



Australian Government

Chief Scientist

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Launch of CISCO Innovation Central, Sydney

The world isn't waiting

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**Australia Technology Park
SYDNEY**

The Innovation Imperative

Good morning all, I am delighted to be here.

Because today we are celebrating innovation, present and future.

Innovation is an Australian Government imperative.

Innovation is my personal mode of operation.

Innovation is a continuum that starts with research and invention, and continues through to translation for economic and societal benefits.

But it's not up to government and chief scientists to make it happen.

At most, I can advise and encourage.

At most, the government can create an appropriate policy framework, and some funding assistance through R&D Tax incentives and competitive grants.

The real work comes from the innovators such as yourselves, using the latest approaches and technologies.

Talking about fresh approaches, change is in the air. It's called the Internet of Things.

The Internet of Things isn't just a refrigerator connected to the internet.

It is deep, it is complex, and it is transformational.

One of our best technology companies, CISCO, knows this, and is leading the collaboration known as Innovation Central.

One of our best universities, the University of New South Wales, knows the importance of innovation through collaboration. And one of our most well-known technology hubs, ATP Innovations, knows this.

The state government, the NSW Farmers Federation, the National Farmer's Federation – they all know this and they too have joined the collaboration.

The Data61 division of our national research institution the CSIRO gets it and has become a partner.

This is a powerful grouping. Every one of these partners is determined to contribute to the success of this collaboration, which will explore the power of the Internet of Things.

But being a player in the Internet of Things is not easy.

City passenger cars

Take, for example, city transport, one of the areas of interest of Innovation Central.

Of course, public transport efficiency will be revolutionized, but I'd like to concentrate on the disruptive change coming to passenger vehicles and their operation.

Keep in mind that like new medicines, everything good in technology has the potential for adverse side effects.

If I ask friends about autonomous cars they focus on the benefits such as vastly reduced accident rates; allowing you to work on your laptop computer while you "drive"; and providing mobility for the elderly.

But the unanticipated side effect is that if *all* we did were to replace normal cars with autonomous cars, surprisingly this would cause an *increase* in congestion on our roads.

Why? Human behaviour. Owners will send their cars out empty, on errands. Or they'll tell their cars to drive empty round and round and round the block, rather than pay for expensive parking.

The solution is a complete transformation of ownership models and road management. Individuals will cease to own cars, instead they will book them in advance or when needed.

The cars themselves will talk to each other, to the city infrastructure, and to an integrated traffic management system that collects trillions of pieces of information every second from billions of sensors in the streets and vehicles.

It is not just technology. This revolution will require new legislation from the politicians, new legal frameworks for ownership and liability, as well as IT experts, engineers, mathematicians and psychologists.

This will not be easy. It will require cooperative innovation, partnerships such as will be enabled here at Innovation Central.

Challenges and Opportunities

To the entrepreneurs here in the audience, eager to develop their budding ideas, I have the deepest admiration for your talent and enthusiasm.

One word of warning, though. The best written app, or best designed gadget, will be a flop if there isn't customer demand.

You need what is called "Market Pull". End users who care.

You have to make things that people need, even if they themselves don't know *what* they need.

Mark Zuckerberg might not have gone out and done formal research when he created FaceBook, but he knew what his college friends needed.

I started a company in California a long time ago to make scientific instruments. I didn't do any formal research, but I knew from the smiles on the faces of my university research partners who used my prototypes what it was they needed.

To the entrepreneurs in the audience, my challenge to you is think about the market needs as much as you think about the technology. Speak to your marketing friends, speak to the business experts, test your ideas on friends and family.

Right here at the Australian Technology Park, or at the University of New South Wales, speak to the experts across the business, technology and marketing disciplines.

Proximity with willing advisors from other disciplines is the *raison d'être* for working out of an innovation hub.

Your goal must be to build things that will be useful.

The world is not sitting idly by waiting for Australian inventions to be brought to market.

There is an imperative for Australia to optimize its ability to compete for global investment, to attract global talent, to retain Australian talent, and encourage the development of great ideas in Australia that have global potential.

Innovation Central is a launch pad that will help Australia meet this imperative.

Entrepreneurs, your goal is out there, beckoning.

You will not get there in one giant leap, but from this launch pad you can take an important step towards your goal.

May the Force be with you.

Thank you