schedule
Attachment C: Communication notes

FOR OFFICIAL USE ONLY

ATTACHMENT A

Biographies of Attendees:

Refer to the Strategy Start-up forum booklet for biographies.

ATTACHMENT B

EVENT SCHEDULE

CSIRO Strategy Start-up

When: Wednesday, 2 September 2015, 7.00 pm

Where: Sydney Cricket Ground, Gate A, Driver Avenue, Moore Park NSW 2021

	Kimberley Shives will meet your car on arrival and escort you to the Members Pavilion
7.00 pm– 7.05 pm (5 mins)	Arrive at the Members Pavilion Met by Larry Marshall
7.05 pm – 7.07 pm (2 mins)	Introduction by Larry Marshall
7.07 pm – 7.17 pm (10 mins)	Minister Macfarlane - speaks
7.17 pm – 7.27 pm (10 mins)	Minister Macfarlane - Q&A session The Minister will take questions from the floor (moderated by Larry Marshall)
7.27 pm – 7.29 pm (2 mins)	Thank you by Larry Marshall
7.30 pm	Minister free to depart when ready. The Minister and his staff are invited to stay on to meet some of the CSIRO leaders and to inspect some of the technology on display in the room.

ATTACHMENT C

MINISTER

**CSIRO STRATEGY START-UP
LEADERSHIP FORUM
(CSIRO TOP 200 FORUM)**

COMMUNICATION NOTES

SYDNEY CRICKET GROUND, MOORE PARK

7.00 PM, 2 SEPTEMBER 2015

ACKNOWLEDGEMENTS:

David Thodey, incoming CSIRO Chairman (attendance TBC)

Larry Marshall, CSIRO Chief Executive

CSIRO Executive Team

Background

The two day event has been designed to explore the broader context and drivers of the new Strategy with the desired outcome of equipping all senior leaders in CSIRO to drive its implementation.

This will include working toward:

- a deeper and shared understanding of the strategy including those aspects of the external environment that the strategy is primarily focused on and expectations of key stakeholders
- refined translation of the strategy for attendees, their teams and their business unit
- an understanding of the need to create the cultural conditions that provide the behavioural context for our people to execute the strategy
- an enhanced understanding of what it means to be more innovative and entrepreneurial as an individual, part of a team/business unit and across the organisation.

Day one of the event has a focus on setting the context for the new strategy and solidifying some of the key concepts within it. This will commence with a presentation from David Thodey on “how to build a customer first organisation” and then Larry Marshall on “Strategy 2020 – context and content” before more focused within team discussions.

Day two of the event will take more time to examine some of the detailed initiatives being pursued in the strategy, including the elevated focus on entrepreneurship.

Potential Topic points

The audience will be interested in hearing your priorities and your expectations of CSIRO, particularly as they relate to the new CSIRO Strategy. (Note as the attendees at the forum extend down multiple levels in CSIRO, it is likely that not all in attendance will be familiar with your Statement of Expectations or your recent Ministerial Statement on Science.)

Of CSIRO’s Strategic actions, you may wish to focus your comments on:

1. Breakthrough innovation
2. Collaboration
3. Excellent Science

1. Breakthrough Innovation: the Statement of Expectations asked CSIRO to encourage researchers to be entrepreneurial and to support this with the right training, incentives, IP and research translation framework. The new Strategy challenges CSIRO to “deepen our direct support for Australian technology start-ups and SME’s in areas of national growth priority” and to “Support, develop and incentivise our people to take commercial and scientific risk...”

In support of this, CSIRO has established a new Entrepreneurs in Residence Program to build CSIRO’s capability and capacity in this space (three such entrepreneurs may be in attendance –

[REDACTED]; has in the week of 26 August 2015 selected nine teams to participate in the new Acceleration of Commercialisation program; and is working toward the creation of a new Innovation Fund.

These activities will operate in addition to the existing programs CSIRO runs to support SMEs including the Australian Growth Partnerships (AGP) Program and the CSIRO SME Engagement

Centre which is also responsible for managing the Research Connections programme that partners researchers with small business.

2. Collaboration – the new strategy challenges CSIRO to be a catalyst in Australia's Innovation System in order to grow Australian capability and increase Australian success stories. Included in this is:

- Increasing the mobility and exchange of people and know-how between research, industry and government.
 - Deepening partner relationships with universities and other research organisations to access a broader pool of external capability.
 - Increasing engagement in education and training from school age to PhD level and the workplace to help build and equip Australia's future science, technology, engineering and mathematics (STEM) and innovation capable workforce.
-

There is a challenge for CSIRO to utilise the capability that the national and global innovation systems have to offer in order to increase our capacity and responsiveness to translate research into outcomes. CSIRO is one of the best placed organisations with its breadth of research expertise and infrastructure to draw on the skills of others to tailor solutions to Australia's biggest challenges. CSIRO should rightly be at the forefront of working in a connected and agile way.

3. Excellent science. Driving all of this will continue to be a drive for excellent science. With the economy in transition, now more than ever, this will be a critical input to providing transformative change to Australian industry that will stand them in good stead globally and drive productivity growth in the nation.

Strategy Start-up forum

2–3 September 2015
Sydney Cricket Ground

Twitter #StrategyStartup



WELCOME

Social media

Attendees are encouraged to tweet using **#StrategyStartup** and post questions or statements on the event Zeetings website www.zeeting.com/StrategyStart-up

We recommend that you register yourself on *Zeetings* and access it via your smartphone or iPad throughout the two day event.

We will be awarding prizes to those who engage, encourage, comment and vote!

Internet access

WiFi is not available throughout the SCG. You are encouraged to use your CSIRO mobile device.

Contacts

If you have any questions or need further information about the venue, accommodation or travel, please contact:

Claire Manson

Manager – Enquiries
Communications

E claire.manson@csiro.au

M +61 411 165 942

Monica Stiles

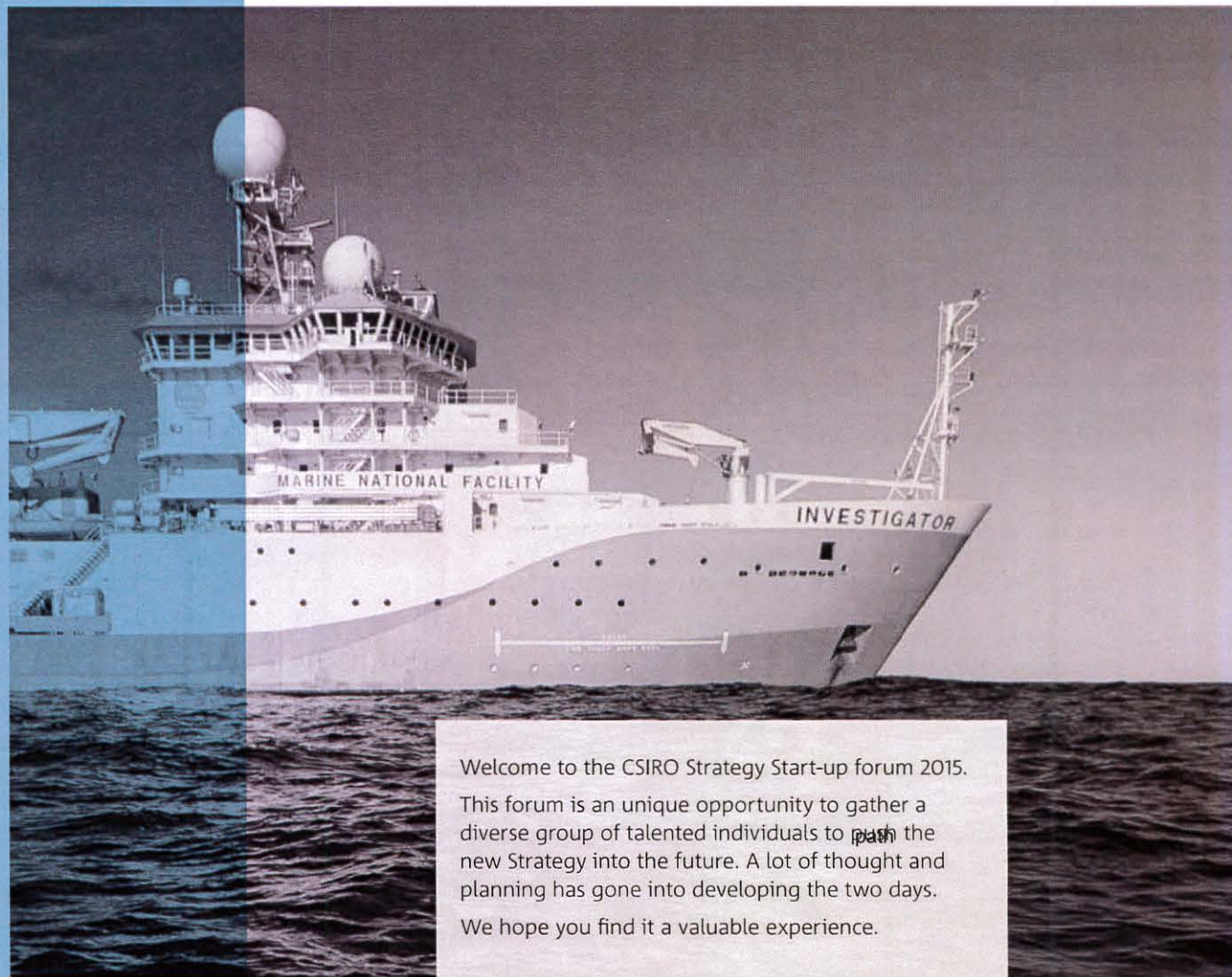
Organisational Development

E monica.stiles@csiro.au

M +61 475 982 348

The committee

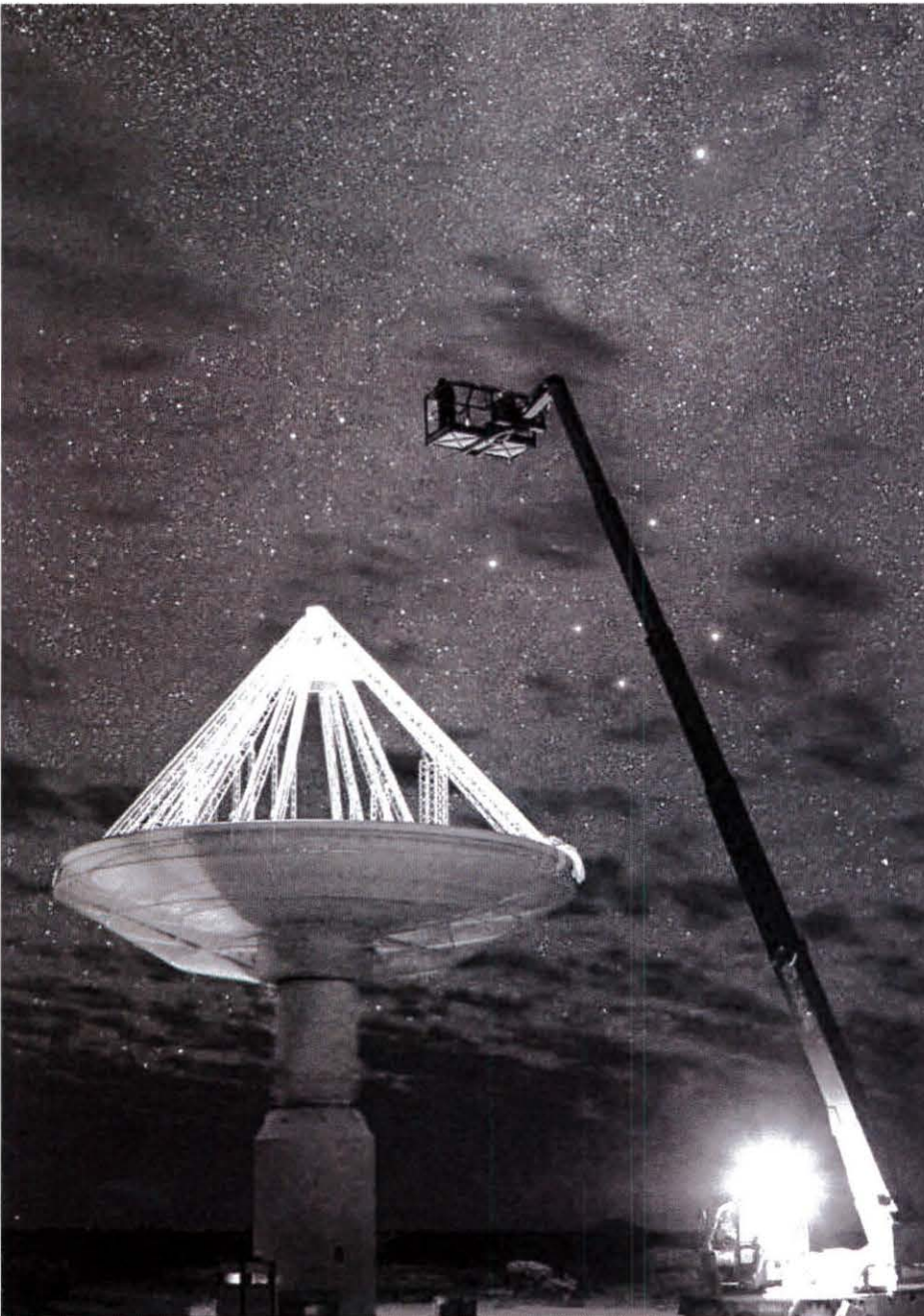
Sue Davidson, Oona Nielssen,
Martin Cole, Lewis Ball,
Gregory Joannon, Simon Lynch,
Chris Krishna-Pillay, Kathy Dunn,
Monica Stiles and Claire Manson.



Welcome to the CSIRO Strategy Start-up forum 2015.

This forum is an unique opportunity to gather a diverse group of talented individuals to ~~push~~ ^{push} the new Strategy into the future. A lot of thought and planning has gone into developing the two days.

We hope you find it a valuable experience.



KEY MESSAGES

and your role

You said you wanted an opportunity to:

- explore the 2020 Strategy in-depth
- understand the broader context and drivers for our strategy
- hear how other BU leaders are responding to the strategy.

In return, we want you to:



Participate



Stretch your legs
and drink water



Be part of the fun



Ask questions



Network
and collaborate

- not be afraid
- be inspired by others around you
- gain ideas from internal and external parties
- speak up to ensure greatness
- understand that knowledge is the key
- not sit and watch others
- talk and share with one another

- never allow someone to be on their own
- be open to feedback
- be optimistic and enthusiastic
- embrace new opportunities
- think outside the box
- be flexible and adaptive
- enjoy every moment
- be inclusive and make the time to collaborate

- build and maintain relationships
- network, Network, NETWORK!
- be forever energetic
- utilise every break
- ensure you get fresh air
- enjoy the Sydney weather.

EVENT

coordinators and information



LEFT: Claire Manson
Manager – Enquiries
Communications
M +61 411 165 942

RIGHT: Monica Stiles
Organisational Development
M +61 475 982 348



Survival items

At registration, you will receive a kit of practical and sustainable items to help you survive the conference. In addition, you will have eco-mug and drink bottles available to you. Please reuse these items where possible – markers will be provided to help identify which items are yours. Please return any unwanted items rather than disposing of them.

Name badge

To encourage an environmentally friendly conference, we have provided attendees with magnetic name badges. Name badges are to be worn throughout the event to identify you to SCG staff and your colleagues, and reused at future events when representing CSIRO.

Dress code

The dress standard for the two day event is smart casual.

Weather can be unpredictable – so please be sure to check the Sydney weather forecast for 2–3 September.

T-shirts

Based on your feedback, we will be providing all attendees with the CSIRO 'band' t-shirt. We'd love to see everyone wearing their new t-shirt on Day 2 (some additional sizes for swapping will be available at the registration desk).

Cocktail night

The cocktail reception is your opportunity to network – meet new colleagues and other members of the team, catch-up with colleagues you've not seen in a while – in a relaxing environment with delicious canapés and drinks.

A bus will be leaving from Gate A back to the Holiday Inn at Darling Harbour on conclusion of the cocktail reception.

Food and beverages

- Morning tea – assorted pastries, scones, muffins, seasonal fruit
- Lunch – assorted wraps, individual beef salads, Cornish pasties, tempura chicken fingers, mini beef pies, seasonal fruit

- Afternoon tea – assorted sweet and savory items, seasonal fruit
- Cocktail event – hot and cold canapés, substantial hand-held meals, selection of alcoholic and non-alcoholic beverages.

Good coffee, tea and water will be available throughout the conference. Please remember to use your eco-mug and drink bottle.

Dietary requirements specified upon registration have been supplied to the SCG and will be addressed. For those with severe allergies – please ask staff before consuming any food items.

Breakfast is available at your hotel, and additional snacks can be purchased onsite at the food outlet inside Gate E – at your own cost.

Evaluation

After the event, attendees will be sent a quick and easy evaluation survey from Client Central. Please complete the evaluation as this feedback will assist us with planning future events. Collated results will also be displayed via MyCSIRO.

SESSION

outcomes and locations

The program is filled with interesting speakers, diverse plenary activities and challenging break-out sessions. There will be many opportunities to meet and mix with colleagues across the two days with various networking and social events, including a cocktail reception. The title of the forum is 'Strategy Start-up' so please keep this in mind throughout your time here. People who demonstrate the key messages will not go unnoticed!

Objectives

For all attendees to:

- engage with key internal and external thought leaders on the broader context and drivers for the strategy
- discuss and share with colleagues and thought leaders how different parts of the business are responding to the strategy as part of business unit planning
- make connections and broaden networks
- discuss what it means to be more innovative and entrepreneurial as an individual, team or business unit
- discuss creating the environment (cultural conditions) for strategy execution.

Outcomes

After the event, attendees will have:

- a deeper and shared understanding of the enterprise strategy including those aspects of the external environment that the strategy is primarily focused on and expectations of key stakeholders
- refined their translation of the enterprise strategy (including key areas for focus) for themselves, their teams and their business unit
- an understanding of the need to create the cultural conditions that provide the behavioural context for our people to execute the strategy
- an enhanced understanding of what it means to be more innovative and entrepreneurial as an individual, part of team/business unit and across the organisation.

Rooms

Big Ideas Room
(Steve Waugh room)

Our plenary space, which has been set up to provide a variety of seating options, may look and feel very different to how we've done things in the past, this is intentional! The Big Ideas Room will be where we gather in plenary to engage with speakers and hold panel discussions.

Innovation Marketplace
(Arthur Morris room)

The space we are using to showcase the richness and diversity of our business units. It provides a dedicated space for sharing with others the thinking teams have done in response to the Strategy and also display the many great ideas that bring CSIRO to life for our customers and stakeholders. The Innovation Marketplace is also where we'll refresh ourselves with morning, afternoon tea and lunch.

Collaboration Hubs
(Individual BU rooms)

These spaces are dedicated for business unit team discussions. Business units will be joined by participants from the various enterprise support management teams. The objective of the hubs is to provide a space for participants to reflect on what they've heard, discuss and 'record' responses to the strategic actions. The Executive team will also circulate around the hubs responding to questions and further contributing to the discussion.

Suite 201

- Land and Water

Suite 207

- Oceans and Atmosphere

Club SCG

- Health and Biosecurity
- Agriculture
- Food and Nutrition
- Australian Animal Health Laboratory (AAHL)

Churchill Dining

- Manufacturing
- Data61
(Digital Productivity and NICTA)
- Services

Bounty Club

- Marine National Facility
- Astronomy and Space Science
- Australian Research Collections
- National Computing Infrastructure (IM&T)

Brewongle Trust Suite

- Energy
- Minerals Resources

Debate motion topic

Lifting the innovation performance of the Australian economy is the most important aspect of CSIRO's strategy 2020.

DAY 1

Wednesday 2 September

8:30	Transport to SCG from hotels (Sydney Entertainment Centre) Bus pick-up from Sydney Entertainment Centre, Harbour Street ALL INTERSTATE DELEGATES
9:00	Registration Sydney Cricket Ground (SCG) ACCESS VIA GATE E DRIVER AVENUE MOORE PARK
9:00 – 9:30	TEA AND COFFEE All delegates INNOVATION MARKETPLACE
10:00 – 10:45	How to build a customer first organisation David Thodey BIG IDEAS ROOM
10:45 – 11:30	Strategy 2020 – context and content Larry Marshall BIG IDEAS ROOM
11:30 – 12:30	Exploring strategy Q&A Moderator: Oona Nielssen & Panel members: Larry Marshall, Craig Roy, Anita Hill, David Williams, Brian Keating, Alex Wonhas, Hazel Bennett BIG IDEAS ROOM
12:30 – 1:30	LUNCH All delegates – even those who are being extra cautious after completing the CSIRO Healthy Diet survey INNOVATION MARKETPLACE
1:30 – 3:00	Making meaning of strategy All delegates – in Business Unit groups SPECIFIC ROOM DETAILS – SEE PAGE 5
3:00 – 4:00	Exploring meaning with others and AFTERNOON TEA All delegates INNOVATION MARKETPLACE
4:00 – 4:45	Creating our data-driven future Adrian Turner BIG IDEAS ROOM
4:45 – 5:45	Developing a shared understanding ET Sector Executives BIG IDEAS ROOM
5:45 – 5:55	Feedback and logistics Chris Krishna-Pillay BIG IDEAS ROOM
6:00	EVENING EVENT Host: Larry Marshall & Speaker: Minister Ian MacFarlane MEMBERS' PAVILION
9:15	Transport to hotels (Sydney Entertainment Centre) Bus pick-up from outside Gate A ALL INTERSTATE DELEGATES

DAY 2

Thursday 3 September

7:30	Transport to SCG from hotels (Sydney Entertainment Centre) Bus pick-up from Sydney Entertainment Centre, Harbour Street ALL INTERSTATE DELEGATES
8:00	TEA AND COFFEE All delegates INNOVATION MARKETPLACE
8:20 – 8:30	Welcome back Chris Krishna-Pillay BIG IDEAS ROOM
8:30 – 9:30	Strategy debate Moderator: Jack Steele & Debate members: Kirsten Williams, James Tickner, Amanda Barnard, Jane Fowen, Beth Fulton, Paul Savage BIG IDEAS ROOM
9:30 – 10:15	Panel Interview – Entrepreneur(s) in Residence Moderator: Kate Boxsel & Panel members: Mike Zimmerman, Bill Bartee, Sarah Dods BIG IDEAS ROOM
10:15 – 10:45	MORNING TEA All delegates INNOVATION MARKETPLACE
10:45 – 12:30	Culture to support strategy implementation Larry Marshall and Craig Roy BIG IDEAS ROOM
12:30 – 1:30	LUNCH All delegates INNOVATION MARKETPLACE
2:15 – 3:00	BU 'Take away' – includes working afternoon tea All delegates – in Business Unit groups SPECIFIC ROOM DETAILS – SEE PAGE 5
3:00 – 3:45	Recap on Event and Call to Action Larry Marshall BIG IDEAS ROOM
3:45 – 4:00	Feedback and logistics Chris Krishna-Pillay BIG IDEAS ROOM
4:00	HOME TIME All delegates TRANSPORT FROM SCG TO AIRPORT OUTSIDE GATE E

SPEAKERS

profiles and bios



Chris Krishna-Pillay

Master of Ceremonies

Chris is CSIRO Education and Outreach's Community Engagement Manager. In this capacity, he oversees projects such as CSIRO's display at the RV Investigator Welcome to Port and the Science Bootcamp program. He also leads much of CSIRO's involvement in National Science Week.

Chris is an experienced science performer with writing and performing credits including Howard Florey, a Tale of Tall Poppies, Pre-Coital, Dante's Laboratory and science-inspired rock band Ologism. In 2009, Chris was one of only five Australian's selected to attend a Japan-Australia Science Performer's Exchange.

Chris is frequently called upon as a performer and emcee and he has worked with varied organisations, including Veski, BHP Billiton, the Melbourne Writers' Festival and Walter and Eliza Hall Institute for Medical Research.

Chris has appeared on television shows, Outrageous Acts of Science, Today, Scope and Totally Wild. He is also a regular co-host on popular radio program Einstein A-Go-Go (RRR).



Larry Marshall

Chief Executive, CSIRO

Dr Larry Marshall is Chief Executive of CSIRO, Australia's national research agency and one of the leading mission-directed, multi-disciplinary applied research organisations in the world. CSIRO aims to deliver profound impact for industry, the community and for a sustainable future from its science and is well known for developing the wireless LAN now in over 4 billion devices world-wide.

Dr Marshall was born in Sydney and he received his initial and post-graduate education at Macquarie University. He was a cadet scientist at the Defence Science and Technology Organisation and began his career as an engineer with a PhD in Physics. Larry is a scientist, a technology innovator and business leader with a wealth of experience in developing and applying science.

Prior to joining CSIRO, Dr Marshall had 25-years experience as an international technology entrepreneur, holds 20 patents, and has founded six successful United States companies in biotechnology, photonics, telecommunications and semiconductors.



Craig Roy

Deputy Chief Executive, CSIRO

Craig's key responsibilities include Organisational Strategy, Science and Research, Health and Safety, Business Development and Commercial, International and Organisational Development, and performance of our research business units. These focus on key nation challenges in areas such as mining, agriculture, food, manufacturing, digital economy, energy, water, oceans and biosecurity.

Craig is a Board member of the Australian National Commission of UNESCO; the University of Technology, Sydney (UTS) Vice-Chancellor's Industry Advisory Board; a Co-Chair of the CSIRO-Chinese Academy of Science Joint Steering Committee and an international member of Thailand's National Science and Technology Development Agency's International Advisory Committee. Craig is a Fellow of the Australian Institute of Company Directors and previously served as an officer of the Royal Australian Navy.



David Thodey

Chair, CSIRO Board

Mr Thodey was announced as Chair of the CSIRO Board in August 2015. He will take up the position in October 2015. Prior to this appointment, David was Chief Executive Officer (CEO) and Executive Director of Telstra from May 2009. He formally retired from the CEO position on 30 April 2015 and left Telstra on the 21st August 2015.

Mr Thodey joined Telstra in April 2001 as Group Managing Director of Telstra Mobiles and in 2002 was appointed Group Managing Director Telstra Enterprise and Government. In this role, he was responsible for the company's corporate, government and large business customers in Australia and internationally. Before joining Telstra, Mr Thodey's 22 year career at IBM comprised a number of senior marketing and sales positions including Chief Executive Officer of IBM Australia/New Zealand.

He is an experienced board chairman and director. In January 2013, Mr Thodey joined the Board of the GSM Association, the global body

of carriers and related companies that supports the standardisation and deployment of mobile technology around the world. Former board memberships include co-chair of the Infrastructure and Investment Taskforce of the B20 leadership group, and Chairman of IBM ANZ, TelstraClear, Information Technology (IT) Skills Hub, Industry Groups and Basketball Australia.

Mr Thodey has extensive information and communications technology (ICT), digital business and data services experience. ICT and digital services are relevant to enabling all the Industry Growth Centres. Mr Thodey's over 20 years' experience working in Asia is pertinent to both CSIRO and the Industry Growth Centres.

Mr Thodey holds a Bachelor of Arts in Anthropology and English from Victoria University, Wellington, New Zealand. He attended the Kellogg School of Management postgraduate General Management Program at Northwestern University in Chicago, USA. He has taken part in a number of Harvard Education programs and IBM Executive Education programs.



Oona Nielssen

General Manager,
CSIRO Communication

Oona leads brand, reputation management, media, internal communication, community and stakeholder engagement, and digital strategy and execution.

With over 20 years' experience in communication she has worked both in-house and in-agency providing strategic leadership to major companies as well as the public sector. Previous roles include senior strategist with Impact Employee Communications, Head Of Communication Lend Lease Asia Pacific, and National Manager Television Training, ABC. Oona's expertise in implementing cultural change, in stakeholder engagement and in strategic and creative campaigns means she is a sought after speaker at communication industry events.

Oona represents CSIRO on the Board of The Conversation, and on the Board of the Australian Science Media Centre.



Adrian Turner Director, CSIRO Data61

Adrian Turner is Director of Data61 at CSIRO. Data61 is creating our data-driven future.

Adrian is a highly successful and influential Australian technology entrepreneur who has spent 18 years in Silicon Valley. Most recently he was Managing Director and Co-Founder of Borondi Group, a holding company focused on the intersection of pervasive computing, platform economics and traditionally conservative industries.

Prior to this, Adrian was co-founder and CEO of smart phone and Internet of Things security company Mocana Corporation, had profit and loss responsibility for Philips Electronics connected devices infrastructure, and was Chairman of the Board for Australia's expat network, Advance.org. He is a member of Accenture's Technology Vision External Advisory Board, World Economic Forum IoT working group and is also a member of the UTS Sydney: Business School Advisory Board.

He is regarded as a thought leader on entrepreneurialism, Internet of Things and the impact of network connectivity on business economics. He authored the eBook BlueSky Mining – Building Australia's Next Billion Dollar Industries.

Adrian is a UTS graduate and has completed the Executive Program for Managing Growth Companies at Stanford University.



Hon. Ian Macfarlane MP Minister for Industry and Science

Parliamentary service: Elected to the House of Representatives for Groom, Queensland, 1998, 2001, 2004, 2007, 2010 and 2013.

Ministerial appointments:

- Minister for Small Business from 30.1.01 to 26.11.01
- Minister for Industry, Tourism and Resources from 26.11.01 to 3.12.07
- Minister for Industry from 18.9.13 to 23.12.14
- Minister for Industry and Science from 23.12.14.

Parliamentary party positions:

- Member, Opposition Shadow Ministry from 6.12.07 to 18.9.13. Shadow Minister for Trade from 6.12.07 to 22.9.08; Shadow Minister for Energy and Resources from 22.9.08 to 8.12.09 and from 25.3.10 to 18.9.13; Shadow Minister for Infrastructure and Water from 8.12.09 to 25.3.10.

Qualifications and occupation before entering Federal Parliament:

- Farmer
- President, Queensland Graingrowers Association
- President, Grains Council of Australia.

Electorate location: south-east Queensland, west of Brisbane; it includes the city of Toowoomba and the towns of Oakey and Pittsworth.



Dr Jack Steele General Manager Science Excellence, CSIRO

Dr Steele, General Manager for CSIRO Science Excellence is responsible for monitoring the health of CSIRO's science performance including the level of collaboration with other players in the Australian National R&D System.

During 2010–11, Dr Steele was responsible for supporting the development of the 2011–15 Strategy for CSIRO as well as of the science investment strategy.

Over the 2002–09 period, he was the secretary of the CSIRO Board Commercial Committee and on the CSIRO Commercial Executive committee. During this period, Dr Steele also held CSIRO corporate roles that involved managing the corporate governance processes for commercial activities; renewal of CSIRO's commercial policies; complex commercial and intellectual property transactions including Start-ups and Venture capital fund investments; and commercial management for CSIRO of infringement litigation.



Paul Savage (PhD, MBA) Research Director The Biomedical Manufacturing Program, CSIRO Manufacturing

Dr Savage joined CSIRO in 1990 following a postdoctoral fellowship at the University of Florida, USA. His post-doctoral research encompassed a variety of projects including: the detection and decontamination of chemical warfare agents, synthesis of organic liquid crystals, computational chemistry and laser desorption FT-ICR mass spectrometry, high-field nuclear magnetic resonance analysis of polycyclic heteroaromatic compounds, and preparative transformations using benzotriazole as a synthetic auxiliary.

Returning to Australia, Dr Savage took up a post-doctoral position with CSIRO in the Division of Chemicals and Polymers in 1990 working on the Dunlena Project. He was subsequently appointed: Research Scientist, 1991; Senior Research Scientist, 1994; Project Leader of the Crop Protection Chemicals Project, 1997–99; Director of Dunlena Pty Ltd; Program Leader of the Molecular Engineering Program at CSIRO Molecular Science, 2000; Theme Leader, Australian Biotechnology Growth Partnerships, 2005.



Amanda Barnard Office of the Chief Executive Science Leader, CSIRO Manufacturing

Dr Amanda Barnard is an Office of the Chief Executive (OCE) Science Leader, and head of the Virtual Nanoscience Laboratory at the Commonwealth Scientific and Industrial Research Organisation (CSIRO) since 2009. She received her Ph.D. (Physics) in 2003, followed by a Distinguished Postdoctoral Fellow in the Center for Nanoscale Materials at Argonne National Laboratory (USA), and the prestigious senior research position as Violette & Samuel Glasstone Fellow at the University of Oxford (UK) with an Extraordinary Research Fellowship at The Queen's College. For her work she has won the 2009 Young Scientist Prize in Computational Physics from the International Union of Pure and Applied Physics, the 2009 Mercedes Benz Environmental Research Award, the 2009 Malcolm McIntosh Award from the Prime Minister of Australia for the Physical Scientist of the Year, the 2010 Frederick White Prize from the Australian Academy of Sciences, the 2010 Distinguished Lecturer Award from the IEEE South Australia, the 2010 Eureka Prize for Scientific Research, the 2014 ACS Nano Lectureship (Asia/Pacific) from the American Chemical Society, and the 2014 Feynman Prize in Nanotechnology (Theory) from the Foresight Institute. She has published over 160 peer reviewed journal articles and 13 book chapters, with over 5000 citations and an h-index of 39.



James Tickner Team Leader CSIRO Mineral Resources

James received his D.Phil from Oxford University (UK) in 1997 for work undertaken at the high-energy particle physics experiment ZEUS in Germany. In 1998, he took up a postdoctoral fellowship with CSIRO Minerals, before being appointed as a research scientist. He built up the nucleonics team, which designs and builds X-ray and nuclear-based instruments to solve challenging measurement and imaging problems in the minerals and security industries. James and his research team have developed numerous systems for industry, including the CSIRO Air Cargo Scanner and on-stream X-ray fluorescence and diffraction analysers. In recognition of these achievements, he was appointed an OCE Science Leader in 2009.

James also plays a key role in developing business relationships, and working with industry to identify and solve new problems. His accomplishments in this area have been acknowledged with multiple awards, including the Eureka prize for Science in Support of Defence or National Security, The Australian Academy of Science's Frederick White prize, and two CSIRO Medals. He is a passionate advocate for the role of younger researchers in building links with industry, and played a key role in founding the Global Young Academy, the Australian Early-Mid Career Researchers Forum, and the Australian Science Innovation Forum.



Dr Jane Bowen

Research Scientist/
CSIRO Food and Nutrition

Dr Bowen is a Research Scientist/Dietitian for the Food and Nutrition Flagship. She combines her clinical work in the community through the CSIRO Clinic with a broad range of research projects to develop programs that focus on food and dietary patterns for metabolic health, weight management and healthy ageing.

Jane has worked in partnership with the food industry, state and federal governments, community organisations and NGOs, and co-authored a number of significant health resources used extensively across the Australian health system.

She is an author of the CSIRO Wellbeing Plan for Kids, and contributing author of the CSIRO Healthy Heart Diet and the CSIRO Total Wellbeing Diet, which has now been translated into 17 languages and sold over 1 million copies in Australia.



Kirsten Williams

Research Scientist and Group
Leader, CSIRO Land and Water

Dr Kirsten Williams leads a multidisciplinary group of scientists within a program of research focussed on a sustainable Australia where biodiversity prospers and ecosystems meet the needs of all people.

Dr Williams has a background in biodiversity modelling, conservation assessment and systematic conservation planning incorporating process knowledge of ecosystems and whole landscape perspectives. Kristen joined CSIRO in early 2003 following five years in the Queensland Government as a member of a team underpinning the development of the State's biodiversity planning assessments.



Beth Fulton

Principal Research Scientist
CSIRO Oceans and Atmosphere

Dr Beth Fulton heads up the ecosystem modelling team. Beth is also a PEW Marine Conservation fellowship and is a members of the Centre of Marine Socioecology, a collaboration between UTAS, CSIRO and AAD. Beth began her science career at James Cook University in Townsville before doing her PhD on ecosystem modelling at the University of Tasmania.

Beth has been employed by the CSIRO for the past 13 years, where she has developed various system modelling tools for looking at marine ecosystems and sustainability. The best known tool is the Atlantis modelling framework, which has been used to provide strategic advice to the Australian Fisheries Management Authority and has been applied in more than 30 marine ecosystems around the world.

The models developed by Beth's team are some of the first to give equal attention to biophysical and human components of marine and coastal ecosystems. They underpin CSIRO's research into managing potentially competing uses of Australia's marine environments and adaptation to global change and have been used to consider the most effective means of monitoring marine ecosystems.



Kate Boxell

Learning and Development
Manager, CSIRO

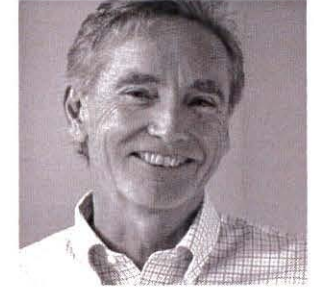
Kate works at the intersection of learning, leadership development, organisational change, cultural development and internal communications.

Kate is passionate about building a learning organisation and working with, and influencing leaders and their teams to achieve their goals, to build innovation capability, to shift mindsets, to disrupt the status quo and engender the cultural change needed to achieve CSIRO's ambitious strategy.



Mike Zimmerman

Mike Zimmerman has over 20 years of experience in strategy, business development and general management of technology startups and other high growth companies. Mike founded BuildingIQ in 2009 and served as its CEO then VSP Business Development before joining Bondi Ventures as Managing Director in 2015. Prior to founding BuildingIQ, Mike was a General Partner at Technology Venture Partners (TVP), a leading Australian venture capital firm. He has also been an Entrepreneur-in-Residence at Altos Ventures, and a senior executive at iOwn Holdings, a leading Internet mortgage company (sold to Citigroup in 2001). Previously, Michael worked with Bain & Company and Goldman Sachs. He holds a BA with Honors from Amherst College and an MBA from Stanford Business School.



Bill Bartee

Bill Bartee is Managing Director of Blackbird Ventures and a co-founding partner of Southern Cross Venture Partners. He has co-founded several successful companies. At Southern Cross he focuses on early-stage software, security, and Internet companies. From 1997 to 2001, he helped build and lead the early stage investing for Macquarie Technology Ventures (MTV), a balanced venture fund focused on software, telecommunications, Internet and life sciences. At MTV, Bill led investments in several market leaders including Altium (ASX: ALU), LookSmart (NASDAQ: LOOK), Seek (ASX: SEK), Telera (acquired by Alcatel), and onebox (NASDAQ: OPWV). At Southern Cross Bill has led investments and is a Board Member or Observer in Mocana, Bislr, wooBoard, Inporia, Mantara, Liaise, and Shoes of Prey.

Before co-founding Southern Cross, Bill was the CEO of Mantara, a company that makes high performance, content-based message routing systems. Prior to moving to Australia, Bill had 12 years of research, operational, and entrepreneurial experience in the United States. Bill earned a Bachelor of Science, MBA and Juris Doctorate degree (University of Richmond).



Dr Sarah Dods

Dr Sarah Dods is with CSIRO, currently overseeing the implementation of CSIRO's new entrepreneurship and innovation program: CSIRO ON. Previously, she served CSIRO leading research programs into the Digital Economy, and into Health Service Delivery.

Sarah's career spans Australia's innovation system, including high-tech startups, public and private research organisations, mining, and commercialisation consulting. This includes 13 years as an academic, researching optical broadband network engineering (think NBN), which culminated in co-founding Monitoring Division, NICTA's first spin out company in Melbourne

Her qualifications include a BSc(hons) in Physics and a PhD in Communications Engineering, both from the University of Melbourne. She is a graduate member of the Australian Institute of Company Directors, and a Senior Member of the IEEE.

Sarah's technical interests are in realising the economic and social potential value from research and technology advances of high speed broadband networks, and in bridging the gap between research challenges and implementable solutions, to create value and make a difference beyond the lab.



Matt Barrie

Chief Executive Officer and Chairman, Freelancer.com

Matt Barrie is an award winning entrepreneur, technologist and lecturer, having won numerous awards including being named the inaugural BRW Entrepreneur of the Year in 2011. Matt was previously founder and CEO of Sensory Networks Inc., a vendor of high performance network security processors, which Intel Corporation (NASDAQ: INTC) announced in 2013 it was acquiring. He is the co-author of over 20 US patent applications.

Matt has first class honours degrees in Electrical Engineering and Computer Science from the University of Sydney, a Masters in Applied Finance from Macquarie University, and a Masters in Electrical Engineering from Stanford, California. He is a graduate of the Stanford Executive Program at the Graduate School of Business. He is a Fellow of the Institute of Engineers Australia and Councillor of the Electrical and Information Engineering Foundation at the University of Sydney.

Matt is regularly invited to speak at the world's leading entrepreneurship, Internet and business conferences/forums. He is also one of the worldwide LinkedIn Influencers, along with Richard Branson, Barack Obama and Deepak Chopra, where he writes on the topics of entrepreneurship and technology.



CORPORATE

delegate | collaboration hub allocation

Administration Services

Lesley Geldenhuys | SUITE 201
Kathy Heinze | BREWONGLE
Tim O'Grady | BOUNDARY CLUB
Dikesh Gandhi | CHURCHILL

Business and Infrastructure Services

James Abbott | CLUB SCG
Steven Edwards | SUITE 207
Rod Howard | BREWONGLE
Tony Hudson | BOUNDARY CLUB
Antony Mikulic | CHURCHILL
Rudy Van Kerckhof | CLUB SCG
Richard Yeoh | SUITE 201
Michael Schorsch | SUITE 207
Steve Kirk | BREWONGLE

Business Development and Commercial

Ellen Gorissen | BOUNDARY CLUB
Lindsay Adler | CLUB SCG
Tristy Falkenberg | CHURCHILL
Karen Rogers | SUITE 207
Liz Eadie | SUITE 201
Veronica Quinless | CHURCHILL

Communication

Ben Creagh | BREWONGLE
Huw Morgan | CLUB SCG
Lou Morrissey | BOUNDARY CLUB
Indra Tomic | BOUNDARY CLUB
Owen Craig | CLUB SCG
OONA NIELSEN | SUITE 207
Kirsten Lea | BREWONGLE
Simon Hunter | CHURCHILL
Nazli Seghar | SUITE 201

Finance

Gary Burge | SUITE 201
Louise Glenn | BREWONGLE
Jeff McCulloch | BOUNDARY CLUB
Gregory Joannon | CHURCHILL
Tom Munyard | CLUB SCG

Governance

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Catriona Dove | BREWONGLE
Peter Duffy | BOUNDARY CLUB
Leigh Flanigan | CHURCHILL
Emilia Gligorovska | CLUB SCG
Fiona Johnstone | SUITE 201
Laurence Street | SUITE 207
Andrew Caird | BREWONGLE

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Jenni Vaughan-Floyd | CLUB SCG
Heather Campbell | CHURCHILL

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Lyndelle Broadfoot | SUITE 201
Greta Dabrowski | CHURCHILL
Trevor Heldt | BREWONGLE
Ricky Pena | CLUB SCG
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Organisational Development

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Kate Boxsell | CHURCHILL
Simon Lynch | SUITE 201
Monica Stiles | SUITE 201
Pete Thrall | BREWONGLE
Sue Davidson | BOUNDARY CLUB

Science Excellence

Cathy Pitkin | CHURCHILL
Jack Steele | CLUB SCG
Tom McGinness | SUITE 207

Strategy Performance and International

Kathy Dunn | BREWONGLE
David Ireland | BOUNDARY CLUB
Sarah Dods | CHURCHILL
Mark Bazzacco | CLUB SCG
David Burt | SUITE 201
Andrew Stead | SUITE 207



NOTES

DAY 1 learnings

NOTES

DAY 2 learnings

VENUE

information

Getting to the venue

Courtesy bus

Chartered buses have been organised to pick-up attendees from the Holiday Inn at Darling Harbour on the morning of each day:

- Day 1 at 8:30 am
- Day 2 at 7:30 am

After the cocktail event in the Members' Pavilion, a chartered bus will be heading back to the Holiday Inn at Darling Harbour:

- outside Gate A.

On Day 2, buses will be heading to the airport from outside Gate E:

- 4:15 pm.

Train

Catch a train to Central Station, then catch a bus or walk to Moore Park.

'Moore Park Link' – combined train/bus tickets are available to get you to and from Moore Park on a single ticket. 'Moore Park Link' tickets are available from Sydney train ticket offices or ticket vending machines.

Timetable information is available at the Transport NSW website or by calling 131 500.

Taxi

There is a permanent taxi rank located in the Entertainment Quarter on Errol Flynn Boulevard (opposite the Horden Pavilion), and another on Moore Park Road opposite the Olympic Hotel. Sydney taxi services include:

- Taxis Combined 133 300
- Premier Cabs 13 10 17.

Car parking

Parking in the Moore Park precinct is available at Entertainment Quarter – Public parking, parking fees apply. Entry to the Entertainment Quarter parking is from Lang Road.

Check-in

For those staying at the Holiday Inn or Novotel Rockford, Darling Harbour, please check-in upon arrival at the concierge desk.

NB. Individuals will need to pay for their accommodation using their CSIRO credit card. If you don't have a CSIRO credit card, please discuss with your line manager to organise payment.

Check-out

Please ensure you check-out prior to 7:30 am on Day 2 to ensure you don't miss the courtesy bus. Luggage storage will be available at the SCG on Day 2.

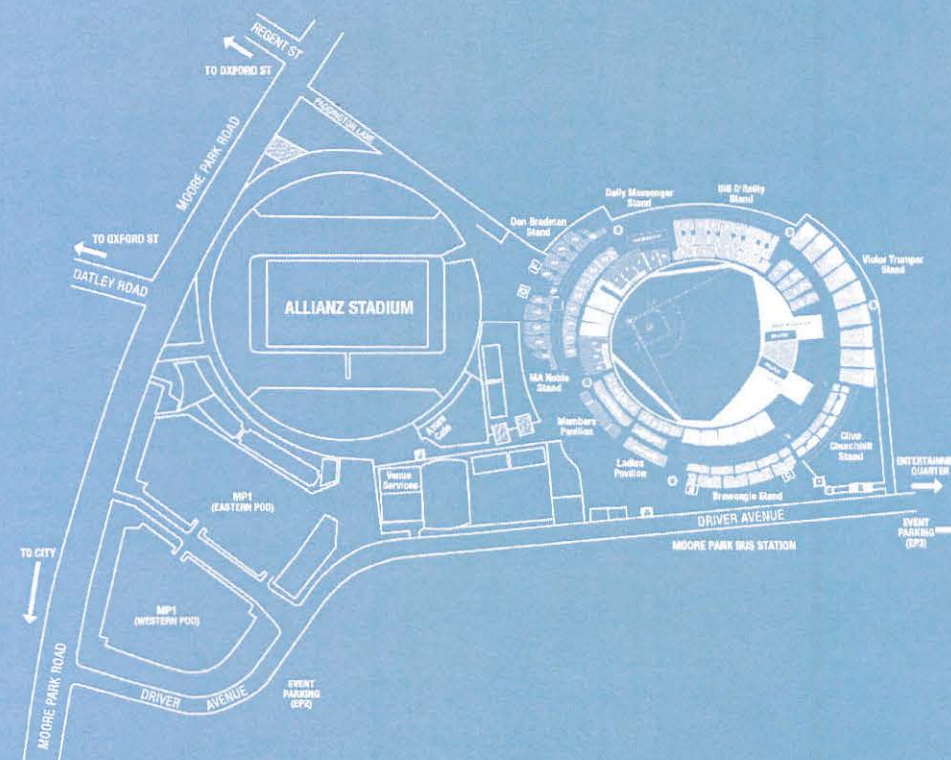
Luggage

At the SCG, Suite 206 has been set-up to hold luggage and other bags not required during the event.

LOCATION

Sydney Cricket Ground

Driver Avenue, Moore Park



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w www.csiro.au

AT CSIRO WE INVENT THE FUTURE

We do this by using science and technology to solve real issues. Our solutions makes a difference to industry, people and the planet.

As Australia's national science agency we've been pushing the edge of what's possible for almost 90 years. Today we have thousands of talented people working across Australia and internationally. Our people work closely with industry and communities to leave a lasting legacy. Collectively, our innovation and excellence places us in the top ten applied research agencies in the world.

WE COLLABORATE TO INNOVATE

FOLLOW US



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Minister for Industry, Innovation and Science

Min ID: MB15-001212
CSIRO Ref: C2015/6402

For Meeting

Subject: MEETING WITH DR LARRY MARSHALL, CHIEF EXECUTIVE, CSIRO

Recommendation That you note the contents of this brief: note the contents of this brief. <div style="background-color: black; color: white; text-align: center; padding: 2px;">s 22</div>		Noted / Please discuss <div style="text-align: center;">/</div>	
Signature: <div style="text-align: center;">30/9/2015</div>			
Contact Officer:	Kimberley Shrives	Manager Ministerial and Parliamentary Liaison, CSIRO	Ph: <div style="background-color: black; color: white; text-align: center; padding: 2px;">s 22</div>
Clearance Officer:	Jack Steele	Acting Deputy Chief Executive, CSIRO	Ph: <div style="background-color: black; color: white; text-align: center; padding: 2px;">s 22</div>

Meeting Arrangements:

Date: Wednesday, 30 September 2015
 Time: 3.00 pm – 3.45 pm
 Venue: Commonwealth Parliamentary Offices, 4 Treasury Place, Melbourne
 Attendees: Dr Larry Marshall
 Kimberley Shrives
 Dept. Rep: Nil

Key Points/Topics for Discussion:

- This is your first formal meeting with Dr Larry Marshall.
- The meeting will cover:
 - s 22
 - CSIRO priorities and strategy
 - s 22
 - Current key issues for CSIRO

Background:

- Dr Marshall's biography is provided at Attachment A.

Consultation: NO.**Attachments:**Attachment A: Biography of Dr Larry Marshall

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ATTACHMENT A

BIOGRAPHY – DR LARRY MARSHALL



Dr Larry Marshall is Chief Executive of CSIRO, Australia's national science agency and one of the most multidisciplinary research organisations in the world.

Dr Marshall was born in Sydney and he received both his undergraduate and postgraduate education at Macquarie University. He was a cadet scientist at the Defence Science and Technology Organisation and began his career as an engineer with a PhD in Physics.

He is a scientist, technology innovator and business leader with a wealth of experience in developing and applying science.

Dr Marshall has 25 years' experience as an international technology entrepreneur, holds 20 patents, and has founded six successful United States companies in biotechnology, photonics, telecommunications and semiconductors, driving two of them to successful IPOs.

Previously he was Managing Director of Southern Cross Ventures, a venture capital firm based in Silicon Valley, Shanghai and Sydney, specialising in growing Australian technology companies in Asia and US. He has a longstanding partnership with SoftBank China, China's most successful VC firm, and co-manages the Renewable Energy Fund, founded in 2012, with them.

Dr Marshall is a passionate supporter of Australian innovation and Australian entrepreneurs, with a particular focus on how to anchor economic benefit from Australian innovation to the Australian economy.

He became Chief Executive of CSIRO in January 2015.



Minister for Industry, Innovation and Science
CC

Min ID: MS16-000188
CSIRO Ref: C2016/688
1 February 2016

For Information

Subject **CSIRO 2016 STRATEGIC RESEARCH PRIORITISATION OUTCOMES**

Urgency N/A

Recommendations That you: 1. note the information in this brief Signature: Christopher Pyne 22/2/2016		1. Noted / Please discuss	
Contact Officer:	Kimberley Shrives	CSIRO	Ph: s 22
Clearance Officer:	Larry Marshall	CSIRO	Ph: s 22

Key Points:

- CSIRO actively assesses its research portfolio including through an annual planning process to ensure that the science in which it invests is aligned to meeting the biggest challenges facing Australia.
- In undertaking this process through the second half of 2015, CSIRO was mindful of ensuring its resources were best positioned over the next four years to focus on those areas of strategic importance to the nation, provide sustainable revenue streams, and achieve our new Strategy objectives and KPI targets by 2020.
- This process culminated in a series of strategic business unit reviews (or “deep dives”) focused on each of CSIRO’s business units. The high-level outcomes of this process are summarised at Attachment A, by business unit.
- These decisions will see an increase in digital capability within CSIRO, to support research that will position Australian industry to harness the growing digital economy, including in industries such as agriculture and health. CSIRO will also increase investment in traditional industries, such as minerals and mining, in order to make them more profitable and sustainable through bringing innovative technology to market.
- Overall, these directional changes are a refresh and redirection of capability in CSIRO, not a cut to staffing levels. Although CSIRO has announced that there will be approximately 350 redundancies over the next two years, the organisation is also planning to appoint new staff so that by the end of this process there will be no significant change in CSIRO’s total staffing levels

Background:

- See Attachment A.

Regulatory Implications: NO.

Consultation: YES.

- CSIRO has alerted officials from the Department of Industry, the Department of Environment and the Department of Prime Minister and Cabinet to these changes.

Attachments:

Attachment A: Background

ATTACHMENT A

BACKGROUND

Note that the number of positions listed are indicative at this stage and work is currently being undertaken to finalise the exact impact.

Business Unit	FTE Impact	Rationale / Additional Information
Agriculture	s47C	<p>Agriculture will be existing some capability and growing in key emerging fields of agricultural science</p> <p>s47C</p>
Astronomy & Space Science	No overall change anticipated	No significant change to this research program was proposed.
Data61	No direct change arising from CSIRO Deep dive; ongoing changes TBC associated with merger activity	<p>Data61 will likely see an increase in staff arising from the decision to increase digital capability to support opportunities emerging in the digital economy across all segments of Australian industry including agriculture, health and mineral resources. The exact number of positions to be recruited are yet to be determined.</p> <p>Note: this change does not account for redundancies arising as a result of the merger with NICTA (currently confirmed 36 positions).</p> <p>s47C</p>
Energy	No overall change anticipated	No significant change to this research program was proposed.
Food and Nutrition	Abolish Business Unit, transfer most research activities to other business units – potential for up to 26 redundancies across 2015/16 and 2016/17.	<p><u>Impacted area:</u> the majority of this team will be transferred to the Agriculture and Health & Biosecurity business units, with a small number potentially moving to Manufacturing.</p> <p><u>Why:</u> The markets served by this Business unit are more sensibly aligned with other CSIRO business Units and so transferring relevant activities to those business units will provide greater efficiency and impact in interacting with customers and stakeholders.</p> <p>s47C</p> <p><u>What won't be impacted:</u> CSIRO remains committed to supporting the food industry, including through partnership with the industry growth centres.</p>

Business Unit	FTE Impact	Rationale / Additional Information
Health and Biosecurity	Loss: up to 15 redundancies across 2015/16 and 2016/17, likely to be offset by hiring an equivalent number of capability in areas of continued growth	<p><u>Impacted Area:</u> Realignment of programs and management roles in response to growth of health business as well as realignment of operations s47C</p> <p>s47C The <i>Emerging and Infectious Diseases</i> Program is aligning cost to budget. <i>Diagnostics</i> and <i>Microbiological security</i> capabilities will restructure to consolidate around required capability.</p> <p><u>Why:</u> These are local capability changes in response to meeting existing and anticipated business needs.</p> <p>s47C</p> <p><u>What won't be impacted:</u> We are growing our Biosecurity and Health business with the transfer of significant capability in nutrition and health to build critical mass. We will continue to grow our eHealth business and deliver on our biosecurity, surveillance and response activity, maintaining the right capability to ensure delivery of vital service to the nation through our commitment to Australia's biosecurity. These are minor changes to staffing arrangements and the emerging business needs over the course of a normal year.</p>
Land and Water	Loss: up to 100 redundancies (indicatively 75 in 2015/16, 25 in 2016/17) offset in part by 35 potential new positions	<p><u>Impacted area:</u> Changes will be concentrated in the: "<i>Liveable, Sustainable and Resilient Cities</i>" program, the "<i>Biodiversity Ecosystems Knowledge and Services</i>" program, and the "<i>Adaptive Social and Economic Systems</i>" program (exact breakdown being determined).</p> <p><u>Why:</u> CSIRO recognises that these areas have either been struggling to achieve sufficient industry support or are relatively mature areas of science. CSIRO believes that some of these areas of science can be better delivered by the university sector.</p> <p>s47C</p> <p><u>What won't be impacted:</u> These changes will not impact the CSIRO's recent commitments to support the development of Northern Australia, for example through its transport logistics capability in the "<i>Liveable, Sustainable and Resilient Cities</i>" program. This capability (e.g. TRANSIT) is unique to CSIRO and will be maintained. Furthermore, work in relation to improving the energy efficiency of the built environment</p>

Business Unit	FTE Impact	Rationale / Additional Information
		will be maintained. CSIRO will also be investing in building a national platform for the application of environmental big data sets and sensor networks, and in deploying our world leading water management capability to improve water security in our region.
Manufacturing	Loss: up to 41 redundancies across 2015/16 and 2016/17 (note 6 of these are planned redundancies yet to be executed)	<p><u>Impacted area:</u> Major changes are to be concentrated in the: “<i>Advanced Fibres and Chemical Industries</i>” program and the “<i>Biomedical Manufacturing</i>” program, with minor changes in the “<i>High Performance Metal Industries</i>” program and the “<i>Industrial Innovation</i>” program.</p> <p><u>Why:</u> Consolidation of polymer composite capabilities s47C to create critical mass in support of the chemicals and fibre industries. Consolidation of our biology capability s47C in support of the medical technologies and pharmaceuticals industries.</p> <p>s47C</p> <p><u>What won't be impacted:</u> These changes will not impact our work delivering innovative solutions to the biomedical, chemical and fibre, and advanced manufacturing sectors for Australia.</p>
Minerals	Loss: up to 40 redundancies across 2015/16 and 2016/17, likely to be offset by hiring an equivalent number of capability in areas of continued growth	<p>Some reductions anticipated largely focused in the mineral processing area. However overall activity will grow due to the expansion in areas that will enhance the productivity of the resources sector.</p> <p>s47C</p>
Oceans and Atmosphere	Loss: up to 100 redundancies across 2015/16 and 2016/17, offset in part by 25 potential new positions	<p><u>Impact area(s):</u> This change is likely to be concentrated in two research programs “Oceans and Climate Dynamics” and “Earth Systems Assessment”.</p> <p><u>Why:</u> O&A will reduce its focus on climate research to focus on areas more closely linked to innovation and the growth of Australia's industrial sector. Over the past few years CSIRO through O&A and its predecessors together with international partners in the scientific community have proven that climate change is real which has been documented by the CSIRO participation and authorship in the IPCC series of reports. This work was largely funded by government programs that have now concluded (ACCSP, PACCSAP), and ongoing funding for this work is now provided at a reduced level within the NESP program. CSIRO believes there are nowadays others within the Australian research community such as the academic sector, better placed to continue the majority of this fundamental research. CSIRO will refocus its efforts on working more closely with its</p>

Business Unit	FTE Impact	Rationale / Additional Information
		<p>Industry partners on shorter term impacts and applied adaptation strategies</p> <p><u>Location impact:</u> largest site impacts from these changes will be in Yarralumla, Aspendale and Hobart.</p> <p><u>What won't be impacted:</u> CSIRO is involved in five out of the six NESP hubs, and currently leads the Earth Systems and Climate Change Hub. CSIRO will work closely with its partners to ensure it minimises the impacts of the above changes. CSIRO aims to continue to fulfil its NESP contractual obligations and is currently reviewing a way to achieve this</p> <p>CSIRO will also be investing in research that will: enhance our understanding of cumulative impacts of Blue Economy developments (eg fisheries and resource projects) and onshore resource projects (eg mines and coal seam gas) to minimise their impacts and inform their social license to operate; and, explore the feasibility, potential, risks and costs of climate interventions (also known as geo-engineering). Investment will also be made in building autonomous marine platforms to make a step change in our understanding of the oceans and developing improved fisheries management strategies for the global market.</p>