As we hit the send key on this final Go8 newsletter of 2015, it is hard to comprehend that the end of the year is so close. For the Go8 it has been a year driven at speed by complexities, extremes, frustrations and, finally, optimism.

True, we do finish the year as we started it, without our long-term sustainable funding issue resolved. Yet, it is important to say that while our problems have not been dealt with, the dire mood of the beginning of this year has lifted. As I said at the recent Australian Financial Review Higher Education Summit, everything the Go8 stands for is now in sharp political and policy focus. We must harness that. It is not an opportunity to let slip.

The new Ministerial team is as enthused and energetic about developing future directions for our sector as we are, and we are especially buoyed by Minister Birmingham’s statements, also to the AFR conference, that “I am excited and optimistic about a prosperous future for Australia, one that is built on advances in innovation and productivity”; “our future national success requires our higher education sector to be much more oriented towards making its research effort drive innovation that translates into economic and social benefits to the community”; “our Government believes we should back universities to enjoy greater autonomy”.

There is a political air permeating debate and discussion that what we, the sector – and in particular the Go8 – does and stands for, is understood and that the Go8’s contribution is valued. As examples:

- Our total research income as Australia’s leading research intensive universities is some 68% of the sector.
- Our industry income is twice that of the rest of the sector combined. We are strong on research with impact and we support such a Government focus. We lead in fundamental research which is at the core of what can be developed.
- Some 80% of sector’s commercialisation income is generated by the Go8.

Impressive as those figures may be, it doesn’t mean we are positioned where we need to be. There is much “improvement” expected of us. We may be the best; it’s who we are, but the best can always do better and we know that this Government expects,
realistic political policies, a student can have a quality education. Ensuring every quality student can come from disadvantaged backgrounds with the support and education they need to achieve their greatest potential.

Sadly there remains too little community – funding, results, to maintain quality, our future ability to have the out-turn of word. He hasn’t let slip.

As our new CEO Vicki Go8 as an enormous university system, we have taken that one of excellence to be compromised. We have an agreement to work with. We will be discussing how we define the value of a research driven education for our students and also the challenges we face as the universities who do the lion’s share of the world’s research.

In the UK we will be meeting with policy makers, investors, government and universities. Much of what we do in Australia is modelled on the UK policy environment. They have got it so right when it comes to university/industry collaboration. I have been working in this field for over a decade now and there is much we can learn from each other. It is an intensive visit over only a few days, but incredibly worthwhile.

For this issue’s lead feature “From the outside looking in” we have been fortunate to have the outgoing Chief Scientist Professor Ian Chubb give us his views. We all know that Professor Chubb is always independent of thought and exquisitely blunt of word. He hasn’t let us down. While we wish him well with the next phase of his very full life we hope this does not mean the last of reading the views of Professor Chubb. They are too incisive to vacate the never-ending debate about STEM and education more generally. Apart from that we would miss them!

Also as the year ends, we farewell our Go8 Chair Professor Ian Young who is stepping down, as I mentioned last issue, as Vice Chancellor of ANU. The Go8 will miss him for his always wise and courteous input and advice. On behalf of the Go8 please enjoy your future Professor Young and especially your so-called retirement which involves returning to some much-loved teaching.

In January we welcome our new Chair, Dr Michael Spence who is Vice Chancellor of the University of Sydney. While our newsletter will speak with him at length in a later issue we introduce Dr Spence with a short overview of a very interesting and committed VC and of course congratulate him, on welcoming son Theo to the family last month. We also introduce and welcome our new VC to ANU – Nobel Physics prize winner astrophysicist Professor Brian Schmidt who we find also makes a fine wine!
FROM THE OUTSIDE LOOKING IN

Chief Scientist Professor Ian Chubb AC

“I am suggesting that we are far too prone to incrementalism in our approach, and sometimes need the encouragement to be not merely buoyant – but bold.”

In 1946 the British scientist Dr Albert Rowe arrived in Australia, a country he would later describe as “one hundred and fifty million sheep providing a high standard of living for ten million human inhabitants”.

A pioneer of radar research, and an architect of the research collaboration models so critical to the outcomes of the Second World War, Rowe prided himself on his ability to know if a university community “oozes vitality, is usefully mediocre, or smells of death”.

For the most part, he thought we aspired to the second and achieved the third.

As Vice-Chancellor of Adelaide University, he set out to shake us from our national complacency.

“Suppose,” he wrote in his magisterial memoir, If the Gown Fits, “that all universities in a nation and all within them were suddenly annihilated and that some of the wisest and ablest men and women in that nation were given the task of examining from first principles how new institutions could best be built, staffed and organised. Let it be assumed that the investigators, while mindful of the merits of older institutions, are completely free from inhibiting loyalties to the customs and traditions of centres of learning in other countries. Suppose them also to be uninfluenced by the clichés and mumbo-jumbo associated with discussions about university affairs. Not least, let it be supposed that the investigators are imbued with a love of Australia as a whole nation faced with great national tasks.”

Thinking through the exercise, he felt, would inject vitality into our atrophied limbs, and stiffen the sinews of the collective resolve.

More than half a century later, it is interesting to look back to Rowe’s thought experiment and consider what recommendations we might make today.

We are very good, after all, at pointing out our problems to ourselves in inquiries, and addressing them partway in responses, until the next review gives us a chance to go back and do it again. We are so good at it that we now have a review of the reviews, if only as far back as Dawkins, published
by the Department of Education and Training last month.

I am not suggesting that we can cut ourselves loose from that past. I am suggesting that we are far too prone to incrementalism in our approach, and sometimes need the encouragement to be not merely buoyant – but bold.

How would it be if we could detach ourselves temporarily from our disagreements with the means, in order to have an intelligent discussion about the end, and then pursue the means of a sort and on the scale required?

How would it be if we thought of higher education not as a portfolio, much less a collection of institutions, but the centrepiece of a very different sort of Australia?

How would it be if those of us with the battle scars of experience, and those of us with the impatience of youth, still thought we had something to learn from each other?

I suspect that we would shift a little closer towards the global consensus: that half measures are bad investments, and only a whole-hearted commitment to our transformation will suffice.

What do I mean by transformation?

I hesitate to use the term ‘innovation’, as closely attached as it is in some minds with a very small slice of activities in a very specific part of the economy, usually involving computers. I am deeply interested in these activities, and I consider them to be extremely important. But I am also interested in the attitudes and capacity we want from people in every part of the economy. I am interested in what university education can offer to the average student, as well as the highest achievers, and the average companies that those students might enter.

I am interested in how the young minds of Australians can be moulded by all their years in education into the minds of our future workers. I am interested in all the complexities of the journey from basic research to mainstream consumer product.

In short: I am interested in approaching the task as Rowe suggested, as a whole nation faced with great national tasks.

Of course we will not begin with a blank slate. We will have to make our case without the impetus of sudden annihilation – just the dull thud of our steady footfalls down the global ladder to drive us on. But surely we are as close today to national vision and consensus as we have been in recent decades, and more alert to the importance of universities than ever before.

What will we make of our interesting times?
WELCOME TO OUR NEW CHAIR

Dr Michael Spence is the 25th Vice Chancellor of the University of Sydney and takes over as Group of Eight (Go8) Chair for two years from 1 January 2016.

“It is a privilege as part of the Go8 to speak for Australia’s tradition of excellence, of innovation and creativity, in education and research. These institutions are crucial to Australia’s future,” says Dr Spence.

Australian born and the son of a high school headmaster, Dr Spence graduated from the University of Sydney with first class honours in English, Italian and law (working “five or six part time jobs” along the way) and then lectured in law at the University and worked for the Australian Copyright Council before moving to the UK to undertake doctoral studies.

He is recognised internationally as a leader in the field of intellectual property theory. His work includes articles and books on both intellectual property law and the law of obligations, with a critical focus on suggested ethical and economic justifications of the existing regimes. At Oxford he obtained a Doctor of Philosophy and a Postgraduate Diploma in Theology. He became a Fellow of St Catherine’s College where, during his 20 years there, he headed the law faculty and social sciences division – one of four divisions which make up the University of Oxford.

He returned to Australia to take up the position of University of Sydney Vice Chancellor in 2008 and is also an ordained Anglican Priest. Dr Spence also speaks a number of languages including Mandarin.

“He is a champion of the sector,” says Go8 Chief Executive Vicki Thomson. “We look forward to the energetic commitment he promises. As the University of Sydney illustrates, he is solidly committed to quality research and with an enviable reputation for pursuit of equity and open debate.”

A fierce and vocal warrior for equity and philanthropy Dr Spence has brought both those values to the fore in his time as the University of Sydney’s VC. He is the father of six children – with the latest addition to his family, son Theo, arriving in October this year.
NOBEL PRIZE WINNER TO LEAD ANU

The 12th Australian to win a Nobel Prize, astrophysicist Professor Brian Schmidt now becomes the 12th Vice Chancellor of the Australian National University (ANU) from January 2016.

“I am incredibly excited about becoming Vice Chancellor,” says Professor Schmidt. “It is a real honour to have the opportunity to lead our national university, a university that will play a fundamental role in transforming Australia into one of the world’s most educated, creative, and innovative societies. I am looking forward to working with my fellow Vice Chancellors on this mutual endeavour that is so important to the future prosperity of Australia.”

Professor Schmidt won the Nobel physics prize in 2011. A US-born Australian citizen he is the son of a fisheries biologist. Born in Montana, his family moved to Alaska when he was five. He graduated from Bartlett High School in Anchorage and then completed a BS [Physics] and a BS [Astronomy] from the University of Arizona. He received his MA [Astronomy] and then PhD [Astronomy] from Harvard.

Marriage to Jennifer Gordon, an Australian he met while she was a PhD student in economics at Harvard, eventually brought Professor Schmidt to live in Australia in 1994 where he joined the ANU’s Mount Stromlo Observatory in 1995.

Today he and Jennifer own and operate the boutique Maipenrai Vineyard and Winery near Canberra which is highly rated and “dedicated to making fine Pinot Noir without compromise”. In 2013 Professor Schmidt was appointed to the board of the Australian Wine Research Institute.

Professor Schmidt is also a very strong advocate of the public education system and campaigns on this and on having more teachers trained in STEM. One of his first acts after winning his Nobel prize was to donate $100,000 of his prize money to the Primary Connections Program, an initiative of the Australian Academy of Science that assists primary school teachers.

“To the Go8 Professor Schmidt needs no introduction as he is already a very esteemed and much celebrated academic at the ANU,” says Go8 Chief Executive Vicki Thomson. “I consider it a great coup that the ANU has been able to have him as its new Vice Chancellor. We look forward to the contribution he can bring to our Board, and to ensuring a robust university sector.”
RESEARCH

PROXIMITY PLAYS A PART IN ALCOHOL IMPACT

Living close to a bottle shop, pub or club has a greater impact on health for those in disadvantaged areas compared to people in well-off areas, a new study has found.

The findings can be used to inform Australian urban planning policies to help support appropriate regulation of alcohol outlets.

Lead author Dr Hannah Badland and colleagues from the University of Melbourne and the University of New South Wales, have examined the health of more than 3000 people in metropolitan Melbourne and mapped the location and density of alcohol outlets in their areas.

Dr Badland said the location and density of alcohol outlets had no impact on the long-term health of people in better-off communities, but it was a different story for disadvantaged communities.

“People in disadvantaged areas were more likely to rate their long-term health as poor if there was an on-licence alcohol outlet, such as a pub or restaurant, within 400 metres, or a bottle shop within 800 metres,” she said.

“Most research to date has measured the density of alcohol outlets by looking at immediate impacts, such as injury and domestic violence, rather than a more comprehensive measure of long-term health across the community,” Dr Badland said.

“Self-rated health is a very stable measure of mental and physical health across the population, regardless of level of disadvantage.”

The study pointed to a need to further develop state policies to regulate the location of alcohol outlets to create safer and healthier communities, especially for disadvantaged communities.

“These policies would give policy makers and planners more teeth to say yes or no to applications for alcohol outlets because currently there’s limited information to guide what’s okay and what’s not, and where.”

Dr Badland said the study, supported by The Australian Prevention Partnership Centre and published in Drug and Alcohol Review, was the first to measure the impact of the density of alcohol outlets on self-rated health.

While conducting the study, the research team discovered only a few state policies about where to locate alcohol outlets and none took the demographics of the region into account.

“Reducing access to alcohol is an important and cost-effective way to decrease alcohol consumption and associated harm, but it is not commonly used to control alcohol in Australia,” Dr Badland said.

“Instead, Australian strategies to reduce alcohol-related harm tend to focus on marketing and education interventions, and there is limited evidence internationally that these are the most effective strategies.”

The results are the first published results from the National Liveability Study, which is measuring the key factors that make our cities healthy and liveable.

The National Liveability Study is one of more than 20 research projects supported by The Australian Prevention Partnership Centre, a national collaboration of researchers, policy makers and practitioners identifying what works to prevent lifestyle-related chronic health problems in Australia.
RESEARCH

TEAMWORK PART OF BEING HUMAN

Shared intentions are part of our everyday life. They range from the banal, such as “we intend to go out to dinner tonight”, to those with more far-reaching consequences like “we intend to form an alliance to defeat our common enemy”.

Monash Business School’s Dr Simon Angus and co-author Dr Jonathan Newton (University of Sydney) are the first to provide a plausible theory of how and when early man developed the ability to collaborate.

Using game theoretic modelling, they have formally modelled the evolution of humans’ ability to form shared intentions, the basis of collaboration, in their research paper: Emergence of Shared Intentionality is Coupled to the Advance of Cumulative Culture.

Dr Angus and Dr Newton show that the ability to share intentions is likely to have evolved at a time when technological and cultural progress offered particularly high benefits to survival. An example of such a time may be during a period of significant environmental change, such as a global warming or cooling event.

Prior to this research, scientists had established that the sharing of intentions is a uniquely ‘human’ ability, distinguishing us from related animals like great apes, explained Dr Angus.

“There is a strong hypothesis suggesting that this ability to collaborate was a key part of developing humanity’s advanced mental abilities. In other words, rather than ‘we are smart and so we collaborate’, it may be ‘we collaborate and so we are smart’,” he said.

“To date, there has been no mechanism proposed of how our ability to collaborate became widespread in the human population. Our model provides just such a mechanism.”

The work conducted by Dr Angus and Dr Newton contributes to our knowledge of humanity.

“It may not change the way we sleep, eat our breakfast or work or any of the other activities we engage in. But it may change the way we think about ourselves and our special place in the order of nature,” Dr Angus explained.

The research may also serve to reinforce the hypothesis that modern notions like ‘team work’ are actually a key part of what it means to be human.
FOOD FOR THOUGHT

Bill Ferris
CHAIR OF INNOVATION
AUSTRALIA

"we want to see more coordination of activities – not just government activities but encouraging a greater collaboration between academia, government and the private sector.

"We have had many discoveries, patents, and breakthroughs in the health and medical research sector. There is plenty R but very little D in the research and development process. People who have been in this field for some time have been frustrated at the lack of commercialisation of great discoveries and great research outcomes."

Hon Simon Birmingham
MINISTER FOR
EDUCATION AND TRAINING

"On 6 November, the release of the UK Government’s Higher Education Green Paper signalled its commitment to the Research Excellence Framework (REF). Unlike our Excellence in Research for Australia (ERA), the UK approach includes evidence of the impact of UK research, through its case study methodology.

"While there has been some criticism from the UK higher education sector of the administrative burden of the number of case studies that have been required, it should be possible to measure impact without making it overly burdensome. There is always a reason not to do something. Sometimes we need to learn from the experience of others and adapt.

"Behavioural change is not always welcome and often only appreciated once change has been effected. Like the opening of the Australian economy, recycling, smoking and drink driving laws and wearing seat belts and helmets, it’s hard to remember what life was like before those changes. Few would argue to go back.

"Some universities are out in front on this – there is definitely a shift underway both here and internationally, driven, I think, by two things:

• A realisation that where industry relevant research is undertaken in the absence of linkages with business, it may not have significant impact and
• a recognition that research excellence is not antithetical to impact."

Catherine Livingstone
PRESIDENT
BUSINESS COUNCIL
OF AUSTRALIA

"...we seem to have gone from the word innovation being banned to suddenly being compulsory, regardless of context.

"In this renewed national discussion around innovation, if we don’t start taking a systems approach we will effectively be deciding how to style the rooms, without having built the house,” she said.

"The right approach is to put the overall architecture of the system in place and then populate it over time.”
RESEARCH

E-CHALLENGE WINNER
PROBLEM-SOLVES STAFF ROSTERING

A team of University of Adelaide students has taken out first prize in the 2015 Australian eChallenge with a new app that aims to boost efficiency in the workplace and reduce absenteeism by keeping track of shifts.

The winning project, known simply as Shift, helps to fix an age-old problem: the creation and management of staff rosters.

Shift is a mobile app and cloud-based device designed to help companies save money and time by doing away with spreadsheets and printouts; a time-consuming process that often results in miscommunication with staff. The Shift team – comprising University of Adelaide students Michael Phillips and Rye Smith – has won cash and prizes valued at almost $19,000. Shift also won the People’s Choice Award.

“Shift is one of those rare projects that could have direct transferrable benefits to a wide range of businesses and industry, which is one of the reasons why it’s won this year’s eChallenge,” says Professor Noel Lindsay, Director of the University’s Entrepreneurship, Commercialisation and Innovation Centre (ECIC), which runs the annual Australian eChallenge event.

“Being able to find innovative ways of improving day-to-day business processes and helping companies to save money along the way shows great insight into the kinds of solutions businesses need and want. This year’s pool of talent in the Australian eChallenge has been outstanding in every way. The event is not just about having great ideas, but also having the skills and knowledge to be able to develop those ideas into a sustainable business,” Professor Lindsay says. Other eChallenge winners are:

- 2nd prize: STEMTAP (Science Technology Engineering Mathematics Teaching Activity Platform), a teaching resource design to assist in school-based learning of STEM subjects. STEMTAP has also won the A Day @ Microsoft prize.
- 3rd prize: ModuCar, a computer module that plugs into a vehicle and provides up-to-date information to insurance companies about a driver’s safety rating. ModuCar has also won the Vroom Award.
- ECIC Commercialisation Encouragement Award: Traks, a smart travel app that uses local knowledge to uncover hidden travel gems.
- Best Presentation at Venture Showcase: GradStart.

The winner of the Australian eChallenge NextGen Award was Ennovation Textiles, which utilises the expertise of Australia’s largest manufacturer and supplier of netting to the meat industry to produce textiles for the medical industry. The People’s Choice Award in the NextGen family business category went to Barossa Hop Co, specialising in South Australian-grown hops for craft beer.