



McKinsey & Company

Blockchain in Financial Services

ISSA presentation
May 2016

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10 things you should know about Blockchain

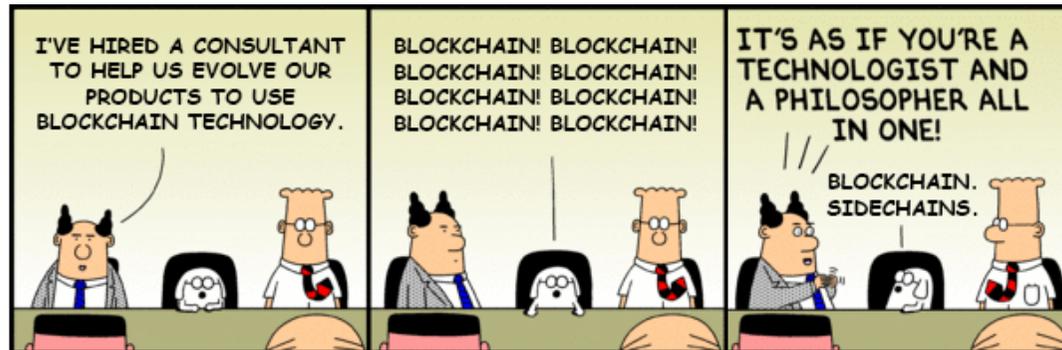


- 1 Blockchain is a **nascent technology** with the **potential** to bring about step-function improvements in efficiency and security to the financial industry - or it **could simply be over-hyped and unnecessary**
- 2 Investment in blockchain is gaining momentum (**~\$600 MM of VC investment in 2014Q4-2015Q3**) and is expected to rapidly grow; **the banking industry is expected to spend ~\$400MM** by 2019
- 3 **>60 Nascent use cases¹** exist across multiple industries with a **primary focus in financial services (~40%) and cost reduction (~70%)**
- 4 Blockchain has likely the highest potential in **products like private stock, repo and syndicated lending** and in the **post trade part of the value chain i.e., reconciliation, settlement and corporate actions**
- 5 **70% financial organizations** are in the **early stages² of experimentation** but there is **no active broad commercial application in capital markets today**
- 6 **Most of the impact** from blockchain solutions is likely to come **from payments**, and **capital markets**, and **preliminary sizing of 4 use cases** in these areas suggest significant value creation - the estimated impact of those use cases alone is **\$70-\$85B** but **feasibility varies significantly**
- 7 However, **blockchain is not the silver bullet solution for all** the pain points in the industry
- 8 **Enabling collaboration, shaping a positive regulatory environment and clear business cases justifying the transition costs** will pose the biggest challenges to implementation
- 9 By overcoming these challenges, blockchain technology could **reach its potential in 5 years**
- 10 Organizations can unlock the value of blockchain through a **five-step journey**: Education, Strategy, Solution Design, Implementation, and Approach

¹ Blockchain solutions other than solutions that are purely related to Bitcoin

² "Wait and see" and Early equity investor stages

1 ...or it could be the most over-hyped and unnecessary tech solution, ever

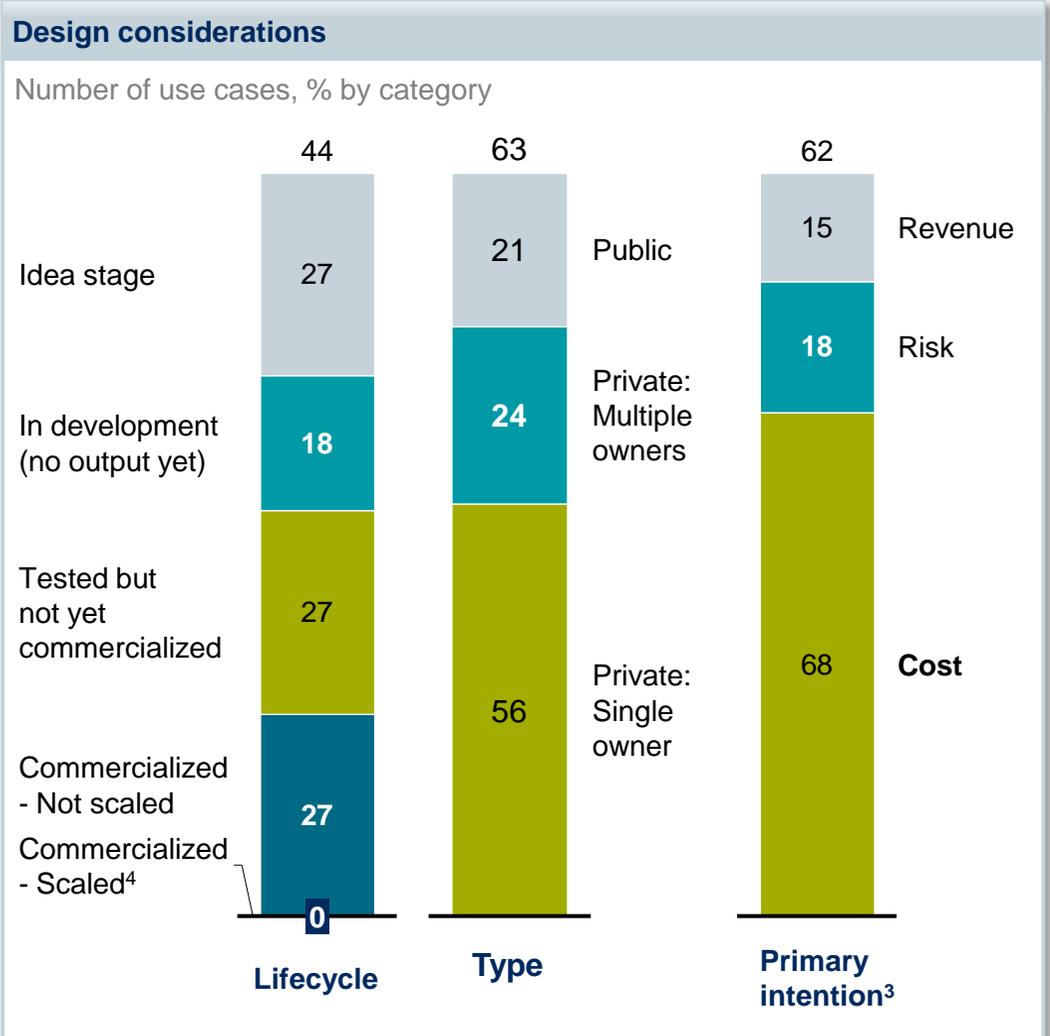
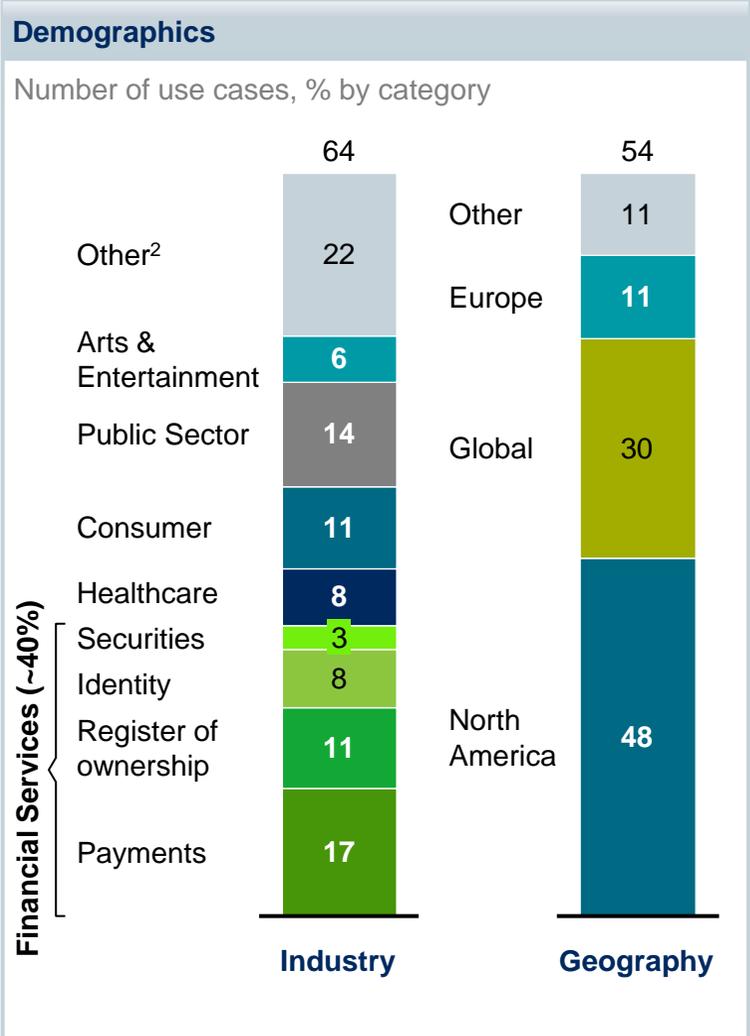


Dilbert:
May, 2015



Dilbert:
Nov, 1995

3 >60 nascent use cases¹ exist across multiple industries with a primary focus on financial services and cost reduction



1 Blockchain solutions excluding solutions that are purely related to Bitcoin;

2 Includes insurance, real estate, automotive, energy, social sector, etc.;

3 In many instances use cases have a secondary intention;

4 Annual revenues \$1+ MM

4 Capital markets experts expect different levels of disruption across asset classes, value chain components and impact levers...

Level of expected disruption by Block chain in Capital Markets...

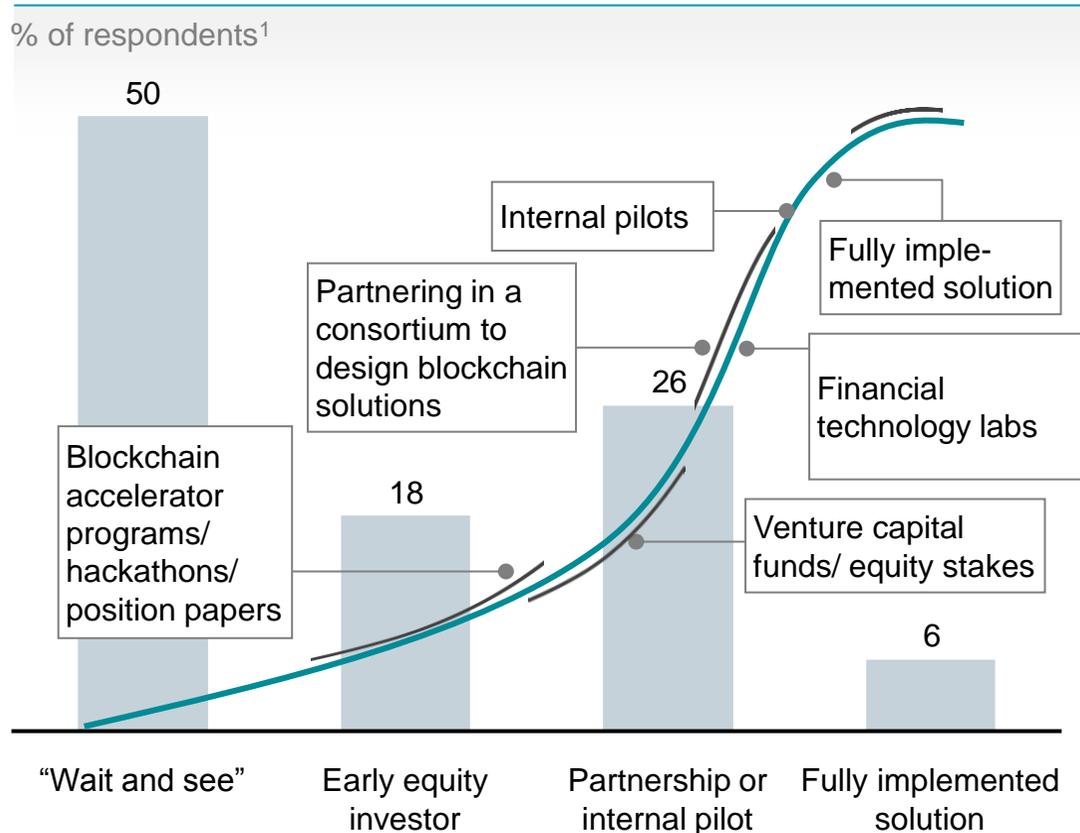
Higher expected disruption/impact

...by asset class	...by value chain component	...by impact lever
Private stock	Reconciliation	Reduced settlement risk
Repo	Settlement	Reduced counterparty risk
Syndicated lending	Corporate Actions	Operating costs
Non-cleared OTC derivatives	Collateral management	Improved compliance
Equities – cash	Trade confirmation	Capital relief
Securities lending	Custody	Reduced custodial risk
Fixed income – cash	Issuance and distribution	Margin relief
Exchange-traded derivatives	Client onboarding	Optimized collateral
Cleared OTC derivatives	Compliance (incl. reporting)	Reduced systemic risk
FX – spot	Risk management	Increased revenue
	Valuation	Reduced market risk
	Execution	
	Pre-trade analytics	

Lower expected disruption/impact

5 Although financial institutions are at different stages of experimentation, most executives believe it will take at least 18+ months to have a material impact

How would you describe your organization's position on the 'S' curve of blockchain tech experimentation?



1 N = 35

5 Use cases in just two areas could generate ~\$70B to \$85B in impact but feasibility is challenging

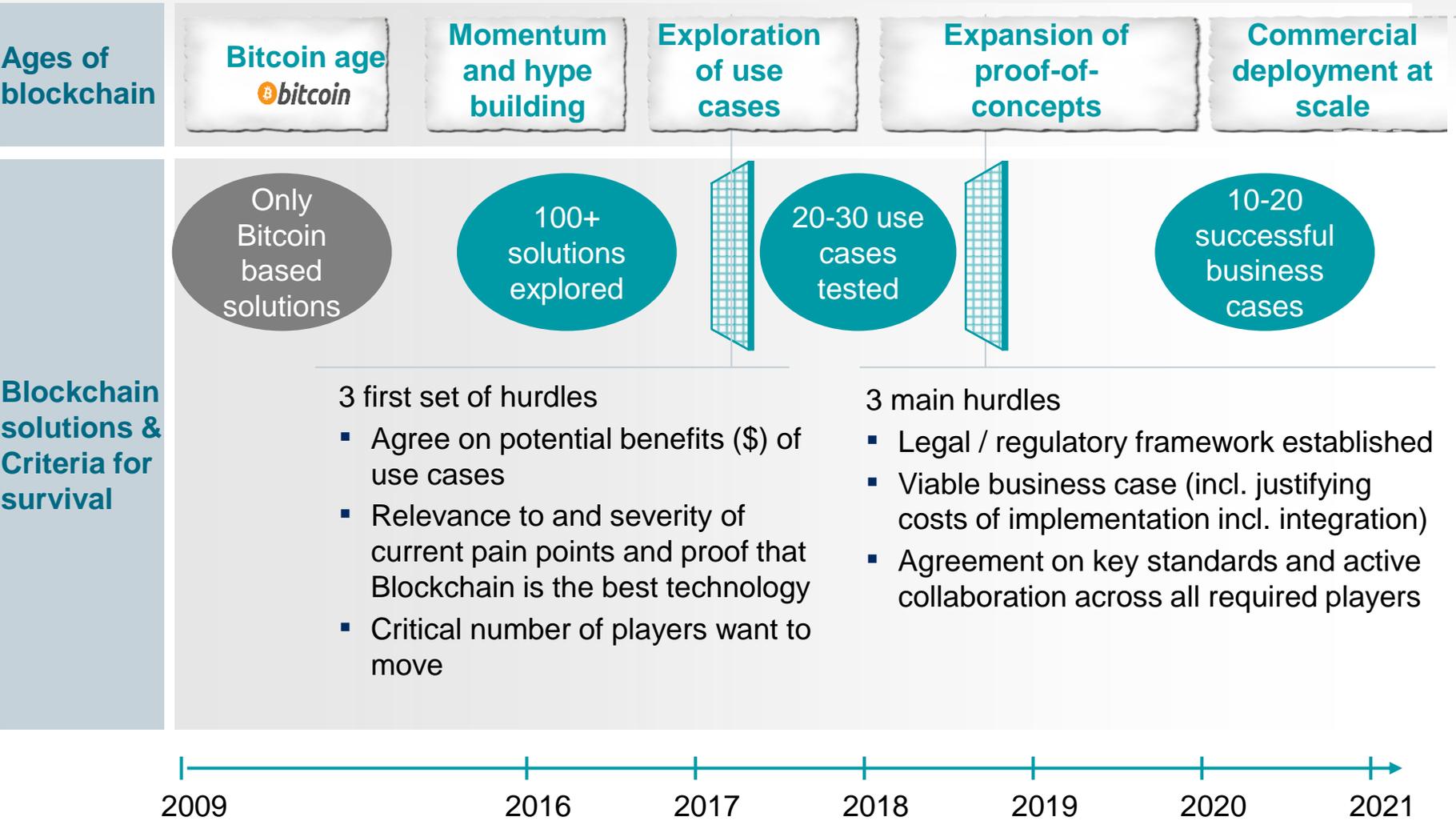
● High feasibility
○ Low feasibility

Value generated by blockchain (\$B)	Affected players & blockchain benefits	Feasibility / path to adoption	Implications
Trade finance 17 – 20	<ul style="list-style-type: none"> Lower cost and ops risk, faster turn-around, increase in revenues 	<ul style="list-style-type: none"> Involve the top companies from each industry Start with limited use case Develop standards through industry working groups 	<ul style="list-style-type: none"> Net positive impact for each player Potential value flow from FI to corporations
Cross-border B2B payments 50 – 60	<ul style="list-style-type: none"> Lower cost and fees, increased security and speed 	<ul style="list-style-type: none"> Replace correspondent banks with blockchain platform 	<ul style="list-style-type: none"> Correspondent banks will lose high margin revenue stream Increased competition
Cross-border P2P payments 3 – 5	<ul style="list-style-type: none"> Lower cost and fees, increased security and transparency 	<ul style="list-style-type: none"> Disintermediate existing clearing and settlement network 	<ul style="list-style-type: none"> Accelerate disruption by increasing competition Lower margin due to competition
Repurchase agreement transactions (repos) TBD – Value in risk and capital reduction	<ul style="list-style-type: none"> Lower systematic risk, increased liquidity in repo market 	<ul style="list-style-type: none"> Involve industry utilities and platforms to lead the transformation Introduce change by steps: first blockchain, then couple with central clearing 	<ul style="list-style-type: none"> Removal of day-light risk of lenders and tri-party agent banks Increased price transparency and liquidity

9 Based on the current evolution, blockchain solutions are expected to reach their full potential in the next 3 to 5 years...

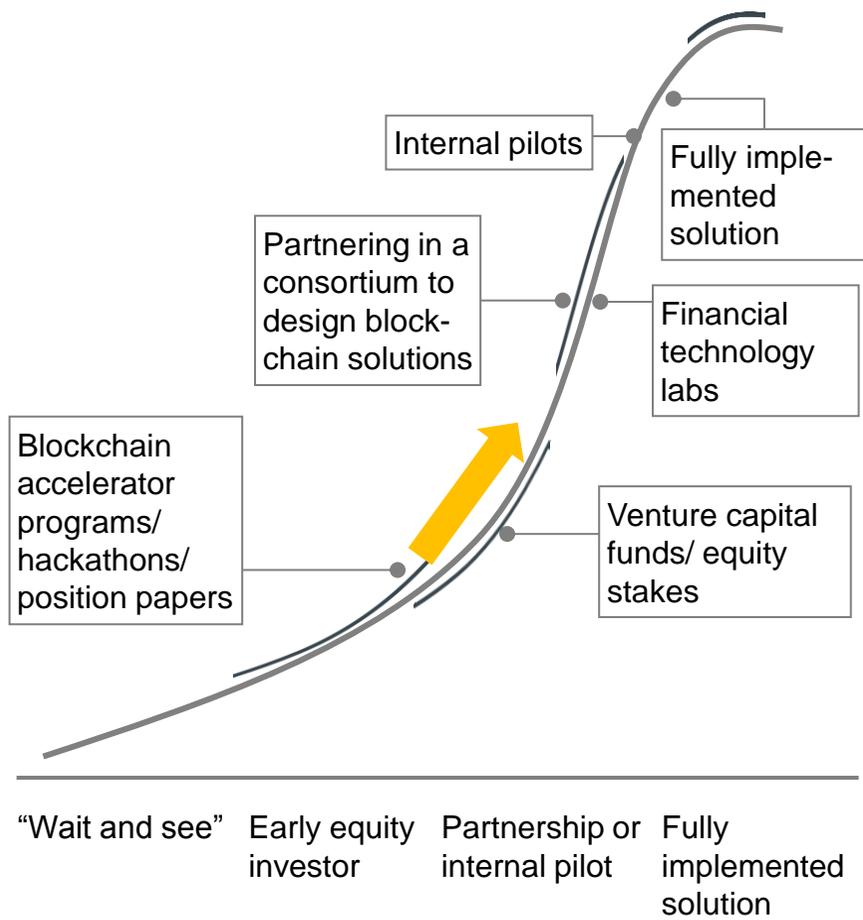
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Future of blockchain



9 ...but today most executives expect the time required for blockchain to have material impact is to be 5+ years

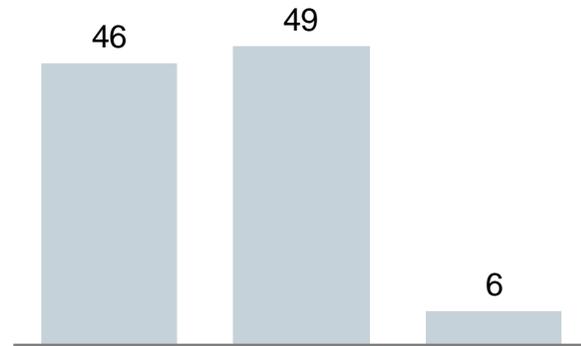
Organizations have moved along the 'S' curve of blockchain tech experimentation over the last few months...



...and have become less optimistic about the timing required for blockchain to have a material impact

% of respondents

Blockchain round table
February 2016



SIFMA round table
May 2016

