West Australian opinion piece:

Science helps ready us for an unknown future

By Australia's Chief Scientist Professor Ian Chubb

The University of Western Australia was founded in 1911. In the same year, a national Census was taken, and the data can be viewed online today.

Across this great state, there were five biologists, three geologists and fifteen chemists. None of these people were women.

There were a few dozen engineers – male engineers – outnumbered three to one by jockeys.

There were also a lot of people working in jobs we wouldn't see as good prospects today: like manglers, coachmen, and tallow melters.

So Western Australia has changed a great deal.

It is helpful to reflect on that history in setting the direction – not just for Western Australia, but for the entirety of our science enterprise and our nation.

Jobs will change. As one measure, a report released last week concluded that 40 per cent of the jobs we do today – or 5 million jobs – will not exist by the year 2030.

And the changes will not simply be felt in the way we work. *We* will be different – as will the environment that supports us, and the world that surrounds us.

Leading that change will be science. Science that allows us to understand who we are and the planet which is still our only home. Science that allows business to offer more to

consumers, and leads consumers to demand more from business in turn. Science that takes us to the limits of what human beings can think, imagine, create – and then goes one better.

It is awesome, and it is awesomely important for Australia. We ought to be prepared, and we must aspire to be great.

More and more of us, I believe, are coming to share that view today, often in surprising quarters. The Pope, in his Encyclical released last week, brought new momentum to the global conversation.

“Technology”, he wrote, “has remedied countless evils which used to harm and limit human beings. How can we not feel gratitude and appreciation for this progress, especially in the fields of medicine, engineering and communications?”

He went on to argue for a new compact between scientists and society, in which people are informed, and science supports their vision for a better world.

Tony Blair said something similar in his celebrated speech to the Royal Society in 2012: science lets us do more, but doesn’t tell us if doing more is right. We’ve got to be in a position to have the conversation in order to reach a good decision.

The Pope does have a science qualification. He trained as a lab technician and worked in the food sciences sector.

But I don’t think you need to have a science qualification to accept that the way we think about science and practice science is set to change.

Science is going to define all our lives and opportunities, whether it takes away a job we do today or builds an industry

for our children to work in tomorrow. Let’s agree that’s important, and be prepared.

For me, that comes down to three great imperatives.

We need everyone to know enough about science to understand how it works, and be part of it world where it is often the difference between opportunity and disadvantage.

We need enough people with science skills working across the economy, designing cities, improving farms, making products, delivering services.

We need people who excel in science to be supported in research careers – with the skills to work in industry or commercialise ideas if they choose to do so.

We also need to find a way to fund and coordinate all these things, so that people know they are being done well.

No more half-measures. No more small-scale pilots, with terminating funds, that only reach one school, or a handful of businesses, or a few researchers.

We have a unique moment of opportunity to do something ambitious, and enduring, as a country that makes science its national brand.

This week the Government released its consultation paper on a response to my call for a national strategy for Australian science.

I have had the opportunity today to speak to the Chief Scientists of the states and territories about its contents.

It is fitting that we have gathered for the first time in Western Australia, a state with so much to gain from science and science-skilled people.

I don’t know what the Australians who look back at us from the year 2111 will be – just as the people of 1911 couldn’t fathom our world. I hope their Australia will be better because we had the courage to begin to prepare their world today.

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