



March 2017

Simon Cant @simoncant  
Reinventure @reinventurefund  
[reinventure.com.au](http://reinventure.com.au)

A photograph of a person in a business suit sitting at a desk with a laptop. The image is slightly blurred and has a dark overlay, serving as a background for the text.

Permissioned vs.  
Permissionless Blockchain:  
Who is winning and how will  
it play out?

Open versus closed system debate has been occurring for a long time

**Aol.**



**VS**



Sometimes a lesser product will beat a better product because of the way a market evolves over time



**VS**



But an open system is not always the clear winner



**VS**



ANDROID



Google Play

# Same battle is occurring in Blockchain



**VS**



Hybrid



# Where are we in the battle?

	Permissioned	Permissionless
Privacy	Known participants Anonymous transactions	Bitcoin Pseudonymous Zcash, monero solving privacy
Control	Centrally regulated	Impervious to regulation (China) Barrier to use cases, e.g. remittance
Currency	Supports fiat currencies	Bitcoin emerging as store of value but other use cases stalled
Innovation	More limited albeit well funded ecosystem	Greater innovation through an unlimited ecosystem
Energy consumption	Likely to be more energy efficient	Proof of work model massively energy inefficient
Scalability	More scalable	Bumping up against scalability

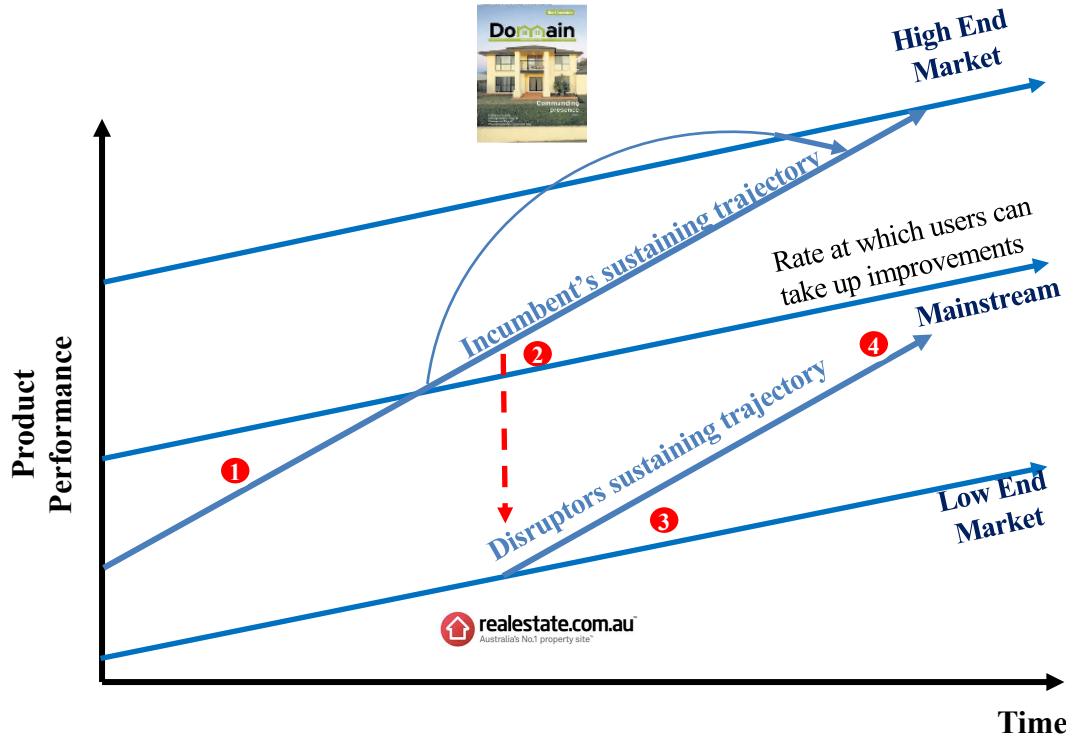
Tradeoff between trust vs. cost/scalability

# The dark horse - disruption

## There are 3 key elements of disruptive innovations:

- 1** Start from **customer segments** of the market that incumbents are not motivated to fight for
  - A** New Customer Segment / Non Users
  - B** Low End Customers
  
- 2** Have **economics** that enables them to profitably serve those markets
  
- 3** **Enabling technology / extensible core** that allows disruptive to move from low end to high end over time

# The dynamics of disruption



- 1 Incumbents win at sustaining
- 2 Incumbents overserve mainstream
- 3 Disruptors take the underserved low end or non customers
- 4 Disruptors attack from low end through their own sustaining innovation



Permissionless can reach places  
permissioned can't: non-customers  
of the existing financial system

Capital  
controls

China, Russia

Volatile  
currencies

Argentina,  
Venezuela,  
Zimbabwe

Unbanked

2.5bn

Black  
Markets

\$1.81 trillion

Machine  
Payable  
Web

21 co

This is where  
disruption starts  
– at the bottom

# Disruption's powerful twin - network effects

## Crypto currencies have powerful network effects

Increasing strength of network effect



facebook



 **bitcoin** for currency

 **ethereum** for developers

# The wildcards in this battle

	<b>Permissioned</b>	<b>Permissionless</b>
Privacy		Solved – zcash, monero
Control		Regulators solving for crypto
Currency		Potential global network effect
Innovation	Open source approach Borrowing from permissionless	
Energy consumption		Alternate consensus models may solve
Scalability		Can on-chain/off chain models solve (e.g. lightning)?

**Big Question:** Will the Tradeoff between trust vs. cost/scalability be broken?