

# Future Ag Australia

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THE UNIVERSITY OF  
SYDNEY



**\$100 BILLION**

€60 milliard / mil millones

## CONTEXT

- Ag production will be a €60 billion business
- AgTech can be bigger than that
- AgKnowHow can be even bigger than that
- So at least €100 billion – could be a significant portion of GDP



# DIGITAL AGRICULTURE?

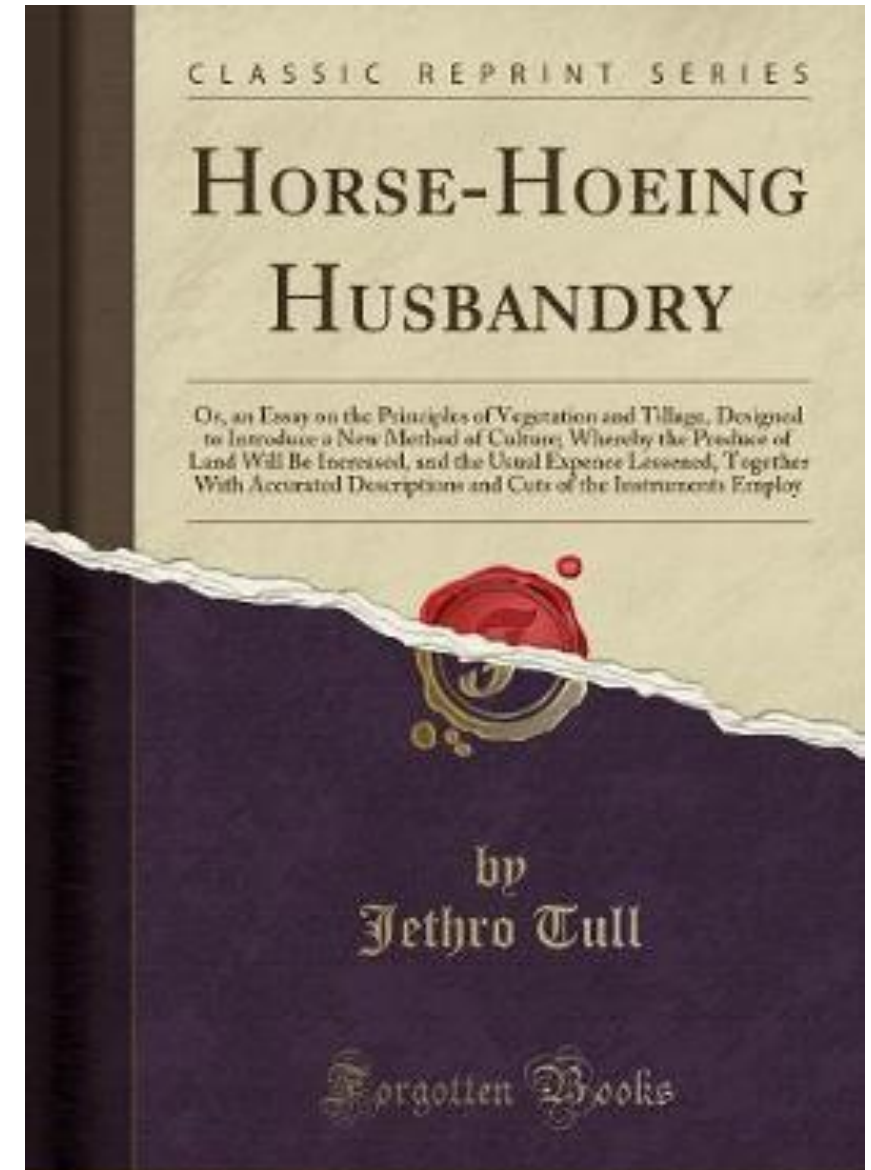
- Technology, yes – but not the fundamental driver
- We need a new way of doing agriculture – better for producers and consumers
- A ‘post-industrial’ agriculture



# Enabling technologies to achieve the NEW Agriculture

1. Genes (~30%)
2. *Smart sensors* (~30%)
3. *Data science* (~20%)
4. *Robotics* (~10%)
5. Molecular design (~10%)

my guess



## Commodity Death Spiral



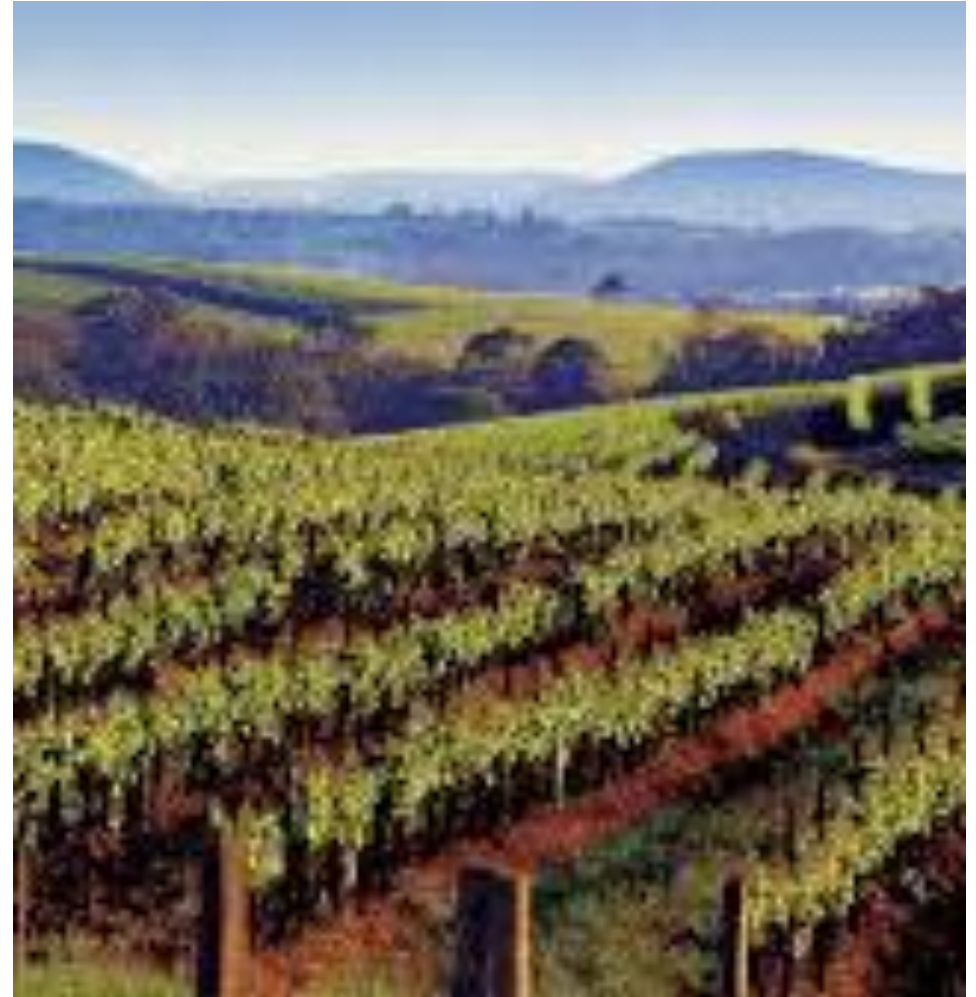
## Commoditisation

The process by which goods that have economic value and are distinguishable in terms of attributes (uniqueness or brand) end up becoming simple commodities in the eyes of the market or consumers.

# Decommoditisation

Basis of high-value ag products,  
e.g., wine, organic x

Common in Europe





# Decommoditisation

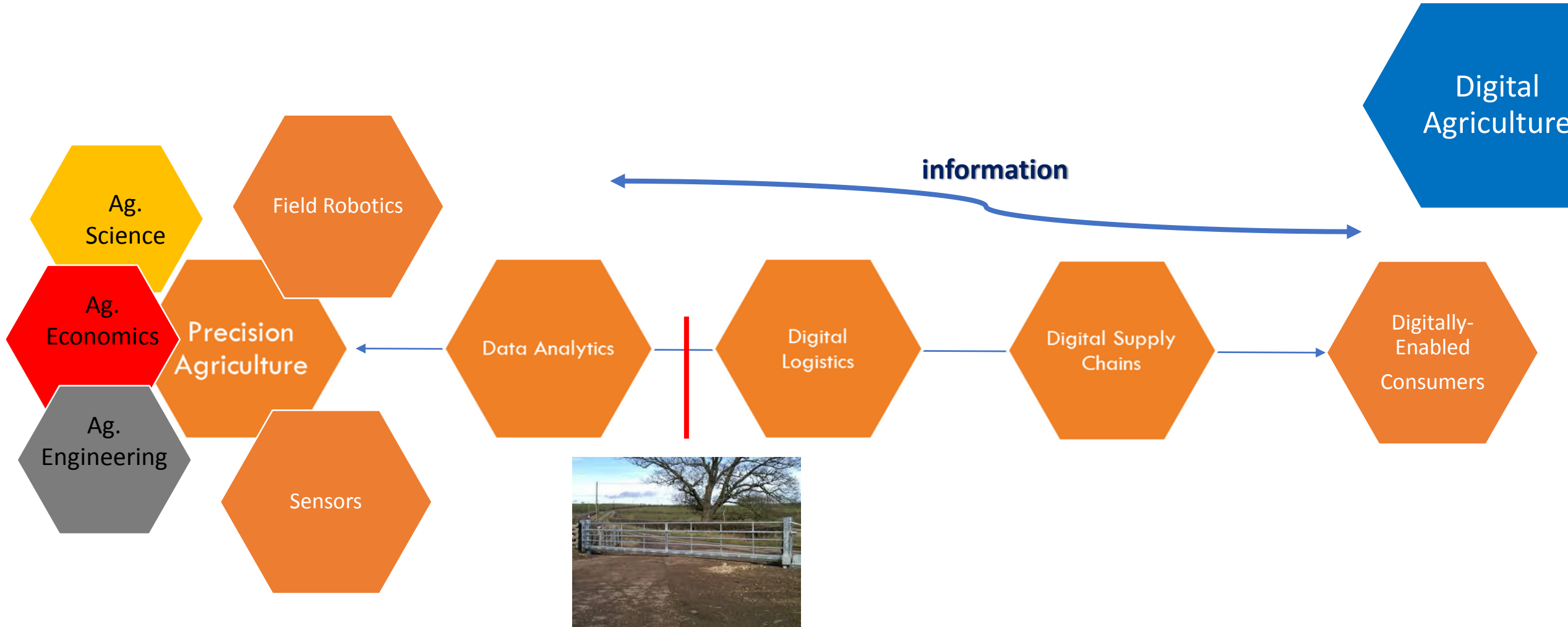


While digital ag. simply comprises optimisation behind the farm gate it can further fuel the commodity death spiral.



Decommoditised (segregated) product and its associated information has to flow beyond the farm gate through digitally-enabled supply chains to consumers.

# WHAT COMPRISES DIGITAL AGRICULTURE?



Needs circularisation





## CREATING AND EDUCATING THE 'NEW' AGRICULTURE

- High-tech.
- Decommoditised
- Value-added
- Producer-consumer connected





# DIGITAL AGRICULTURE



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# AreaCrop

Knowing your moisture, means knowing your bottom line.

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**AGTECH**  
**startups**

**Daily soil moisture mapping**



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# WHERE ARE WE?

Digital decommoditised  
agriculture offers the  
opportunity

We have to agree on curricula  
and standards

..... but nevertheless we are  
somewhere





*'less Agtechspin .... more Agknowhow'*



Need Agknowhow embedded in Agtech

How does the University collaborate with farmers/agri-businesses to implement agricultural innovation?

How do you teach/involve students in agricultural innovation?

# Conclusions



Digital Agriculture is the NEW post-industrial agriculture that we have been seeking.

It offers a much wider view of agriculture and agricultural education.

Australian universities are well placed to deliver both in education and research.

**It promises the opportunity for, but also demands, the professionalisation of agriculture.**



**THANK YOU 😊**

‘The pessimist sees difficulty in every opportunity.  
The optimist sees the opportunity in every difficulty.’

-







Who thinks .... ?

Who thinks .... ?

**Who thinks**

**BROADACRE or even SUBAERIAL AGRICULTURE  
will play a significant role in food production in  
100 years?**