



Exploring Blockchain Technology with Streamr and Blocxs

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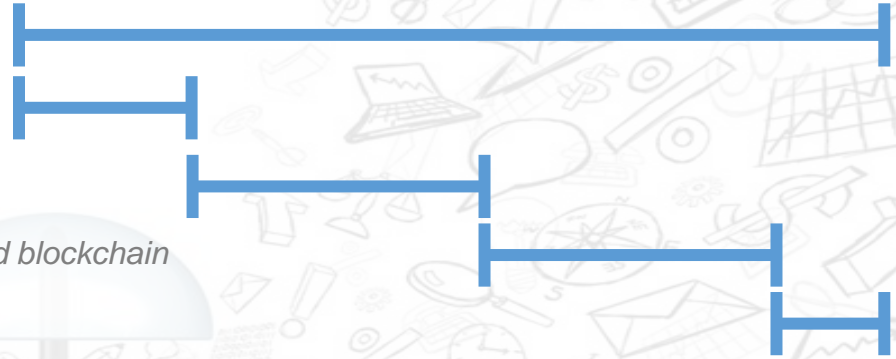
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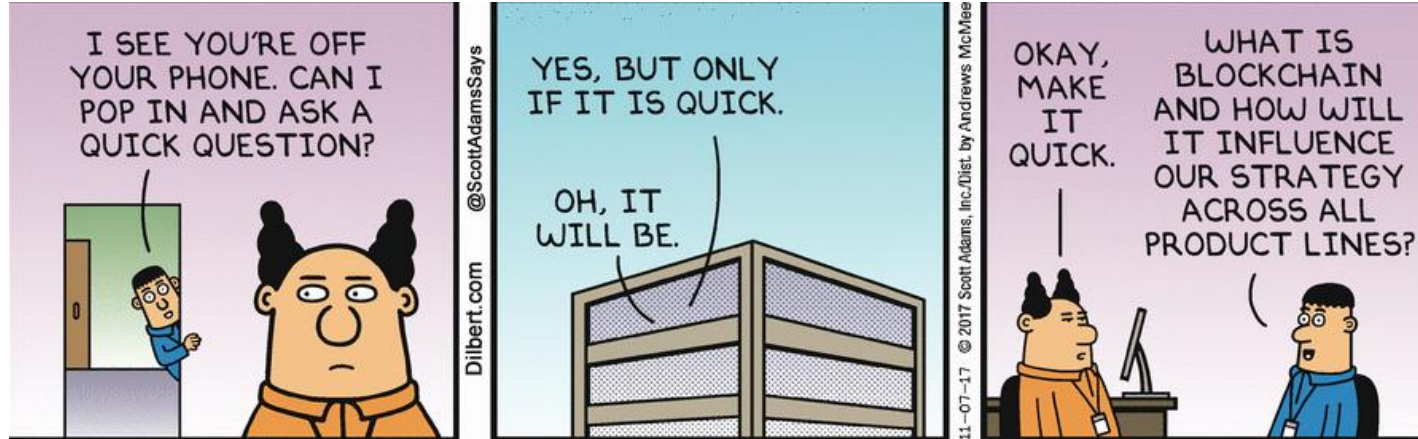
Topics

Exploring blockchain applications

- Blockchain essentials
- Streamr - *data sharing and monetization*
- BlocxS - *bridging real-world use cases and blockchain*
- Questions & Discussion

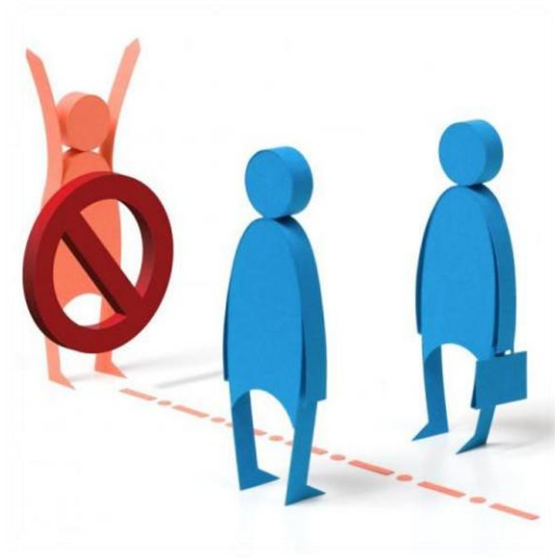


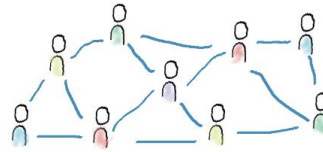
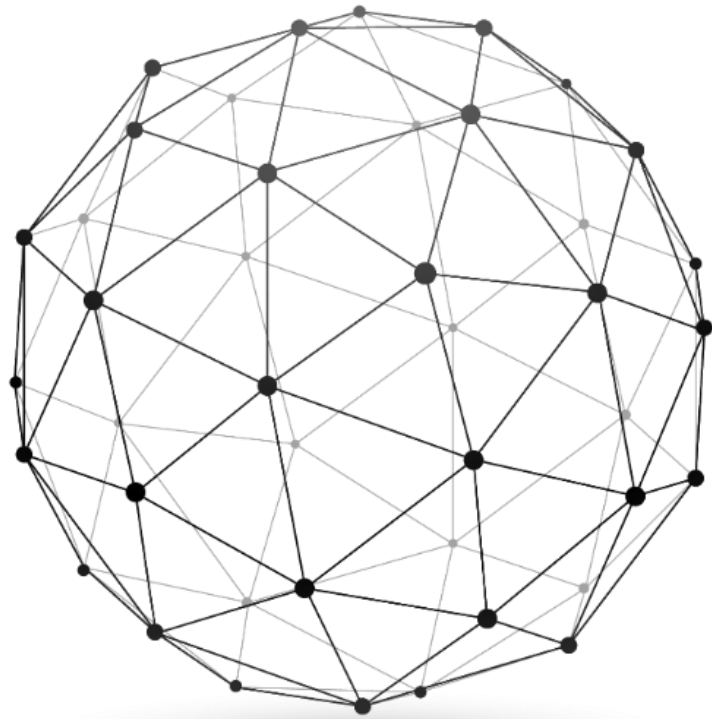
Blockchain essentials



Trust the system

Remove intermediaries from the **value** exchange process





Decentralized



Censorship
resistant



Robustness



Distributed
trust



Immutable

Blockchains by themselves are a
far less efficient computer and database
than technology that has existed for over 40 years...

- Vitalik Buterin, co-founder Ethereum



Asset lifecycle and history

Parts history

Maintenance/repair history

Events

Transfer of ownership



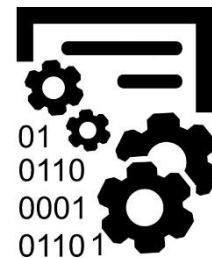
Supply chain

Ingredients

Manufacturers

Trackability / Traceability

Temperature controlled supply chains



Data

Provenance / Quality

Ownership

Monetization



Henri Pihkala, CEO



Streamr and the new data landscape

HENRI PIHKALA



Total = Internal + External



Data is siloed





Data is siloed





Data is siloed





Data is siloed





Streamr Network





Streamr Network





Streamr Marketplace

The screenshot shows a product page for 'Global Crypto Sentiment'. At the top, there's a header with the Streamr logo and a search bar. Below the header, there's a large image of a globe with various crypto icons (Bitcoin, Ethereum, etc.) overlaid. The main content area is divided into two columns: 'STREAMS' and 'DESCRIPTION'. The 'STREAMS' column lists several data streams with their respective icons and a 'View live data' button. The 'DESCRIPTION' column contains text describing the product.

STREAMS	DESCRIPTION
Bitcoin Sentiment	Global sentiment around Bitcoin
Ethereum Sentiment	Global sentiment around Ethereum
Ripple Sentiment	Global sentiment around Ripple
Bitcoin Cash Sentiment	Global sentiment around Bitcoin Cash
EOS Sentiment	Global sentiment around EOS

The screenshot shows the Streamr Marketplace homepage. At the top, there's a header with the Streamr logo, navigation links for 'MARKETPLACE' and 'EDITOR', and a search bar. Below the header, there's a grid of product cards. Each card features a thumbnail image, a title, a category, and a price. The products are arranged in a 4x3 grid.

Category	Sort by	Global
Global Crypto Sentiment	Marketplace	15 DATA/hr
Audi Prototype Tracking	Physical Asset	3 DATA/hr
New York Population Flows	Physical	Free
USA-China Cargo Piracy	Physical	1.5 DATA/hr
Ecoteer NY	Physical	Free
Upfield Bike Path Counter	Physical	Free
London Pollution Monitoring	Physical	Free
London Transport Data	Physical	Free
Ruuvii Helsinki Test Data	Physical	Free
ISS Realtime Location	Physical	Free
NY Subways in Realtime	Physical	Free
Melbourne Tram Network GPS	Physical	Free
UK National Grid Power Feed	Physical	Free
Niagara Falls Flow Rate	Physical	Free
Cape Canaveral Weather	Physical	Free
Helsinki Tram Network GPS	Physical	Free

The screenshot shows a product page for 'tPysch'. At the top, there's a header with the Streamr logo, navigation links for 'MARKETPLACE' and 'EDITOR', and a search bar. Below the header, there's a large image of a person's face. The main content area is divided into two columns: 'PRODUCTS' and 'DESCRIPTION'. The 'PRODUCTS' column lists several data streams with their respective icons and a 'View live data' button. The 'DESCRIPTION' column contains text describing the product.

PRODUCTS	DESCRIPTION
tPysch	Global sentiment around tPysch



Use Cases



Connected Cars





Connected Cars



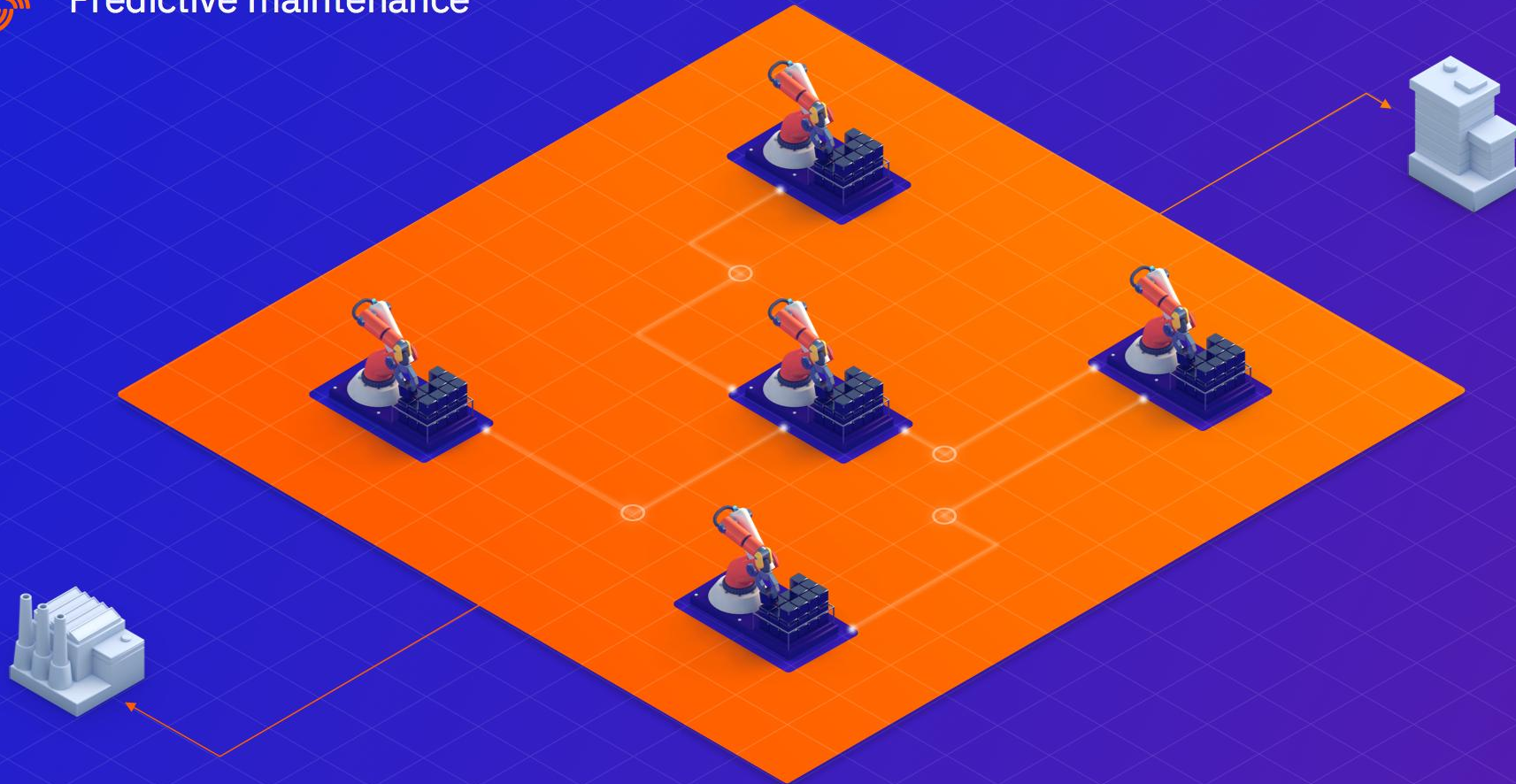


Predictive maintenance





Predictive maintenance





Cold Chain





Cold Chain





PI System Integration





Join us for a pilot!

WEBSITE:

streamr.com

TELEGRAM:

[@streamrdata](https://t.me/streamrdata)

TWITTER:

[@streamrinc](https://twitter.com/streamrinc)

REDDIT:

[/r/streamr](https://www.reddit.com/r/streamr)



Streamr.
Data done differently.



Johan Mulder, co-founder



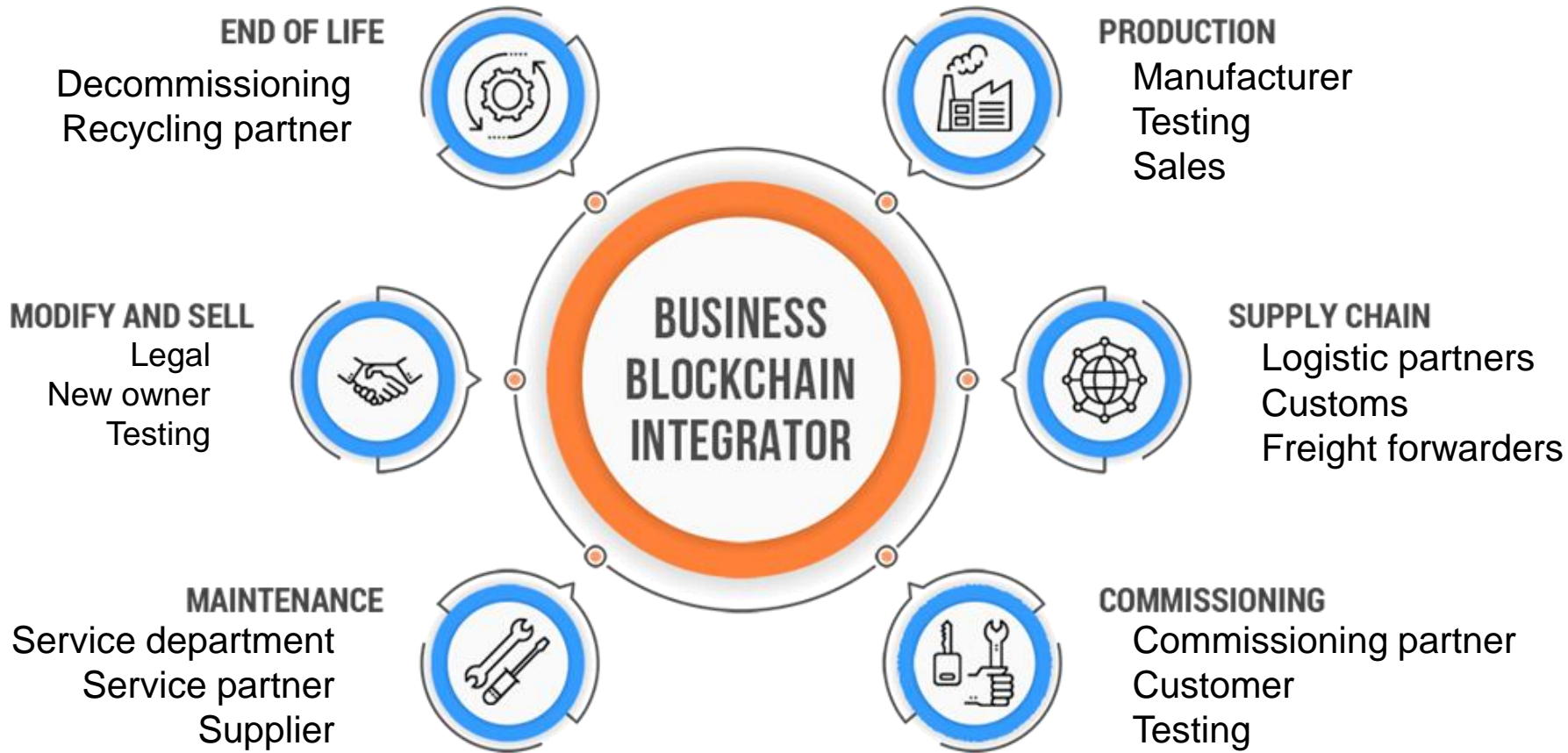
- Startup founded in 2017 by Peter, Marco and Johan
- Use-case first approach to enable blockchains for businesses
- Blocxs Blockchain Integrator
- One-stop shop for complete end-to-end integrations
- Consultancy, support and maintenance





HYPERLEDGER

- Blocxs Blockchain Integrator uses Hyperledger as backend
- Permissioned Distributed Ledger Technology based on blockchain
- Developed, maintained and supported by IBM and Intel
- Hyperledger toolset to run blockchain implementations for customers on a global scale
- Maintained by the open source community under the Linux Foundation to ensure a community-effect on solving bugs and other issues.





Production channel

Motor: Electric Aircraft
Type: MK453
GS1 ID: 36286482429 Serial:
8947389
Date Production: 4-4-2018
Owner: Factory
Status: Produced

 PI Server



Recycling

Owner: Discontinued
Status: End of Life
Component: 123522
Component: 779440
Component: 233929

 OSIsoft Cloud Services



Logistics

DHL nr. 9483829
Date of Del: 5-4-2018
Warehouse: Stock

 Edge Data Store



Commissioning

Test 12321: Ok
Test 5848: Ok
Comm. Date: 5-6-2018
Status: Installed

 Edge Data Store

 PI Server



- Numerous business cases for applying blockchain technology
- Focus on OSIsoft community
- Integration between OSIsoft and blockchain
 - Trust the system
 - Share, enrich, validate, sell and buy data
 - Where's the added value?
- PI World San Francisco 2018 demo video's
- What's next?

- ? How could blockchain apply to your industry?
- ? What blockchain projects or proof of concepts have already started in your organization?
- ? How could blockchain be applied in the PI System?
- ? What would the best way be for us to engage?

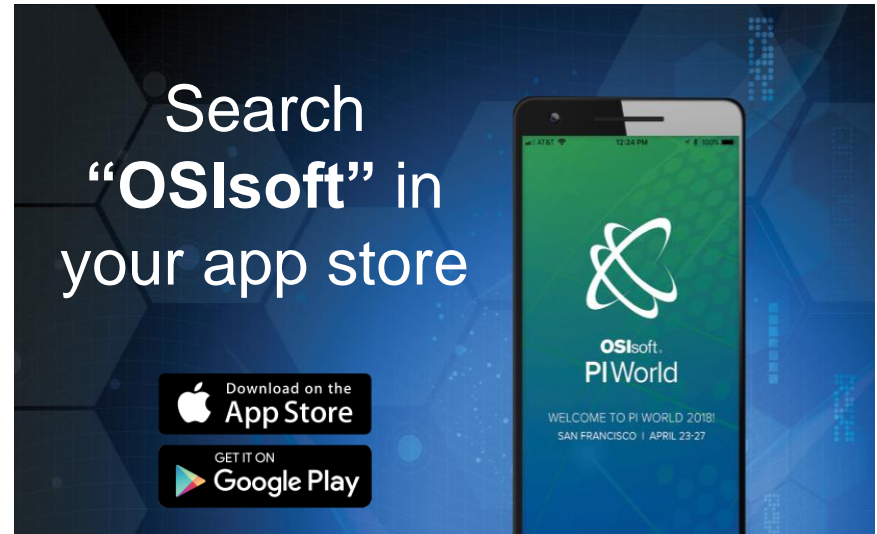
Questions?

Please wait for
the **microphone**

State your
name & company



Please rate this session in the mobile app!



謝謝 KEA LEBONA
 TAPADH LEIBH 고맙습니다
 БАЯРЛАЛАА MISAOTRA ANAO
 DZIĘKUJĘ CI NGIYABONGA TEŞEKKÜR EDERIM GRACIES
 OBRIGADO شڪرا SALAMAT
 DANKON TANK TAPADH LEAT
 DANKIE TERIMA KASIH
 KÖSZÖNÖM
 СПАСИБО
 PAKMET CIZGE
 GO RAIBH MAITH AGAT
 БЛАГОДАРЯ GRACIAS
 МАНАДСАНІД
 ТИ БЛАГОДАРАМ
 TAK DANKE
 RAHMAT
 HATUR NUHUN
 CẢM ƠN BẠN
 WAZVIITA
 FALEMINDERIT
 DANK JE ΕΥΧΑΡΙΣΤΩ GRATIAS TIBI
 AČIŲ SALAMAT MAHALO IĀ 'OE TAKK SKALDU HA
 GRAZZI PAKKA PĒR
 PAXMAT CAĞA
 SĪPAS JI WERE TERIMA KASIH
 UA TSAUG RAU KOJ
 ТИ БЛАГОДАРАМ
 СИПОС
 MULŢUMESC
 FAAFETAI
 ESKERRIK ASKO
 HVALA ХВАЛА ВАМ
 TEŞEKKÜR EDERIM
 GRAZIE
 DI OU MÈSI
 ĎAKUJEM
 MATUR NUWUN



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THANK YOU



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38