



QUESTnet lite Presentation 25 September 2017

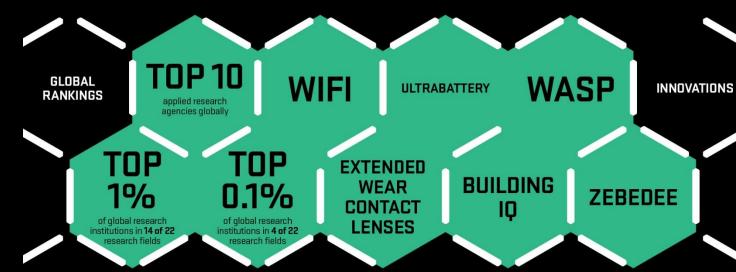




#### **CSIRO - POSITIVE IMPACT**



- **5300** staff
- Over 2000 hold doctorates
- \$1.2 billion annual operating budget
- 2000+ industry partners totaling \$220 million+ per year





# A GLOBAL INNOVATION NETWORK





- ACADEMIA
- CORPORATIONS
- STARTUPS
- FEDERAL AND STATE GOVERNMENT
- INVESTORS
- ENTREPRENEURS

## DATA **61**

AUSTRALIA'S
DIGITAL INNOVATION
POWERHOUSE



employees
[including students]

415<sup>+</sup> students

31 Government partners Corporate partners

29 University

partners

data-driven projects

172 patents



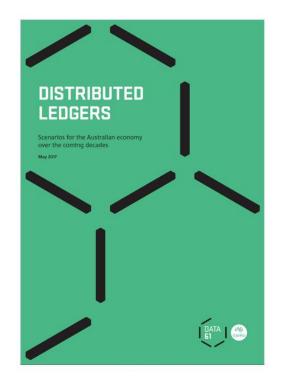


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#### Our recent reports







#### **Overview**



#### Two concurrent projects, for 9 months, from mid-2016

Funded via NISA, with help of Treasury (Australian Government)

#### 1. DLT Foresight

– What might plausibly happen, across society & economy?

Rob Hanson & team



#### 2. Blockchain PoC Study

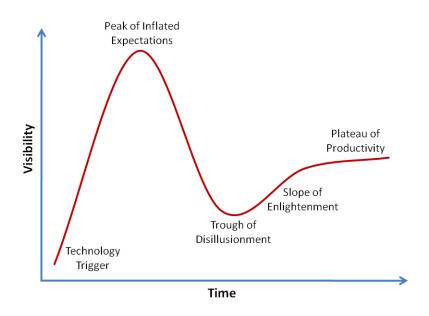
– What are technical risks & opportunities for use cases?

Mark Staples & team

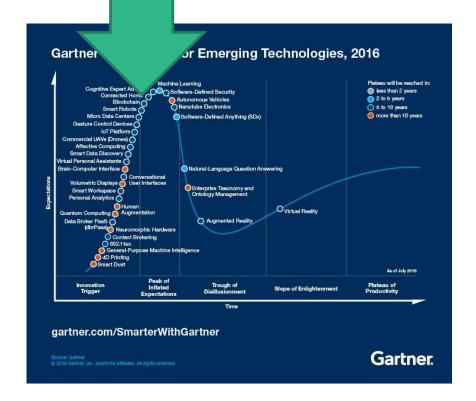


#### **Gartner's Hype Cycle**









### **Spreadsheet Metaphor**





#### The first use case





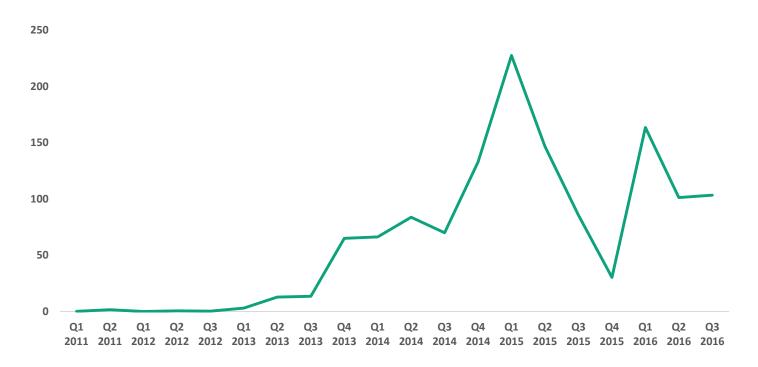


# "blockchain is the start of the fourth information revolution"

Quote: Head of the Bank of England 2016

#### Follow the money...





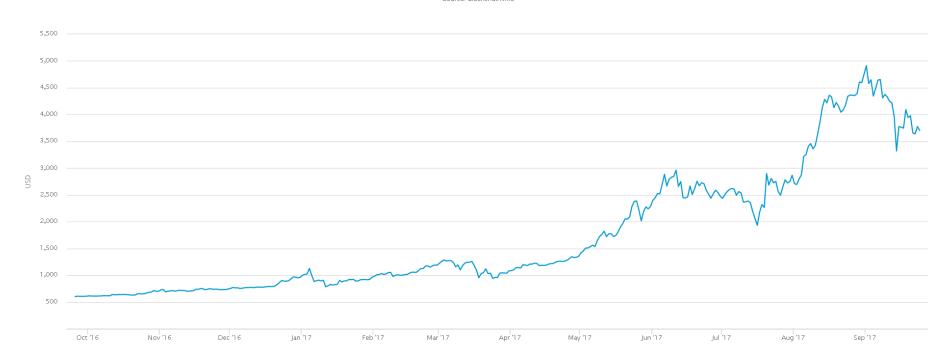
Source: Brave New Coin, 2016.

### All that glitters...



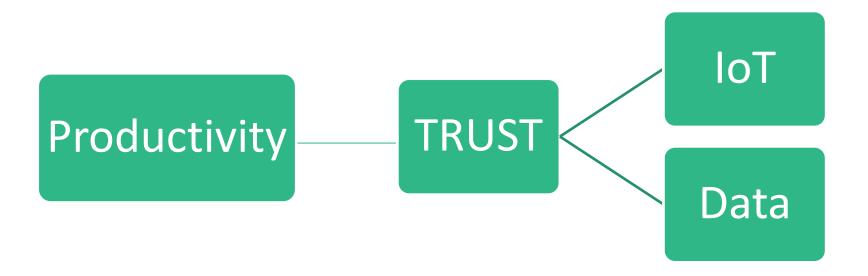
Average USD market price across major bitcoin exchanges.

Source: blockchain.info



#### What's the story?

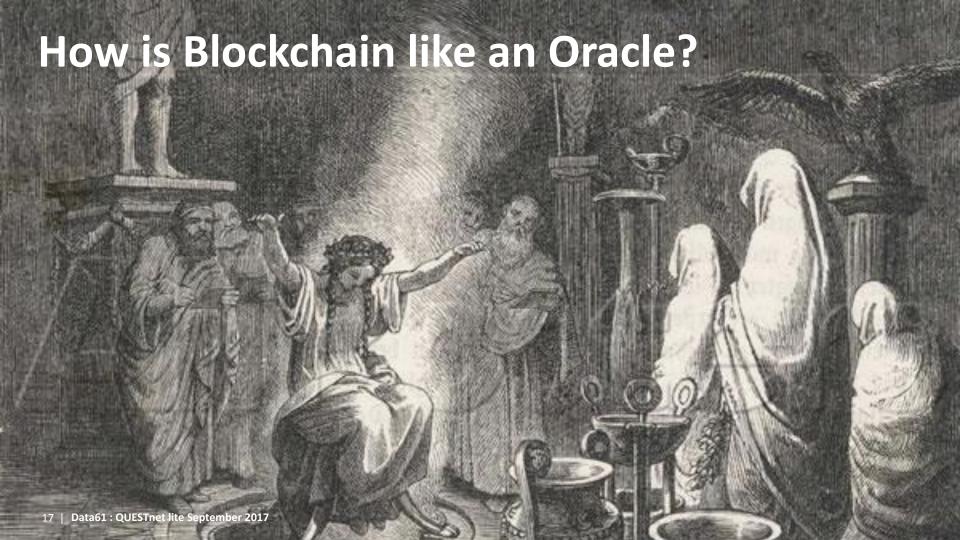




#### Use case



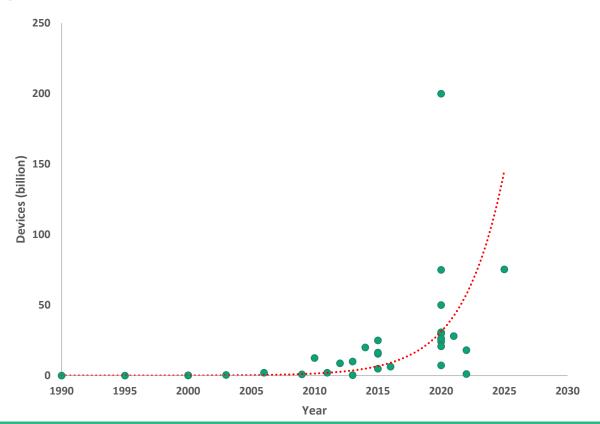
- Registers
- Licencing
- Workflow
- Procurement
- Accountability
- Joined up government





#### **IoT Explosion**



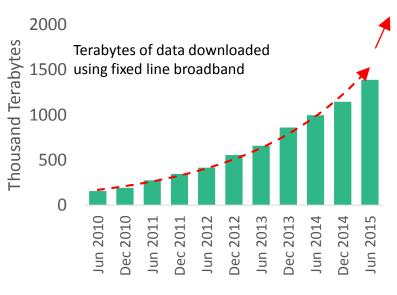


#### Sources:

Howard (2015), Proffitt (2013), Evans (2011), Intel (n.d.), Gartner (2013, 2014, 2015), Machina Research (2013), Soderbery (2013), ABI Research (2013), IDC (2014), Lucero (2016), Cisco (2016), Danova (2013), Lund et al (2014), Business Insider (2016), Ericsson (2011)

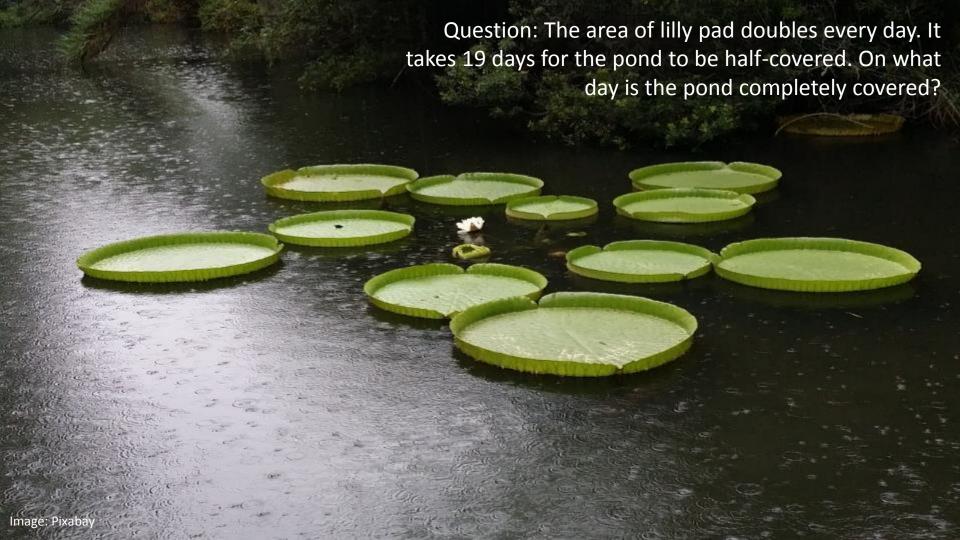
#### **Data Volumes**

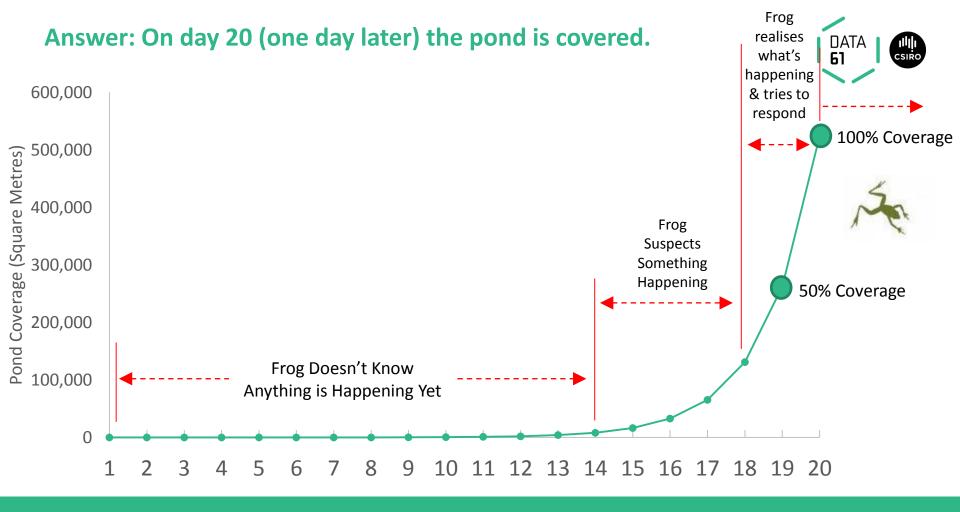




And we'd need another 75m to show you the 2025 forecast.

According to IBM The world creates 2.5 quintillion bytes of data daily; 90% of the data was made in the last 2 years.





#### **Internet of Trust**











#### **Trust is contextual**



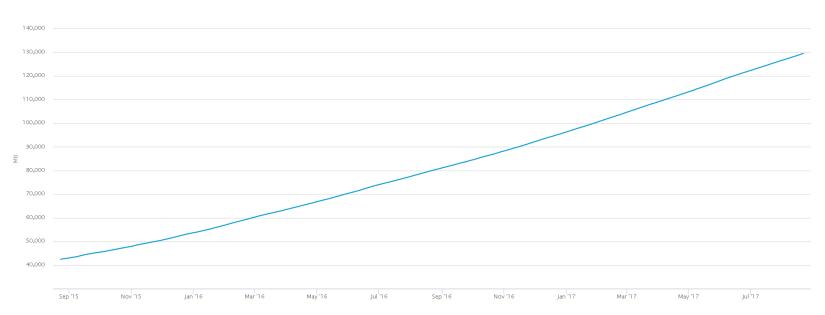


#### **Drawbacks** Blockchain "bloat"



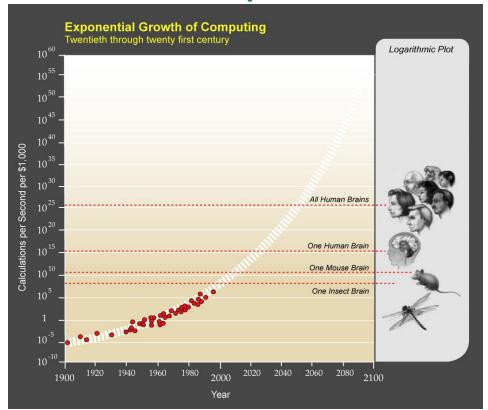
#### Blockchain Size

The total size of all block headers and transactions. Not including database indexes. Source: blockchain.info



## Drawbacks Compute





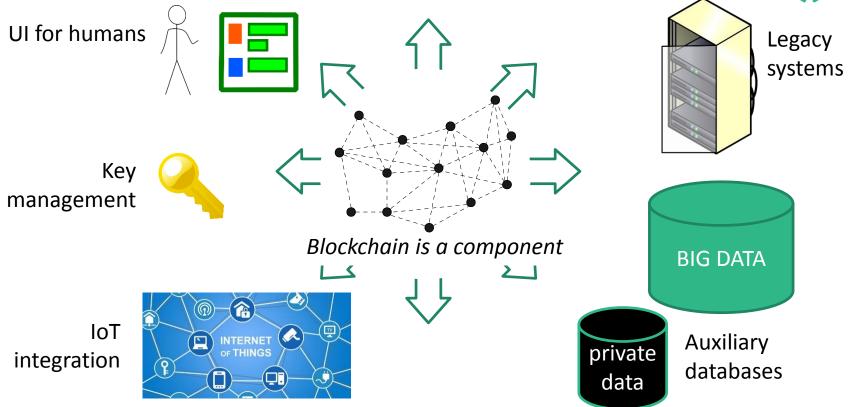
#### **Drawbacks Toxic Data**





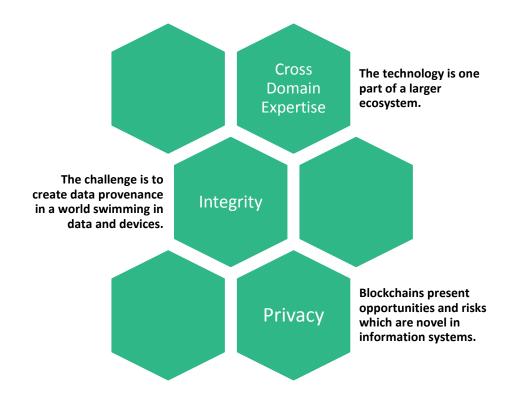
#### **Blockchains are Not Stand-Alone Systems**





#### Key points for government and business













#### BLOCK TO THE FUTURE

27-28 OCTOBER 2017 | BRISBANE

A TWO-DAY GATHERING THAT EXPLORES THE FUTURE BUSINESS IMPACT OF BLOCKCHAIN TECHNOLOGY.



REGISTER AT WWW.APF.ORG



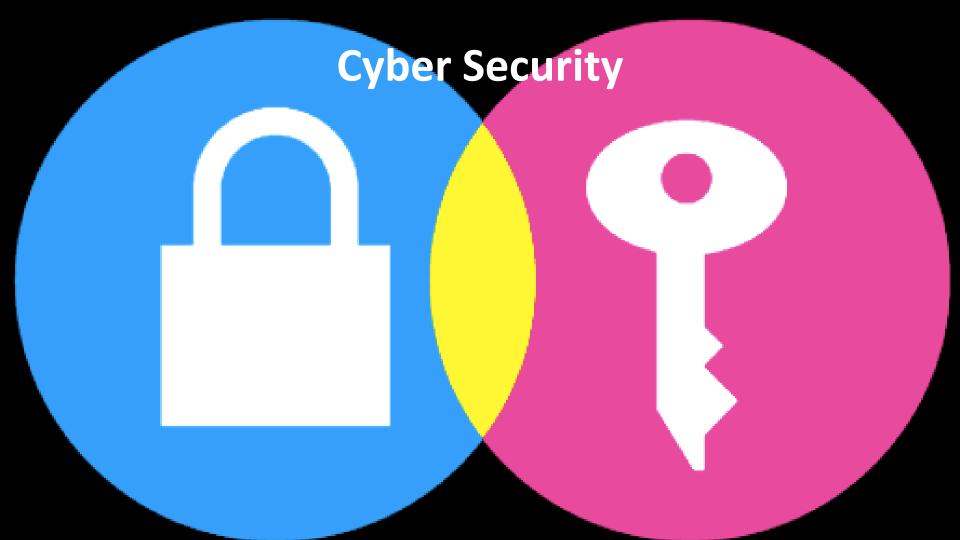


## ICO MASTERCLASS

27 OCTOBER 2017 | BRISBANE

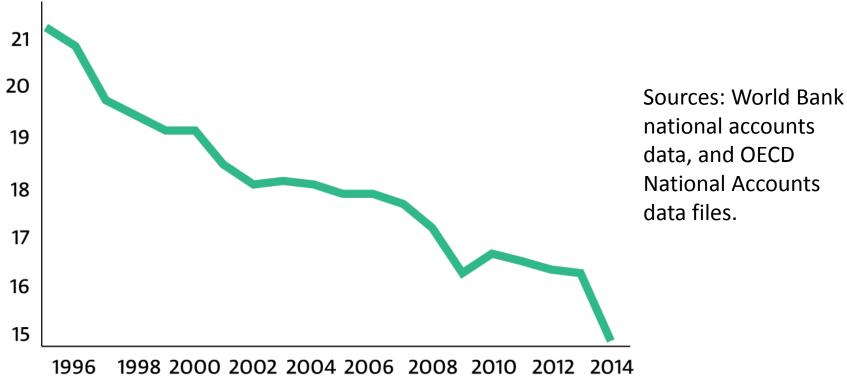
4 CPE / CPD points available





#### Manufacturing, value added (% of GDP)





national accounts data, and OECD **National Accounts** 

#### Hack attack causes 'massive damage' at steel works

© 22 December 2014 Technology









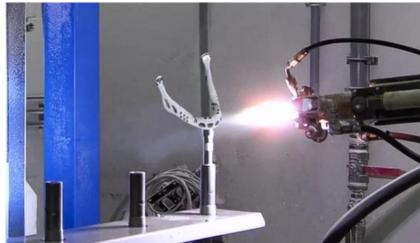


Share



A blast furnace at a German steel mill suffered "massive damage" following a cyber attack on the plant's network, says a report.





#### **Medical Devices**



#### Black Hat hacker details lethal wireless attack on insulin pumps

By Sebastian Anthony on August 5, 2011 at 7:00 am 31 Comments



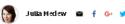




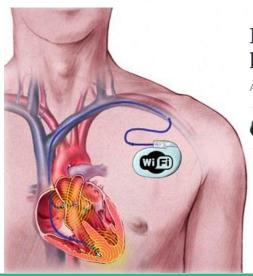




Thousands of pacemakers and defibrillators 'at risk of hacking'







Pacemakers are far more vulnerable to hacking than we thought

A team of researchers find 8,000 bugs in pacemaker codes.

Mariella Moon, @mariella\_moon 05.29.17 in Security

1193

#### **Automotive**





NOY GREENBERG SECURITY 07,21,15 06:00 AM

#### HACKERS REMOTELY KILL A JEEP ON THE HIGHWAY—WITH ME IN IT

ANDY GREENBERG SECURITY 08.01.18 03:30 PM

#### THE JEEP HACKERS ARE BACK TO PROVE CAR HACKING CAN GET MUCH WORSE