

Révolution numérique, innovation permanente et nouveaux business modèles en Asie du Nord: risques et opportunités pour les entreprises françaises ?



Gilbert Réveillon
Président de la Commission TIC et Economie Numérique des CCE



Alain Rolland
co-fondateur eBLINK



Christian Bittar
Co-fondateur eBlink

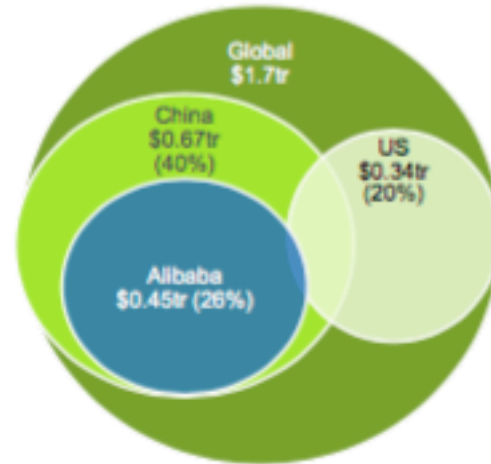
1. Digital transformation
 2. IoT vision
 3. Cyber Security
 4. Data is big, sharing & API too...
 5. Performance assessments of French startup ecosystems ...
 6. BlockChain in the landscape
(SNCF-HYPERLOOP, ENGIE, UBER)
1. Case Study eBLINK

1. Digital transformation

ASIA
#1 m-gaming usages
KOREA & JAPAN
CHINA & THAILAND
Social commerce

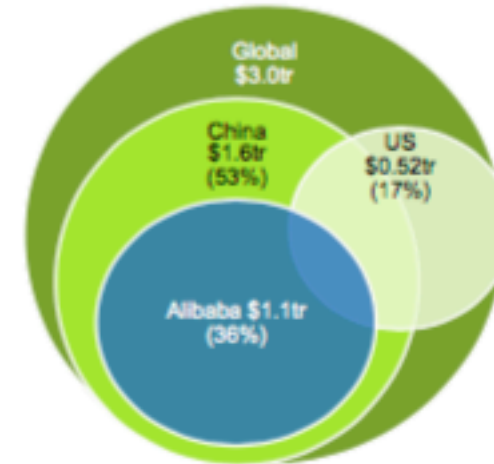
SHIFT
Occident B2C = 80%
C2C = 20%
Asia 20-80

Figure 31. Global E-Commerce Mainly Comes from China & US, 2015



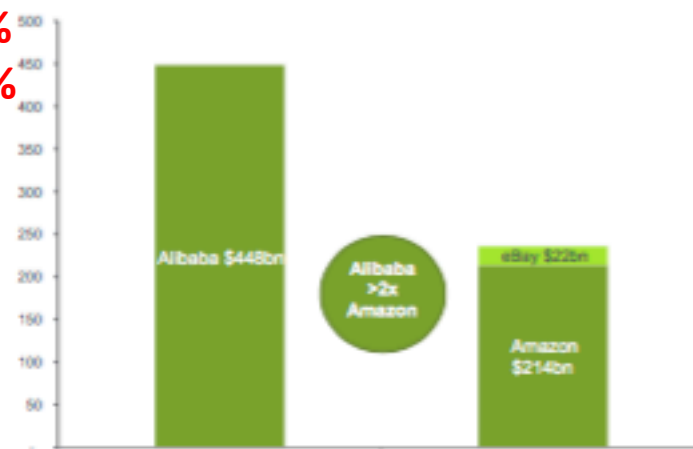
Source: eMarketer, Citi Research; Based on Gross Merchandise Value (GMV)

Figure 32. China E-Commerce Market Share is Growing, 2018



Source: eMarketer, Citi Research; Based on Gross Merchandise Value (GMV)

Figure 33. Alibaba GMV Larger than Amazon, eBay Combined 2015



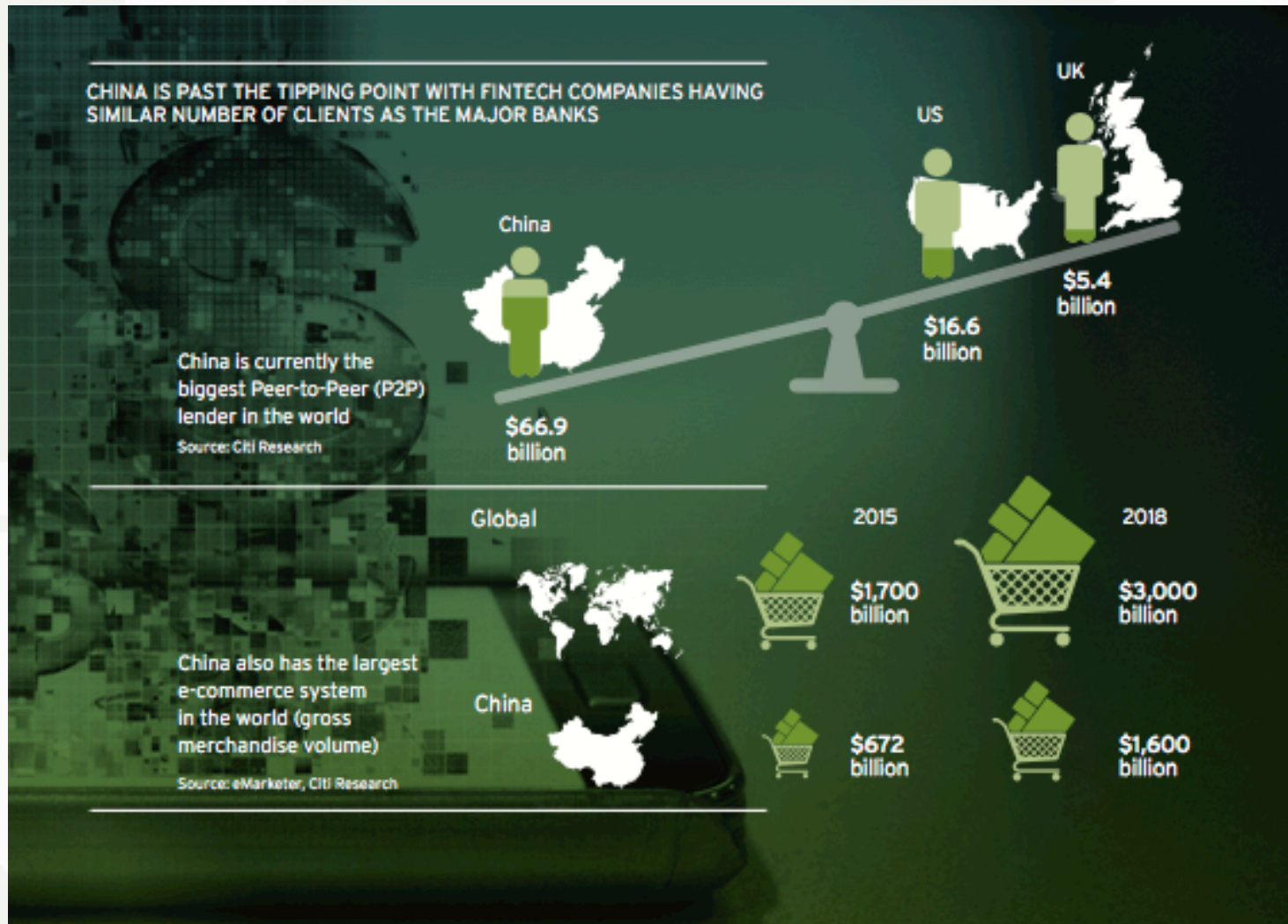
Source: Company Reports, Citi Research; Amazon GMV estimated to be 2x of Net Sales as around half of the sales on Amazon are from third-party merchants

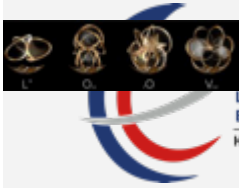
Figure 34. Alipay Total Payment Volume Bigger than PayPal 2015 (\$bn)



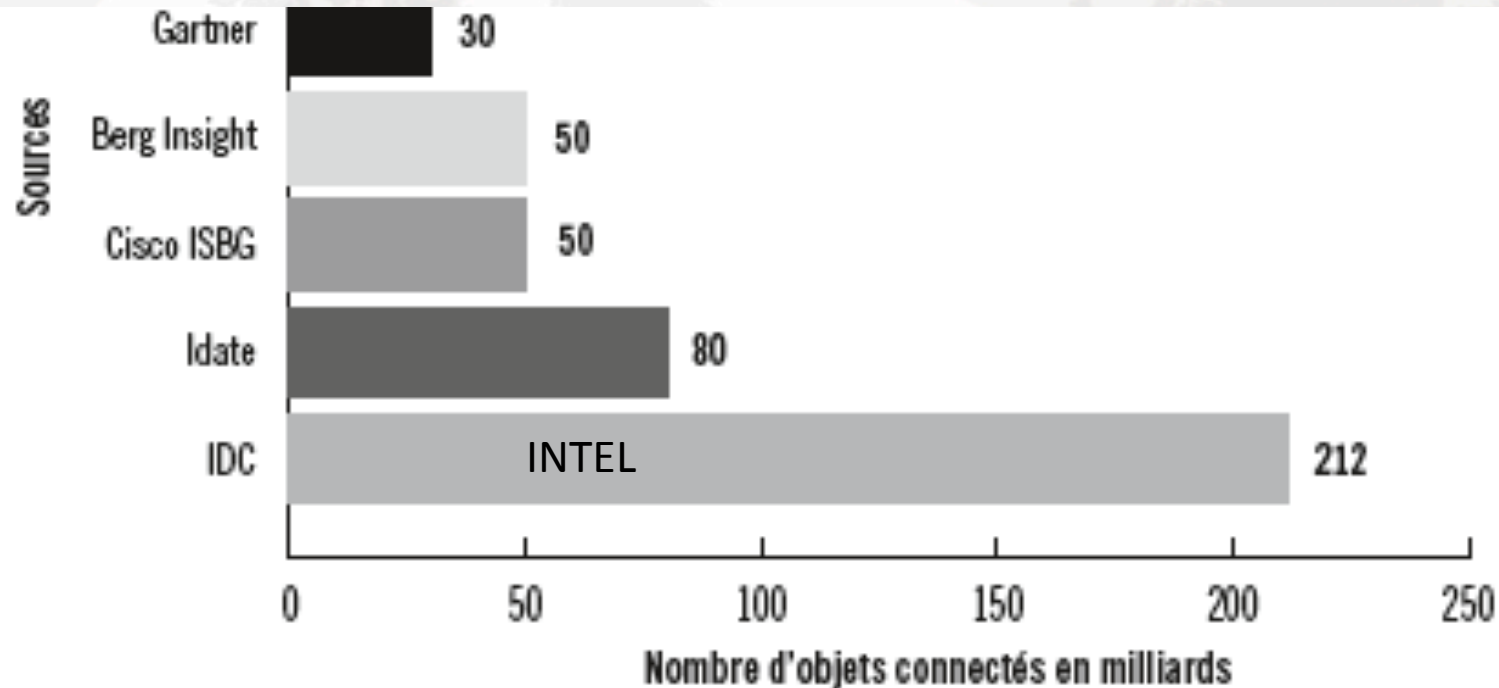
Source: Company Reports, Citi Research; Alipay TPV 2015 is estimated based on disclosure in 2014 adjusted for growth in Alibaba's GMV.

Digital Power in FINTECH





So many SENSORS... part of the sensing economy ?



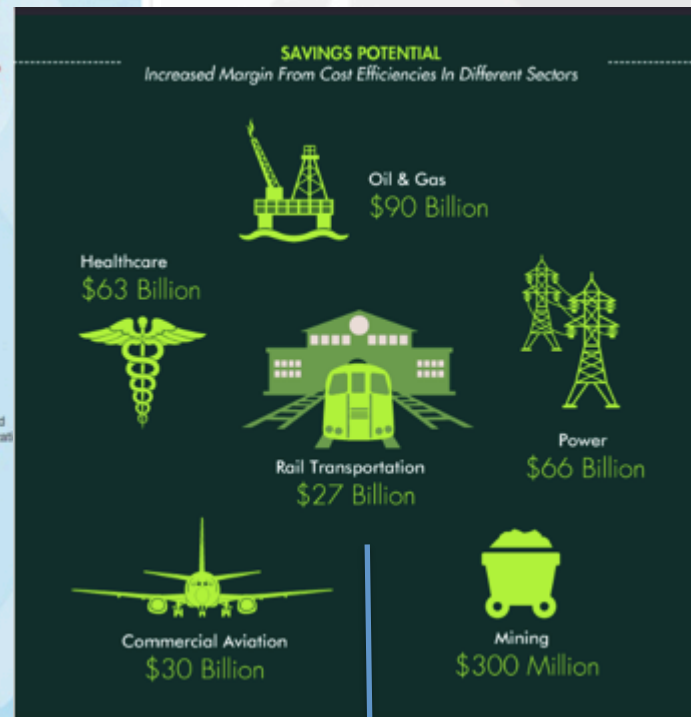
Source : G9+, *Les nouveaux eldorados de l'économie connectée*, 2013.

GSMA 2015

ww #1 China Connected Objects (M2M & IoT)

2. IoT Global Vision

Rationalization of costs - Increased Businesses +



IoT 10 Trns \$ STAKE

DATA 40 Trn octets

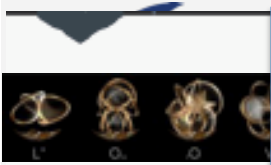
But 1% exploited !

WHEREAS 27 Bn\$ potential savings identified for rail

BUT also new revenues Cf ETCS +20% trains/H

D'ici à 2025, McKinsey estime le marché annuel entre 3.9 et 11.1 trilliards de dollar. Sur les 44 000 Go de données collectées par ces objets connectés, moins de 1% sont exploitées.

e.g. A.I. Predictive Modeling for Assets Maintenance



IoT How did we get there?

#1 – *The connectivity costs have dropped*

COST OF SENSORS

\$1.30 → .60
AVG. COST
over the past 10 years.

COST OF BANDWIDTH

↓ 40x
over the past 10 years.

COST OF PROCESSING

↓ 60x
over the past 10 years.



How did we get there ? #2 *Data lake & data flow*

CHALLENGE : Storage & calculation power costs



Combination of 2 laws explaining Big Data

1. MOORE's Law (Intel since 1965) :

“the number of transistor per circuit of same size doubles every 18 months with no cost increase”

2. Grötschel's Law of calculation power

*“the speed of calculation of the algorithmes increases 43 times faster than the power of micro-processors”)**

CEO Google *“world moving from Mobile to A.I. first with smart assistance and verbal commands”*

* French Sénat *Rapport 2014 “gouvernance mondiale de l’internet”*

3. Cyber security The pirates of data



DATA BREACH MOST FAMOUS CASES

- PANAMA PAPERS is 2,6 Terabytes (11 m documents = emails, DB, PDF, Images)
- JP Morgan Chase 76 m house holds affected etc.
- techno française via startup (Linkurious avec d'autres européennes)



**In today's connected world, security is an ongoing process,
Not a point-in-time solution**

*USA Attorney General
Eric HOLDER May 2014
Case Wang Dong*

QUANTUM COMPUTING...
*Even more threats as
QC calculation 1h = 300 Years of a PC*

1.7 trillion IPS attacks blocked

4.2 billion malware attacks blocked

In 2014, attackers launched twice as many unique attacks on your systems with malicious code. We saw 88 trillion hits for application traffic and 45 billion hits for post-infection malware activity.

In 2014, we collected 37 million unique malware samples, almost double the 19.5 million from 2013. Put another way, every day in

TRUST IS PIVOTAL to the development of the digital economy

- Regulating Big data & connected objects activities is at stake :
with new scale & new nature of services
political debate at country & regional levels vs precaution by principal

Shared trust required regulations & standards worldwide...

EU passed the directive/law 28 April 2016

- *double opt in enhancing user consent*
- *Personal Data Protection enforced*
- *72h to report data breach on PDP*
- *unified reporting in Europe for corporate*
- *privacy by design & right of forgiveness*
- *security by default & right of data portability*
- *accountability rules & impact assessment*
- *Data Protection Officer (obligation by April 2018)*

Heavy bottlenecks ... soon to become cutting edge leadership



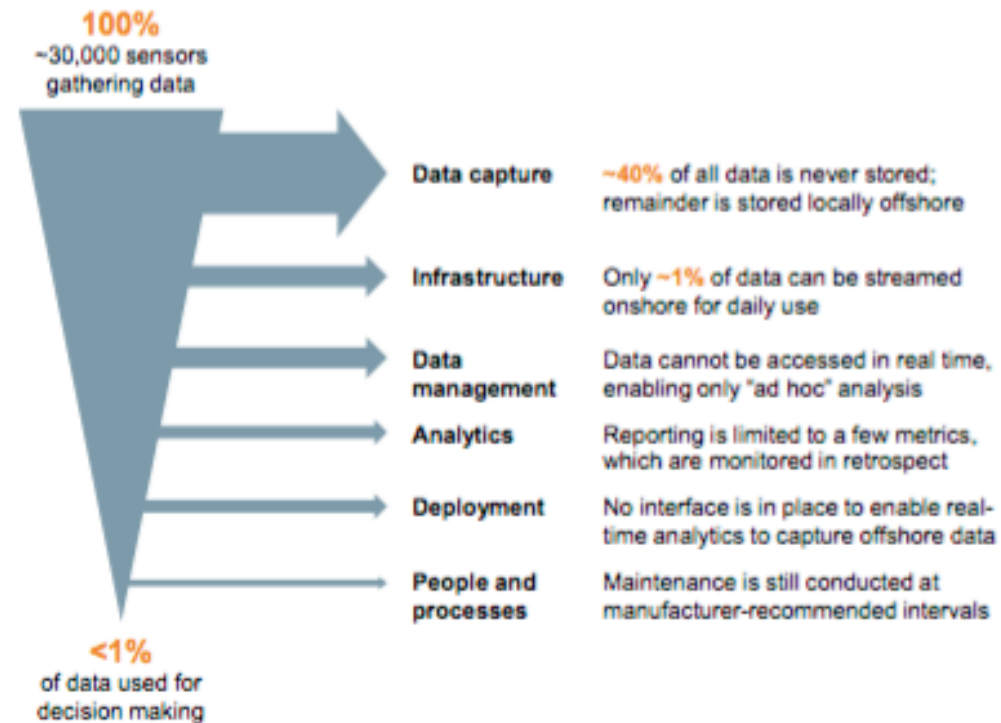
Data Ethics vs. Digital Ethics:

Data Ethics—moral governance of the integrity, handling, control, and provenance of data.

Digital Ethics—data ethics and moral governance of actions taken as a result of insights derived from the analysis of information (where 'information' is data with context).

Exhibit 3

99 percent of data collected from 30,000 sensors on an oil rig was lost before reaching operational decision makers



SOURCE: McKinsey Global Institute analysis

**THE 1% CASE IS EVERY WHERE...
BUT NEW JOBS TO OPERATE
CDO & CHIEF DATA SCIENTISTS**

EUROPE

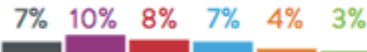
Sharing Community too...

SHARE COMMUNITY PARTICIPATION WILLINGNESS BY GENERATION

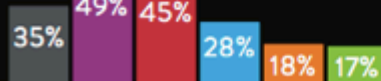
PERCENTAGES ARE AMONG THOSE LIKELY TO UTILIZE/RENT PRODUCTS OR SERVICES FROM A SHARE COMMUNITY

● GLOBAL AVERAGE ● ASIA-PACIFIC ● MIDDLE EAST/AFRICA ● LATIN AMERICA ● NORTH AMERICA ● EUROPE

GENERATION Z (UNDER 20)



MILLENNIALS (21-34)



GENERATION X (35-49)



BABY BOOMER (50-64)



SILENT GENERATION (65+)



Source: Nielsen Global Survey of Share Communities, Q3 2013

WILLINGNESS TO PARTICIPATE IN SHARE COMMUNITIES AROUND THE WORLD

WILLING TO SHARE OWN ASSETS WILLING TO SHARE FROM OTHERS



TOP COUNTRIES LIKELY TO SHARE FROM OTHERS

- 94% CHINA
- 87% INDONESIA
- 86% SLOVENIA
- 85% PHILIPPINES
- 84% THAILAND
- 79% MEXICO
- 79% BULGARIA
- 78% HONG KONG
- 78% INDIA
- 78% BRAZIL

Source: Nielsen Global Survey of Share Communities, Q3 2013

EUROPE : the C2C wave to arrive ;-)



APIs, an innovative and efficient model allowing companies to manage their core business activities only



TRADITIONAL COMPANY



API-DRIVEN COMPANY



Chine :
Google Maps ne fonctionne pas

In a traditional company, all functions are internalized to support the core business

In an API-driven company, support functions are **externalized** via an **API**, **focus** is on the **core business**

Game changing business models... also

From Product-Centric to **Service-Centric** Business Model

Shift in Value Creation

Companies need to create and capture value differently



HBR, How the Internet of Things Changes Business Models, July 2014

IoT is also changing the digital payment land scape with Wearable Tech

Selected Findings (methodology)

- VC investments too low and particularly so for later-stage funding.
- Paris' Growth Index is the second lowest in the top 20.
- Paris ranked #16 in Talent (despite the high quality education system)
Time to hire an engineer is the longest in Europe
- Only 22% of employees are from abroad resulting in too little **diversity**
Paris ranked #20 over 20 with diversity ratio

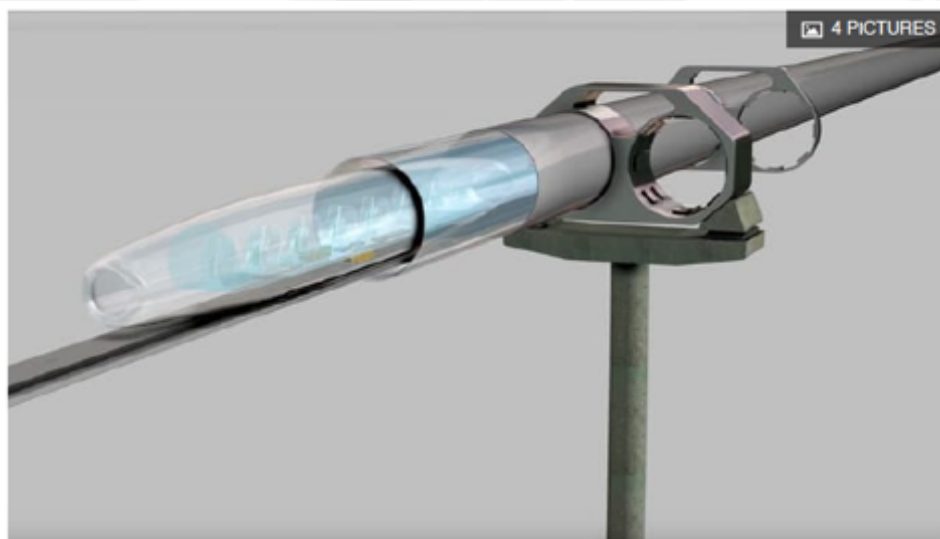
WE NEED AN ACTION PLAN

=> SEND STARTUPS & SME OUTBOUND ASIA TO FRANCE !

➔ GETTING A MORE APPEALING COUNTRY BY SOLVING THESE ISSUES !

SNCF & HYPERLOOP Russian Competition ?

Travail



Hyperloop Transportation Technologies' vision for the futuristic transport system is based on passive magnetic levitation technology. [View gallery \(4 images\)](#)

URBAN TRANSPORT

Russia eyes Hyperloop-like system of its own

Nick Lavars | May 31, 2016



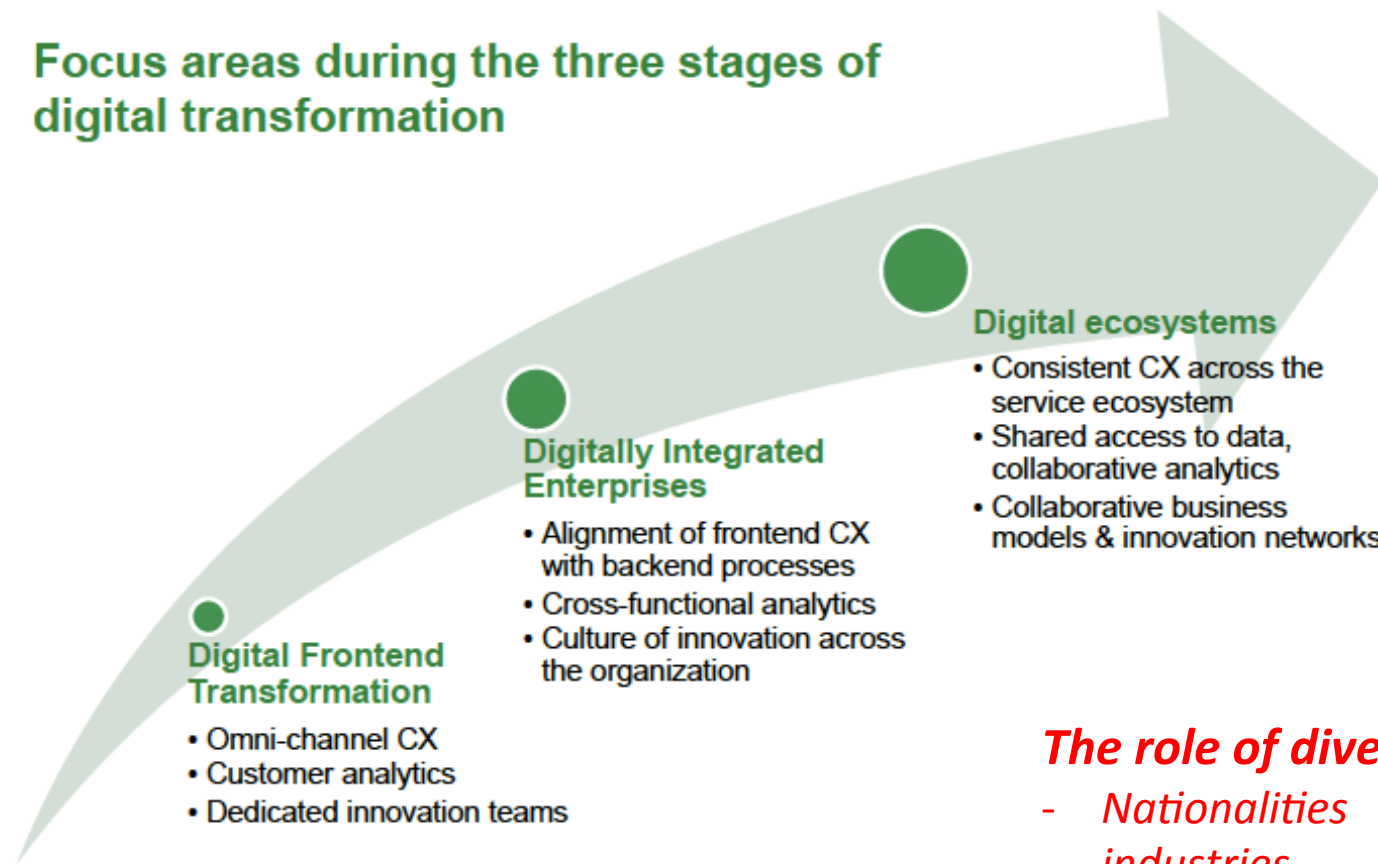
Russia is reportedly hatching a plan for a high-speed transport system of its own.

We might be **yet to see** a fully-formed Hyperloop in action, but that doesn't mean some international officials aren't already inspired by Elon Musk's futuristic transport system. According to local news reports, Russia is contemplating a Hyperloop-like project to connect the country from north to south, and east to west.

BlockChain to secure Railways transactions...
Ericson has an offer presented at World Bank UIC

Maglev ? China ?

Focus areas during the three stages of digital transformation



Focus areas during the three stages of digital transformation

EBlink

Vision

- Become the leading provider of Wireless Fronthaul solutions to wireless carriers around the world, enabling progressive transition from current wireless architectures to centralized Cloud based architectures.



Road

- **key strategic partnerships** (Alcatel-Lucent, Radiall,)
- Strong and protected IP
- **Gouvernement booster (BPI, Coface...)**
- **early adopters** (Orange, Vodafone, Verizon, AT&T, CTC,).
- Work with Ecosystem vendors to become the de-facto standard for WIn Fronthaul

EBlink

FOUNDING DATE: Dec. 2005
LOCATIONS: France (Paris), USA (Silicon Valley).
MAIN INVESTORS: VCs: 360 Capital Partners, Seventure, BPI, Source, A...
 Corporate Investors: Alcatel Lucent, Radiall.
Founders: Alain Rolland, Christian Bittar.



Le Lundi 13 juin, l'industrie française a rendez-vous avec les forces de la disruption...

Cosmétique, automobile, santé, territoires, travail, banque, Internet des Objets... tous les grands secteurs et les aspects de notre économie sont en train de revoir leurs fondamentaux sous la pression des startups et d'une forme "d'uberisation" de l'économie et de la société.

Pour entrer dans le débat, comprendre les mécanismes de la disruption et anticiper les nouveaux équilibres, **grands groupes, experts, startups, politiques et medias se donnent rendez-vous le 13 juin 2016 au Palais Brongniart**

Inscriptions sur [La Conférence de Paris](#)

**PERFORMANCE 20 TIMES
HIGHER THAN THE MARKET >
OFFERS**



10h00-10h10 L'industrie du futur commence ici

Alain FERASSE-PALE, Président de **NOKIA-France** présentera la stratégie de Nokia après l'acquisition d'Alcatel-Lucent. Au sein de la solution confiance numérique de la Nouvelle France Industrielle, Nokia montre que l'industrie du futur commence par le socle numérique : des nouvelles architectures 5G à l'explosion de l'Internet des Objets. Avec la mise en place opérationnelle de ses engagements en France, Nokia est l'acteur principal de la valeur ajoutée française sur ces domaines. Les sites de Villarsaux en Essonne et de Lanrion dans les Côtes d'Armor deviennent des éléments clés de cette stratégie concernant la 5G, l'internet des objets et la cybersécurité.



La Conférence de Paris sur le Numérique sera animée par **DJ LAEK**, qui improvisera librement sur tous les sujets de la Conférence.
La playlist de la Disruption?



La FINTECH jouera à domicile, au Palais Brongniart, Elle sera représentée par son Président, **Alain CLOT** qui interviendra lors de la séquence :
 14h15-15h00 **Qui fera sauter la banque?** Les activités financières, hautement dématérialisées, sont depuis longtemps à l'heure du Numérique et les banques ont été pionnières en matière de services en ligne à leurs clients. Les banques de détail ont même créé leurs propres « pure players » en ligne, affrontant les nouveaux entrants dépourvus de réseaux physiques. Mais aujourd'hui, c'est le



LES CONSEILLERS DU COMMERCE
EXTÉRIEUR DE LA FRANCE
HONG-KONG

- ANNEXE
-

Selected Findings

- With only \$1 billion in VC investments, an influx of capital is much needed, and particularly so for later-stage funding. Finally, Paris' weakest indicator is not funding, but Talent (#19 over 20)—despite the high-quality education system. The city's best engineers tend to favor large, stable employers rather than fledgling, or even established startups.
- Ecosystem Partners: France Digital, TheFamily, NUMA, and 50 Partners
- Paris' Growth Index is the second lowest in the top 20. It exhibits anemic growth in Startup Output and exit value, and a surprising 7% reduction in VC investments.
- It ranks a notable #9 in Market Reach, with the 4th largest local market among the other top 20 hubs, but a 33% lower percentage of foreign customers than European average.
- Seed rounds are 13% higher than the regional average, but Series A are 30% lower.
- Paris ranked #16 in Talent, placing it in the lower tier in both quality and availability. Time to hire an engineer is the longest in Europe (14% above regional average and 26% above Silicon Valley average).
- Only 22% of employees are from abroad (35% below regional average), **resulting in little diversity (#20 over 20).**

II. The Global Startup Ecosystem Ranking 2015

Without further ado, here is the ranking, with analysis to follow.

	Ranking		Performance	Funding	Market Reach	Talent	Startup Exp.	Growth Index
Silicon Valley	1	↑	1	1	4	1	1	2.1
New York City	2	↔ 3	2	2	1	9	4	1.8
Los Angeles	3	↑	4	4	2	10	5	1.8
Boston	4	↔ 2	3	3	7	12	7	2.7
Tel Aviv	5	↔ 3	6	5	13	3	6	2.9
London	6	↔ 1	5	10	3	7	13	3.3
Chicago	7	↔ 3	8	12	5	11	14	2.8
Seattle	8	↔ 4	12	11	12	4	3	2.1
Berlin	9	↔ 6	7	8	19	8	8	10
Singapore	10	↔ 7	11	9	9	20	9	1.9
Paris	11	↑	13	13	6	16	15	1.3
Sao Paulo	12	↔ 1	9	7	11	19	19	3.5
Moscow	13	↔ 1	17	15	8	2	20	1.0
Austin	14	NEW	16	14	18	5	2	1.9
Bangalore	15	↔ 4	10	6	20	17	12	4.9
Sydney	16	↔ 4	20	16	17	6	10	1.1
Toronto	17	↔ 9	14	18	14	15	18	1.3
Vancouver	18	↔ 9	18	19	15	14	11	1.2
Amsterdam	19	NEW	15	20	10	18	16	3.0
Montreal	20	NEW	19	17	16	13	17	1.5

One important caveat to note: Our index does not currently include startup ecosystems from China, Taiwan, Japan, and South Korea. It has been challenging to get survey participants and complete data. We hope to have these ecosystems included in our index later this year. While we have not completed our analysis yet, we particularly expect:

Beijing to rank in the top 5

Shanghai to rank in the top 15

The following ecosystems all scored highly and were contenders for a spot among the top 20:

Atlanta, Delhi, Denver-Boulder, Dublin, Hong Kong, Mumbai, Stockholm, and Waterloo.

BLOCKCHAIN

Competition to ENGIE ?

Competition to UBER ?

New York's 'Energy Czar' Talks Future of Blockchain for Energy Grids

Michael del Castillo (@DeRayMar) | Published on April 18, 2016 at 19:07 BST

FEATURE



The state of New York is working to rebuild its power grid as a distributed platform and to create incentives for the powerful utilities companies to work with upstart innovators.

An unanticipated side-effect of the effort is that the environment has proved a fertile stomping ground for LO3, a startup using the [Ethereum](#) blockchain to give people the ability to sell solar energy directly to one another.

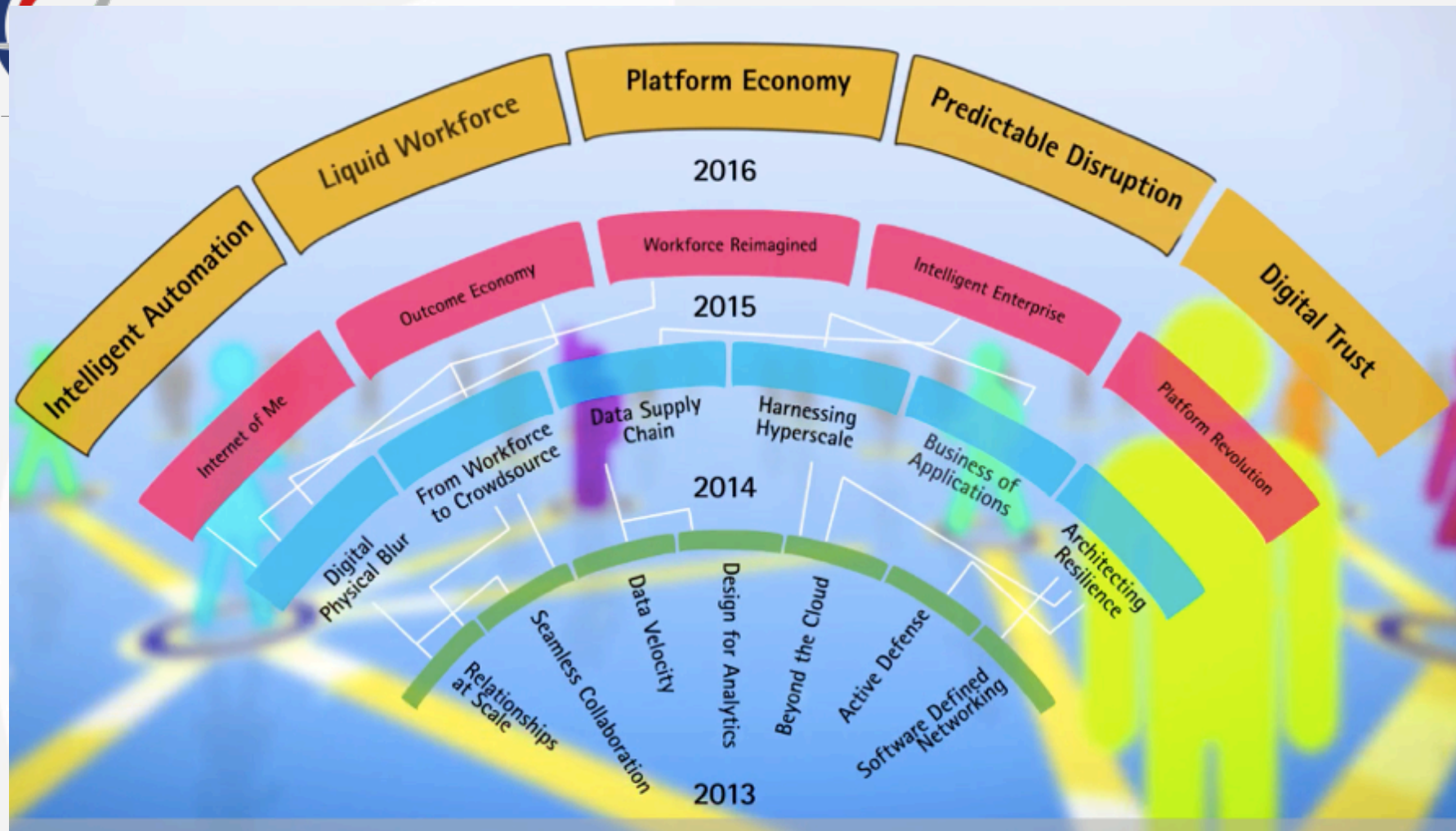
While the state's so-called "energy czar" Richard Kauffman said the government projects don't intentionally foster an environment beneficial to blockchain tech, the inefficiencies of the legacy power grid are particularly ripe for disruption.

Kauffman, whose official title is chairman of energy and finance for New York State, told CoinDesk:

A 29 ans, il crée un « Uber décentralisé » avec la blockchain - Rue89 - L'Obs



L'application Arcade City sur smartphone. - Robin Prudent/Rue89



5 TECH TRENDS CRITICAL TO DIGITAL SUCCESS

- “The traditional model ascribed for decades to IT security has been one of **C**onfidentiality, **I**ntegrity and **A**vailability (CIA)”
- “The CIA model is still relevant and applicable in cybersecurity, but it isn't enough.”
- Byrnes “**The digital explosion** is moving technologies from **core architectures** to a **highly distributed and fit-for-purpose edge.**”
- Artificial intelligence & Machine Learning are not just for the nice guys...

The US Federal Aviation Administration is undertaking airport trials of a counter-drone system developed jointly by three UK companies.



(Credit: AUSD)

Anti-UAV Defence System (AUSD) is able to detect drones up to 10km away using Ku band electronic scanning radar provided by Essex-based Blighter Surveillance Systems. Once detected, the UAV is tracked with infrared and daylight cameras, and specialist video tracking software. This part of the system is delivered by Chess Dynamics of West Sussex. Finally, a directional radio frequency (RF) inhibitor from Northamptonshire's Enterprise Control Systems disables the UAV.

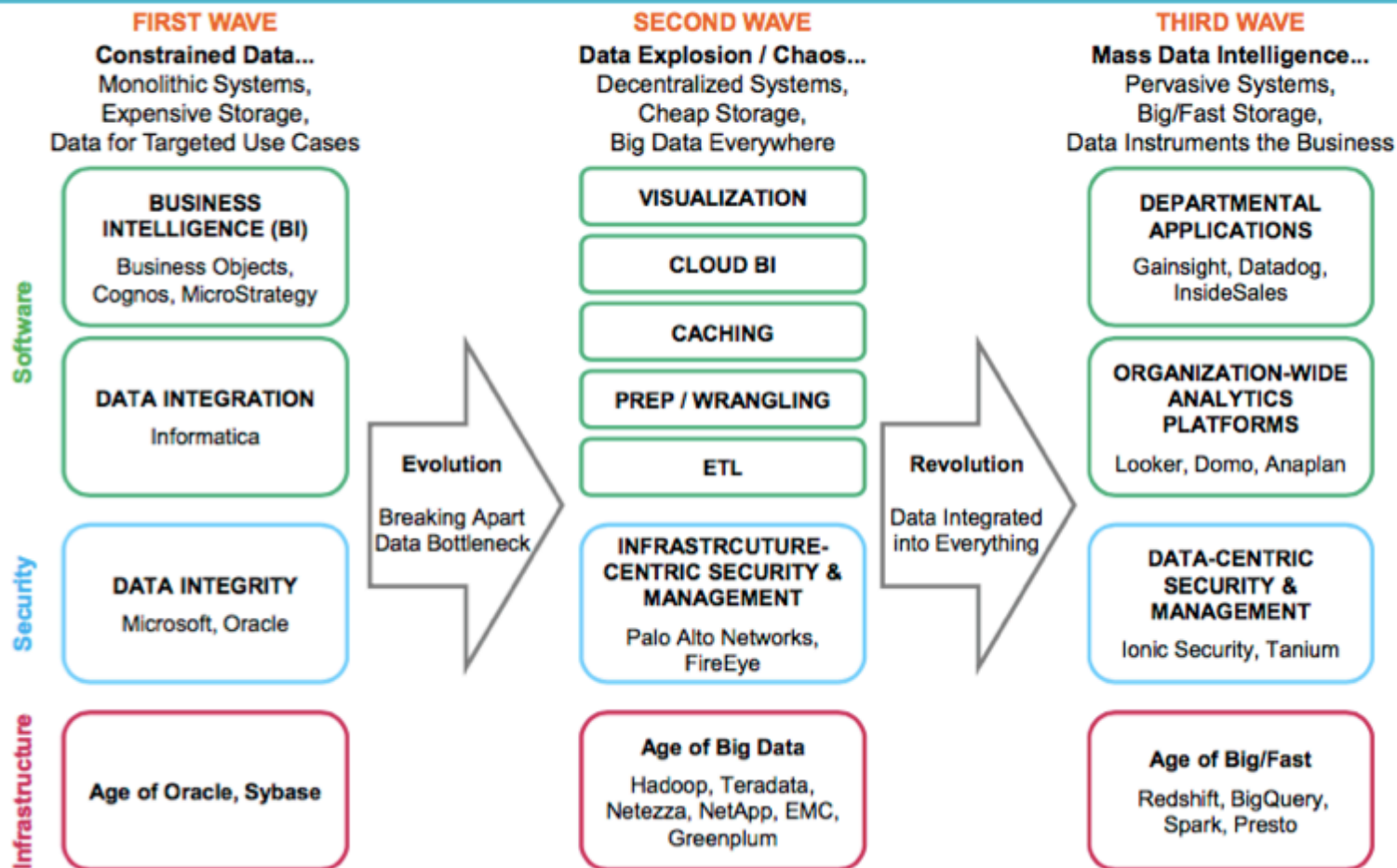
**MANY DRONES
to come !**



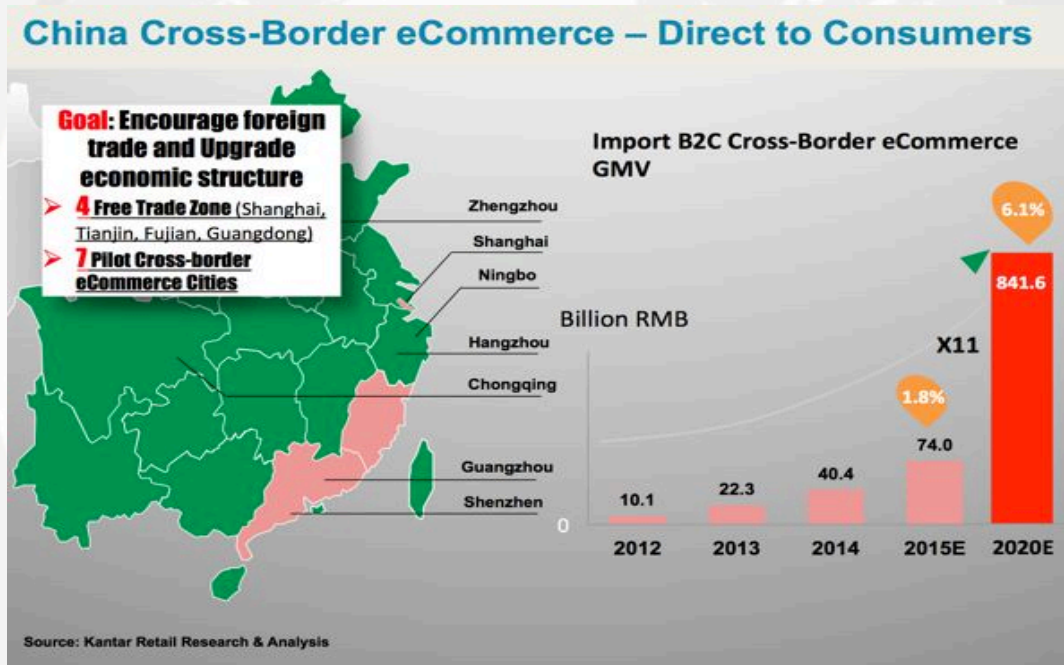
Cyber Security vs Combining low level of readiness & low level of awareness

- **AWARENESS :**
 - cyber literacy (understanding its logic)
 - Risk appetite (not being aware)
 - Threat intelligence (not receiving relevant info)
 - Legislation & regulations (compliance with policies)
- **READINESS :**
 - Network resilience (visibility of devices & people)
 - Response (understand Prevent, detect, locate, neutralize)
 - Behavior (not fostering a culture of responsibility & security across the organisation)
- **Cyber Risk Committee (Data Protection Officer by 2017)**

Evolution of the Data Platform, 1990 – 2016



- Excellente étude de la section CCE Chine



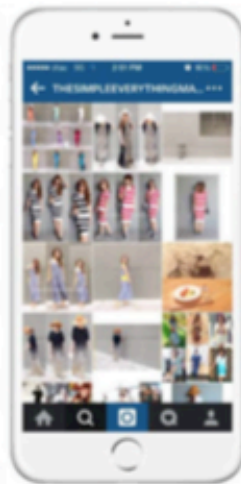
...Messaging Platforms = Conversational Commerce Ramping

Shopper in Thailand on Instagram

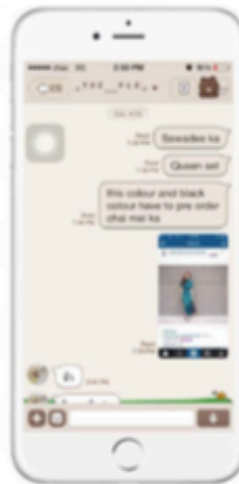
Browsing Begins on Instagram...Conversation / Payment / Confirmation Ends on Line



Visit Instagram Shop



Browse Products



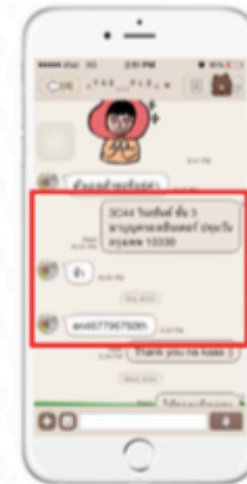
Inquire About Product via Line



Get Payment Details



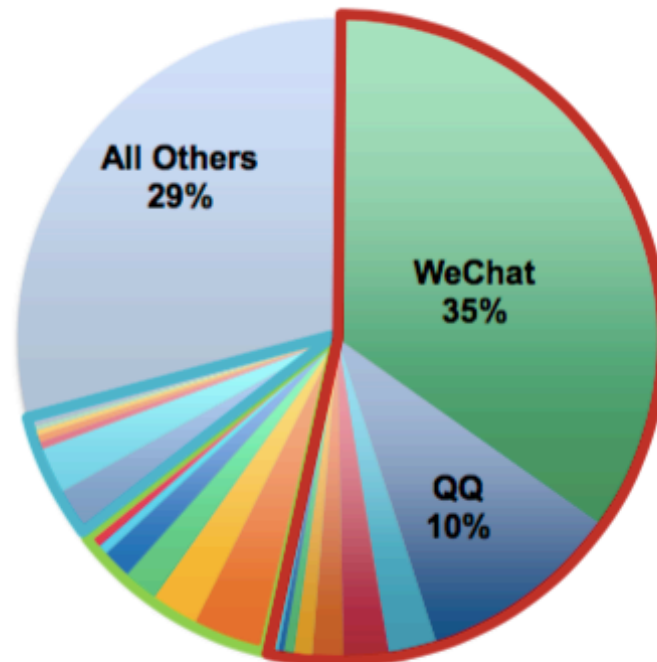
Confirm Payment



Ship & Track Order

China Mobile Internet Usage Leaders... Tencent + Alibaba + Baidu = 71% of Mobile Time Spent

Share of Mobile Time Spent, April 2016
Daily Mobile Time Spent = ~200 Minutes per User, Average



Tencent

- WeChat
- QQ
- QQ Browser
- Tencent Video
- Tencent News
- Tencent Games
- QQ Music
- JD.com
- QQ Reading

Alibaba

- UCWeb Browser
- Taobao
- Weibo
- YouKu Video
- Momo
- Shuqi Novel
- AliPay
- AutoNavi

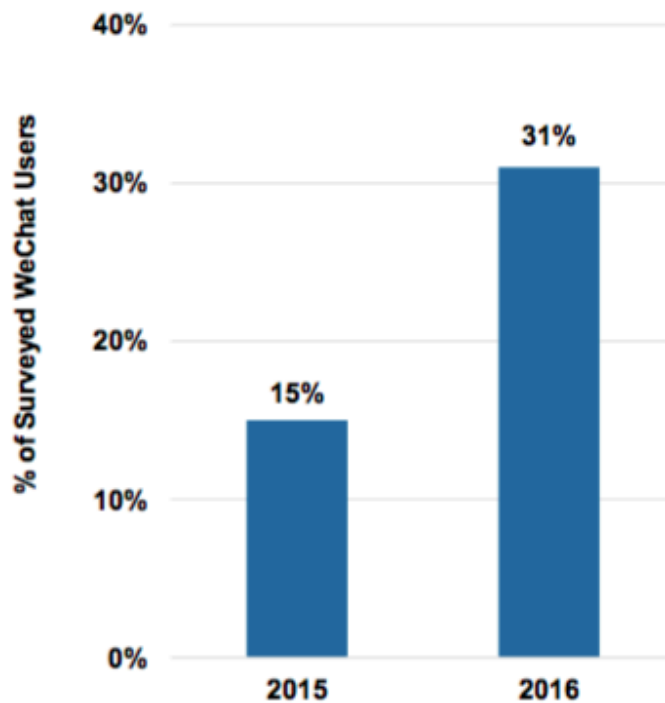
Baidu

- Mobile Baidu
- iQiyi / PPS Video
- Baidu Browser
- Baidu Tieba
- 91 Desktop
- Baidu Maps
- All Other

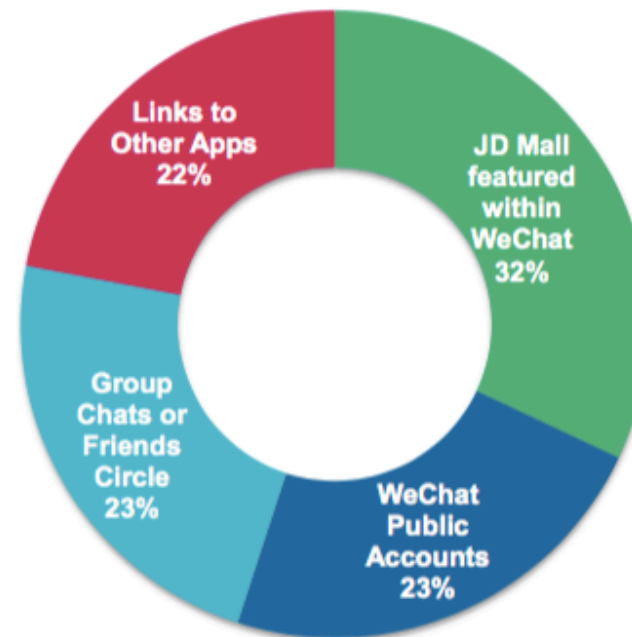


...China E-Commerce = Becoming More Social... 31% of WeChat Users Purchase via WeChat, +2x Y/Y

% of WeChat Users Making E-Commerce Purchase Through WeChat



Channels Through Which Users Made E-Commerce Purchase





Ant Financial (~\$60B Valuation*) = Leveraging Alibaba AliPay Scale... Building China Financial Services One-Stop-Shop

