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By: DR GEOFF GARRETT, CHIEF EXECUTIVE,
CSIRO
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Chief Executive's Opening Statement – Senate Estimates Committee Hearing

This will be my last appearance before this Committee as Chief Executive of CSIRO, a job which has been a privilege and honour over these eight years and which I have greatly valued.

I would indeed like to take this opportunity to make a few short comments – about the importance of science and our National Innovation System, and about CSIRO's role and the contribution it makes to national wellbeing, and highlighting some of this year's achievements.

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In these turbulent, uncertain and fast changing times, we need more science that will enhance our national productivity and competitiveness, not less.

We need science that will deliver the development of new technologies and new industries.

We need science that will help us deal with the huge challenges we face – whether it's water scarcity, climate change, energy security, or an ageing population.

And as our Minister said just this week - in times like these, it's good to know that here in Australia we have CSIRO – an organisation with an eighty-year record of delivering just that kind of science.

And one that returns practical benefits, every day, to industry and the community at large.

As our Chairman, Dr Stocker, has rightly said "If Australia didn't have a CSIRO we would need to invent one."

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For these reasons, we have strongly supported the recent review of the Australian National Innovation System – the NIS - and we have appreciated the extensive effort, research and consultation of the review panel evident in its report.

We believe that a strong focus on research and innovation is absolutely central to Australia's ability to respond to major national challenges and opportunities - now and into the future.

We agree that the time is right for focus, for renewal and for investment in our NIS for the future.

However, as we commented in our Review submission, we believe that the current System is too complex and fragmented.

We need less competition and duplication, and particularly more collaboration – domestically, internationally, across disciplines and with the end-users of research, particularly our industry.

Also, there are currently real challenges around properly funding research in our country. And we need to better focus our national efforts on major priorities.

Most particularly, we believe that an important key to addressing these issues is greater role clarity within the system. Clarifying the different roles of our various institutions will undoubtedly

- reduce complexity and duplication;
- ensure better collaboration; and
- benefit all parts of our system.

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So what is CSIRO's role, as our premier national science agency?

Size matters.

CSIRO is a creative powerhouse. A billion dollar annual turnover enterprise, with 6 400 staff across and more than 50 sites here in Australia. In addition, at any point in time, we host a further 2000 visitors making our facilities available to students and collaborators.

Based on our scientific outputs, we're in the top one per cent of world's research laboratories in 13 research areas, ranging from agricultural sciences, biology and biochemistry, through to chemistry, computer science and space science.

In your CSIRO Australia has a globally competitive research capability to assemble scientific teams and partnerships at a scale and of diversity that is relevant to the magnitude and complexity of the challenges and opportunities which face our nation.

The exemplars of this are our National Research Flagships, which see our world class scientists, engineers and technologists seeking to focus on the big issues - water, clean energy, climate change and obesity. And on some major opportunities – for example, in minerals, manufacturing, new food technologies and ocean science.

Our core and distinctive role in our National Innovation System is the conduct of large-scale strategic and applied research that delivers economic, environmental and social benefits for Australia.

Our teams and their partners consistently deliver the knowledge and innovative solutions required to help address the major challenges facing the nation and our neighbours.

Over just this past year, for example,

- we have provided a complete assessment of all available water across 18 catchment areas within the Murray-Darling Basin, a million square kilometres – one seventh of our continent – and the most comprehensive and complex whole-of-basin water assessment ever undertaken in Australia
- we played a central role in helping eradicate the highly contagious horse disease, equine influenza,
- and we developed a range of options for our nation's transport fuel future – and many other examples you will find well illustrated in our Annual Report tabled in Parliament last week.

We tackle the big problems and deliver new and practical solutions by working in close partnership with others in the national and global innovation system as well as with those who benefit from our research.

Indeed our success depends critically on building and maintaining strong relationships. For example, as highlighted in the Annual Report, our Flagships now have over 400 partners with Australian universities, other publicly funded research institutions, many private sector companies, as well as with key international organisations.

In addition, the highly-regarded Flagship Collaboration Fund is helping to facilitate the active involvement of the wider research community in achieving the ambitious goals set for the Flagships.

Quoting just a couple of our partners, for example, Professor Graeme Young of the Flinders Medical Centre: *"The (Preventative Health) Flagship is the best multi-disciplinary group in the world working on colorectal cancer. By identifying the specific problems in health and then by constructing the solutions in a multi-disciplinary and collaborative manner, it is establishing a unique place in the world."*

Or, the R.A.N.'s Commander Andrew McCrindell: "*The Wealth from Oceans Flagship..... is game changing in terms of its focus on practical outcomes – that's why the Navy is a partner.*"

The unique breadth and depth of our scientific capability – from the atom to the universe – also enable us to advance our knowledge and help drive beneficial change in Australian industry, the environment and society.

For example, over this past year, we have – with our partners –

- discovered a toxin that leads to necrotic enteritis, a disease that costs the poultry industry worldwide \$2 billion annually;
- analysed the chronically understudied carbon particulates in the deep sea 'twilight zone' (down to 1000 metres) to gain a better understanding of the sequestration of carbon dioxide in our oceans; and
- identified the presence of large amount of unseen, molecular gas for a better understanding of the massive galaxies and testing existing theories on dark matter.

In a world where science and innovation are key, Australia's current and future competitive advantage would be fundamentally compromised if CSIRO did not exist.

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So, in conclusion ...

As we have done for more than 80 years we have continued to achieve much in recent times.

We have changed, proactively adapting to the needs, challenges and opportunities presented. We will continue to change into the future. Indeed science leads change. And because Australia looks to CSIRO for leadership in science and innovation.

CSIRO's role is significant. It is unique and different and complementary to the other players in our National Innovation System.

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Finally, in these Estimates, the Senate's job is to probe, to engage, to question, to consider, to evaluate.

And most correctly so.

You have, Senators, the weighty responsibility in helping craft our future, and the future of the people of Australia. Indeed, you and your parliamentary colleagues have stewardship of our future.

And so too do we. Science is about helping to solve problems now, and also helping to create a better future.

Indeed, we live by our maxim: "Australian Science. Australia's Future".

We work for it. We strive for it.

That's why we're here.

Thank you.
