

**ADDRESS BY**

**MAJOR GENERAL THE HONOURABLE  
MICHAEL JEFFERY, AC, AO(Mil), CVO, MC (Retd)**

**PATRON, AUSTRALIAN DAVOS CONNECTION**

**ON THE OCCASION OF THE ADC GLOBAL BLOCKCHAIN SUMMIT 2019**

**BEING HELD AT THE ADELAIDE CONVENTION CENTRE,  
NORTH TERRACE, ADELAIDE**

**MONDAY, 18 MARCH 2019**

(Mention Christchurch)

The Honourable Steven Marshall (Premier of SA)

Mr Anton Roux (CEO of the ADC Forum)

Mr Adrian Turner, (CEO of Data 61)

Delegates

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Ladies and Gentlemen

- May I recognise the original owners of this land and pay my respect to their elders, past and present?
- As Patron of the ADC Forum, I am delighted to open what I'm sure will be a scintillating conference.
- I'm looking forward to hearing from experts and learning a great deal about blockchain technology and the enormous potential it has for securing and sharing information.
- I am speaking to a group of experts on blockchain, so I won't attempt to impress you with *my* own limited understanding of this exciting technology.
- What I DO understand is that we are entering a whole new world, where blockchain suggests it has the capacity to track, organise and store data, foster trust, and facilitate peer-to-peer transactions, without involving middlemen.
- Blockchain's potential for underpinning online interaction appears to be limitless.
- But I also understand that this new technology brings with it complex questions around governance, ethics, international law, security, and economics, and I hope many of you here today will have at least some of the answers to those questions.
- One of those experts, I am pleased to see, is Simon Longstaff, from the Ethics Centre.
- I have always enjoyed listening to Simon and I especially look forward to his contribution to this forum, because I see in the application of blockchain technology, serious ethical questions arising. In particular how do we ensure the privacy and security of this technology, given there appears to be no central authority to monitor or regulate it? How do we ensure that it cannot be exploited by criminal elements, a potential foe or indeed highly competitive companies?
- You'll also hear from James Shipton, from ASIC, who will shed light on the regulatory aspects and implications of blockchain. I would want to know for example, how do we guarantee the integrity of the data in each box without that data going through vigorous peer reviewed scientific, mathematical or factual examination: Will simply leaving this process to a network of other computer station inputs be adequate?
- I'm sure James will have much to say about the emergence of the Bitcoin blockchain as a global currency and the implications for global markets, not to mention the colossal amount of computer power electricity required, estimated annually at a

staggering 1.5% of total US energy consumption. I also look forward to hearing the implications of bitcoin blockchain on tax and cross-border regulation and criminal crypto currency transactions.

- I also note with interest the blockchain on the supply chain in respect to food and agriculture. Might I suggest that a sustainable ag industry and an effective supply chain to distribute the produce, can only occur if the severe and continuing degradation to agricultural landscapes occurring world-wide, including in this country is quickly redressed. So what is the situation?
- Globally, we have to almost double our global food production by 2050 to help feed a projected 10bn people, up from 7bn today. We have to do that when -
- We are losing agricultural land at about 1% per year.
- We've degraded half of the planet's soils.
- We've turned 5 billion hectares – or 40% of the land surface – into desert and wasteland.
- We've polluted most of our great river systems and reduced their flows by damming.
- In agricultural India, Pakistan, sub Sahara Africa, China and the Middle East we are rapidly drawing down on essential aquifers established over geological time; they are in effect, irreplaceable.
- In Australia, 60% of our agricultural landscape is degraded, one million kms of our streams are incised etc, we face the combined impacts of climate variability, drought, salinity, nutrient runoff and the alarming fact that around 50% of the rain that falls on our landscape simply evaporates, mainly because many of our soils are so bare that the water rapidly runs off, taking top soil with it, the soil lacks adequate carbon because of an inadequate mix of top cover, or is so compacted that the rain cannot filtrate. This loss to evaporation is equivalent to twenty-five times the quantity of all the water in our rivers; a tragic and unforgiveable waste.
- So what is the solution? It is very simple. We must teach and support our farmers to successfully integrate the management of their soil (microbes, fungal and nutrient), water (hydrology), plant (diversity) and where appropriate, their animal assets. Failure to manage any one of these assets leads to the collapse of the whole system.
- Is this doable? Yes. We already have the long term measured proof in some 25 leading practice regenerative farms around the country with 75 more to follow. All

have survived drought and minor flooding, all have increased soil health, all have flowing streams in good repair, all are making a dollar.

- And this is where I now put the question to blockchain.
- The collection, collation, analysis and dissemination of data in each of those four critical components; soil, water, plants and animals, is a huge and at this point, a non attempted task.
- Integrating the management of all that data has not yet been attempted.
- Disseminating the results of that integrated data to 85,000 farming families has likewise not been attempted.
- So let me sum up. Without some clever thinking and supreme information management technology, we are facing a global food security crisis which can only be solved if we can successfully integrate the management of our soil, water, plant and animal assets.
- While I understand your focus will be on distributed ledgers and digital assets, I ask you to look at how blockchain technology can assist our farmers in securely collecting, collating, synthesising and disseminating information about his soils, water, plant and animal assets, keeping that information updated, and as appropriate, distributing that information to a wide user base – our 85,000 farm businesses.
- Imagine too, if blockchain technology developed in Australia, could then be expanded to capture and share that data on a global scale, to help tens of millions of struggling farmers to better manage their water depleted and degraded agricultural landscapes, what a boon that would be to reducing potentially large scale social disruption including serious conflict.
- Ladies and gentlemen – food and water security is going to be the issue of our times. Blockchain I'm sure has a positive role to play.
- I look forward to hearing your thoughts and I now take great pleasure in officially opening the ADC Blockchain Summit.
- Thank you.