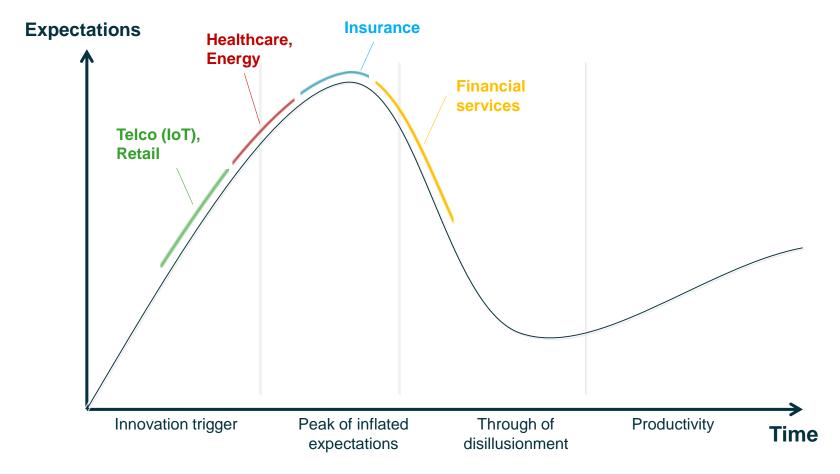


BLOCKCHAIN

MARKET EVIDENCE CROSS-INDUSTRY OVERVIEW

INDUSTRIES HYPE TREND

Perception of industry trends follows market analysis and can be represented with a Gartner-like curve:

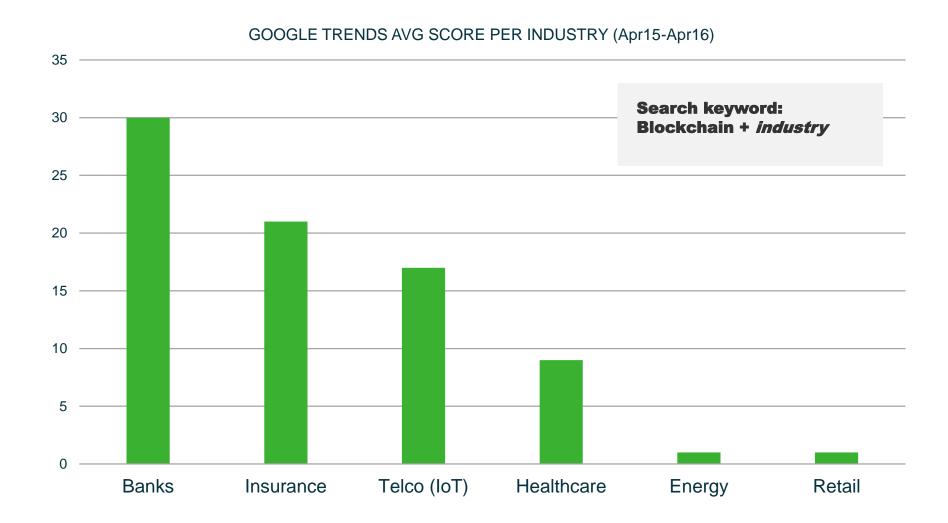


Banks have been the first ones to experiment with the technology and organize consortiums. In order to scale up to productivity phase, **regulators support is needed**.



BLOCKCHAIN & INDUSTRIES: SEARCH VOLUMES

Last year Google search trends seem to support such considerations:



BLOCKCHAIN FOR INDUSTRIES

BANKING

Financial services are by far the most advanced industry in terms of blockchain esploration with both independent and consortium initiatives.

INSURANCE

Insurance companies are in the «peak of inflated expectations» phase referring to Gartner hype classification.

HEALTHCARE

Healthcare companies are starting to see the potential of the emerging technology, with a wide set of possible applications envisioned.

ENERGY

Blockchain has the potential to be combined with contracts technologies to drive significant innovation in the Energy industry.

TELCO

Traditional telecoms providers are yet to embrace Blockchain, however Blockchain could offer new monetisatable services for their customers.

RETAIL

Within the Retail industry, the Blockchain paradigm can impact and disrupt a wide range of processes, from Supply Chain Management activities to Sales and After Sales Services.

REAL ESTATE

Blockchain technology has the possibility of enabling service categories and home automation with the Property industry.

Click on an industry for more details.



MAIN AREAS OF INTEREST FOR BANKS

Bitcoin

Use of bitcoins in traditional banking, from the integration of bank accounts with bitcoin accounts to options for making donations using cryptocurrency.

Intra/interbank transfers

Use of blockchain technology for transferring funds between banks or between branches of the same bank.

Financial trading

Exploiting the features of the blockchain in a financial context by implementing, for example, innovative platforms for the trading and post-trade processing of financial assets.

P2P/Retail payments

Using blockchain technology for creating and/or optimising a system for real-time P2P funds transfers, whether person-to-person or person-to-merchant.

Cross-border transfers

Implementing a remittance system based on blockchain technology, with the aim of reducing the cost and time involved in systems currently on the market.

Other

Use of the blockchain in other fields, such as: risk management, back-office administration, legal document archiving, etc.



MEANS OF ENTRY TO THE BANKING SECTOR

Consortium

Joining a banking consortium (R3) or crosssector consortium (Hyperledger project) with the aim of defining a de facto, interoperable standard with members of the consortium.

Venture capital for startups

Investment in startups active in the blockchain field, either through venture capital subsidary companies or directly, with the aim of gaining expertise and/or consolidating a technological partnership.

Partnership

Launch of a partnership with companies in the blockchain field (such as Ripple), to speed up knowledge acquisition and launch collaborative experiments.

Internal development

Establishment of research labs/working groups for developing proprietary solutions in the blockchain field, such as money transfer platforms or private ledgers.



WHY BLOCKCHAIN TECHNOLOGY MATTERS IN THE HEALTHCARE INDUSTRY

Blockchain could change the global healthcare industry and companies start to see the potential of the emerging technology

Blockchain experts and companies have spent a tremendous amount of time and effort focusing on the financial industry. More and more the innovative leaders see the possible benefits for the healthcare industry

From direct healthcare service payment, supply chain tracking, patient identity validation over medical product service customization there are several ideas how Blockchain applications could facilitate various applications in the healthcare industry

At the moment mainly startup initiatives in the healthcare industry are published and communicated

"... one of the most challenging environments" (Pavlo Tanasyuk, Founder of Blockverify)

"The healthcare industry is looking at how they can use blockchains in a number of ways" (Micah Winkelspecht, CEO Gem)



MAIN AREAS OF INTEREST IN THE HEALTHCARE INDUSTRY

The Healthcare industry is characterized by diversity and six different areas of interest.



MAIN AREAS OF BLOCKCHAIN INTEREST FOR TELCO

Implemented

PoC / In Development

Early Evaluation (few players)

Blockchain as a Service (BaaS)

Established players such as **Microsoft Azure** providing SDKs for Ethereum (and Ripple services too)

IBM has launched its own BaaS offering

IoT and M2M

Slock.lt – Ethereum-based application – rent anything **Filament** – backed by **Verizon Ventures**

Filament – backed by Verizon Ventures
Secure authentication and messaging
between remote IoT devices

Mobile Remittance

Visa Collabs + Epiphyte + BitPesa Abra (see Finance section for more details)

Disruptive Data Storage

Encrypted, decentralised disruptive storage based on Blockchain (**Storj.io**) Shared Databases between Organisations

Mobile/SDN Profiling and Authentication

Registering of SIMs to mobile network SDN Authentication, Authorisation, Accounting Mobile Roaming Profiles Blockchain-based consumer profiling and disruptive content delivery models

Disruptive Data Comms

Blockchain as a disruptive communication medium alternative to traditional fixed and mobile networks

Bitcoin-incentivised Networking (OpenLibernet, BitMesh startups)



HOW BLOCKCHAIN CAN BENEFIT THE RETAIL INDUSTRY?

Specific areas of blockchain benefits to Retail are shown below:

Trust the Supplier Identify counterfeit products and prove provenance

To enable attractive purchasing journeys for the customer

Trust the Consumer Trust Aggregators

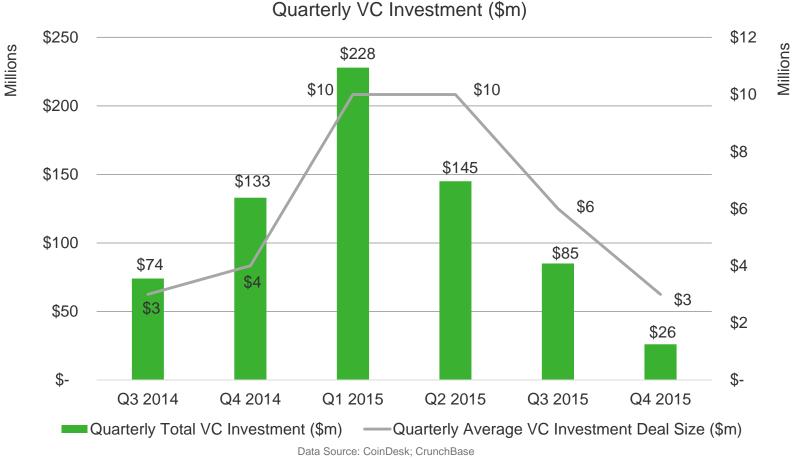
To reduce supply-chain costs and to allow easy forensic verification of process

MAIN AREAS OF INTEREST FOR RETAIL

In Retail applications, any proposed Blockchain solution has to very clearly answer a problem, and be value-led, not technology-led. Four areas in Retail in particular which blockchain can touch, and improve, are shown below.

Provenance & Authenticity	Purchasing Experience
Identity, Loyalty and Trust	Supply-Chain Transparency & Efficiency

BLOCKCHAIN STARTUPS



Since 2012, more than \$900 million has been invested in the blockchain market.*

2012 \$2.13 million

2013 \$95.05 million

2014 \$361.53 million

2015 \$481.55 million



REPLY

Reply specialises in the design and implementation of solutions based on new communication channels and digital media. Through its network of specialist companies, Reply supports some of Europe's leading industrial groups in Banks & Insurance, Industry & Services, Telco & Media and Public Administration to define and develop business models, suited to the new paradigms of Big Data, Cloud Computing, Digital Media and the Internet of Things. Reply services include: Consulting, Digital Services and System Integration.



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