

SME Productivity in the Era of Blockchain Disruption

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Productivity and Innovation Lab



PRODUCTIVITY

In July 2012, the Organization for Economic Co-operation and Development (OECD) warned that Canada need to be boost productivity to sustain the same standard of living for future generation.

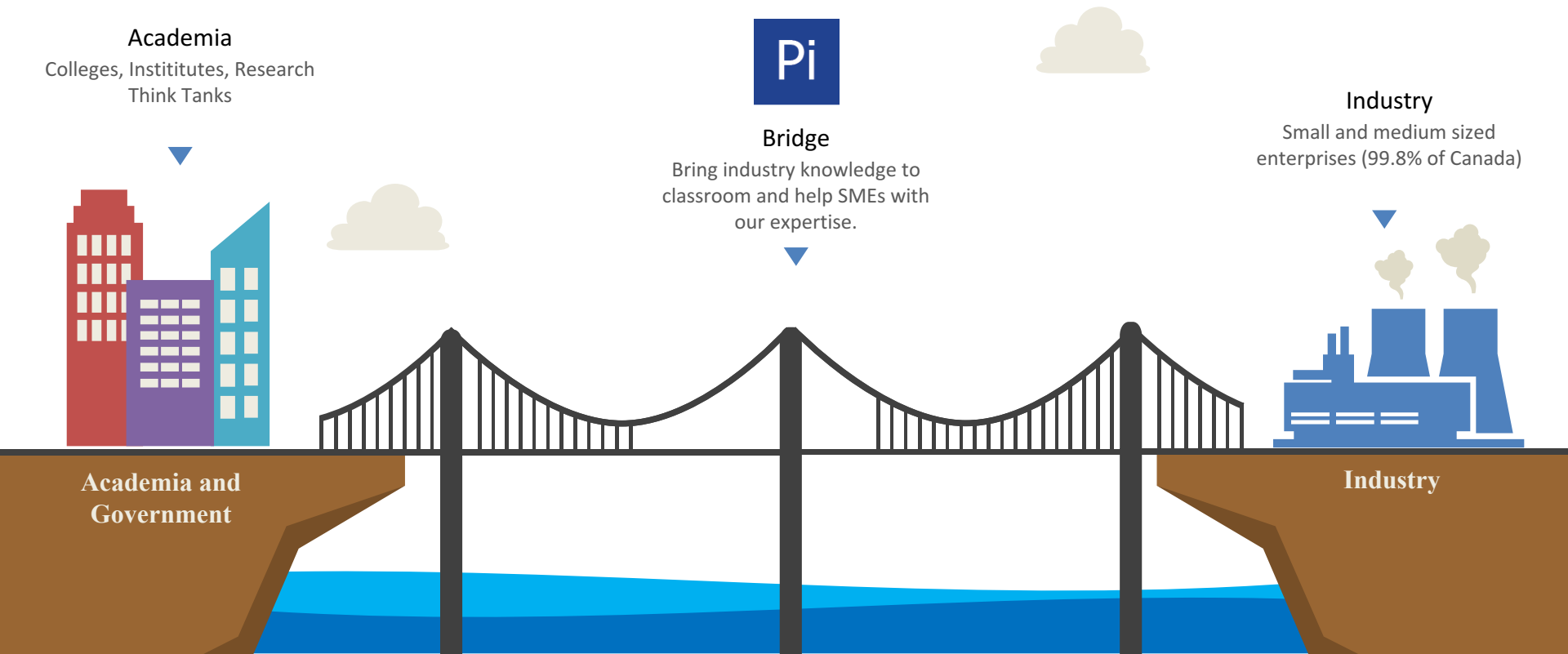
BRIDGE THE GAP

Academia
Colleges, Institutes, Research
Think Tanks



Bridge
Bring industry knowledge to
classroom and help SMEs with
our expertise.

Industry
Small and medium sized
enterprises (99.8% of Canada)



CANADIAN PRODUCTIVITY

DILLEMA

- Our businesses don't export enough
- Our businesses don't adopt technology for growth
- Our businesses are extremely risk averse
- Fact: 99.8% Canadian businesses are small and medium sized enterprises (1-499 Employees).
- Fact: On average our new businesses only grow for 5 years.



खाता बही

grand livre

موازنه

grootboek

원장

LEDGER

главная книга

খতয়ান

razão

总帐

Hauptbuch

BIBLIOGRAPHY		ACCOUNT NO.	
TOWN OF BOSTON		20	
BOSTON, MASS.		BOSTON, MASS.	
BOSTON, MASS.		BOSTON, MASS.	
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BLOCKCHAIN

NEW PROMISES

New transactional
applications to
establish

TRUST

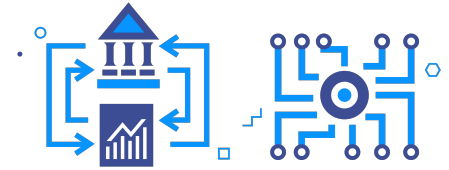
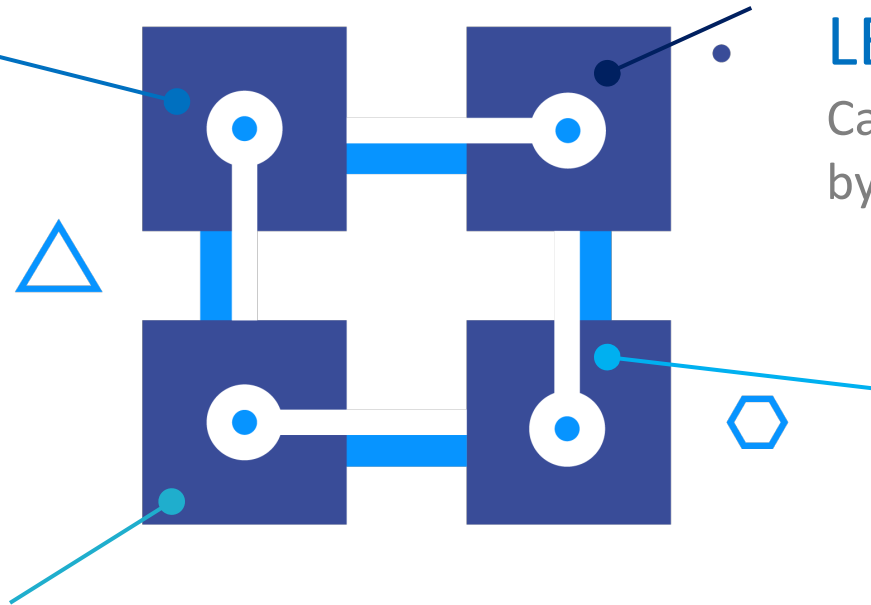
ACCOUNTABILITY

TRANSPARENCY

VALIDATION

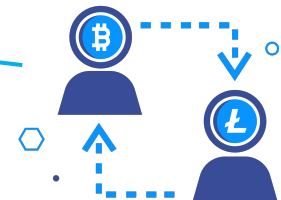
Forged by
consensus

BLOCKCHAIN



DISTRIBUTED LEDGER

Can't be changed even
by the author.



PEER-TO-PEER

Peer-to-Peer

Network as
opposed to server
based network.

BLOCKCHAIN

DISTRIBUTED LEDGER w/
DECENTRALIZED
VERIFICATION AND
COMPUTATION



DISTRIBUTED

copies of that
ledger are
distributed among
computers all over
the world

TRUST

solves the problem of
trust on the Internet

100% VERIFIED

Automatically updated
with every transaction
and verified

TRANSPARENCY

It is maintained by a
network of people

LEDGER of TRANSACTIONS

Like SMEs maintains

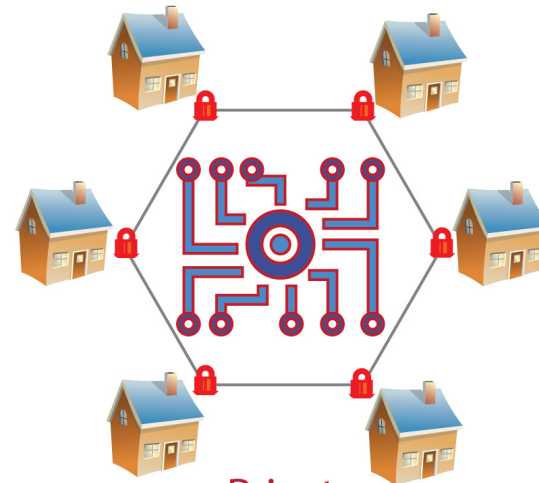


Public vs Private Blockchains



Public

Open model, anyone can access, bitcoin model.



Private

Closed system, accessed via invitation.

Access: Open read/write vs **Permissioned read/write access**

Speed: **Slower** vs **Faster**

User Identity: **Anonymous** vs **Pre-approved**

Asset: **Native** vs **Any assets**



BITCOIN



ETHEREUM



FACTOM



RIPPLE



MultiChain



Platform

BLOCKCHAIN REVOLUTION

THE WORLD HAS WITNESSED

- The market cap of bitcoin rise to \$17.5 billion dollars
- Emergence of over 1500 new crypto-currencies.
- New platforms such as Ethereum, Blooms, NEO, IOTA, Stellar etc.
- A slew of start-ups , existing businesses and government exploring the use of BC for services such as digital payments, money remittances, smart contracts, microcredit loans, fundraising, and others.



KING



REPLENISH



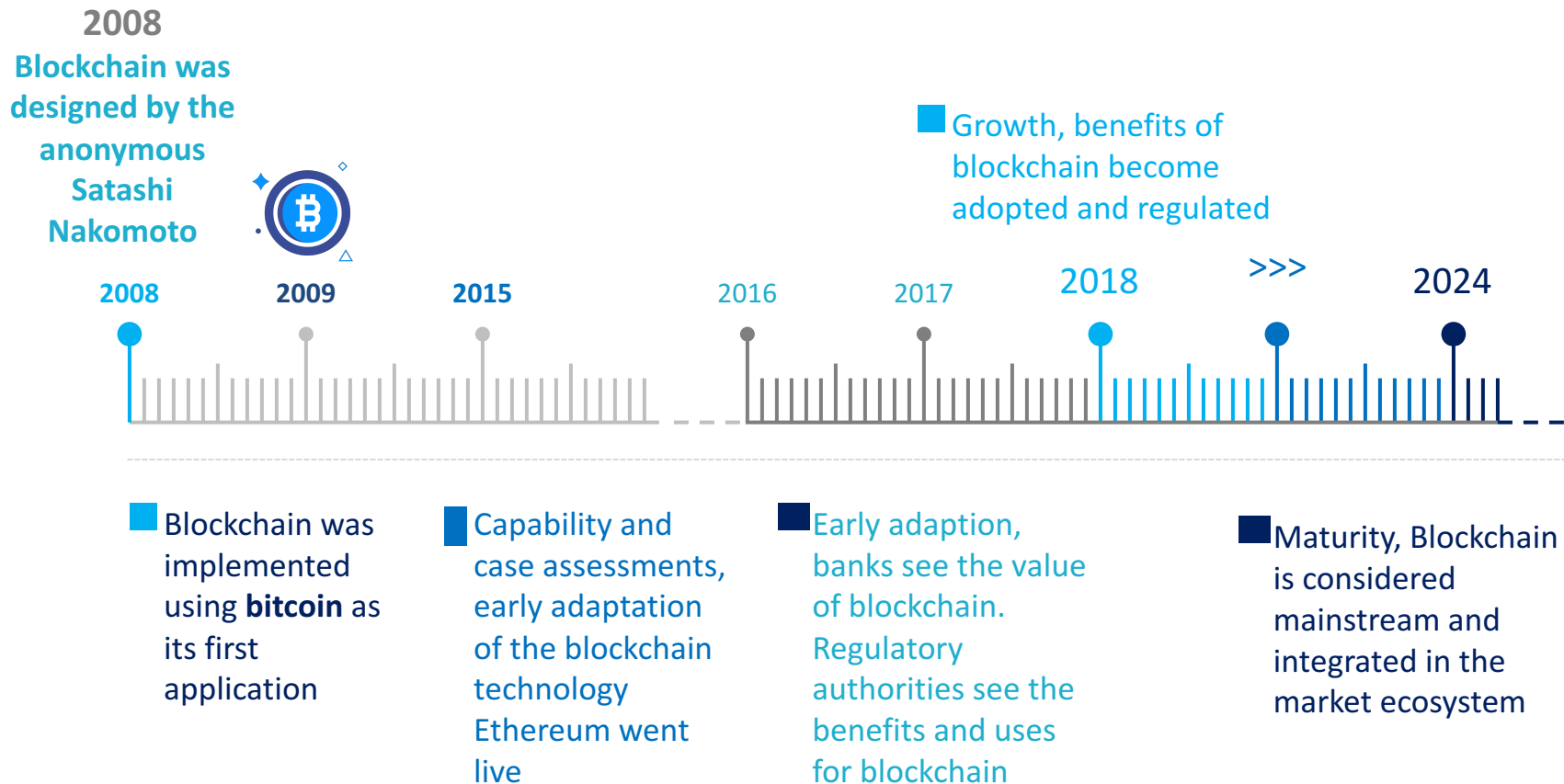
ETHEREUM



INFORMATION

BLOCKCHAIN TIMELINE

INCEPTION, EVOLUTION, AND FUTURE





CRYPTOCURRENCY

ICO STATS

Pi

Table 1: Cryptocurrency ICO Stats

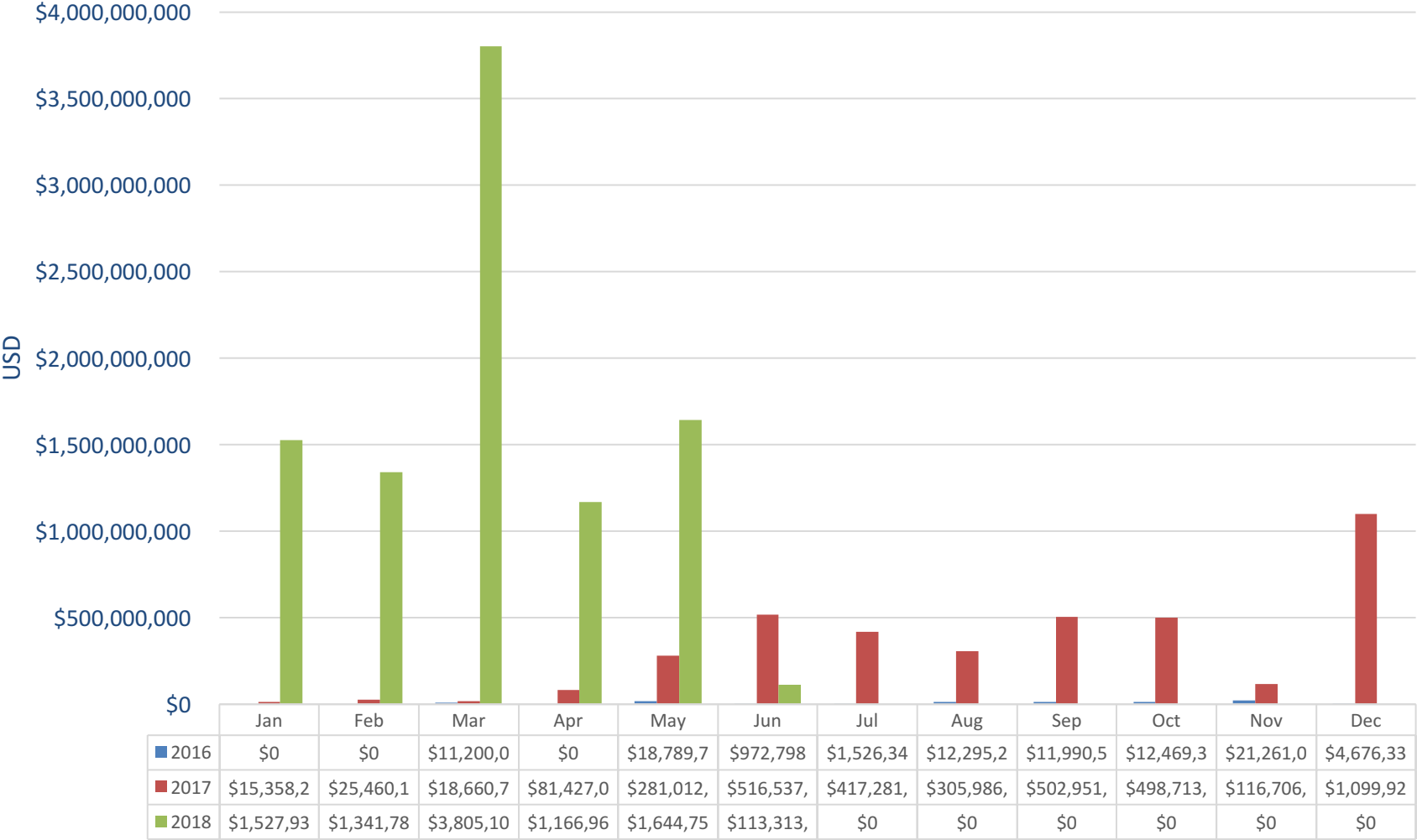
	Total US\$ Raised		
	2016	2017	2018
Jan	\$0	\$15,358,278	\$1527937722
Feb	\$0	\$25,460,157	\$1,341,788,078
Mar	\$11,200,000	\$18,660,713	\$1,599,960,624
Apr	\$0	\$81,427,029	\$1,166,964,068
May	\$18,789,734	\$281,012,458	\$1,644,752,711
Jun	\$972,798	\$516,537,695	\$113,313,735
Jul	\$1,526,342	\$417,281,712	\$0
Aug	\$12,295,227	\$305,986,446	\$0
Sep	\$11,990,546	\$502,951,511	\$0
Oct	\$12,469,349	\$498,713,046	\$0
Nov	\$21,261,061	\$116,706,256	\$0
Dec	\$4,676,334	\$1,099,922,902	\$0
Total	\$95,181,391	\$3,880,018,203	\$9,599,861,294



ICO STATS

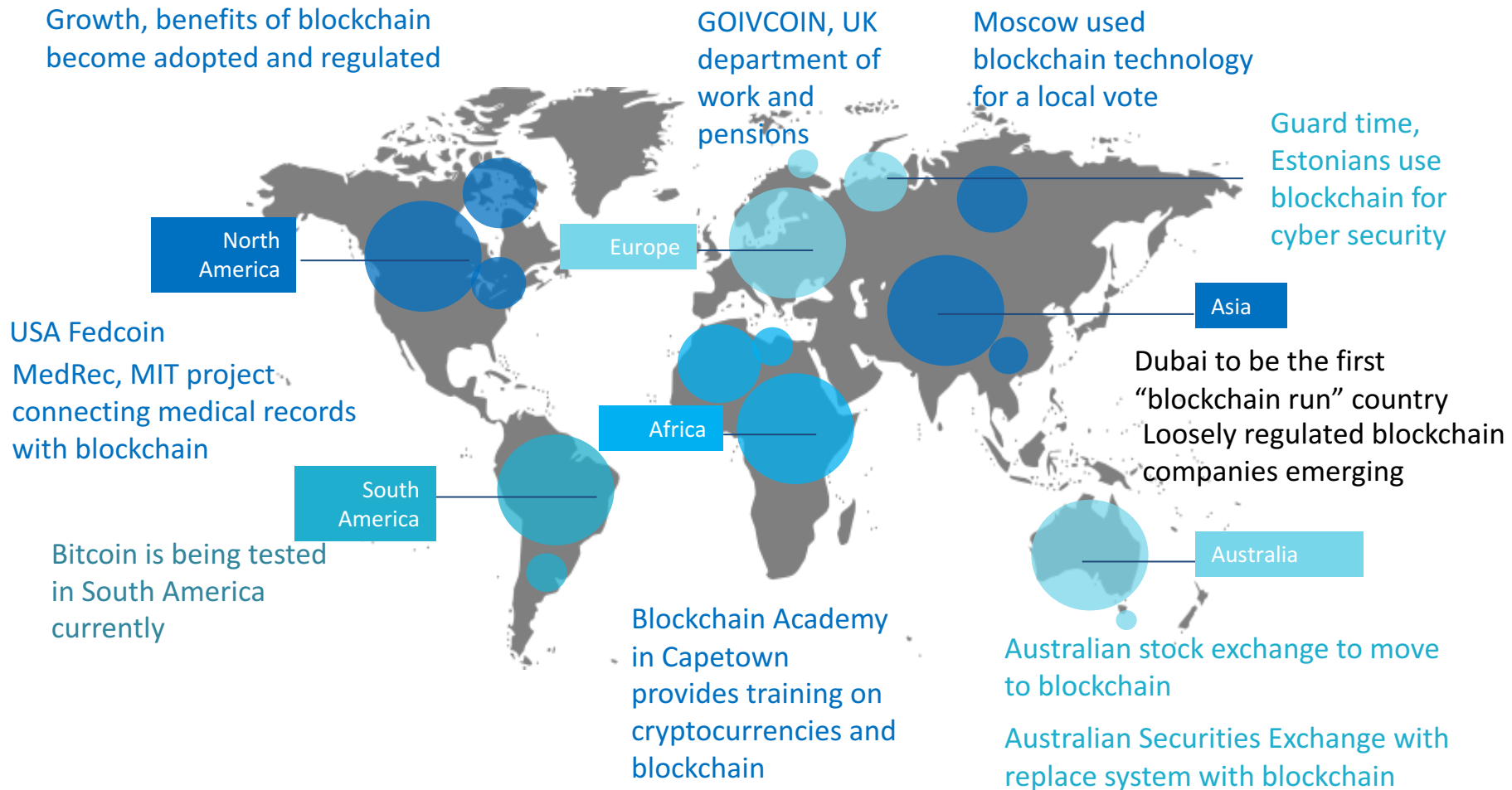
2018: \$9,599,861,294 | Total Number of ICOs: 396

Money Raised for ICOs 2016-2018



BLOCKCHAIN

AROUND THE WORLD



A blockchain start-up just raised \$4 billion without a live product

Cayman Islands start-up Block.one raised \$4 billion as of Thursday, eclipsing the world's biggest initial public offerings this year and more than doubling the next biggest offering of that type.

But its product doesn't fully launch until June 1 and investors don't know how the majority of that capital will be used.

"They have set the bar very high for themselves in terms of delivery expectations," says William Mougayar, managing partner at JM3 Capital and author of "The Business Blockchain."



Top 10 ICO fundraises besides Block.one

Telegram Open Network - \$1.7B

Dragon Coin — \$320 million

Huobi — \$300 million

HDac — \$258 million

Filecoin — \$257 million

Tezos — \$232 million

Sirin Labs — \$157.9 million

Bancor — \$152 million

Bankera — \$150.9 million








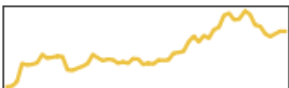





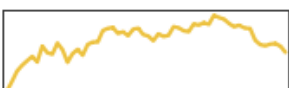






Polkadot — \$142.4 million



CRYPTOCURRENCIES

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Top 10 Cryptocurrencies by Market Capitalization  CoinMarketCap

#	Name	Market Cap	Price	Volume (24h)	Circulating Supply	Change (24h)	Price Graph (7d)
1	 Bitcoin	\$127,184,750,102	\$7,448.30	\$4,914,140,000	17,075,675 BTC	-3.39%	
2	 Ethereum	\$58,509,639,493	\$585.83	\$1,886,420,000	99,874,775 ETH	-5.41%	
3	 Ripple	\$25,475,794,788	\$0.649205	\$483,107,000	39,241,525,848 XRP *	-6.59%	
4	 Bitcoin Cash	\$18,607,248,293	\$1,083.95	\$857,179,000	17,166,150 BCH	-9.21%	
5	 EOS	\$11,879,716,128	\$13.26	\$1,295,430,000	896,149,492 EOS *	-8.84%	
6	 Litecoin	\$6,713,735,326	\$118.12	\$295,758,000	56,837,298 LTC	-5.78%	
7	 Cardano	\$5,413,183,422	\$0.208785	\$114,255,000	25,927,070,538 ADA *	-8.05%	
8	 Stellar	\$5,380,278,646	\$0.289572	\$54,605,100	18,580,106,661 XLM *	-5.25%	
9	 IOTA	\$4,733,484,481	\$1.70	\$100,023,000	2,779,530,283 MIOTA *	-5.55%	
10	 TRON	\$3,840,215,705	\$0.058408	\$211,510,000	65,748,111,645 TRX *	-5.36%	

MONEY REMITTANCES

... new opportunities cryptocurrencies offer in the remittances markets are Abra, Veem [Align Commerce], Bitspark, Coins.ph, Coinpip, BitPesa, and Volobit. (Medici, 2015; CNBC, 2018).

Countries that seem to be most targeted at present are the United States, Mexico, African countries, Philippines, Singapore, Hong Kong, Asia Pacific region.

ABRA

www.abra.com

buy and sell 20
cryptocurrencies worldwide



veem

Formerly Align Commerce

Veem.com

Formerly Align Commerce



spark

bitspark.io

over 100,000 cash out
locations globally; Hong
Kong, APAC region.



coins.ph

Digital Wallet

send money, buy load, pay
bills and shop online - no
bank account needed.



CoinPip

Business Payouts

Send money to any
country from any
mobile device.



BitPesa.com

foreign exchange and
payment platform for
frontier market



SMEs APPLICATION

AROUND THE WORLD

This nascent technology has already been adopted by digital start-ups across the world to offer wide ranges of services.



WeiFund

Crowdfunding
platform



symbiont



smart contracts and
distributed ledgers
for use in capital
markets.



ODEM.io

On-Demand
Education
Marketplace



tZero

smart securities
for existing
market processes



bitWAGE

bitcoin payroll and
international wage
payment service



Storj.io



Decentralized
cloud storage



Gyft Block

Store your gift
cards on mobile
devices



FILAMENT

Software/hardware
solutions for
industrial IoT
connectivity.



Slock.it

Infrastructure for
the sharing
economy

4POP FRAMEWORK

STRATEGY

Blockchain creates value by cutting out intermediaries; cost advantage over competitors

OPERATIONS

Distributed ledger technology could improve the movement of products efficiently between firms and locations.

FOUR PILLARS OF PRODUCTIVITY

CULTURE

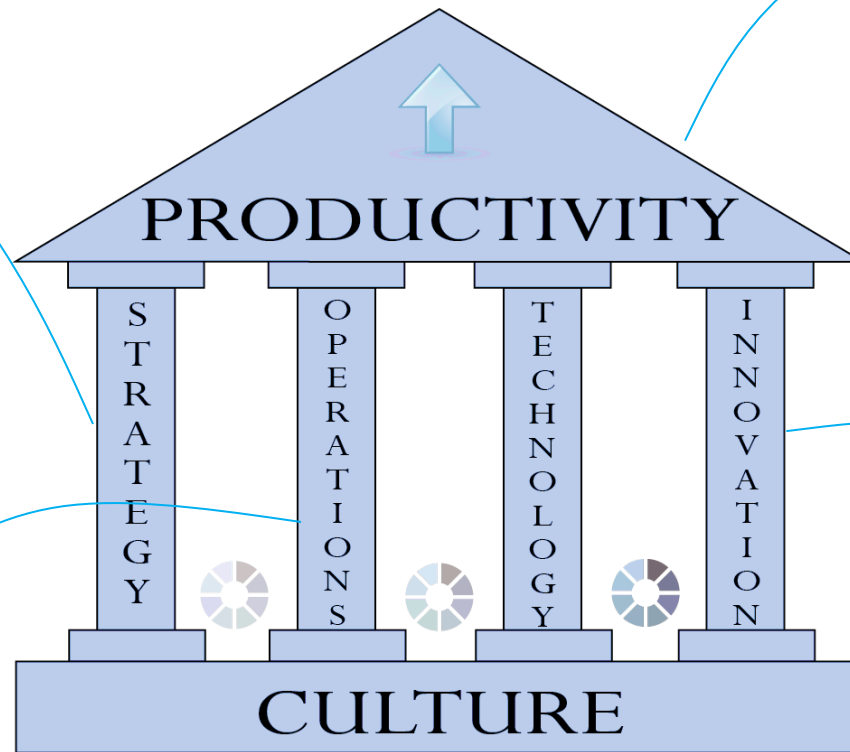
Having a corporate culture that encourages continuous learning and fosters innovation is clearly a prerequisite.

TECHNOLOGY

Blockchain technology for smart contracts and tracking product and information flow is something most companies will have to adopt at some point

INNOVATION

By using distributed ledger technology firms are putting themselves at the forefront of innovation.



POTENTIAL APPLICATION

FINANCIAL INDUSTRY



DIGITAL CURRENCY

- + Automated trade execution using smart contracts could also be done by making use of digital currencies.
- + In fact, humans may not even need to be involved in particular transactions.
- + A program can be written to execute transactions with a digital currency wallet not officially associated with a person or corporation (although most likely after regulation it will at least need to be registered to a corporation).
- +
- +



SMART CONTRACT

- + Automated trade execution based on share and indices prices.
- + Exercising options, settling swaps, and countless more financial instruments or arrangements can be organized through smart contracts.
- +
- +



POTENTIAL APPLICATION

HEALTHCARE INDUSTRY

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DIGITAL CURRENCY

- ✚ Supplier payments,
- ✚ insurance payment receipts, and patient payments in private hospitals can all be done
- ✚ through digital currency.

SMART CONTRACT

- ✚ Securing and distributing patient data to relevant parties. These include the patient, certain doctors,
- ✚ certain hospitals, and potentially insurance companies.



POTENTIAL APPLICATION

EDUCATION INDUSTRY

Pi



DIGITAL CURRENCY

- Tuition fees, scholarship payments, and staff payments can all be arranged through digital currency.



SMART CONTRACT

- Securing and selectively sharing student data.



POTENTIAL APPLICATION

SUPPLY CHAIN



DIGITAL CURRENCY

- ✚ Alongside product flow, financial payments usually
- ✚ follow in the opposite
- ✚ direction. When tied with a
- ✚ smart contract, digital currency can be used to handle auto-payment when certain smart contract terms have been fulfilled.



SMART CONTRACT

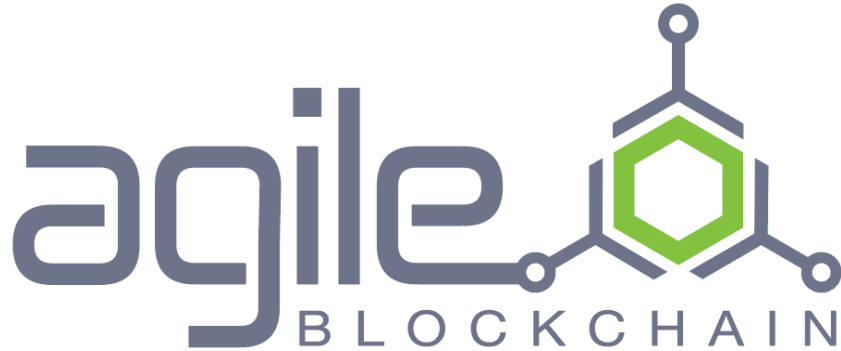


- ✚ Indicating product flow
- ✚ monitoring and supply chain partner statuses. With smart contracts getting permission to move onto the next process phase can be automatically triggered when certain criteria are met (for example acknowledgment of receipt).

INDUSTRY APPLICATION

CANNABIS - SUPPLY CHAIN



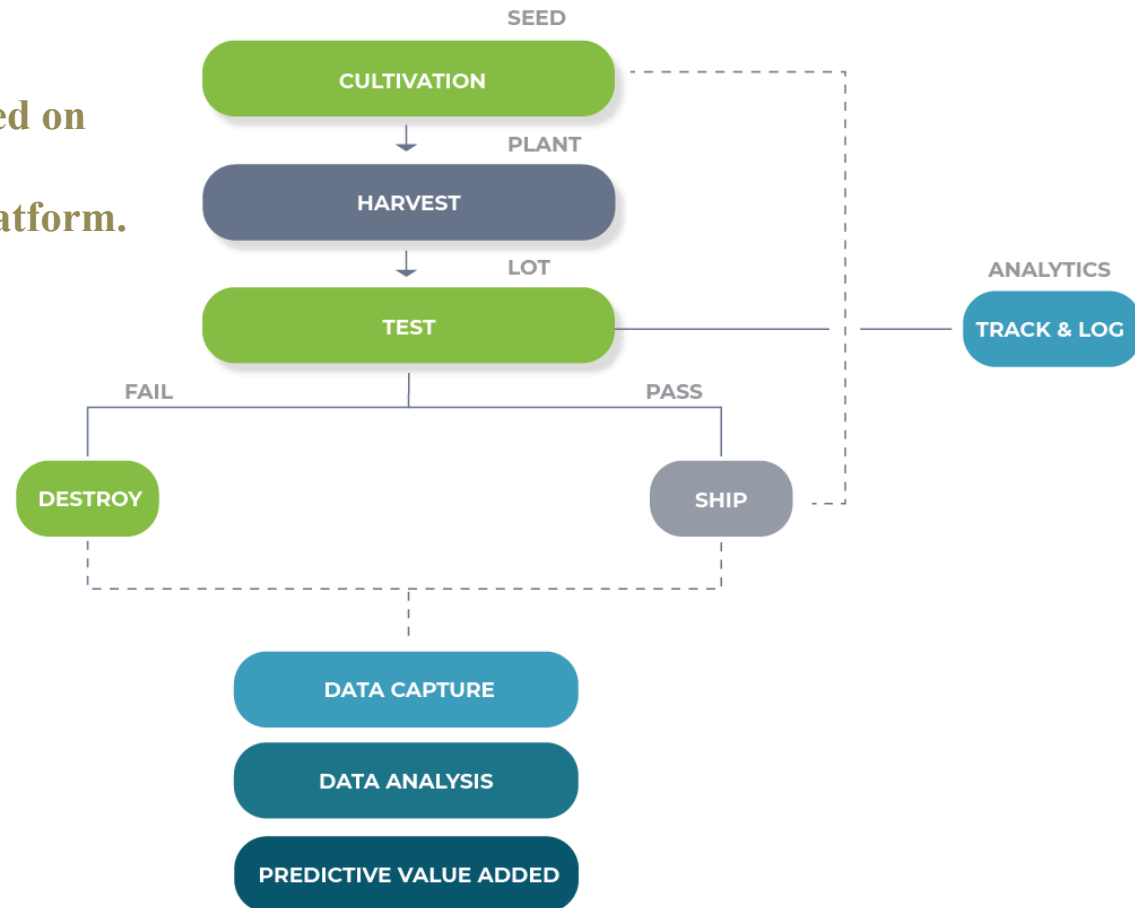


Agile Blockchain Corp. (“Agile”) is a Canadian blockchain company, focused on optimizing supply chain and logistics industry by utilizing its blockchain platform.

CURRENT USE CASE – CANNABIS

- Product Provenance and Compliance
- Facilitate Market Growth through Data Analytics
- Explore Market Profiles and Additional Markets

www.agileblocks.io



SMART CITY

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Internet of Things

Artificial Intelligence

Blockchain Technology

Data Analytics

Sensor Fusions

Smart Government

Smart Health

Smart Data

Smart Buildings

Smart Transportation

Smart Living

Smart Energy

Smart Manufacturing

Pattern recognition

Intelligent lighting

Wireless charging

Sensors

Wind turbines

Solar panels

SMART CITY

Smart City Technological Ecosystem



AUTOMATION

Building Automation
Energy Management
Digital Connectivity
Sensor Fusion
Blockchain
Cyber Security
Robotics

ICT PLAYERS

IP Networks
Software
Hardware
Tech Adoption
and Integration
Broadband
Internet Speed
Cybersecurity

GOVERNANCE

E-government
SMART Data
Population Engagement
Privacy
Security

ENERGY AND INFRASTRUCTURE

Power electronics
Renewable Energy
Smart grid
Power system
automation

CONCLUSION

- Blockchain will spur new waves of innovation and offer disruptive digital solutions for SMEs.
- First movers will have the competitive advantage and prevail; a risk averse culture will struggle to keep up with digitization and
- lack prosperity in the new digital age.
- Regulators need to work side by side with the industry leaders, as the current regulatory framework does not support the
- widespread adoption of the Blockchain technology.
- It also poses new challenges for regulators as they need to prevent criminal uses of the technology.

THANKS FOR WATCHING



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