

## UNIVERSITY OF SOUTH AUSTRALIA GRADUATION ADDRESS 20<sup>TH</sup> DECEMBER 2010

Dr Ian Gould Chancellor of the University of South Australia, Professor Peter Høj Vice Chancellor, Distinguished Guests, Graduands, Ladies and Gentlemen.

It is a pleasure to return to the Graduation Rostrum today albeit in a different role. I very much value my years as the University's 3<sup>rd</sup> Chancellor.

Graduation Speakers are requested to provide some words of wisdom and relevance to the graduates and to those of you who will return to other countries to practice in your chosen profession.

So I have decided to discuss some advice that was given to me early in my engineering career that whilst well meaning and without context was one of the worst pieces of advice that I ever received.

This advice was "if it isn't broken don't fix it". The context of this advice is if it is going OK or indeed is successful then there are plenty of other things that demand my attention. In fact in the words of a highly regarded and successful manufacturer "Success can be the biggest cause of failure"

Which leads me to a discussion about Productivity and my view that it is important that you have an understanding of the need for productivity growth to improve the chances of your organization staying in business and at a macro level improve growth in your country's Gross Domestic Product, which in turn is so important in improving living standards across the population. Productivity growth is working smarter, not harder. Productivity growth is the only way to grow income and the economy without using additional inputs.

We need to be productive if we seek to live well without damaging the environment.

We need to be productive if we seek to live well and have enough water.

We need to be productive if we seek to live well and continue to care for our ageing population as they leave the workforce.

We need to be productive if we do not want to work more hours and for longer.

The key sources of productivity are:

Through changing the use of labour and capital from less productive activities to more productive activities.

Through Innovation *ie* changing our methods of working to remove waste and improve throughput and through Learning and the application of new knowledge

And the fundamental key driver is competition.

All of this can be enhanced or stifled through Government and Institutional regulation and of course the constantly changing markets reacting to changes in style, preference, technological advances, innovation, economics and of course environmental considerations. Uncompetitive wages and inflation can be a major detrimental influence.

The best definition of productivity growth is to create more output from given inputs. Or  
**DOING MORE WITH LESS.**

The Australian Academy of Technological Sciences and Engineering held a seminar in November of this year looking at Australia in the 2030's and how the demand for effective infrastructure and services would be met. The seminar highlighted a decline in labour productivity over the last decade, which has been disguised by mineral exports that have created our current economic buoyancy. This is regarded as an unsustainable position and the Country will need significant investment in our Infrastructure backlog to deal with population growth and the effects of Climate Change. Moreover the Global Financial Crisis has created a situation where funding for such investment can only come from savings and productivity improvements. The Academy believes that innovation through Science and Technology along with economic reforms will be the keys to productivity improvements. The key infrastructure backlog highlighted included electricity generation and distribution, airports, seaports, rail and road capacity and urban transport infrastructure along with the challenges in continuing to provide a high standard of healthcare.

Australia's productivity growth in recent decades is a mixed story. ABS figures and commentary show Australia's ranking amongst OECD countries slipped badly from 1950 to 1990 and then showed a significant productivity revival during the 1990's due to economic and structural reforms. The decline in the most recent decade to figures more closely aligned to the long-term average reflect the unprecedented drought affecting agriculture and investment in the minerals industry not yet showing the anticipated productivity gains.

Now this Australian story may not be of great interest to those of you returning to careers in other countries particularly those such as China and India which are experiencing significant export driven growth from working longer hours and significant injection of capital and not necessarily from productivity. However as such economies mature, productivity growth will be fundamental to continuing economic growth and improvements in prosperity.

I would be most surprised if your careers are not affected in some way by the importance of productivity growth and my advice is to treat it as a huge and essential opportunity.

When I graduated from engineering I doubt I heard the word productivity however as my career developed it became obvious that it was an important issue and that doing more with less was an important philosophy to staying in business. This concept can be highly intimidating to those people that are insecure and suspicious of change and can be a cause of industrial disputation and disagreement with labour unions.

The first significant example for me of not fixing something that wasn't broken hit the engineering business I worked in when a gold plant design we were selling comfortably and successfully was trounced by a more aggressive and fit for purpose product which enabled a competitor to take massive market share and export that product throughout the world to our significant cost. We could have had that market if we had paid attention to our product. I suppose there was some consolation as it still added to Australia's GDP.

When I became Chancellor of this University in 1998 productivity was rarely discussed by the academic staff in general particularly as they fought the Commonwealth Government for more funding to reduce student staff ratio's and compete with those Universities that had been established for many more years and had significantly greater balance sheets. However, I am delighted to say that this University team has grappled with those issues admirably using ICT and innovation in organizational structuring, flexible delivery, facilities management and investment to continually lift their rankings in both academic and research performance.

The concept of productivity improvement has featured strongly in all of the industry sectors I have been involved in to the point that it is part of the culture of the businesses.

I am a Director of Snowy Hydro Limited, which owns and operates the world-renowned Snowy Mountains Hydro Electric scheme, which was built between 1949 and 1974. It is one of the recognized engineering wonders of the world with 7 power stations and 16 dams and some 150 km of tunnels under the mountains. In recent years it has lifted its capacity by over 10% through innovative reengineering and implementing innovative maintenance techniques to underpin electricity market trading strategies. It has constructed mini hydro stations to utilize the energy in environmental flows and has embarked on a major cloud seeding project in the mountains, which can increase snowfalls by up to 14%. All continual incremental advances with great returns on investment. The continuous improvement philosophy is alive and well at Snowy Hydro.

Codan Limited of which I am a Director is also a great Australian success story as a manufacturer of high frequency radios, satellite RF subsystems and metal detectors and exports almost all of its clever products. It has remained successful over 50 years of being in business through continuous engineering and product development and a philosophy of innovation and cost down. Typically they achieve an impressive 4 to 5% real improvement in their costs of manufacturing each year!

The Health Sector in Australia is one of the best in the world with a recent assessment ranking it no 1 for achieving long, healthy and productive lives and no 2 in efficiency. You probably find this hard to believe given the publicity over the last few years regarding State/Commonwealth relationships. My experience is from a 10-year term as a Board member of an Adelaide private Hospital – St Andrews Hospital, which I am delighted to say, has just received a National Clinical Excellence award. Performance is constantly measured where resources are allocated according to patient complexity and patient length of stay and performance measures include many indicators of health care and finances. Careful balancing is needed as the clinical and financial indicators are often on an inverse relationship. Again the culture of continuous improvement is embedded in the Hospital.

So consider carefully any thought not to fix something that is not broken. Your future might actually depend on it. So my basic advice is

- Always do your best
- Always look for ways to do more with less of your time and less resources
- Continue to learn about what clients value most, about what new techniques and processes exist, about your world.
- And do not avoid competition.

I am sure that UniSA has given you a good start down this path.

Please accept my best wishes on your graduation and for your future professional careers.