Securing our Data-Driven Future

Adrian Turner | CEO, Data61

March 2017

D61+ NETWORK

CORPORATIONS
R&D, JV

ACADEMIA
University
Collaboration
(23 Uni's)

D61+

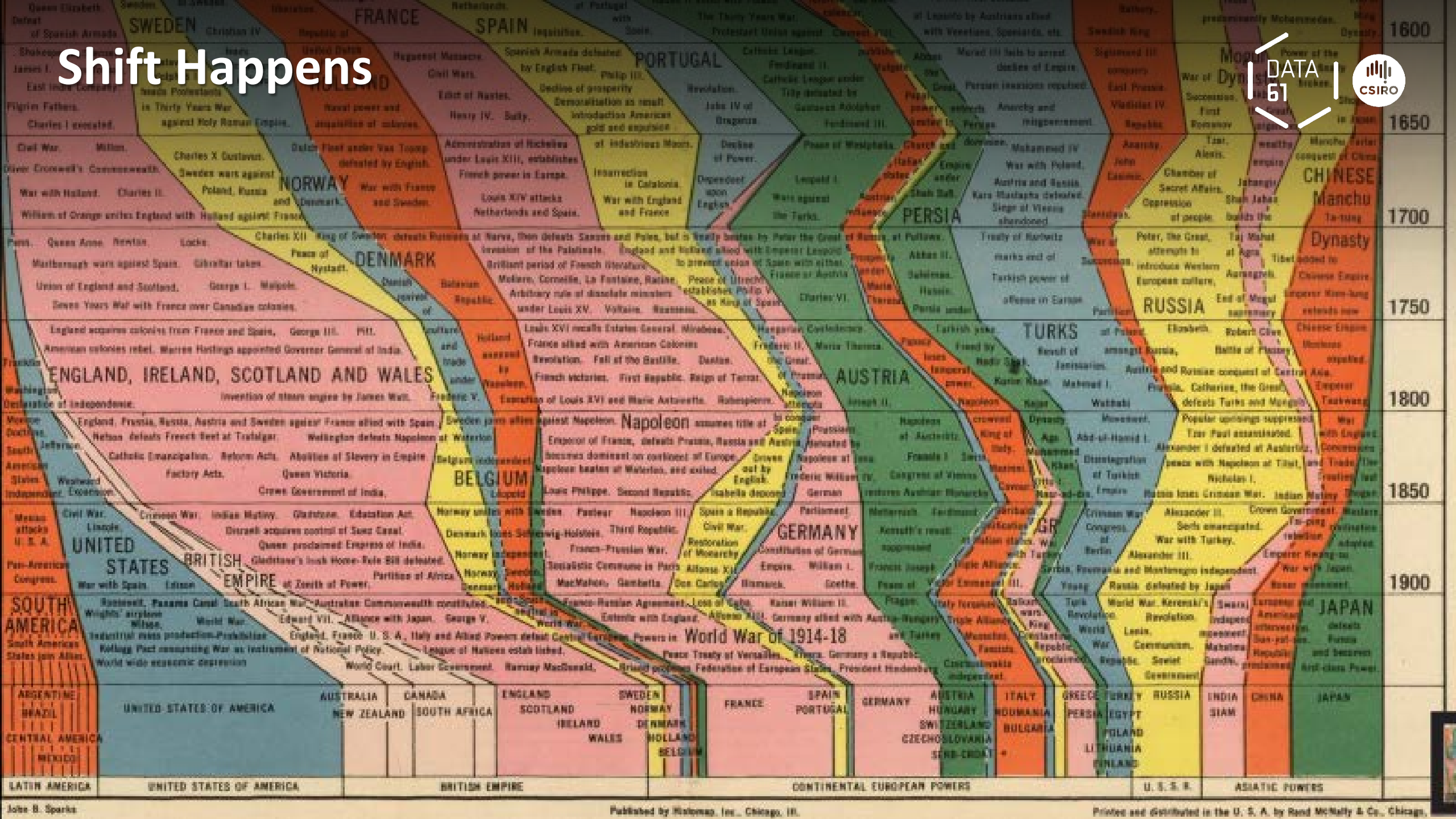
GOVERNMENTS
Federal and State

SME's
Incubators

Shift Happens

Source: David Rumsey Map Collection.
Originally published by Rand McNally.

Shift Happens

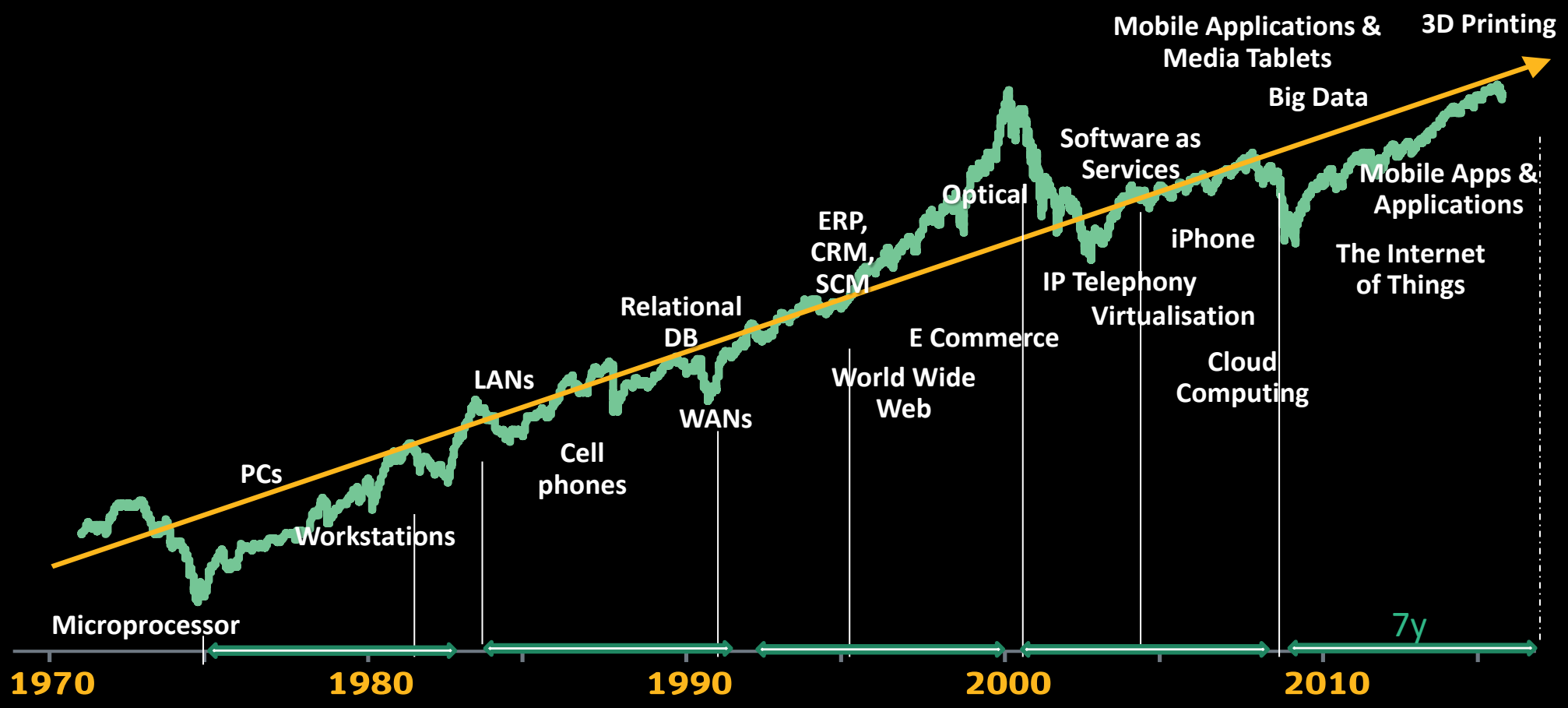


John B. Sparks

Published by Rand McNally, Inc., Chicago, Ill.

Printed and distributed in the U. S. A. by Rand McNally & Co., Chicago.

The Importance of Innovation



— NASDAQ composite index

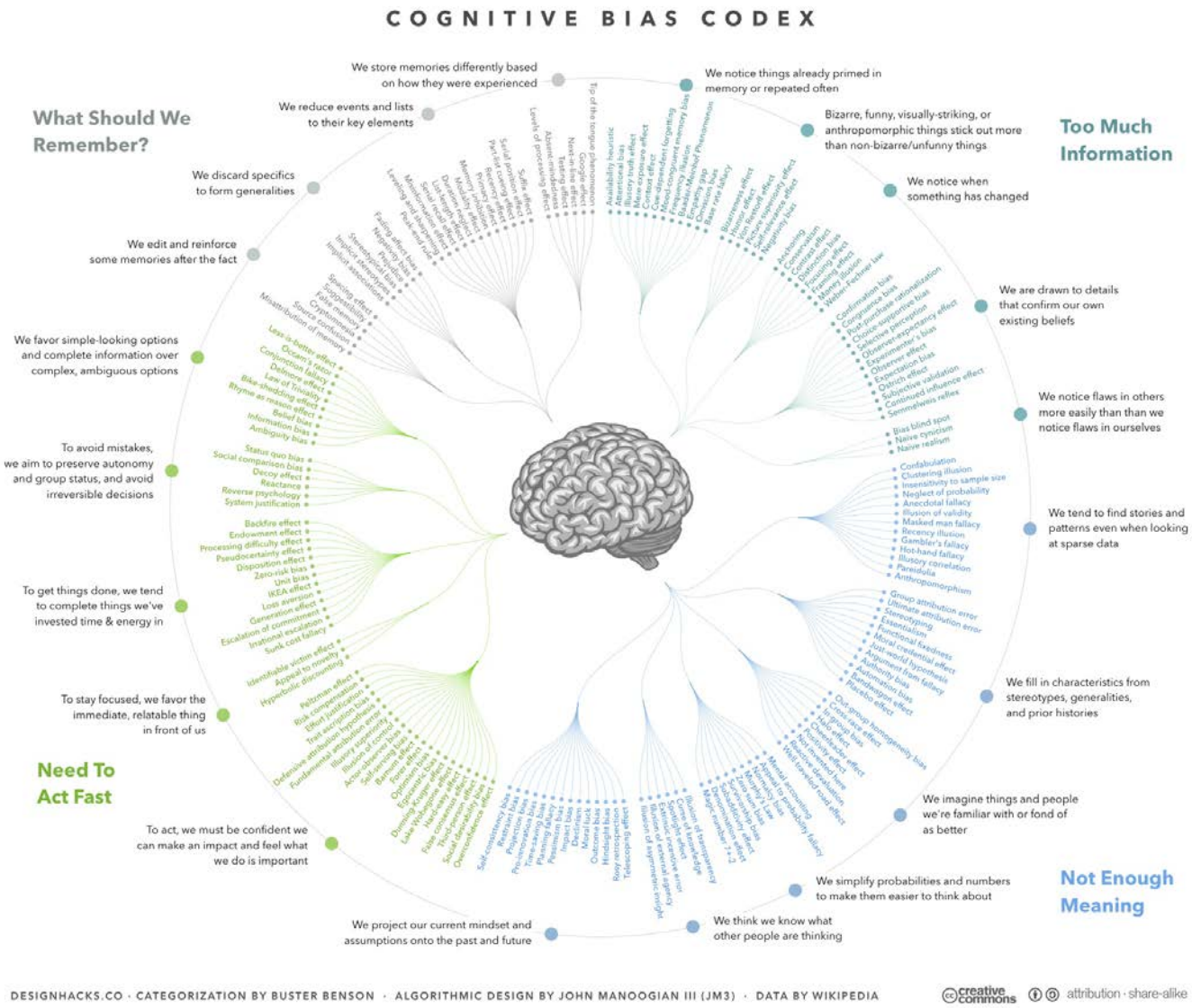
Source: Larry Marshall (Vinod Koshla)

We live in exponential times

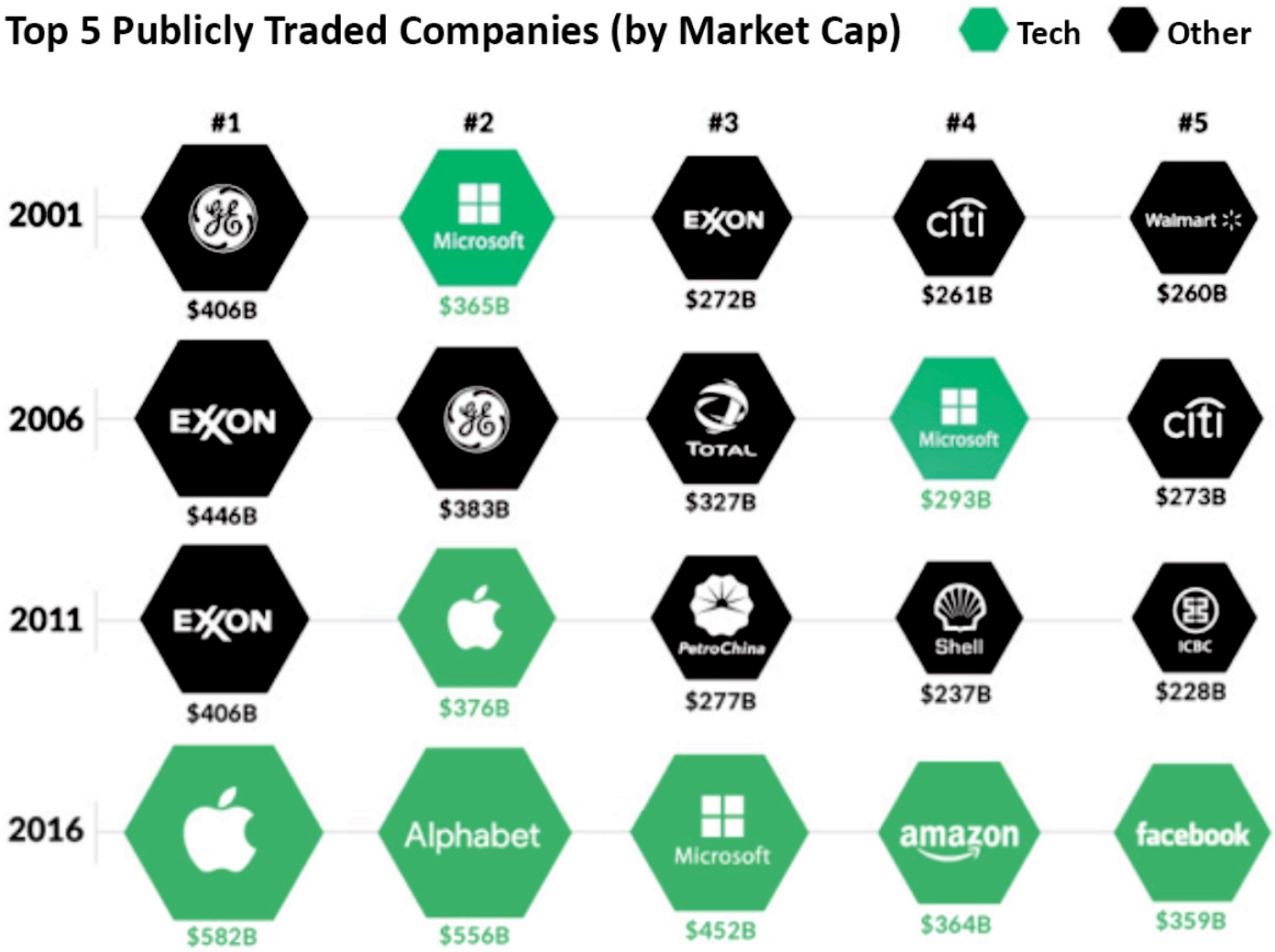
It’s All About Data

And People

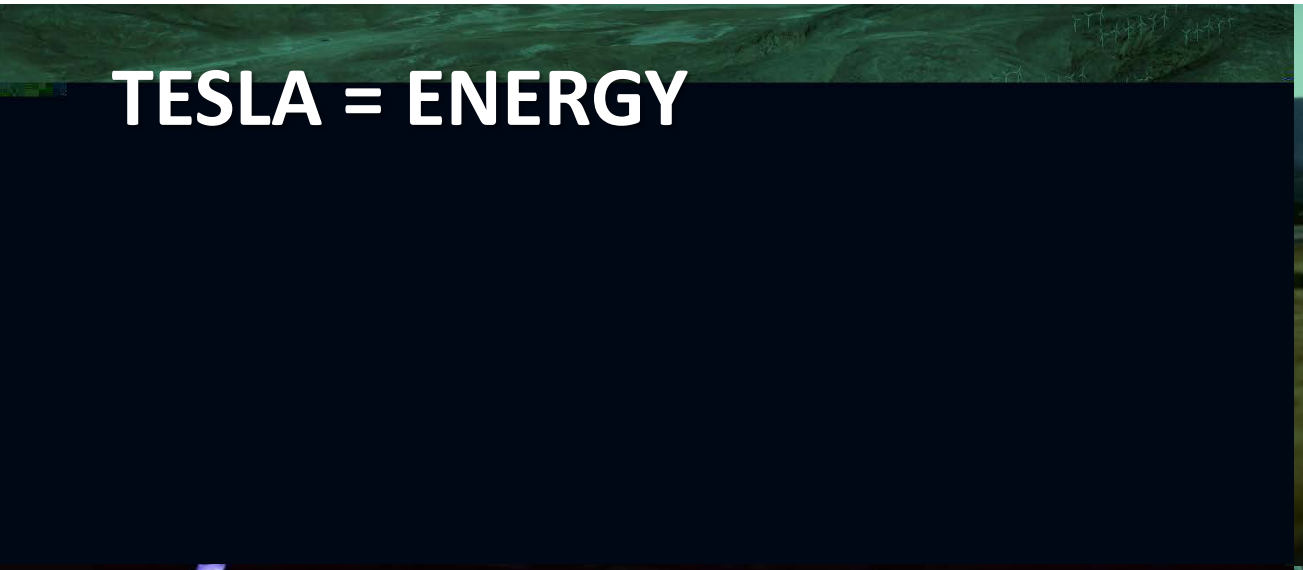
There are 179 cognitive biases that screw up decisions

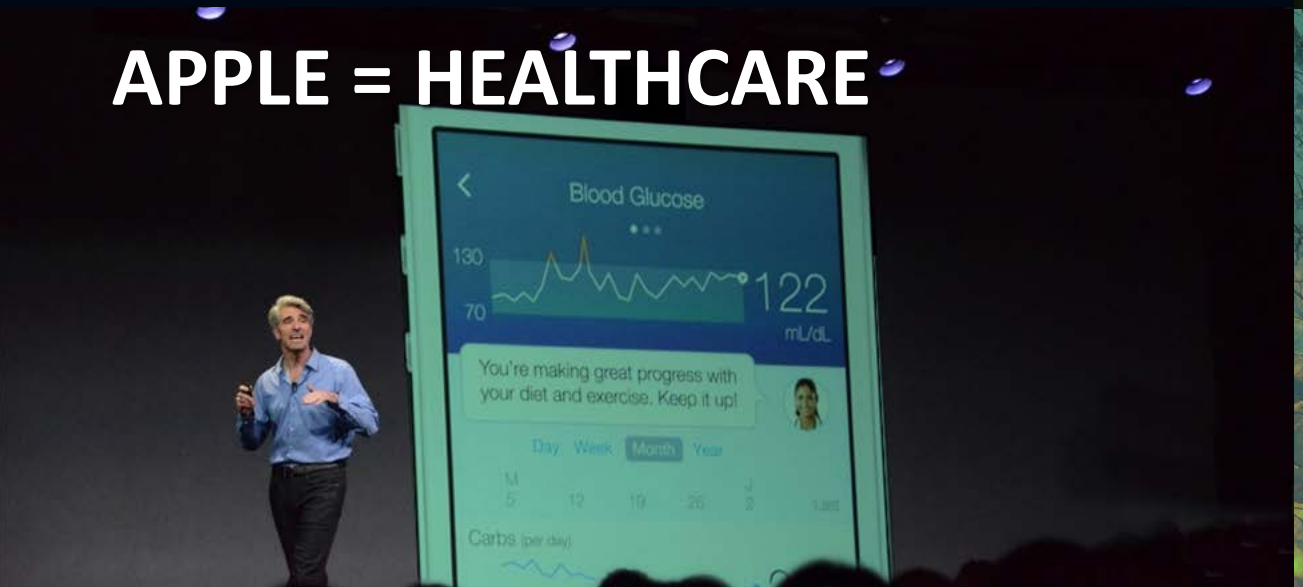


Products > Services > Platforms



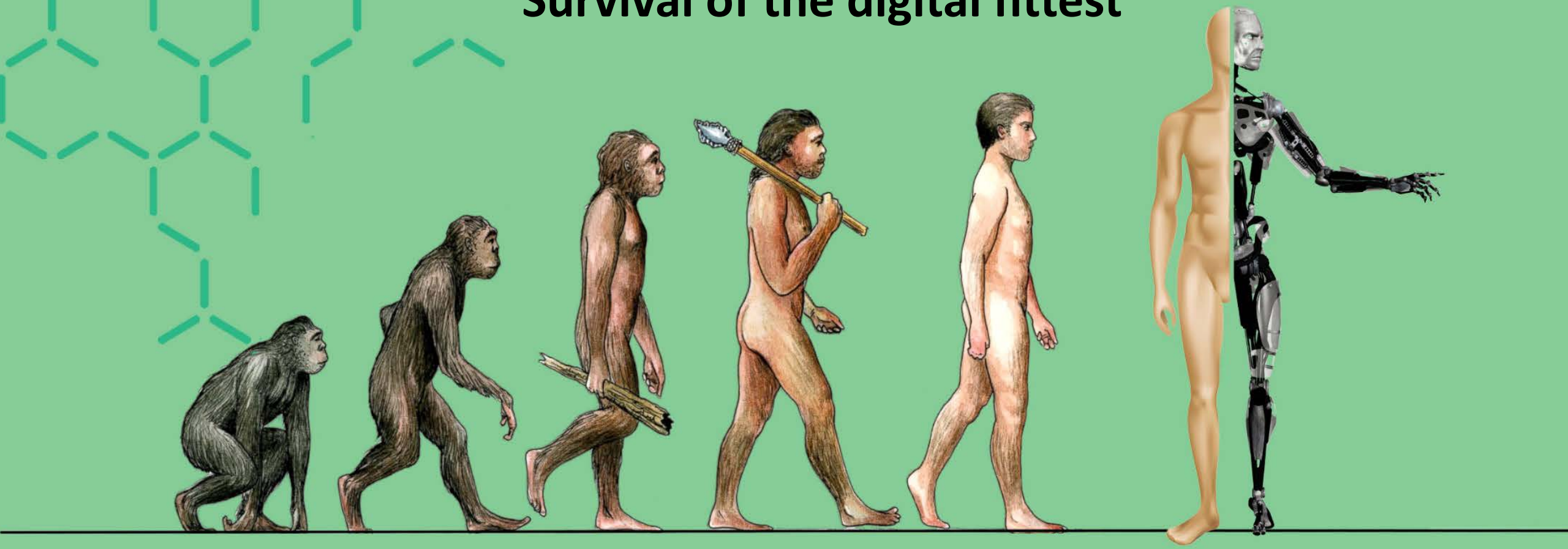
Industry Boundaries Blur





Unintended Consequences

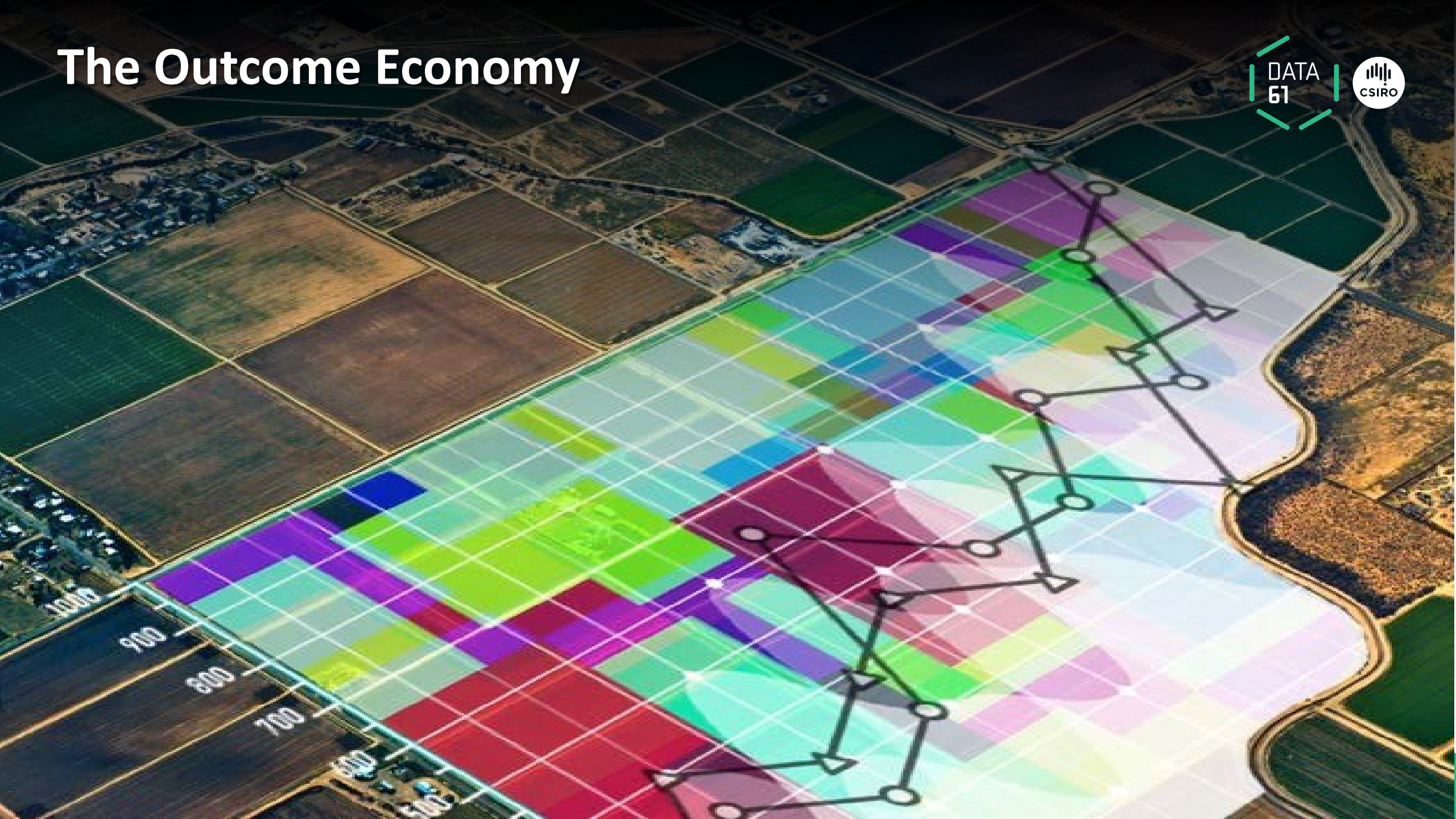
Survival of the digital fittest



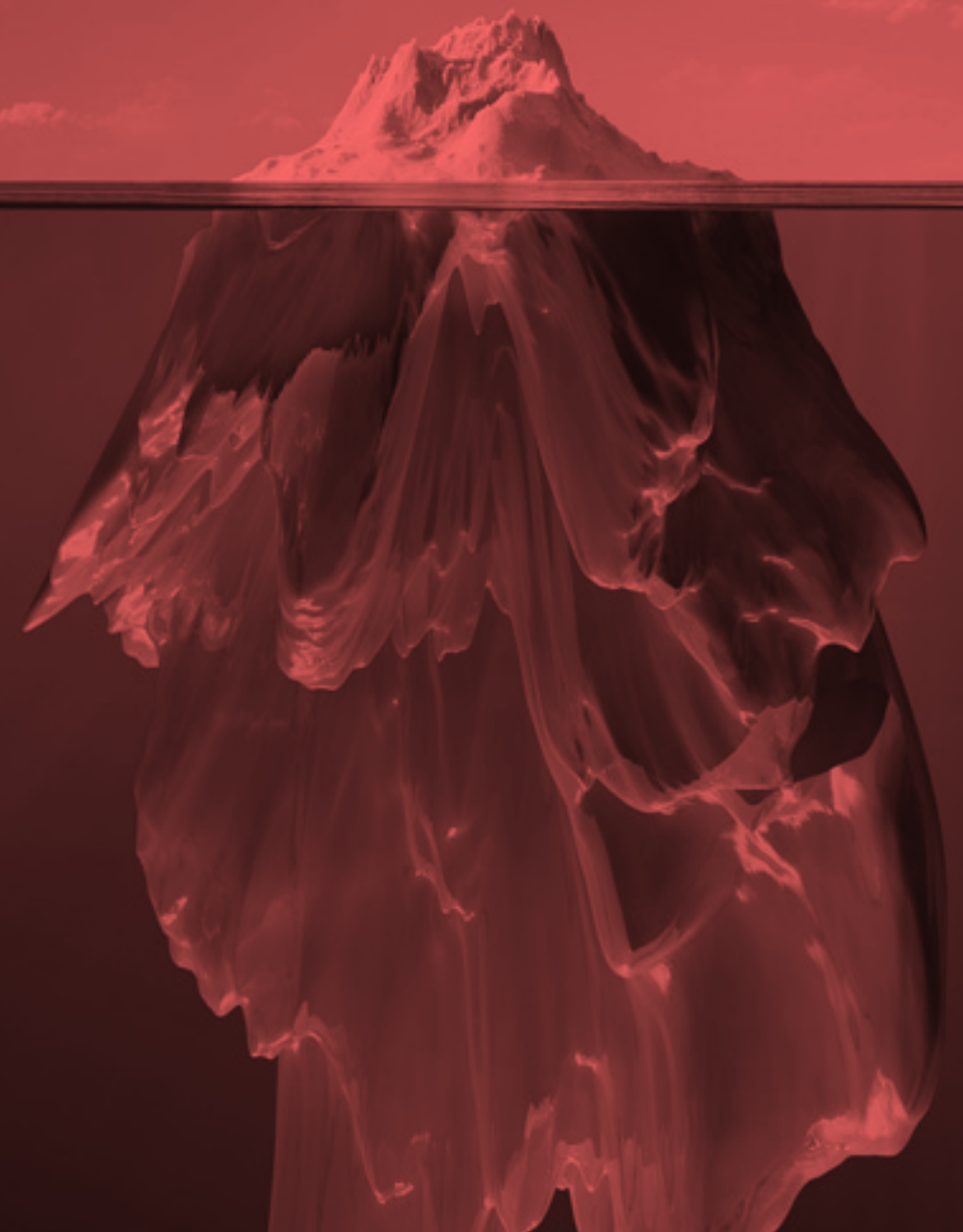
Systems Thinking Matters More

Robotics Will Accelerate

The Outcome Economy



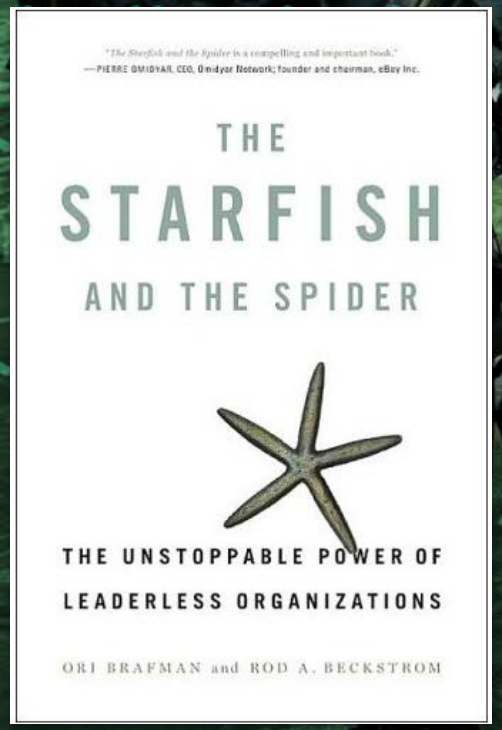
Cyber Attacks Get More Sophisticated

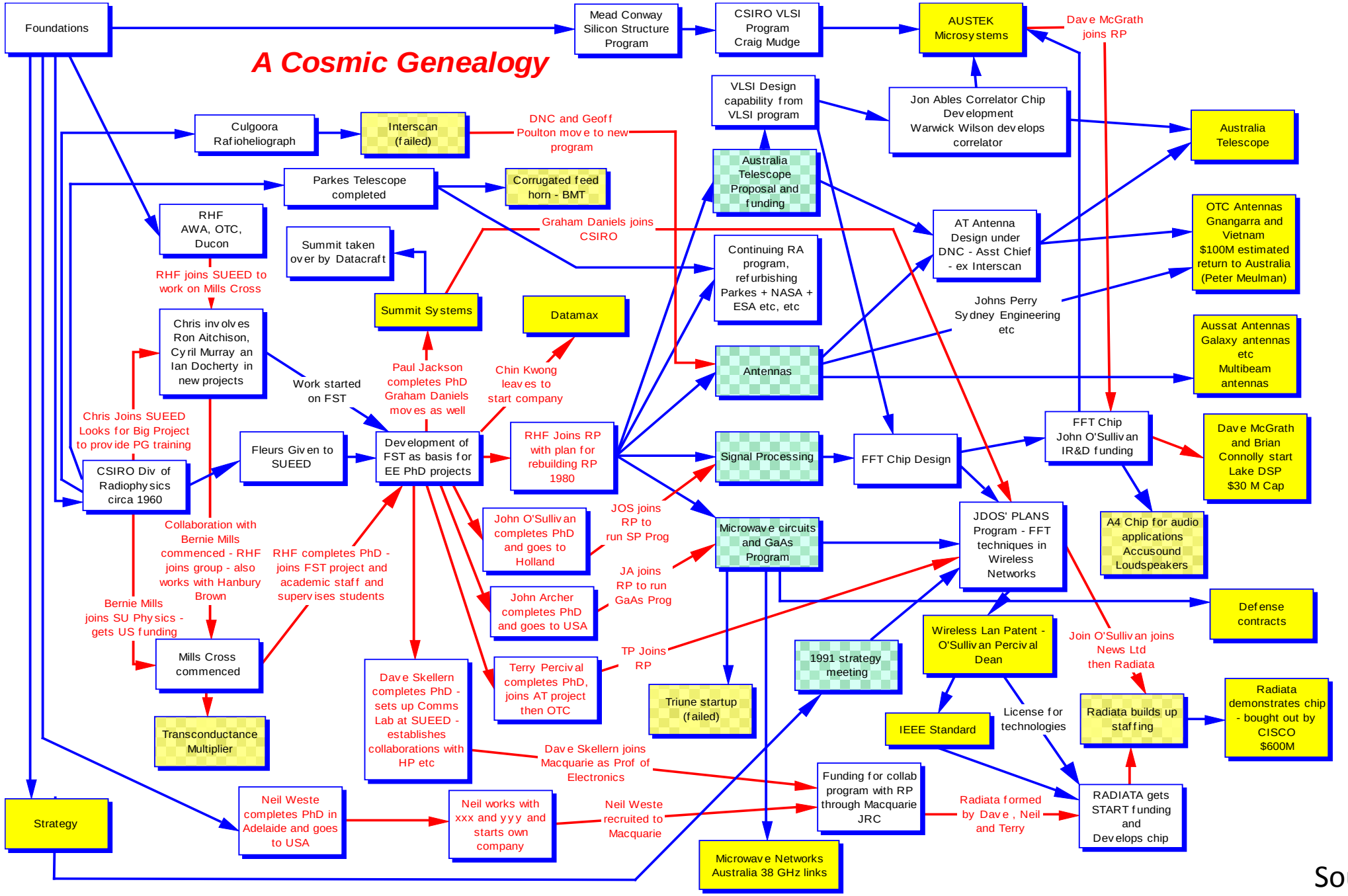


Experiment by Andrew McGill, Editor *The Atlantic*, 28 October 2016.

- Created IoT Toaster and connected to internet with IP address.
- Switched on at 1:12pm
- The first hack at 1:53pm
- The next one from different IP address using different login credentials at 2:07pm
- Another at 2:10pm
- And then 2:40pm
- And 2:48pm
- >300 different IP addresses by 11:59 pm

New Organisational Structures Thrive



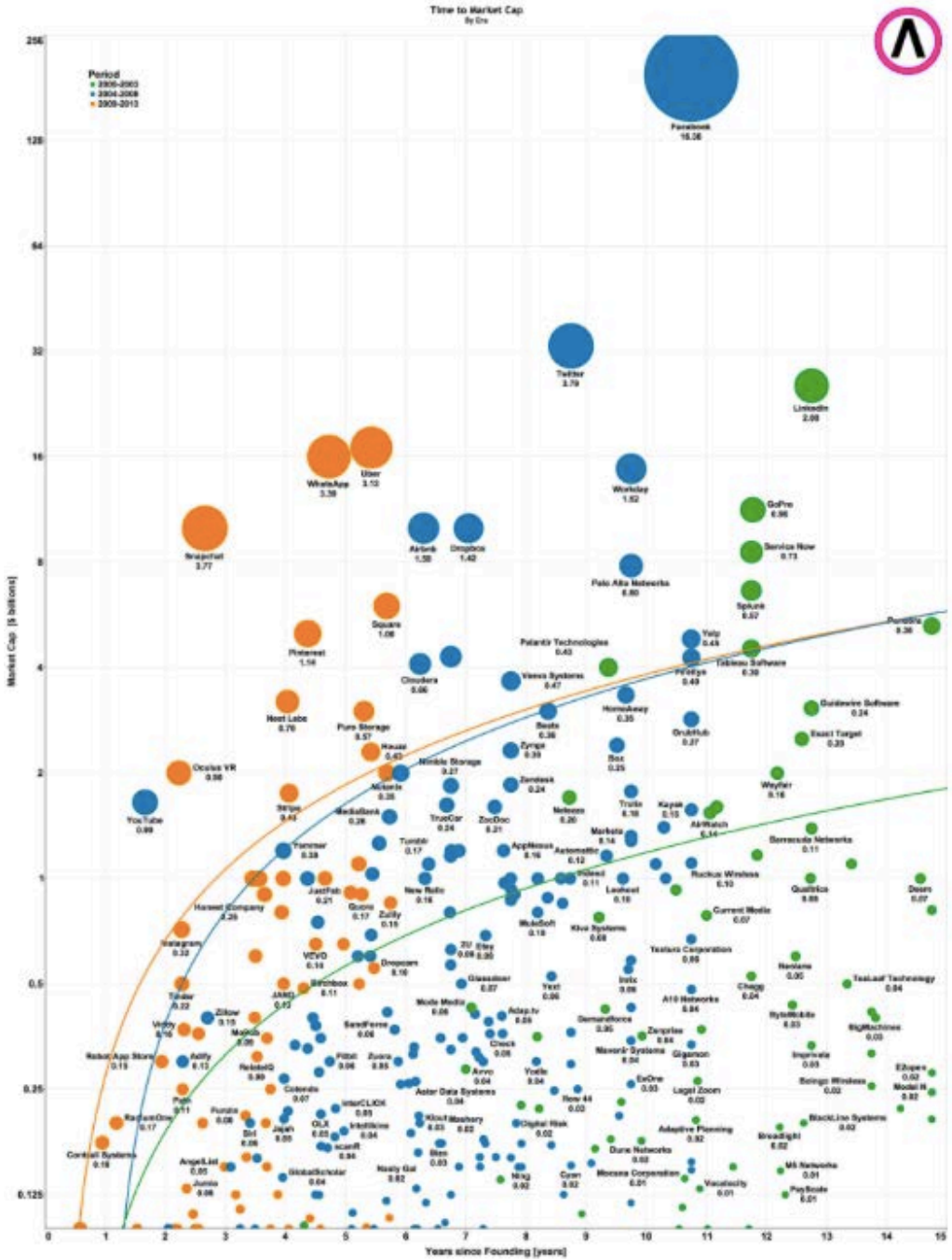


Source: Bob Frater

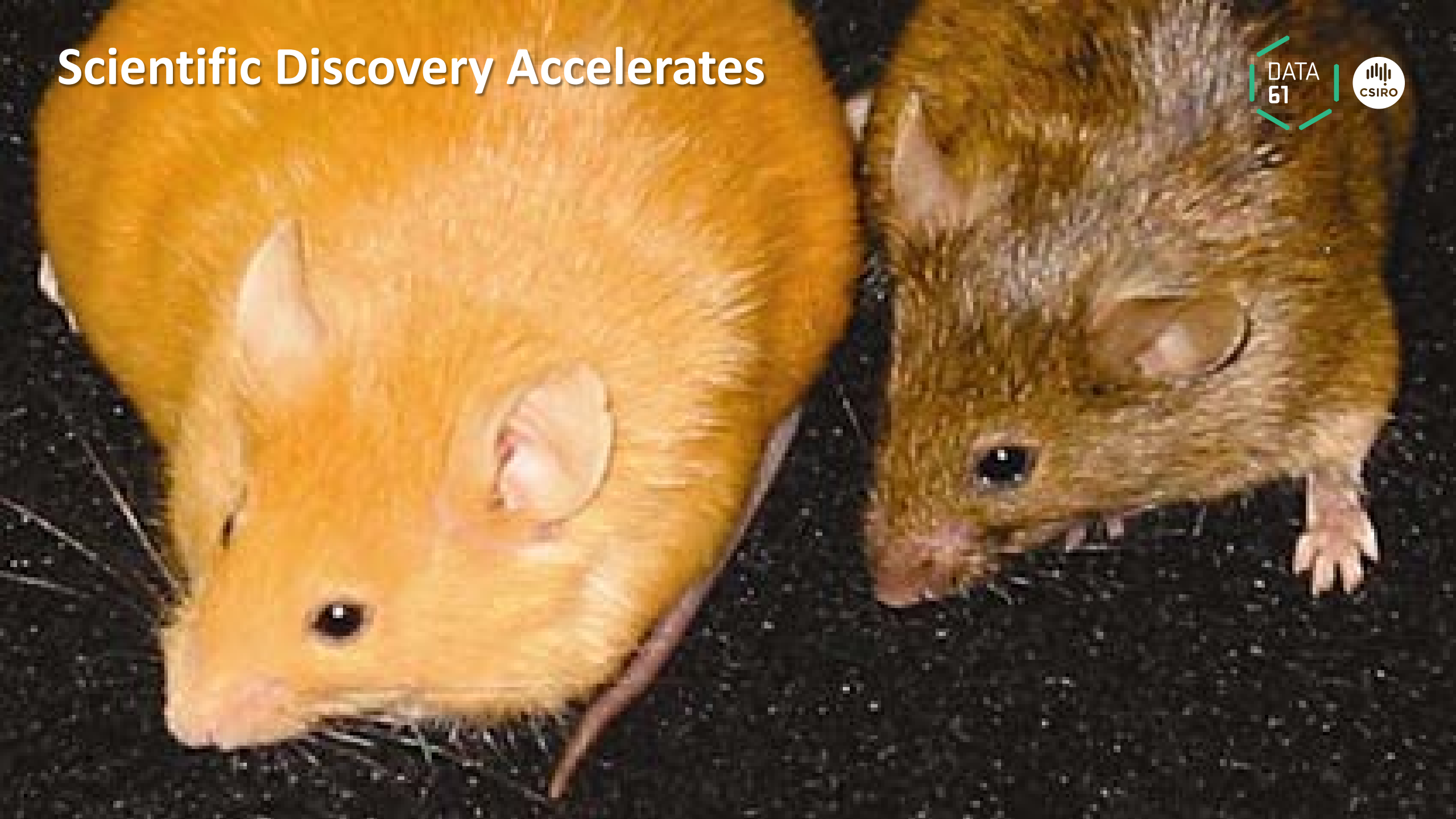
Entrepreneurship Matters More

Trust is the New Currency

“Speed” Determines Success



Scientific Discovery Accelerates



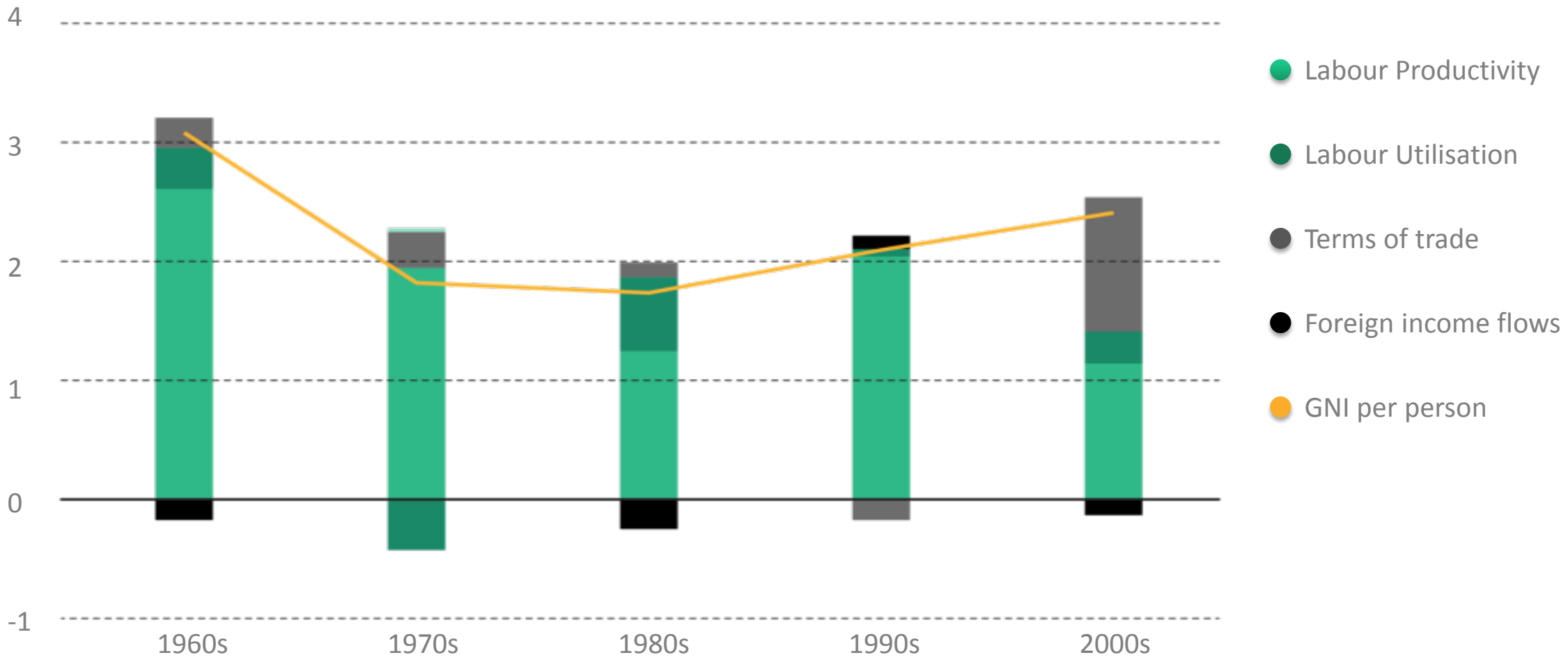
“I think the biggest innovations of the 21st century will be at the intersection of biology and technology. A new era is beginning.”

Steve Jobs

Australia’s Leadership Opportunities

Australia's Precarious Future

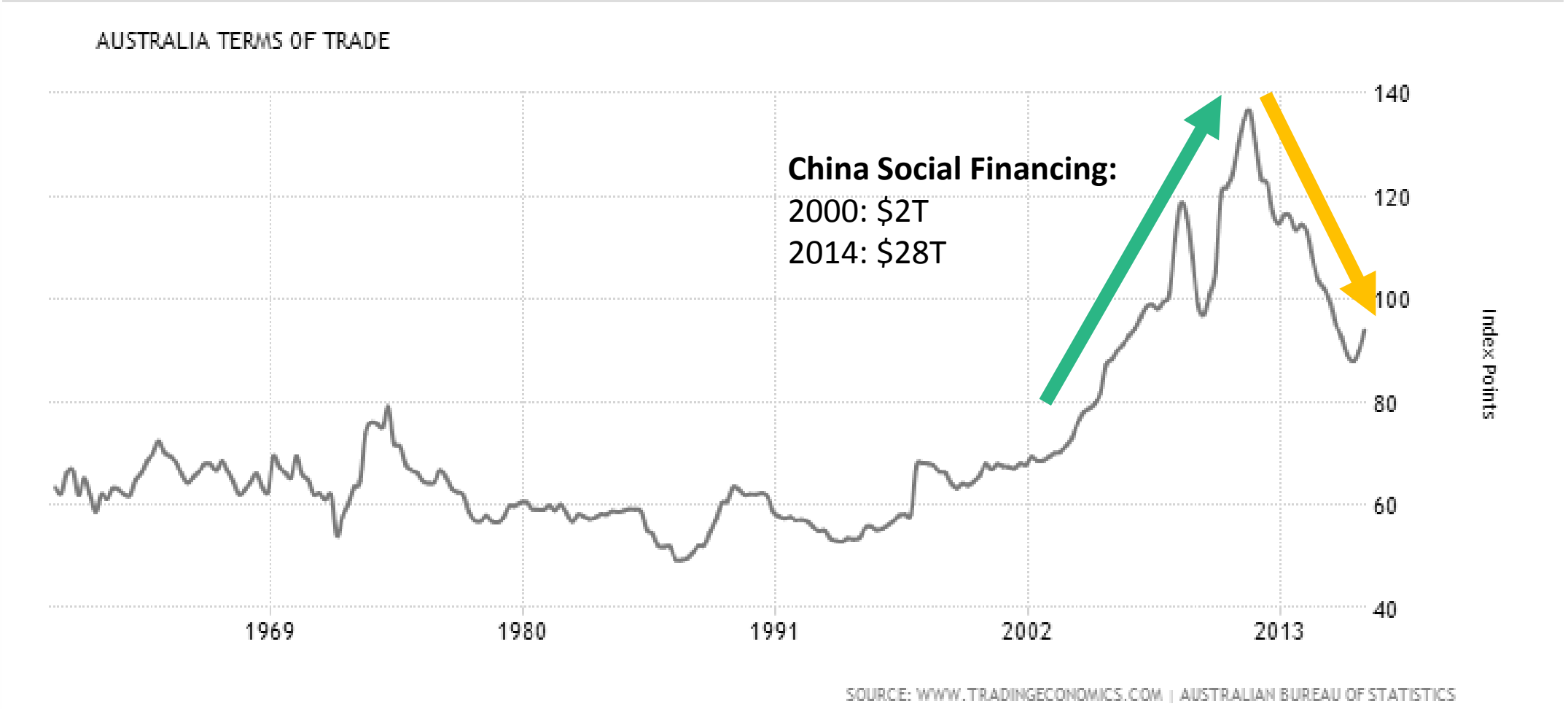
Percentage points, annual average



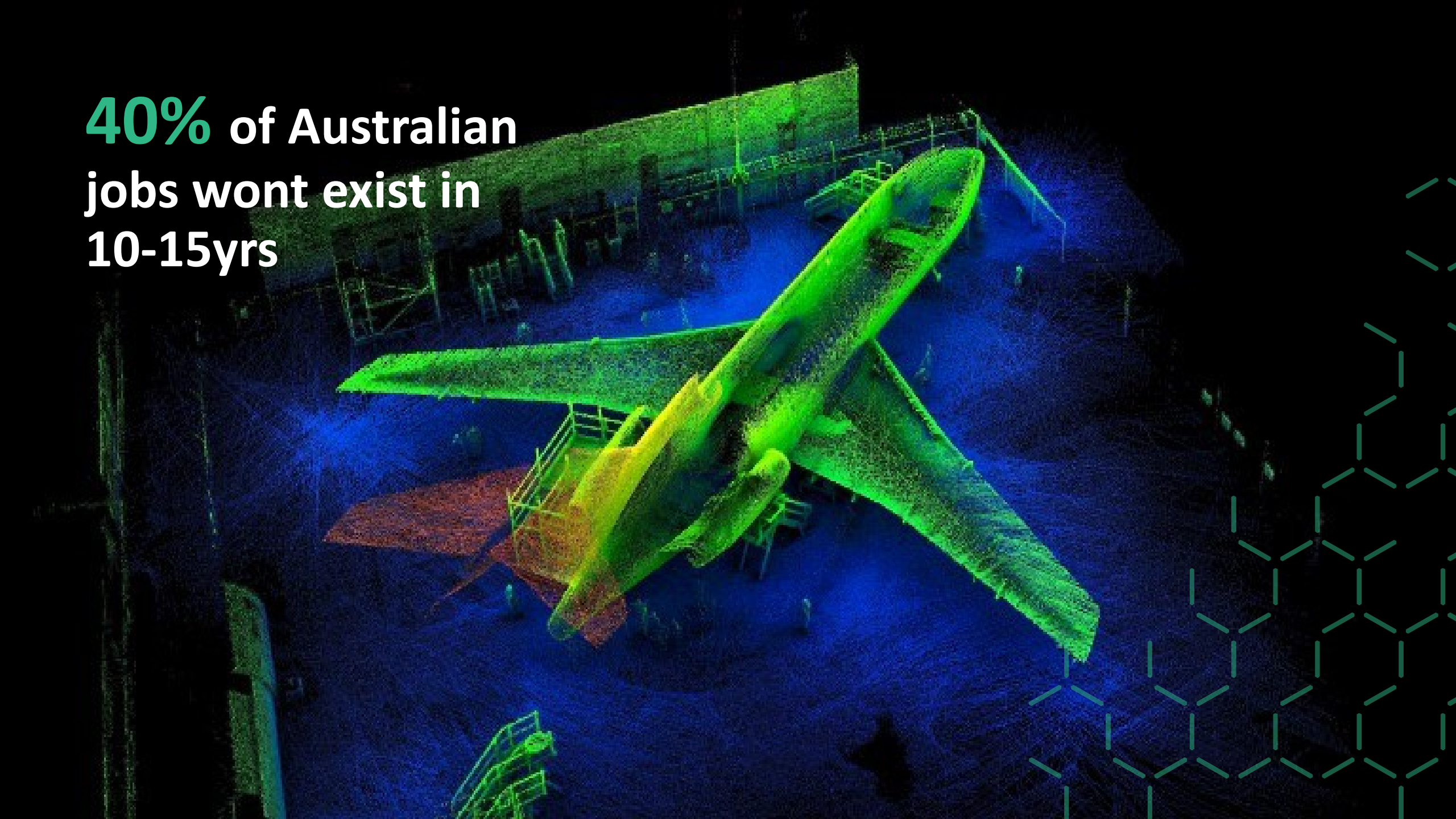
http://mckellinstitute.org.au Source: Contributions to Average Incomes Growth, Treasury

Australia's terms of trade

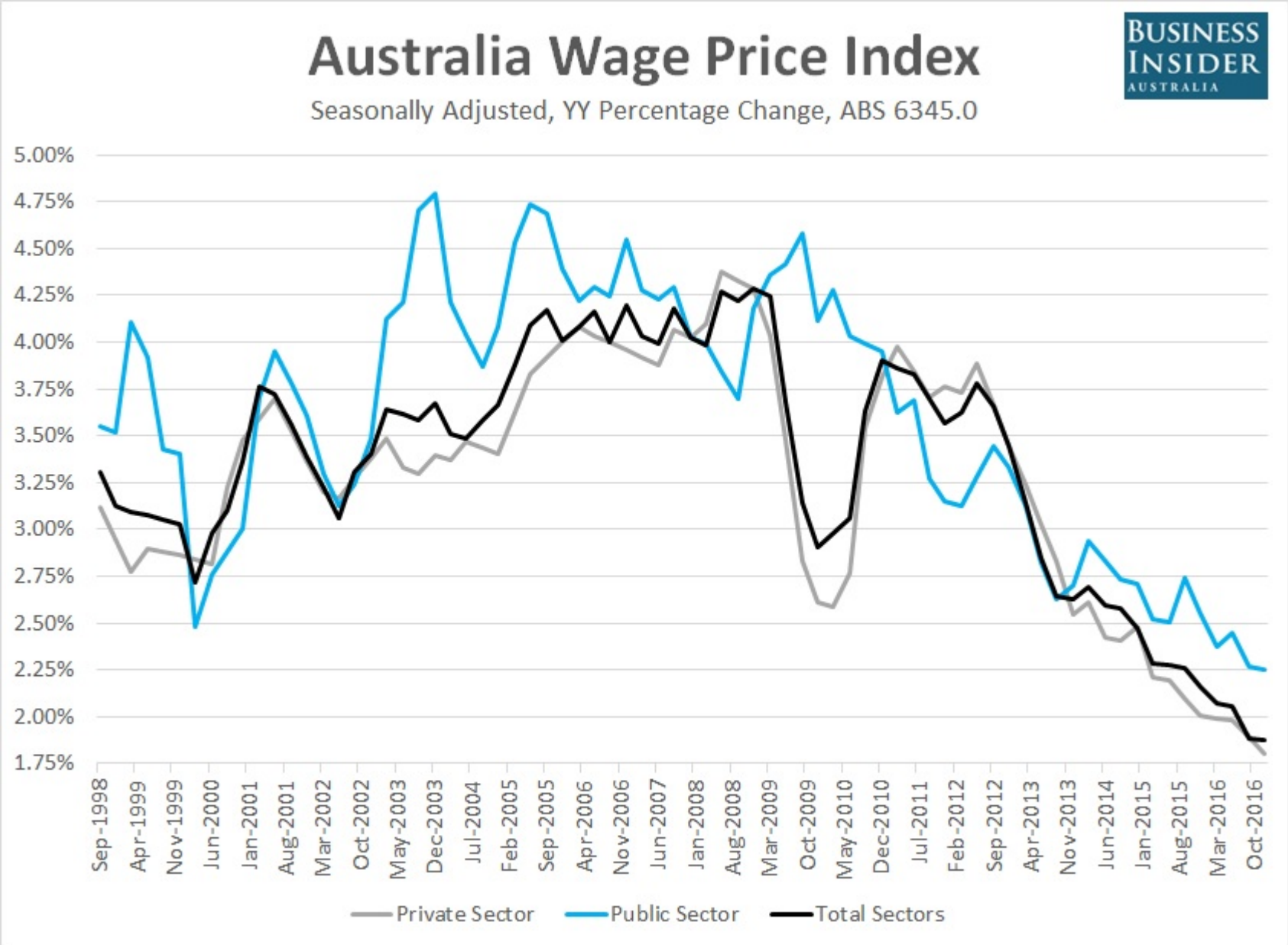
(1959-2017)



40% of Australian jobs wont exist in 10-15yrs

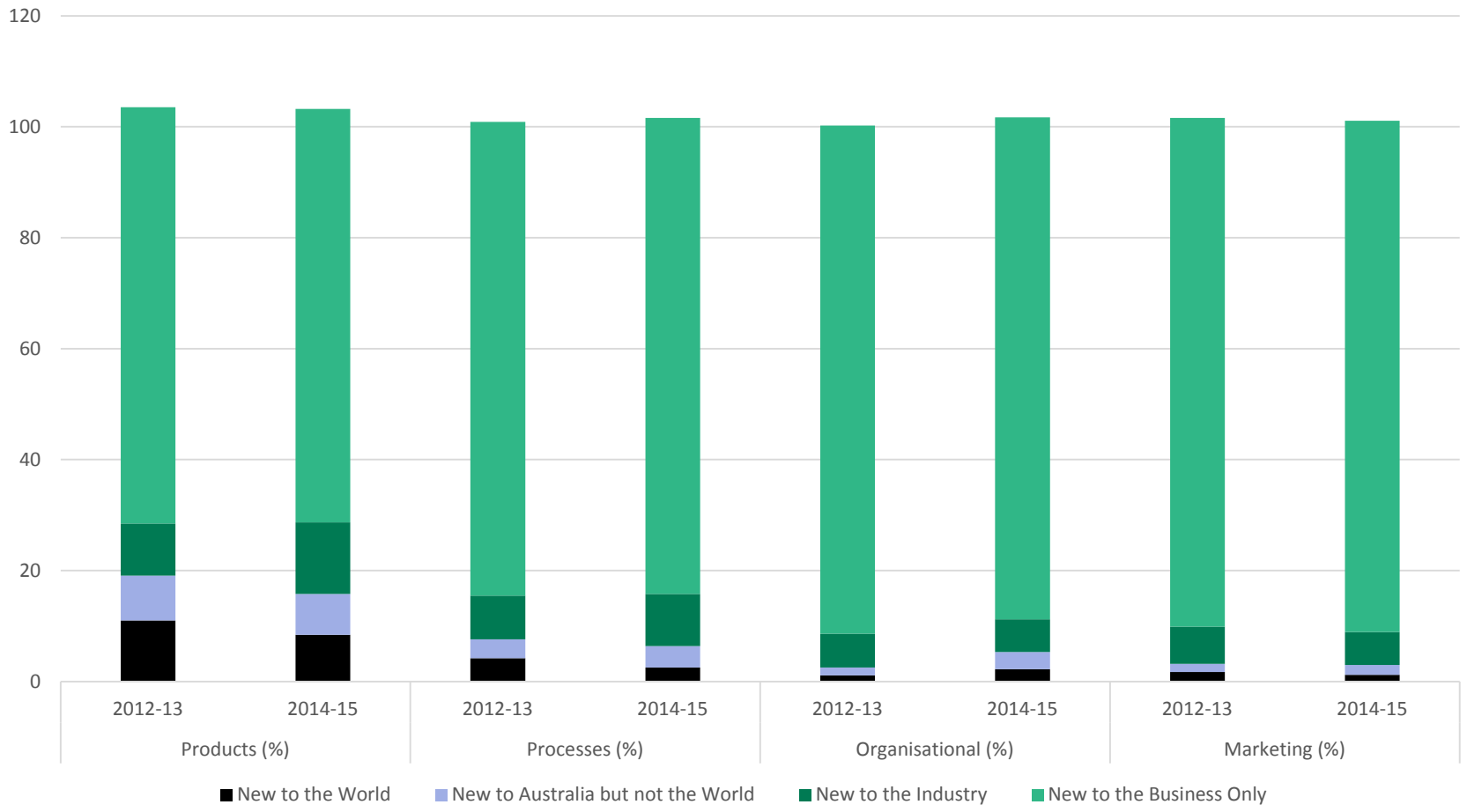


Real Wage Growth Has Slowed



Innovation Types Introduced

By Australia's innovating businesses, 2012-2013 and 2014-15



Source: OISA 2016 Performance Report

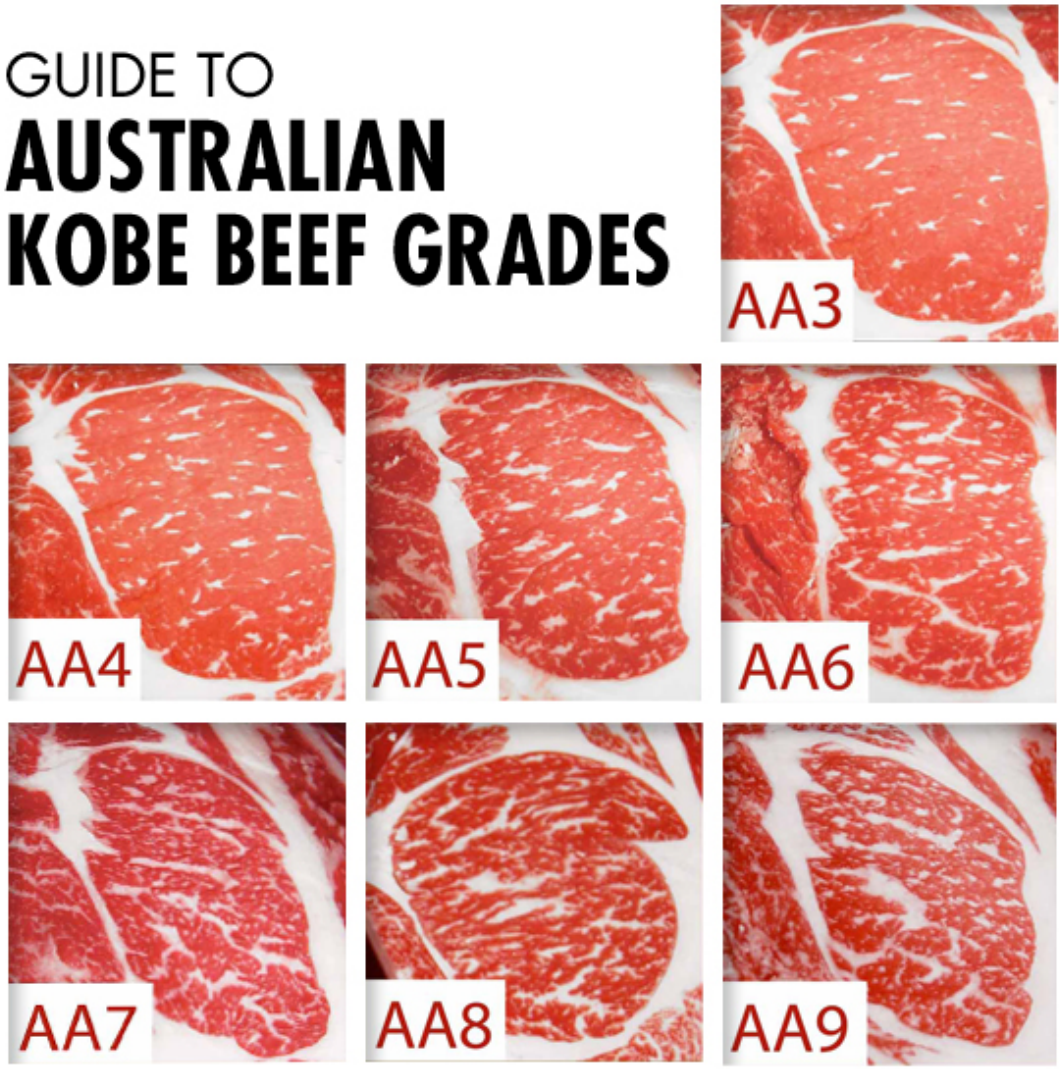
New Industry: Cyber Security

Confidential Computing

New Industry: Aquaculture

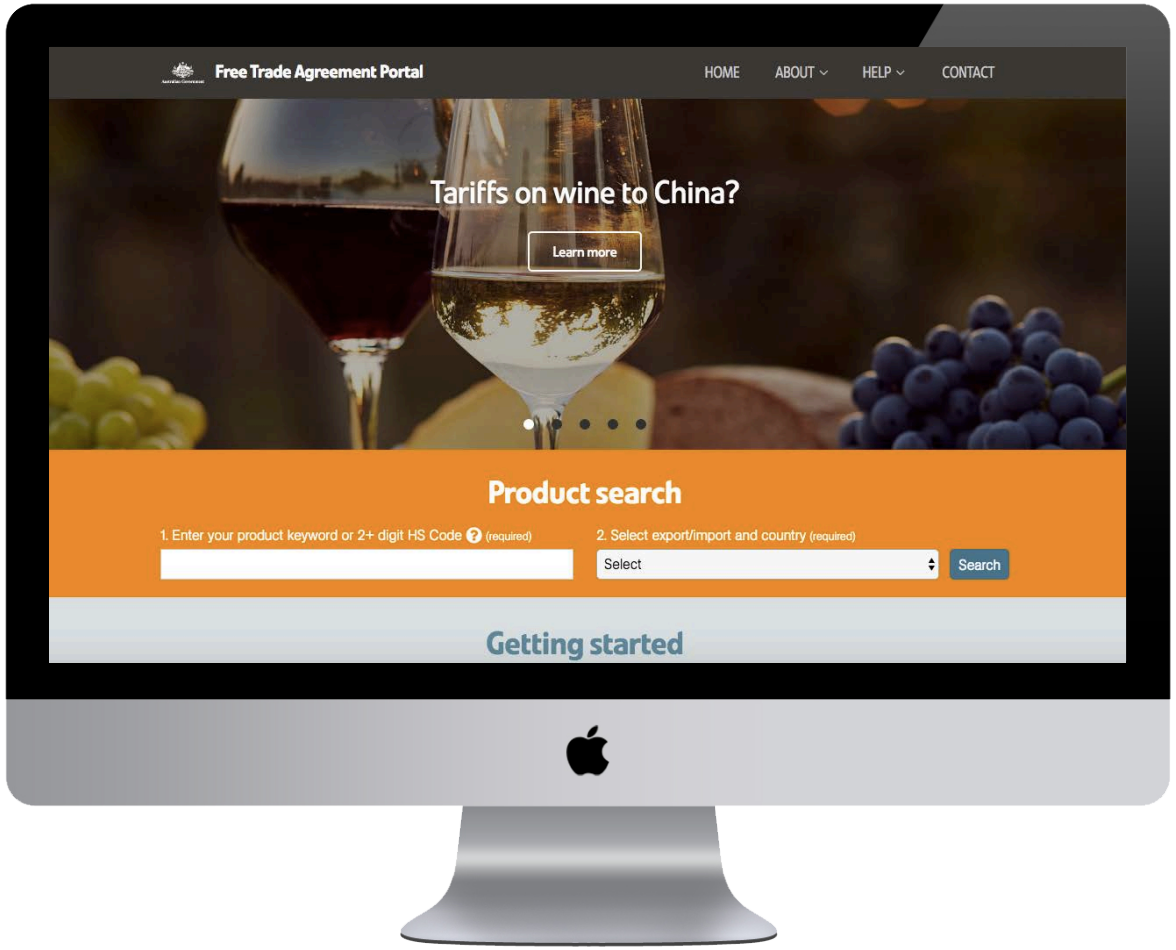
New Industry: Food Provenance

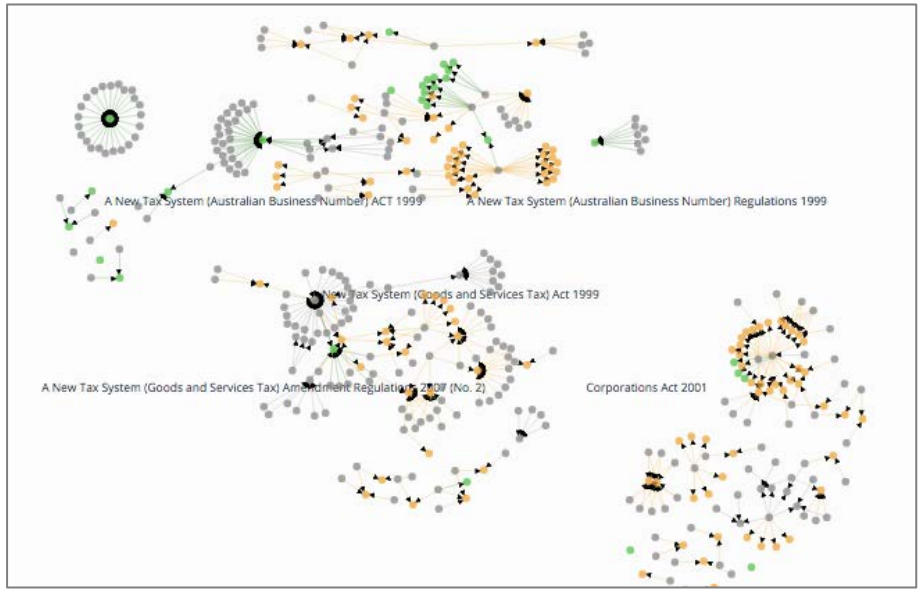
Food Safety and Bio Security



New Industry: Compliance As a Service

Machine Interpretable Regulation



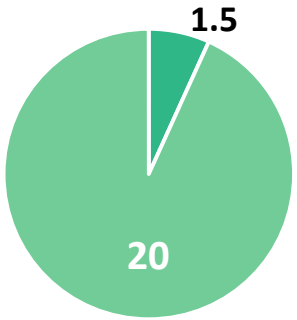


New Industry: Personalised Medicine

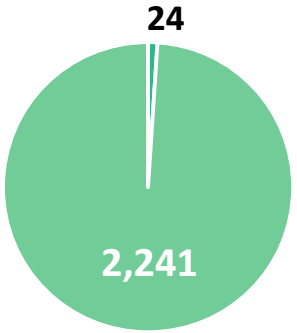
Multi-Disciplinary

Our Regional Opportunity

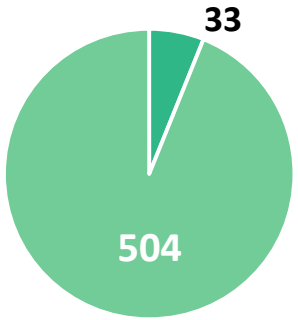
Gross Domestic Product
(USD Trillions)



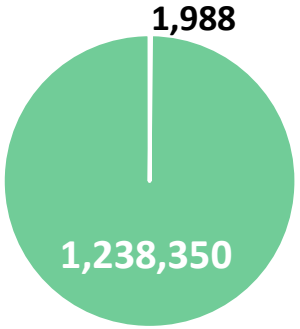
Population
(millions)



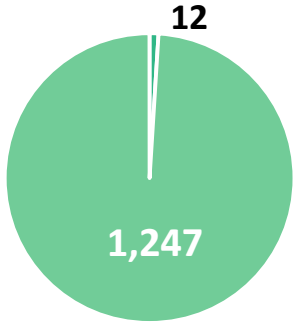
R&D Expenditure
(USD Billions)



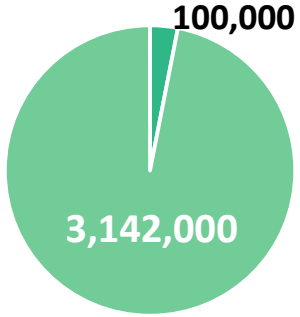
Patent Applications
(Residents)



Labour Force
(millions)



Scientific/Technical
Researchers



Australia

East Asia & Pacific

Includes China, Hong Kong, Japan, Indonesia, Singapore, South Korea, New Zealand, Malaysia, Philippines, Thailand, Vietnam and many other smaller economies). Does not include India.

Data source: World Bank Indicators (2016)

Our Opportunity is Perishable!

And we need the whole gene pool participating

DATA 61

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We're Hiring!

CSIRO