



***Fintech + Internet  
→ Finternet Trends and  
Economic Impacts***

***Dr. Riad Hartani (Algeria)  
Algiers, February 13<sup>th</sup> 2018***



## The Internet Is Fast Approaching 50. How Might It Look At 60?



World Economic Forum, CONTRIBUTOR  
**FULL BIO** ▾

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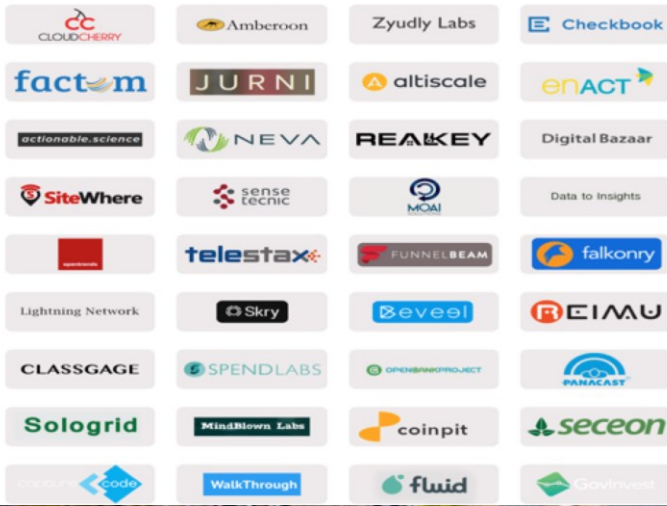
*Shutterstock*

*By Peter Lyons and Dr. Riad Hartani*

The Internet is fast approaching 50. How might it look at 60? Of course, it is hard to say definitively, but exciting, nonetheless to consider some possibilities. Born out of an advanced U.S. defense research project in the late 60s then lurching into the awkward early-web of 80s/90s, the internet eventually evolved to include a mish-mash of communication protocols, applications and platforms as we know today. It is hard to say whether it's the internet applications that have driven the evolution of the devices, protocols

*Internet in 2030 – Getting ready for Finternet (and Anything Internet)*

Surviving internet technologies, standards, and protocols have, for the most part, obeyed the laws of natural selection - a lot has been tried while few have proliferated. What might



*Fintech Startups Landscape:*  
30%: Finance + AI  
30%: Finance + Blockchain  
30%: Finance + Internet of Things  
10%: Everything Else

Riad's Co-Founded Silicon Valley Fintech Accelerator @iValley.co  
Observing Fintech Evolution

# How Customer Circa 2018 is impacting Financial institutions

*Internet Reflexes Hitting Financial  
– Forcing Disruptions*

From: “Passive and Patient”

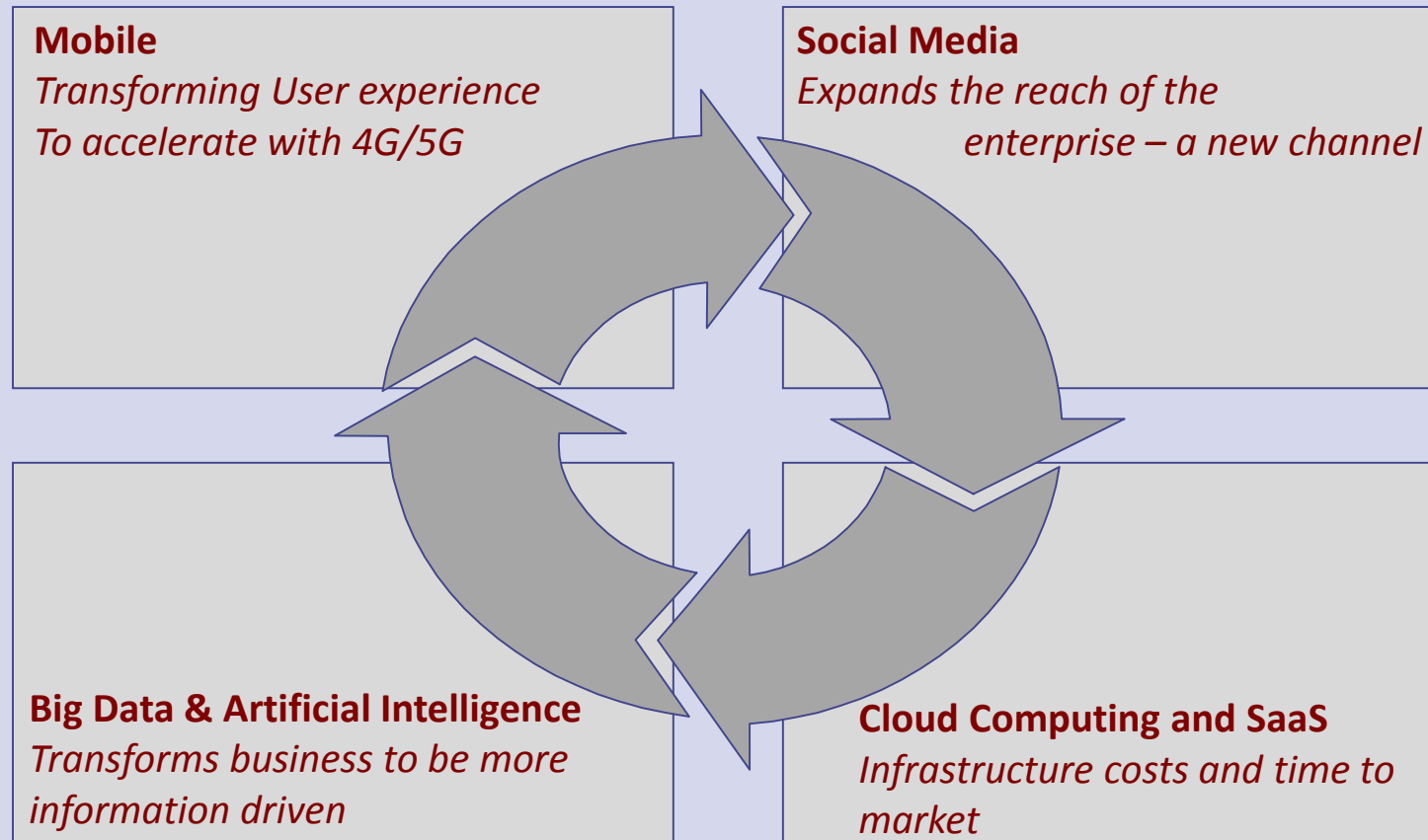
To: “Active and Demanding”



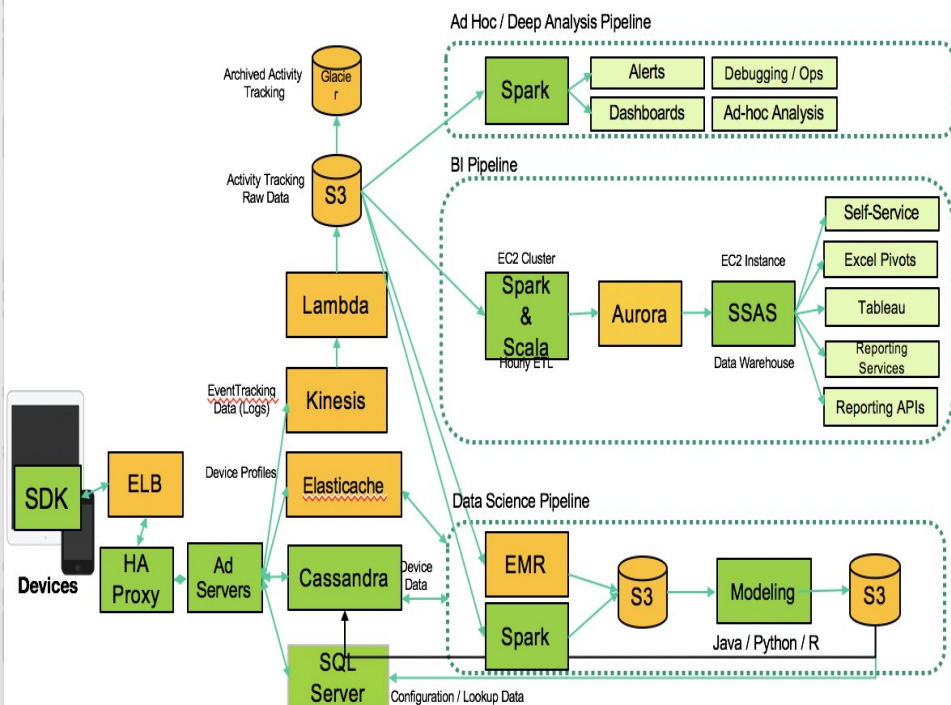
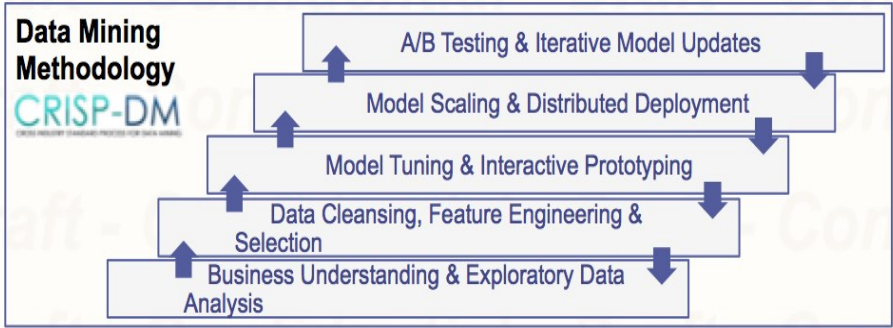
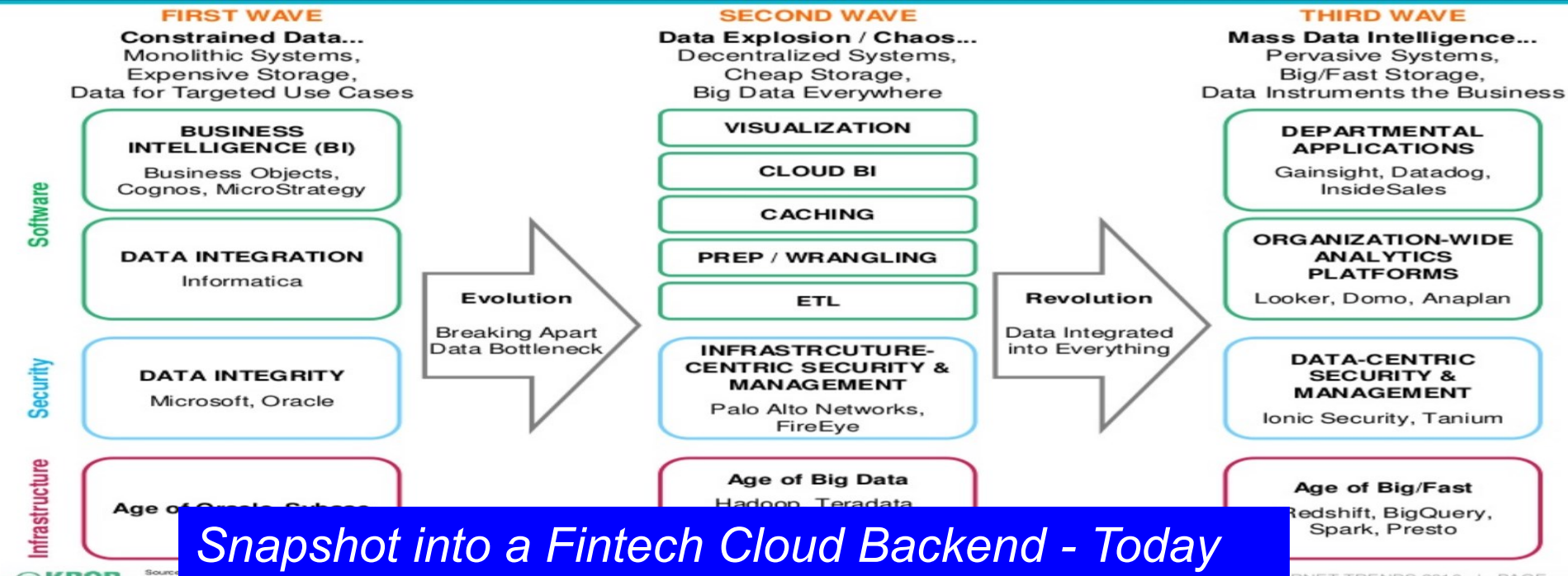


# The Confluence of Technologies and Forces at Play

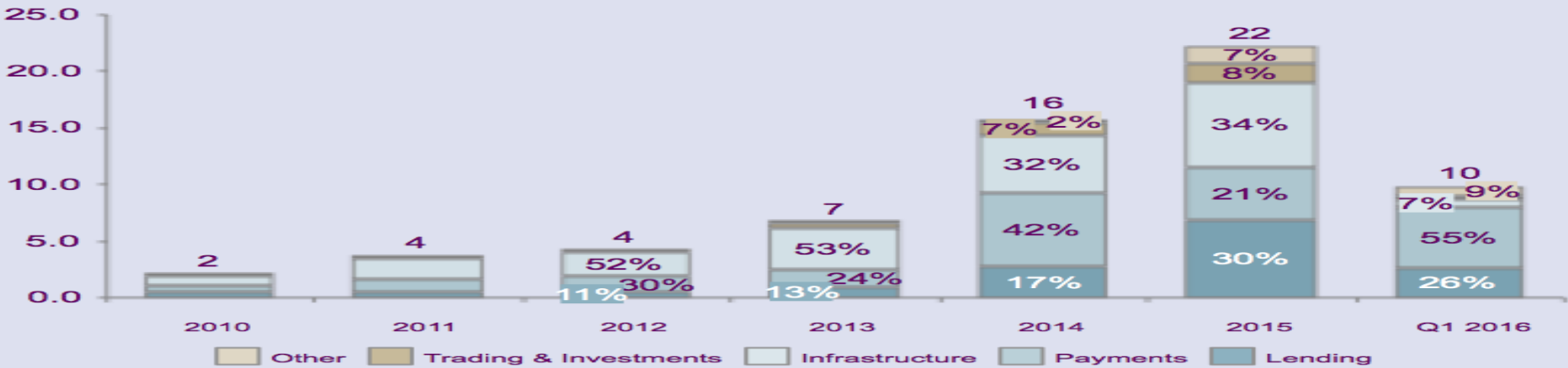
*A Year 10+, Enabling Technologies  
Moving into Mainstream...*



These inter-dependent technologies pose both opportunities and threats for Financial Institutions in how they operate, engage with customers and the type of products they offer



## Funding (\$B)



1



### Ubiquity and hyper-optimized customer journeys

- Transition from “passive and patient” to “active and demanding”

2



### Leveraging Insights and data for marketing and risk management

- Intelligent, context aware and preference based interactions

3



### Threat of substitution – from FinTech models

- Non-Bank startups are offering substitute for traditional banking products like payments, credit and wealth mgmt.

4



### Emerging new global fabric based on blockchain distributed ledgers

- Blockchain could be the “database” for the internet which is distributed, cryptographically secure and

5



### Threat of being reduced to the “dumb-pipe” with emerging payments

- Payment disruptors like Stripe and blockchain based disruptors like Ripple are transforming payments

# Fintech – Following the Investments Wave



## Bank



## Investments



## Payments

### Credit Decisions

Big Data based decisioning and Targeting – small business and p2p

### Smart Banking with analytics

Digital Banks – mobile and social banks with built in analytics to simplify banking

### Changing channel preferences

Replacing high-touch with high-tech.

### Algorithm based Robo-advisors

Algorithm based advisor to manage goal based portfolio

### Mobile Payments, Wallets and POS

Mobile payments as the ultimate enabler of commerce

### Crypto-currencies

Blockchain and the internet value exchange models disrupting the economics of payments



### Customer and Market Intelligence

Omni-channel  
Customer 360



### Risk and Compliance

AML, KYC,  
Audit

Fintech firms are more agile and built for continuous innovation; business models have lower distribution, operational, risk and regulatory cost when compared to Financial Services firms

# Fintech – Multi-Dimensional Impacts



# Fundamental Building Blocks of a Fintech (Post Digital) Transformation

## Intuitive



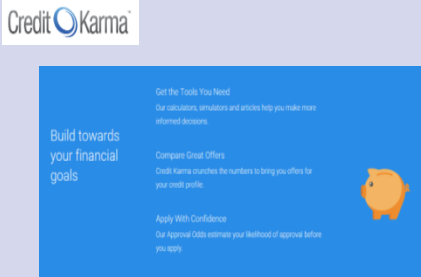
Simple, attractive User Interface

## Transparent



Full disclosure on portfolio and practices

## Customized



Tailored recommendations based on customer data

## Accessible



Range of solutions for the unbanked

## Efficient



Simple and quick application processes

## Attentive



Strong emphasis placed on customer experience

# Digital + Data + Web Scale Software

Lending (297 Companies)

Personal Finance (139 Companies)

Payments (303 Companies)

Equity Financing (125 Companies)

Remittances (46 Companies)

Retail Investments (102 Companies)

**FinTech**

Contact  
[info@venturescanner.com](mailto:info@venturescanner.com)  
 to see all 1233 companies

Institutional Investments (70 Companies)

Security, Auth, Fraud (59)

Banking Infrastructure (74)

Business Tools (88)

Crowd-funding (55)

Consumer Banking (44)

Financial Research (40)

FinTech Investors (35)

*The Evolving Landscape...*

**Key facts**

- Fintechs are unregulated and usually operationally agile startups compared to incumbents
- Value proposition is optimized digital customer journey or segment specific value proposition
- Use of data innovatively; streamlining customer acquisition cost and significantly reducing cost-to-serve.
- Large internet firms such as Google, Apple, SnapChat, Facebook, Tencent, Ali Baba, are also players in payments.

Source- CBInsights

1



## Changing Consumer Behavior, expectation and channel preferences

- In the era of Google, Apple and Amazon, consumer expect similar experience with their Managers and are increasingly using Digital channels
- Transition from “passive and patient” to “active and demanding”

2



## Shifting Demographics of Client and Advisor

- Preferences and expectation of newer generations are different
- Aging advisor population and competitions amongst firms, will require firms to be digital savvy to attract new talent

3



## Threat of substitution– “The Roboadvisor”

- Non-Bank startups have created digital storefronts and algorithms that compete directly with traditional advisor function
- Alternative models across, financial planning, portfolio allocation and Retirement planning

4



## The Changing Technology landscape

- Ubiquitous connectivity, open architecture and user-centered design is transformational
- Big Data, Cloud computing, Mobility, Social Media and APIs are changing the landscape of what is possible with technology

5



## Continued complexity in Regulatory Changes

- Enhanced focus on regulation will increase operational & compliance cost for banks, possibly crowd-out investment and resources
- Regulatory environment favors upstarts and restricts incumbents' business practices

**#1 Bank Customer Management Use Case**



## Competitor Type

## Examples

## Value Proposition

## Key facts



Digital Investment advisors



- Digital and algorithm based investment management
- Provides easy to use digital storefront backed portfolio management and rebalancing

Digital Financial Planners & Retirement planners



- Digital storefront for goal based financial planning
- Optimize retirement accounts through recommendation and/or management

Non Traditional Investment Options and Social investment



- Provide non-traditional hedge fund type investment options through digital channels
- Alternative asset classes like fixed rate loans or crowdsourcing for equity

- Broad range of VC backed startups
- Doubled VC Funding year over year
- AUM of top 4 Roboadvisors is less than \$30 Billion
- Annual revenue range in double digits Million/year for Roboadvisors
- Many offer tax loss harvesting and other optimization algorithms

**The Robo Advisor segment is growing rapidly with venture capital**  
**Will they have the disruptive effect Lending Club, Uber, AirBnB have created in their respective industries?**

**#1 Bank Customer Management Use Case**

# Bitcoin: A Peer-to-Peer Electronic Cash System

Satoshi Nakamoto  
satoshin@gmx.com  
www.bitcoin.org

**Abstract.** A purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution. Digital signatures provide part of the solution, but the main benefits are lost if a trusted third party is still required to prevent double-spending. We propose a solution to the double-spending problem using a peer-to-peer network. The network timestamps transactions by hashing them into an ongoing chain of hash-based proof-of-work, forming a record that cannot be changed without redoing the proof-of-work. The longest chain not only serves as proof of the sequence of events witnessed, but proof that it came from the largest pool of CPU power. As long as a majority of CPU power is controlled by nodes that are not cooperating to attack the network, they'll generate the longest chain and outpace attackers. The network itself requires minimal structure. Messages are broadcast on a best effort basis, and nodes can leave and rejoin the network at will, accepting the longest proof-of-work chain as proof of what happened while they were gone.

## Financial Services Consortia



## Open Source Projects Platforms



*Blockchain in the browser ?  
Blockchain in the contracts ?  
Hitting the cloud hard ?  
Hitting e-commerce hard ?  
Hitting Ads business hard ?*

## Standards & Regulation



## Enterprise Consortia



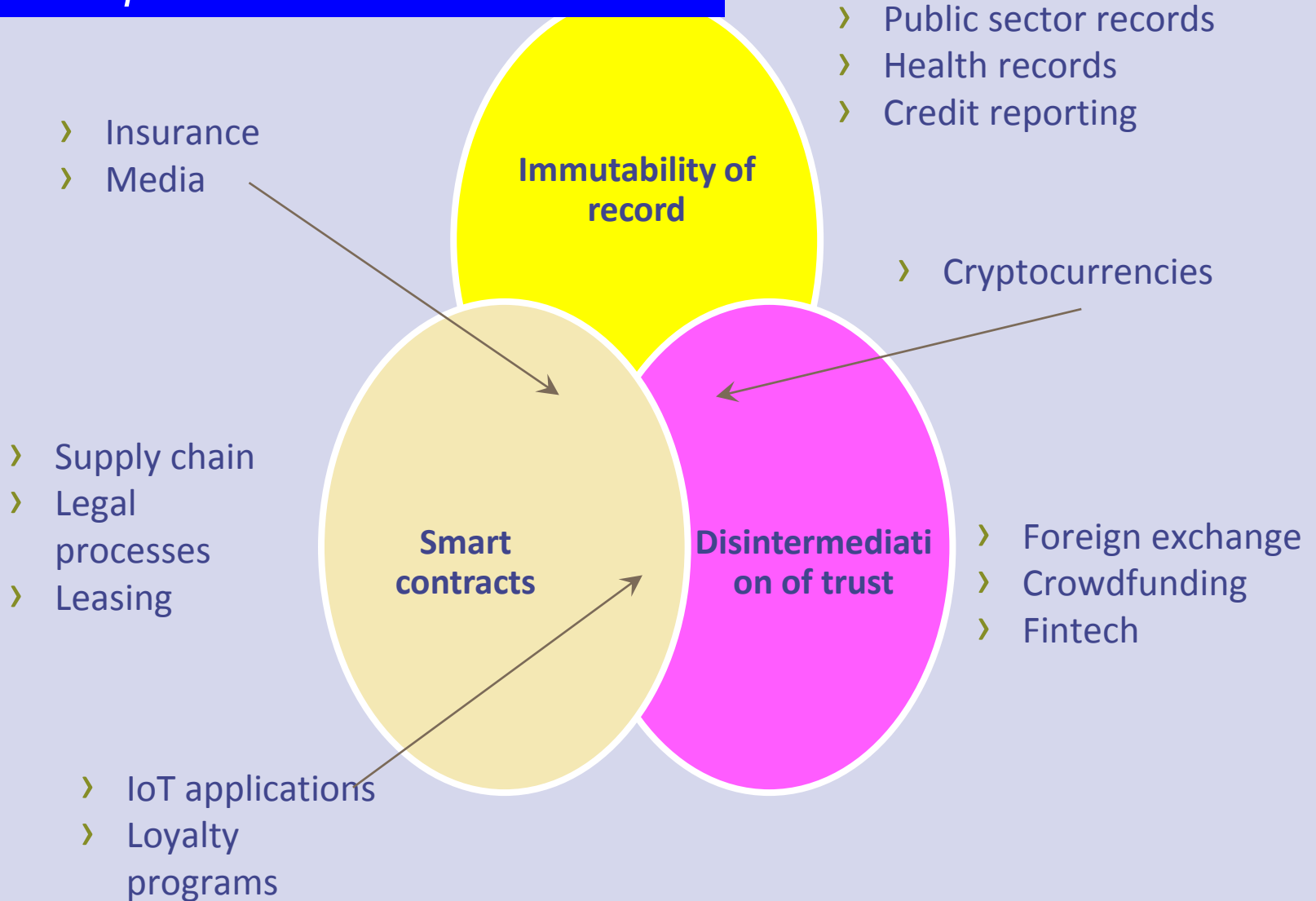
## Healthcare Consortia



## Insurance Consortia

#2 Blockchain Use Case

# Some Expecting the 1995 Netscape Moment !



## #2 Blockchain Use Case



# A Long Journey Since PayPal in the late 90s...

## Payments



Credit/Debit/ACH payment facilitation

Alternatives to bank-funded payments

Incumbents must understand how and where these firms enable growth, and where they threaten it – Key is Regulatory Adapting to Technology

### #3 Payment Use Case

**Point Of Sale Payments**

**Bitcoin Payments**

**Billing, Automation, Streamlining**

**Online Payment/Processing Services**

**Connected Card Payments**

**Ecommerce Payments**

**Money Transfer Services**

**Personal Payment Services**

**Mobile Payments Infrastructure**

Created By **CB INSIGHTS**



Grow Digital  
Commerce



Be agile and  
Open



Adopt Emerging tech  
for biz. performance

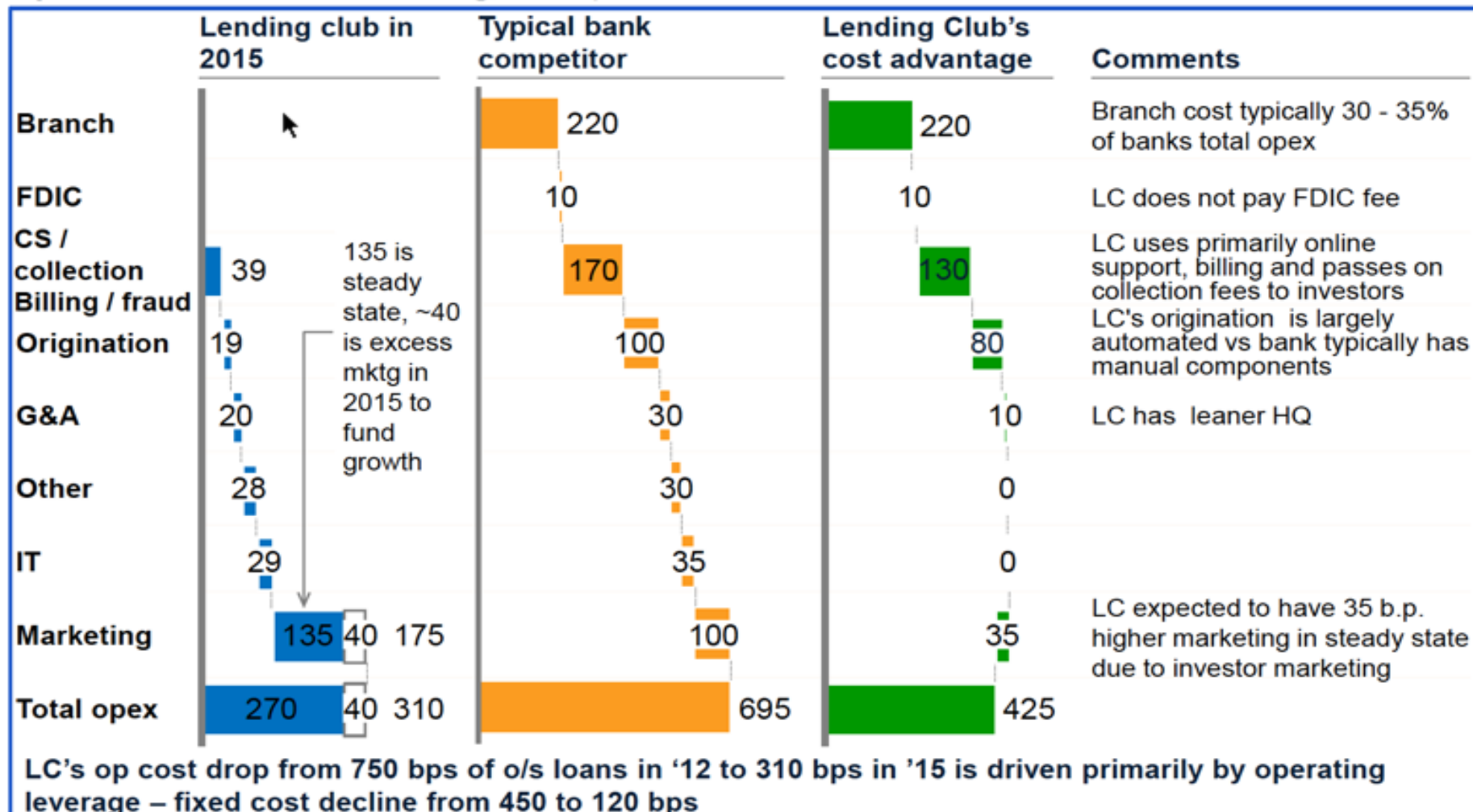


Grow revenue  
through new services

## #3 Payment Use Case

# Business model is fundamentally lower cost than banks

Opex / total balance outstanding, Basis points

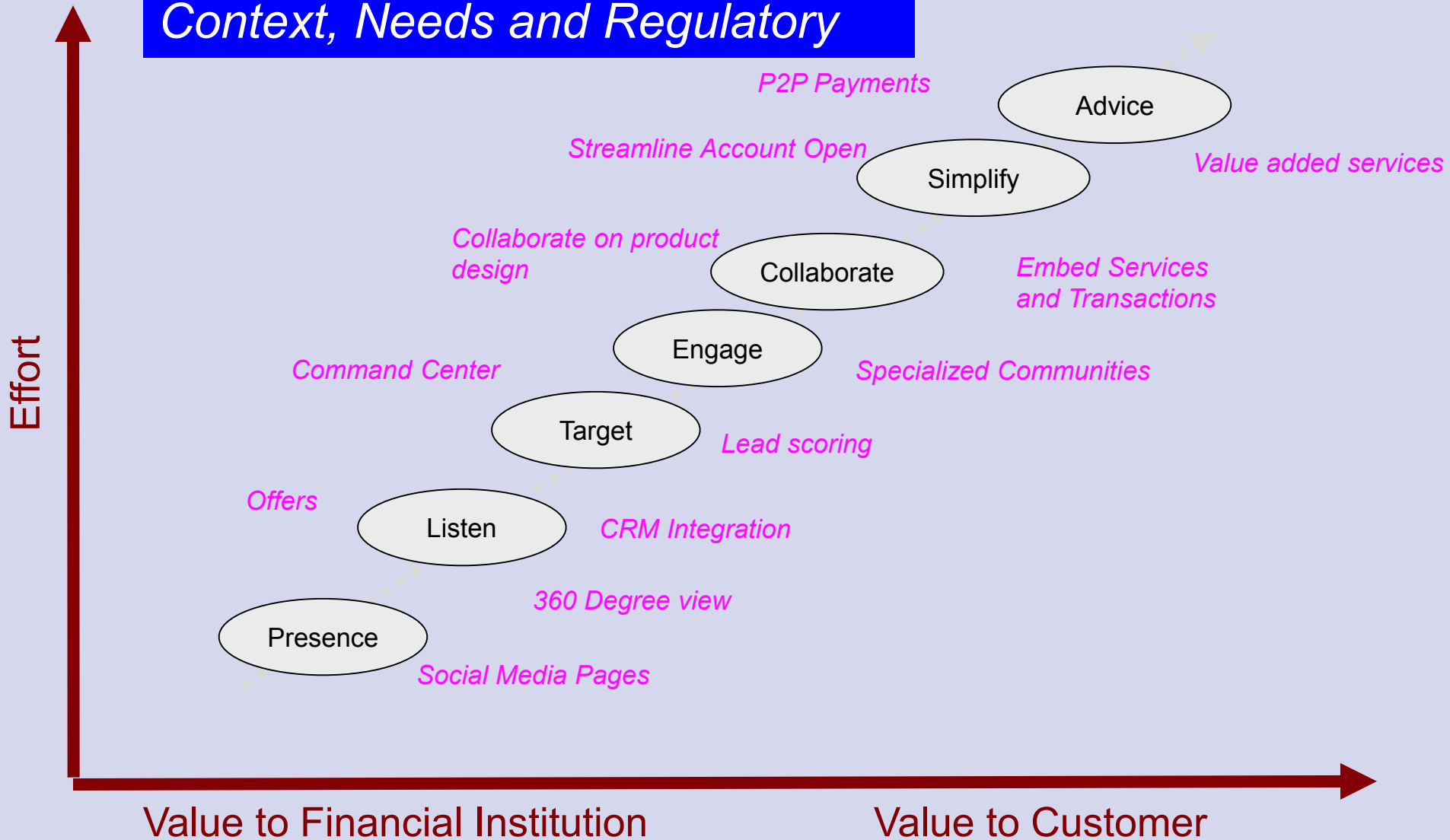


Source – Lending club

## #4 Lending Use Case

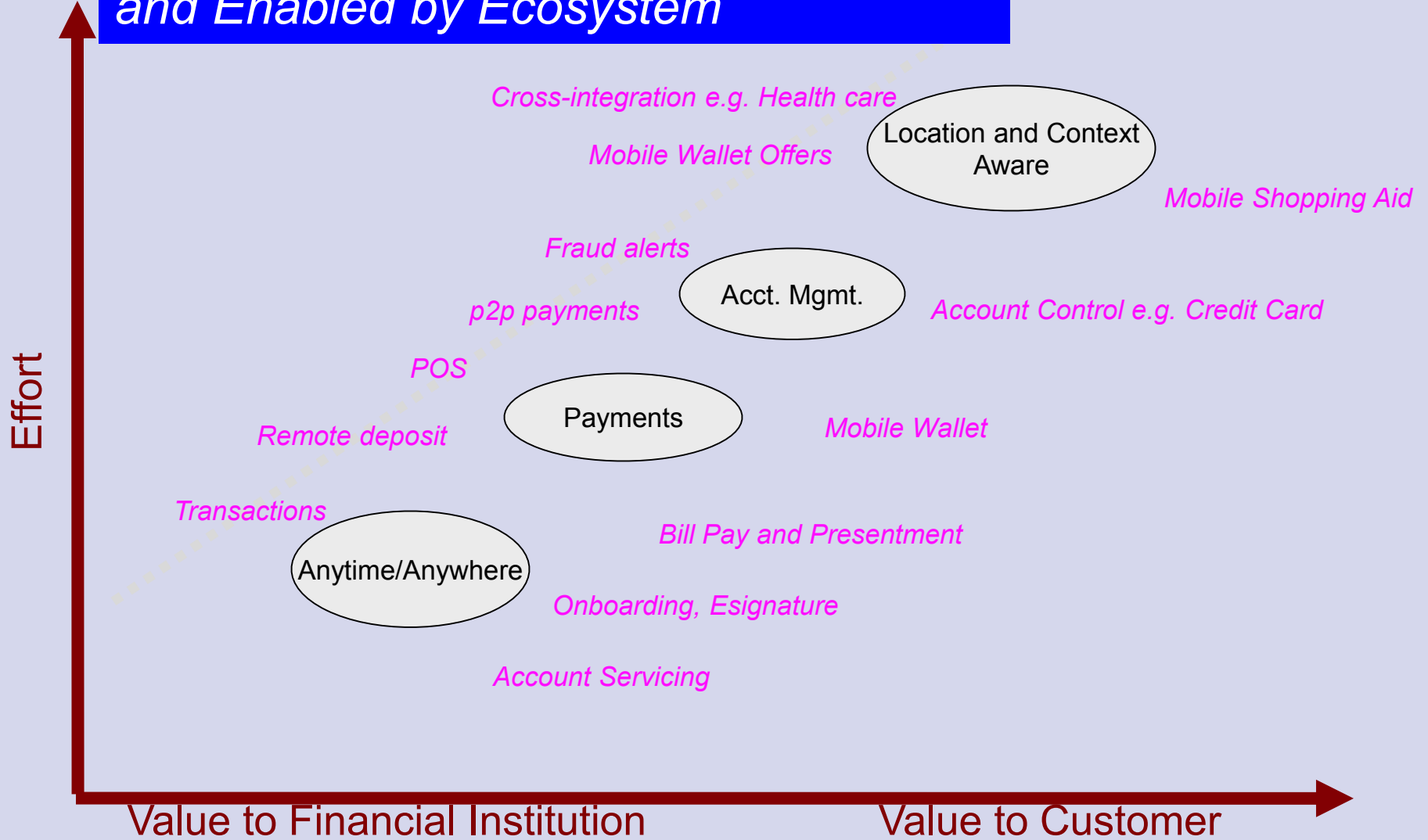


# Effort & Value Function of Context, Needs and Regulatory

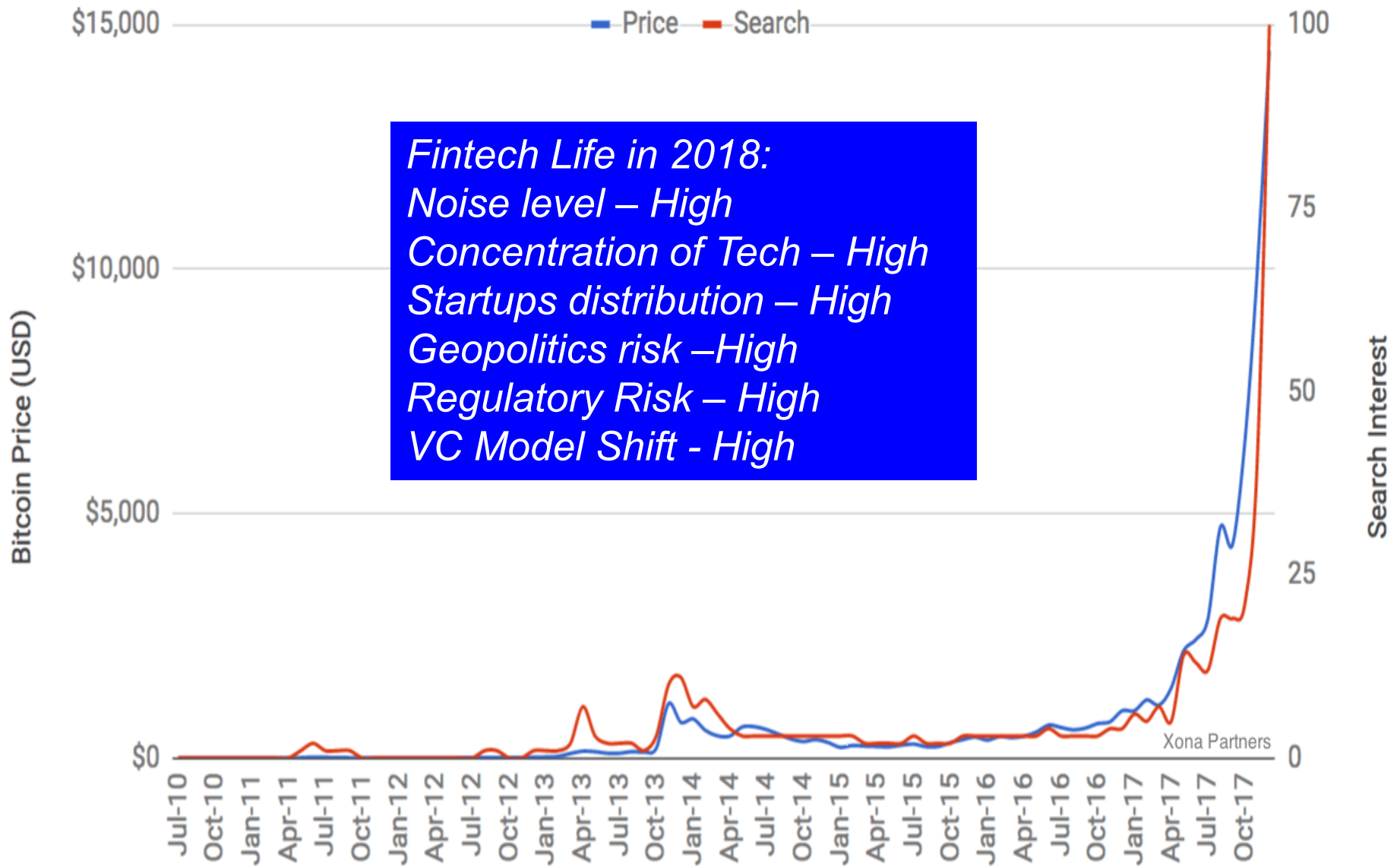


Quick Wins and Future State – An Insurance Use Case

# Effort and Value - Ecosystem Enabler and Enabled by Ecosystem



Quick Wins and Future State – A Bank Use Case



**Context is Everything, Filtering the Hype and Optimally Adapting**





*Fintechs Become Banks or  
Banks Become Fintechs !*

*New Tech, New  
Players, Industries  
Colliding, New Winners*

*Sandbox Models + Risk  
Return Management*

*Internet Infrastructure is Key  
enabler + Adapted Regulatory*

**Finternet Leapfrog Opportunity is...Now But Won't Last**





*Thank You*

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