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Melbourne Business School conference

‘Creating the Darwinian Company: Adaptive, agile and innovative ’

Conference Objective: To drive innovation culture in Australia, it is essential that company boards are focused on and capable of driving innovation at the company level.

30 MINUTES (3500 words)

Growth through innovation

Speech by John Pollaers

INTRODUCTION

- **What is our corporate culture here in Australia?**
- I ask this question because *attitude* is important.
- The culture at the top is a bit like the sun and the rain.
- It influences the *development* of new ideas - those wonderful green shoots of inspiration - and it influences the *take-up* of new ideas.
- Let me put this in context.
- The need for economic renewal in Australia following the Global Financial Crisis and end of the mining boom has never been clearer.

- Rising youth unemployment, rising house prices and declining consumer confidence is leaving the majority of workers frustrated and concerned.
- At the same time new technologies are giving us an exciting glimpse of the possibilities of the future – and the changes that will impact our lives - and our working lives - in many ways: Everything from advanced robotics and “3-D printing” to the “internet of things” - all elements of Advanced Manufacturing.
- And yet - to come back to my question about Australia’s corporate culture – are we ready to take up the challenges and leverage the opportunities that these new technologies pose?
- The truth is that our creative scientists, our forward-thinking engineers, our designers and design technologists, have sometimes felt disenfranchised in Australian corporate life.
- And this is not all due to artistic and scientific paranoia!
- Australia has a wonderful reputation for innovation.
- In the 1950s, Australia’s CSIRO developed world leading technology in solar water heating; Australia developed the

bionic ear, the 'black box' flight recorder, WiFi internet and the technology behind Google Maps.

- We have a highly educated workforce, and an urbanised and digitally connected workforce which means we are well-placed to take advantage of global opportunities across the advanced manufacturing spectrum.
- There are a great many stories of transformational success in Australian industry – companies that are not waiting for someone else to do something; companies that are stepping up and building new markets, new products or new processes to compete globally.
- But there is also strong evidence that our corporate culture is inclined to be risk-averse.
- Our Boards have tended to focus on compliance and on efficiency gains – at the expense of new ideas.
- This means there is less focus on growth – in particular less focus on “intelligent growth” – and by this I mean *growth through innovation*.
- So, in my remarks today I hope to open up the conversation about what kind of environment **and attitude** is needed for

innovation to occur in business, and to suggest some strategies that are working elsewhere – strategies that are fostering a 21st Century approach to business innovation.

CHARACTERISTICS OF HIGH PERFORMING BOARDS

- As I said, the culture starts at the top. So it is useful to look at the characteristics of successful boards.
- A recent report on board performance by Heidrick and Struggles – the 2014 Asia Pacific Corporate Governance report – identified the dynamics of board effectiveness and what drives these dynamics to produce great boards.
- The report describes **four capabilities of top performing boards** – with nine ‘drivers’ that serve to develop these capabilities into best practice. I’m going to briefly take you through these.

The four capabilities of the best boards are:

1. **People:** Continually reviewing top talent and engaging in succession planning
2. **Vision:** Having a clarity of vision and strategy that is both shared and understood
3. **Leadership:** Promoting the team dynamics through the leadership of the board; and

4. **Innovation:** Maximising the capacity of the board to consider and adapt to risk and innovation

- Each of these capabilities warrants a much longer conversation than we have time for today. However, the common thread is creating adaptability, ensuring a board is versatile.
- I will be coming back to the final element in more detail but it is worth reflecting that the key drivers underpinning all four capabilities, according to Heidrick's, include establishing clear criteria for board member replacement and achieving a balance of skills and experience – as well as ensuring that regular board evaluations are undertaken.
- On this point, Heidrick's interviewed 145 Australian directors and found that 81 per cent said their boards were not effective in exiting unwanted board members.
- This is a staggering number.
- Think about the impact this must have on board effectiveness.
- Clearly we must question why this is happening.
- Boards have a duty to ensure that board evaluations are done, that results are discussed openly, and action is taken to address any concerns.

- A functional and high performing board will result in a higher performing business.

INNOVATE OR DIE

- While all four capabilities are essential and crucially inter-linked, it is the final element – *the capacity to adapt to risk and innovation* – that I would argue must inform all the others.
- The capacity and willingness to innovate is mandatory for boards today.
- Companies need to adapt rapidly to changing circumstances as new technologies and ideas continue to disrupt almost all industries.
- In advanced manufacturing – and this applies across a range of sectors – perhaps the biggest game-changer is so-called “smart production”, where the cyber world connects with the physical.
- Increasingly, we are seeing a high degree of flexibility in production - in terms of product needs, in terms of volume, in terms of timing, resource efficiency and cost.
- Technology is enabling companies to fine-tune to customer needs and make use of the entire supply chain for value creation.

- This is often referred to as the Internet of Things – or *Industrie 4.0*.
- This is the next phase of technology development beyond electronic and IT systems and further automation, to a fully integrated and connected world, re-shaping the face of global supply chains.
- Large and small Global industries often report that their businesses will decay if they do not rise to the challenges posed by technology disruption. I will come back to the success of Ericsson and how they continue to transform in a moment.
- There are enough stories of failure to make even the most effective Board a little jumpy. Remember Blackberry. In 2007 more than 1 of every 3 new smartphone purchases in the U.S. was a BlackBerry. Worldwide the company was second only to Nokia in the smartphone business, which was just gathering steam. BlackBerry's market share would continue to grow but peaked in 2009 only to spiral downward over the next four years. What happened? Apple.
- Interacting with virtual objects through a touchscreen was something BlackBerry didn't offer.

- Agile companies – to come back to the theme of today – realize they will become irrelevant if they do not look for new sources of growth outside their current core.
- So what are the factors that high performing boards share that enable them to innovate and adapt to these sorts of challenges?
- The Heidrick and Struggles study identified three core drivers of strong performance, consistent across each of the countries surveyed in Asia Pacific.
- These were:

1. *A balance of skills, knowledge and experience on the Board.*

Getting the right mix of judgment and expertise on a board was crucial. This is something I will come back to.

2. *Empowered committees.*

Committees spread the workload and help Boards to make better-informed decisions.

The lack of committee empowerment was a bigger issue in China, India and Singapore than in Australia.

3. *Identifying board improvement opportunities.*

Boards will stagnate if they do not continually identify and implement improvements.

The study found that performance in this was at the low end across the region.

This suggests boards can do more to recognise the importance of board improvements, and to put in place processes and cultures which promote better performance.

LACK OF EXPERTISE

- But in terms of the first driver, a variety of research has shown that having a **balance of skills and experience** on a board and in senior management is fundamental to innovation success.
- And yet, we know that the composition of most Australian boards is relatively homogenous – relative to the make-up of our society, that is.
- The Watermark Search International 2015 Board Diversity Index, which looked at ASX 200 boards, found that only 3 per cent of Australian board directors have technology experience.
- And only 19.4 per cent have industry experience (which we might expect to include some engineers and scientists, however the study is not clear on this point)

- 53.5 per cent of ASX 200 directors are from a finance and legal background – made up of 44 per cent from a finance background and 9.5 per cent are from the law.
- Clearly, there is a question that should be considered here – what might be possible if industry representation was higher?
- The mounting evidence shows that companies with diverse boards and management – that is, diverse in gender, ethnicity, and, in particular, expertise – are stronger performers and experience higher growth than their more homogenous counterparts. (Ernst and Young study in 2013 for example)
- Critical to board performance is having relevant industry skills, targeting capabilities for directions the company is looking to take, and having internationally experienced members to ensure the board has a broad lens on fast changing global markets and new industries that are forming.

BOTTOM UP vs TOP DOWN

- High performing Boards – importantly – also have mechanisms in place which capture ideas and concerns from the bottom up.
- In a recent presentation by Andrew Kakabadse, Professor of Governance and Strategic Leadership at Henley Business School promoting his new book "The Success Formula" he

highlighted an unhelpful trend on Australian boards post the GFC where some chairmen are casting themselves in a role more like the CEO, relegating CEOs into the role of Chief Operating Officer.

- Yet research across the field tells us that **high performing** boards bring fresh perspectives to strategies *originated* by management – they do not originate the strategy.
- Great boards do create an environment where strategy is openly discussed and input is taken broadly across the organization.
- So, high performing companies are open to original ideas from more or less everywhere – including, importantly, the shop floor. And this *is* important - as I think the following shows.
- I want to share with you a characterization of the different mindsets needed, on the one hand, to grow something, and on the other hand, to maintain or optimise something.
- Forbes magazine recently compared *private equity* with *venture capital*
- While the terms are not exactly inter-changeable with *efficiencies* on the one hand and *intelligent growth* on the other, they reflect similar mindsets – and they have enough in

common to make this a useful way of understanding the differences.

	PRIVATE EQUITY	VENTURE CAPITAL
Environment	Control	Chaos
Medium	Numbers	Human Beings
Primary Hard Tool	Buying and selling stock	Buying and selling stock
Primary Soft Tool	Operational Efficiency	Human Motivation
Primary Lever	Optimized Structure	Disruptive Innovation
Primary Investment Trigger	Underutilized Assets	Team
Direction of Value Creation	Top-down	Bottom-up
Economic Philosophy	Neoclassical Economics	Innovation Ecosystems ("Rainforests")
Assumption	Rational Actors	Irrational Actors
Role of Probability	Precision	Serendipity
Model	Deming/TQM, Six Sigma	Silicon Valley
Parallels	Classical music, Fine arts, Farms, Assembly lines	Jazz, Street art, Rainforests, Design thinking

- The two mindsets have fundamentally polar approaches to value generation.
 - a. One is bottom-up creation and disruptive innovation
 - b. The other is top-down optimization.
- Private equity and public companies are usually about taking an existing company with existing products and existing cash

flows, then restructuring that company to optimize its financial performance.

- When private equity works right, it can save poorly-performing companies from bankruptcy and turn them into profitable enterprises.
- The venture capital process is usually much messier.
- As Forbes describes it, often you start with a ragtag guerilla outfit, with no obvious path forward.
- In the documentary “Something Ventured”, venture capitalist Don Valentine relates how no one wanted to invest in Steve Jobs and Steve Wozniak in 1977.
- Before he would invest in Apple, Valentine had to convince the two entrepreneurs to accept an experienced executive, Mike Markkula, as their CEO. Markkula has said that the two men did not make a good impression on people. “They were bearded, they didn’t smell good, they dressed funny, [were] young, naïve.”
- I am not suggesting we all have to be entrepreneurs and outsiders by any means.
- Great CEOs, great Boards are focused on a balance of risk.

- Using the famous cricket metaphor - companies need to be hitting consistently, hitting the ones. But occasionally they really do need to be hitting sixes.

INTELLIGENT GROWTH

- It is a balance, where you incorporate some *new-to-market* thinking – areas where ideas that have worked in familiar markets are being applied into new markets, or you are adding new emphasis – and mixing that up with venturing out there with some *new-to-world* thinking, those completely new ventures.
- This is a focus on “intelligent growth”.
- Getting back to my point about *attitude*: What happens in the minds of our business people clearly affects capital - and the prevailing mindset in a Boardroom will create, or potentially limit, commercial value.
- Failure, regret and hesitancy are common afflictions in board rooms.
- In 2009, following the Global Financial Crisis, many companies were particularly reticent.

- Then the focus was on cost reductions and efficiency improvements, with relatively short pay back.
- R & D projects focused mainly in these areas.
- But the global pressures are such that we cannot afford the luxury of fear - nor the luxury of sitting in our comfort zones.
- Industry boundaries are being re-drawn by lesser known competitors from emerging markets.
- We have to out-innovate the innovators.
- Many companies realise this - that they need to examine a wider range of possibilities for organic growth.
- Distilling the findings of one recent study on “intelligent growth” by the US-based Corporate Executive Board, I was reminded again how *deliberate* successful innovation is.
- Successful companies approach innovation as a continuous learning process, involving their senior leaders - across finance, strategy *and* R & D - in a collaborative conversation.
- In that way, the entire company validates, evaluates and prioritises opportunities.

- Going back to the point about an efficiencies focus versus an innovation focus – this study found that the big cost-cutting companies – companies that were focused on efficiencies – actually achieved 3.5 per cent LESS growth over the previous decade than those of their peers who were focused on “intelligent growth”.
- The intelligent growth companies were found to share a number of principles that allowed them to avoid common growth pitfalls.

STRATEGIES – THE LEARNING LOOP

- They established what the researchers described as a “learning loop” to identify and evaluate opportunities – and, importantly, they allocated analytic resources to innovation for *longer* periods – to better capture information on why projects succeeded or failed.
- In essence, the evaluation and prioritization process was embedded across the entire organization and involved three important parts:
 1. The first part - described as **Strategy Validation** - involved
 - Scenario testing – so, rigorously testing the underlying assumptions for plausible scenarios
 - Setting triggers to track criteria for success and failure

- And, establishing a process for learning throughout the investment cycle.

The leading technology company, Ericsson, for example, realized the need to challenge strategic assumptions and drive organizational engagement – in order to develop a more robust future strategy.

Ericsson, just to put the company in context, has 35% of the world's 2G/3G/4G mobile network infrastructure market.

The company's R & D leaders are empowered to ask pointed questions of the senior leadership.

- Questions include:

Assume you are able to ask a fortune teller three questions about decisions for 2020? What information would you seek?

And;

What are three things you know for certain and do not need to ask the fortune teller?

The purpose is to check for strategic biases and dig deep to unearth entrenched beliefs that might impact effective decision-making.

Biases can creep in at every stage. Separating the beliefs and biases from likely truths is important – and these biases, both individual and collective biases of senior leadership, need to be challenged.

2. The second part – described as **Opportunity Evaluation** – involves developing a structured process for narrowing megatrends into specific business opportunities.

The “intelligent growth” companies routinely tested existing capabilities for their relevance to new markets – and they identified technology and skills gaps.

In this phase of the so-called “Learning Loop”, companies sought to be as inclusive of the entire organization as possible.

Larger organisations used an internal inquiry system that allowed for ongoing feedback – and they asked specific questions of employees.

Allowing for broad employee inclusiveness was critical to improving the richness and validity of the ideas.

It also facilitated a culture of openness and sharing.

3. And finally, the third part of this opportunity identification and evaluation process involves **Investment Prioritization**.

Successful “intelligent growth” companies created their own prioritized and weighted sets of *decision criteria* that were consistently applied across a portfolio of opportunities.

Companies articulated specific *divestment* triggers, for example.

Is this business aligned to our long-term strategy? Does this business have long-term growth potential?

Can we grow this business by leveraging our brand without diluting its strength? Can this business contribute to growth across all our platforms? Can we scale this business? Etc.

- What this means is successful innovators are actively looking forward, actively testing scenarios and strategies.
- Changing is hard. But electing not to change is still making a decision – and while it may be the right decision, it should be an active decision.
- This is about not trying to conduct business through the rear view mirror.
- It is reinventing yourself against an onslaught of technological, cultural, economic, and regulatory shocks that will force you to enact major business transformations every few years.

WHY SCIENCE MATTERS

- So far I have spoken about attitudes and about potential strategies.
- Now I want to reflect a little on where the new ideas come from.
- There is no question in my mind that we need to have a better understanding, at Board level, of the **power of science** if we are to address the challenges of Australia's economic future.
- Advanced Manufacturing is characterized by its deep involvement with technology research and development (R&D) and STEM (science, technology, engineering, and mathematics).
- It encompasses industries ranging from precision engineering and aerospace to energy industries such as oil and gas extraction to medical technology to high-tech services such as computer software and computer systems design.
- Science, technology, advanced engineering and manufacturing are the connective tissue across all sectors of the Australian economy - whether you are a banking service, a mining company or related service, a retailer, a food producer, a construction company or a health service.
- These industries and technologies are the drivers of a high value future for Australia. It is therefore vital to keep pace with

global advances, to integrate with global supply chains, to revitalize existing businesses and to create new industries.

- To do that, we need experience and expertise of the STEM disciplines at the most senior levels of our corporate leadership.
- Indeed, more and more of our senior business leaders will need to come from these disciplines.
- We must have a solid appreciation of the possibilities.
- And we must build the requisite skills across the entire community.
- Science, the knowledge it provides, and its myriad creative applications – will help us manage, mitigate and discover solutions to the problems we know about today, as well as equipping us to tackle new problems as they emerge.
- In the recent monograph, “Science Matters”, published by *The Conversation* and the Office of the Chief Scientist, a series of writers provided some wonderful insights into the possibilities offered by science.

- One of the most dramatic developments in human history – just to shine a light on one of the science disciplines, PHYSICS – has been electricity.
- In the 21st Century, we find physics entering an even more vibrant era than the one that stimulated the development of electricity.
- We have ever-increasing computing power. We have new instruments with unprecedented sensitivity that are amplifying our ability to understand complex phenomena.
- Quantum physics - the ability to manipulate individual atoms, molecules and photons of light – is foreshadowing a future where the communication and processing of information is radically enhanced even from the incredible advances we have seen to date.
- In CHEMISTRY – another example – we are seeing a revolution in the material sciences. We now have such things as “electronic plastic” – a semi-conducting polymer that is likely to replace semiconducting material such as silicon in flat screen TVs, laptops and smart phones.
- It will not be long before we are able to print flexible solar cells that can be sewn into clothing as cheap portable power sources for recharging mobile devices.

- In the medical sciences, Australia has very proud history of discovery.
- No less than four Nobel Prizes for Physiology and Medicine have been awarded for work done in Australia.
- Cross-fertilisation between medical scientists, physical scientists and engineers has produced – and continues to produce – phenomenal innovation in terms of medical devices.
- Australian innovators may or may not win the race to build the bionic eye – early prototypes are currently implanted in three individuals – but there are plenty of successful collaborations between the medical and physical scientists in Australia, as well as corporate success stories, to suggest we stand a very good chance – Cochlear and ResMed to name just two Australian examples.
- I could go on. The point is: understanding the critical role science and technology play and the importance of being at the forefront of their development is vital for the future of Australia and Australian industry.

IN CONCLUSION

- Government is requiring – and industry is demanding – that industry LEAD the prioritization of allocation decisions and

reforms around technologies and sectors in which Australia has comparative advantages.

- And yet – as we know – there is not the full appreciation in the highest reaches of our corporate leadership of the value that science and innovation can bring to companies.
- Where once your organization may have needed to reinvent itself every few decades, today, an onslaught of shocks - technological, cultural, economic, and regulatory - will force you to transform every few years.
- Where once your CEO might have become a business icon through a single transformation – the minimum requirement now is being able to execute multiple transformations.
- Success today means fostering a culture of continuous reinvention—reinvention in your business models, customer interactions, employee engagement, and the markets you serve.
- We need to fully appreciate the power of the right software and analytical systems, be able to establish employee familiarity and ensure organisations have the right talent to leverage technology opportunities.
- Boards oversee the quality of leadership and management.

- They safeguard the company's reputation and values.
- But innovation depends on a little more chaos and a little less control – I think of it as *orderly chaos*.
- We need to focus on “Intelligent Growth” - a new mindset in many of our boardrooms.
- Innovators and Boards are famously uncomfortable in each other's company. We need them to be more comfortable in that discomfort!
- The Key Takeaways are:
 - Ensure the right talent in place (including at Board level)
 - Make *science and digital understanding* a priority
 - Align transformation with company strategy
 - Rally organisations around common transformational goals
 - and remember that this is where our leaders of the future will come from!

END