B3i roadmap re/insurance, commercial and primary insurance

Paul Meeusen, Mark Simpson

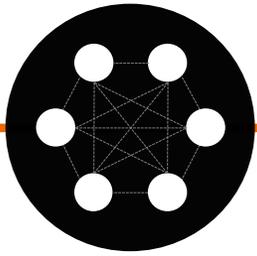SCOR Annual Conference | 6th October 2018

Objectives of today

- Education   - Learn

- Illustration   - Experience

- Ideation   - Collaborate

Why B3i uses DLT – Unique features of the technology

Shared ledger

Smart Contracts

Immutability

Cryptography

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Blockchain technology – A quiz

What does P2P stand for?

Password to Password	
Peer to Peer	
Product to Product	
Private Key to Public Key	

Who created Bitcoin?

Satoshi Nakamoto	
Samsung	
John McAfee	
China	

QUIZ

What is a node?

A type of cryptocurrency	
A blockchain	
A computer on a blockchain network	
An exchange	

What is a blockchain?

A distributed ledger on a peer to peer network	
A type of cryptocurrency	
An exchange	
A centralized ledger	

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Blockchain technology – Quiz solutions

What does P2P stand for?

	Password to Password
✔	Peer to Peer
	Product to Product
	Private Key to Public Key

Who created Bitcoin?

Satoshi Nakamoto	✔
Samsung	
John McAfee	
China	

Solutions

What is a node?

	A type of cryptocurrency
	A blockchain
✔	A computer on a blockchain network
	An exchange

What is a blockchain?

A distributed ledger on a peer to peer network	✔
A type of cryptocurrency	
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A centralized ledger	

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Blockchain technology – Simple definition

Blockchain is a **distributed database** in which entries are stored in chronologically **consecutive** data **blocks**. **Cryptographic** signatures guarantee the forgery protection of the entries.
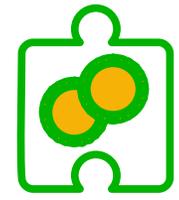
Blockchain technology – even simpler

Blockchain is a distributed database.

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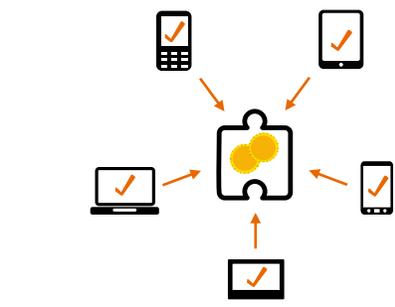
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Blockchain technology – A short introduction
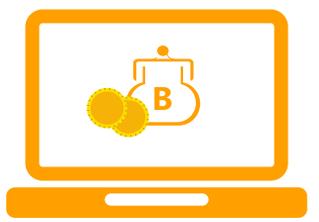
1 A wants to send money to B
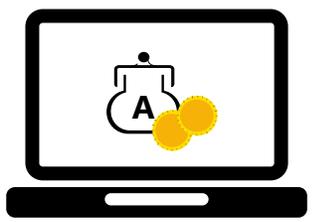
2 The transaction is represented online as a "block"
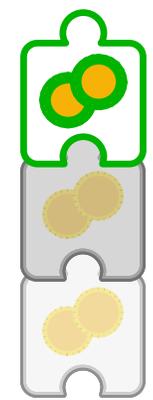
3 The block is broadcast to every party in the network

6 The money moves from A to B

5 The block is added to the chain, providing an immutable record

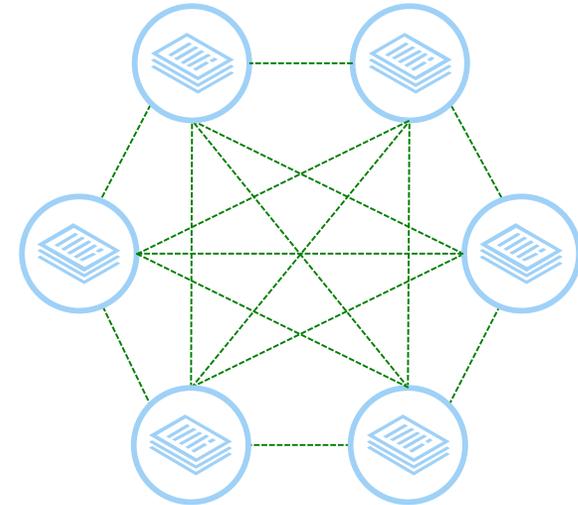**4** Network participants approve that the transaction is valid

Source: Financial Times

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Peer-2-Peer transactions – A comparison

	Historic – Centralised Ledger	**Future** – Blockchain / Distributed Ledger
Overview		
Speed	Faster	Slower
Upkeep	Simple	More effort
Security	Single point of failure	Highly secure
Redundancy	No redundancy	By design
Trust 3rd party	Full trust required	No trust required
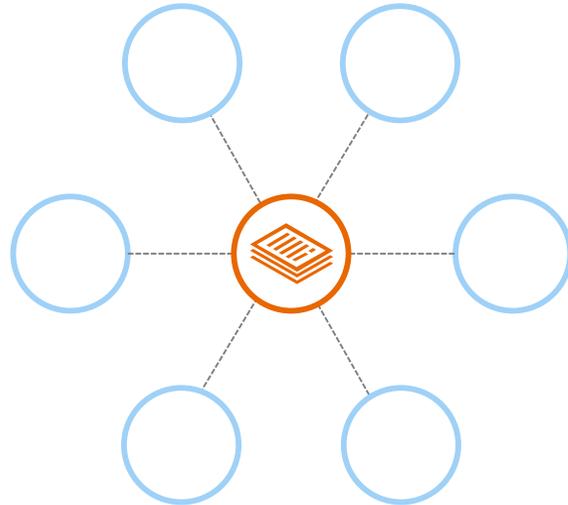
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Private vs. public blockchain – Different fields of applications

Public Blockchain

Private Blockchain

Overview

Examples
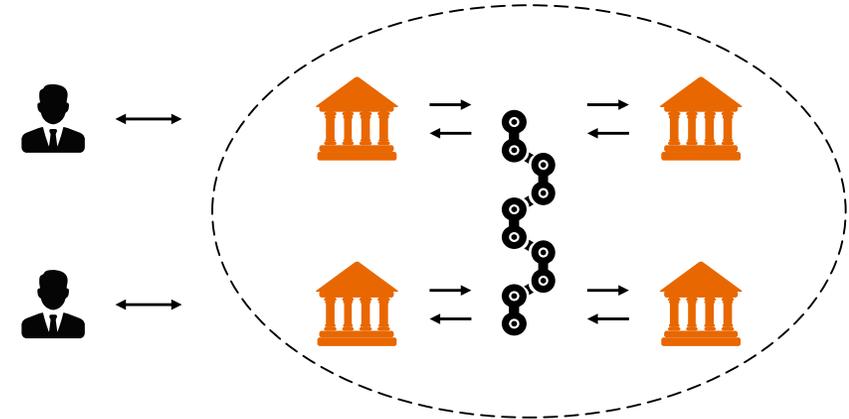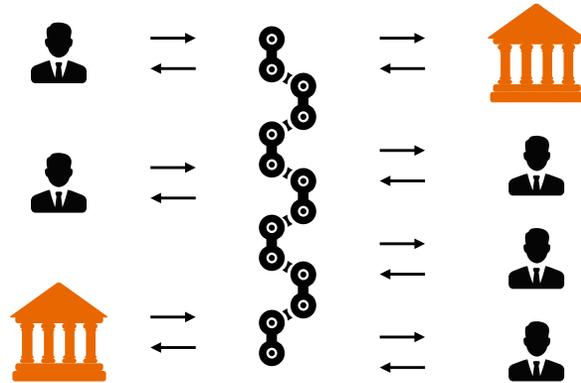
	Public Blockchain	Private Blockchain
Speed	Slower	Faster
Security	Proof of Work/ Stake	Pre-approved
Identity	Pseudo (Anonymous)	Known („KYC")
Privacy	Anonymity Encryption	Sub chains; Anonymity Encryption

Blockchain technology – Relevant characteristics to use technology

☑ | Multiple parties generate transactions that change information in a shared repository

☑ | Multiple parties update data and these actions need to be recorded

☑ | Participants need to trust that the recorded actions are verified as valid

☑ | Intermediaries are inefficient or not trusted as arbiters of truth

☑ | Enhanced security is needed to ensure integrity of the system

▶ **If these conditions are (largely) met, blockchain is likely to be more suitable than a standard database or other solution**

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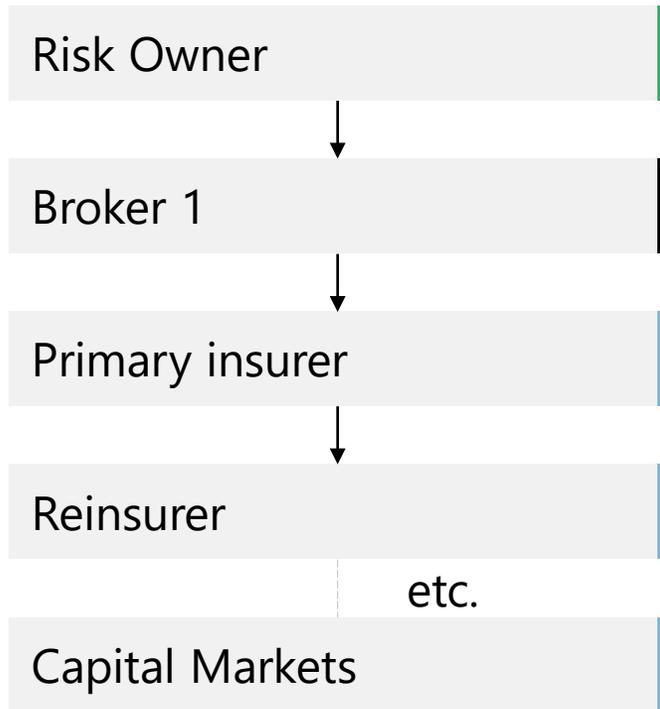# Objectives of today

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- **Illustration**   **- Experience**
- Ideation   - Collaborate

Recap: Insurance industry – Start acting as a network!

Today: Insurance process

Risk Owner

↓

Broker 1

↓

Primary insurer

↓

Reinsurer

etc.

Capital Markets

Tomorrow: B3i enabled future
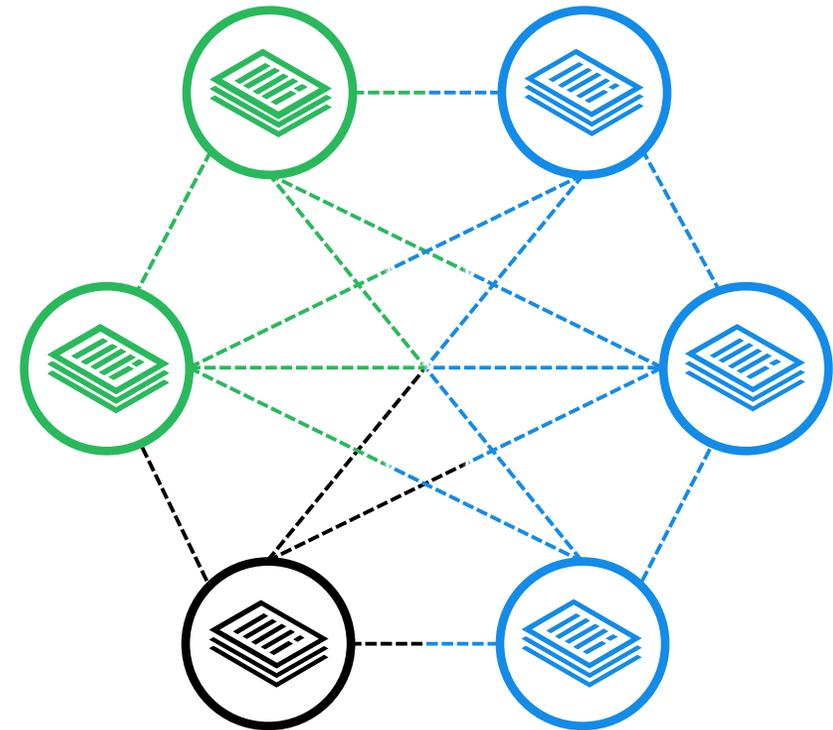
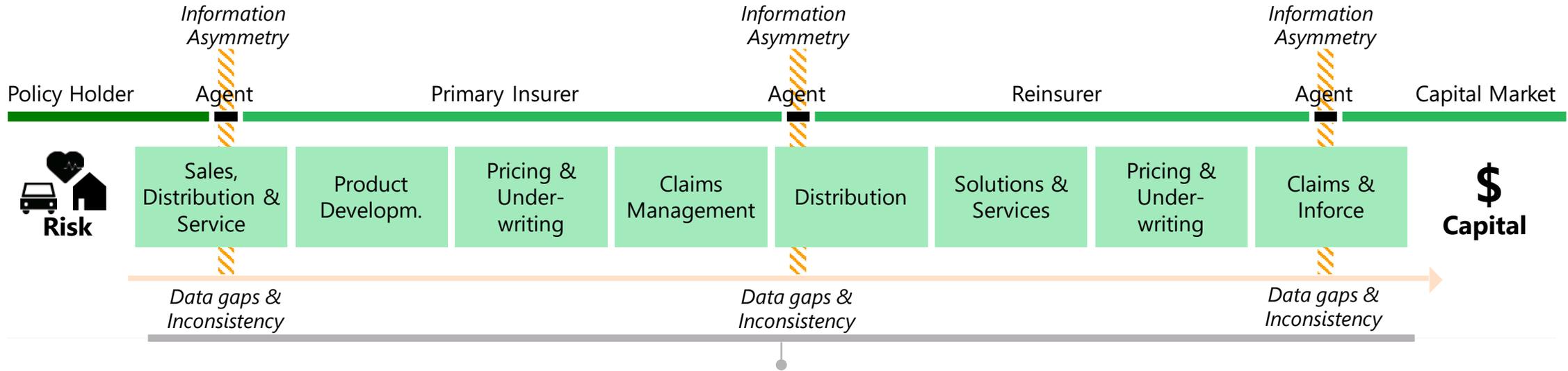Risk owner   Risk taker   Broker   ---- Direct peer to peer connection

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B3i Solution - Inefficiencies & complexity in insurance contracts

Information Asymmetry   *Information Asymmetry*   *Information Asymmetry*

Policy Holder   Agent   Primary Insurer   Agent   Reinsurer   Agent   Capital Market

Risk

| Sales, Distribution & Service | Product Developm. | Pricing & Under-writing | Claims Management | Distribution | Solutions & Services | Pricing & Under-writing | Claims & Inforce |

$ Capital

Data gaps & Inconsistency   *Data gaps & Inconsistency*   *Data gaps & Inconsistency*

The Problems

- ✕ Sequential and non-integrated procedures
- ✕ Lack of standardisation, integration & automation
- ✕ Asymmetric information and poor audit trail
- ✕ Under-utilised synergy and network effect
- ✕ High dependency on error-prone manual process
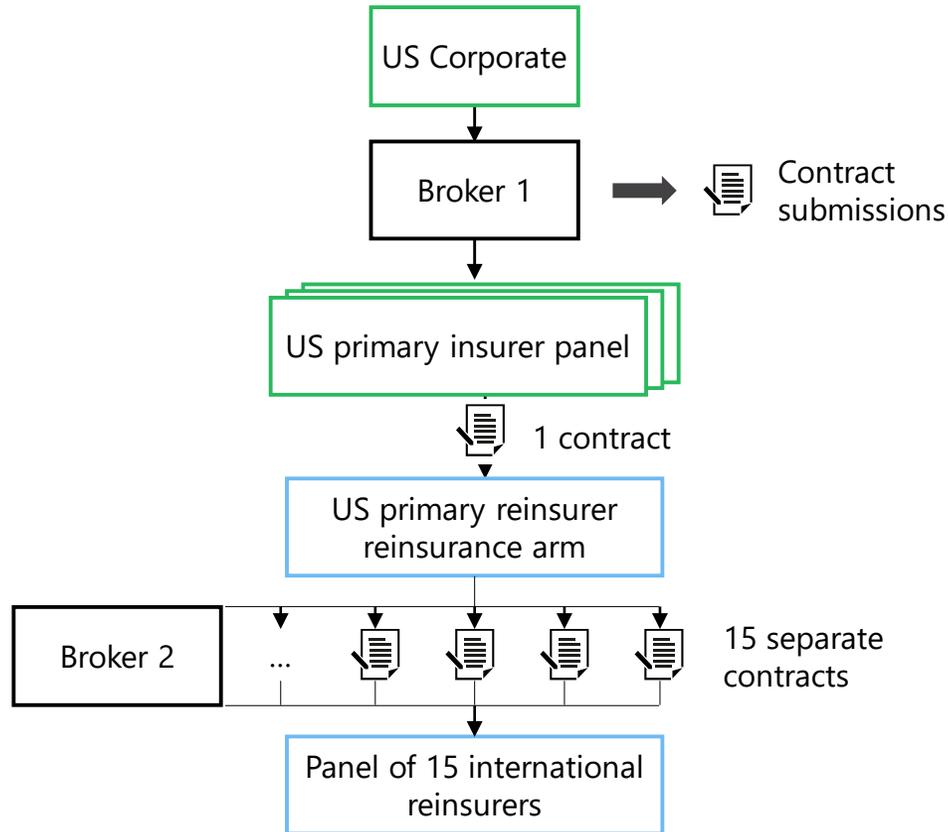- ✕ Data loss from risk to capital

- ▪ High operational risks
- ▪ High transaction costs
- ▪ Costly proprietary networks
- ▪ Capital markets ill-informed
- ▪ Poor end-customer experience
- ▪ Increased complexity

New technology can bring paradigm shift from risk administration to risk management

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Commercial Insurance Illustration

Today: commercial insurance process

US Corporate

Broker 1 → 📄 Contract submissions

US primary insurer panel

↓ 📄 1 contract

US primary reinsurer reinsurance arm

Broker 2 ... 📄 📄 📄 📄 → 15 separate contracts

Panel of 15 international reinsurers

Multiple contracts, unconnected, multiple duplications and reconciliations

Tomorrow: B3i enabled future

US primary insurer panel

Broker 2

US corporate

Panel of 15 international reinsurers

Smart contract on B3i platform

Broker 1

US primary reinsurer reinsurance arm
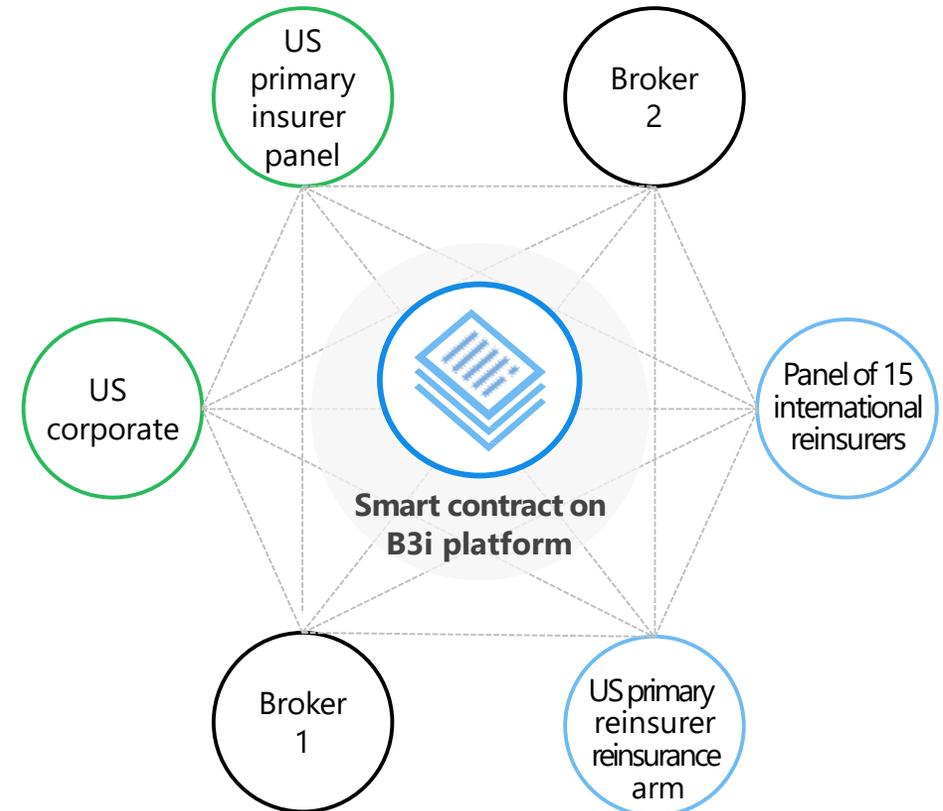
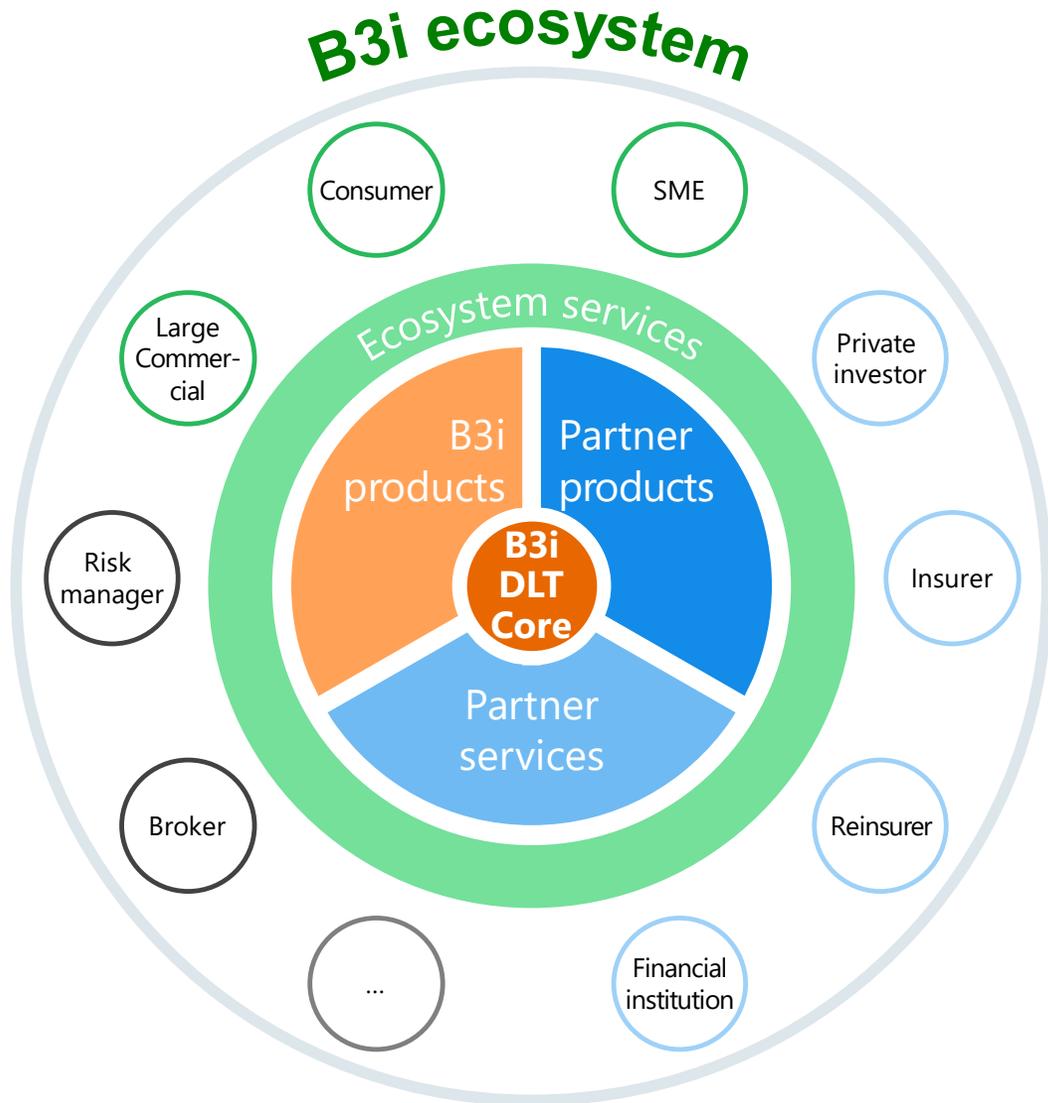**1 consistent and standardised data flow, traceable, administered by digital, smart contracts**

B3i

B3i's first product – Prop Cat XoL

	Cover / Purchase / Placing / Underwriting	Contract / Policy administration	Premium management	Claims management	Settlement and payments
B3i process	▪ Shared contract exchange – single source of truth ▪ No reconciliations of signed / counter-signed contract versions	▪ Real-time distribution of a digitally enforced contract ▪ Visibility of amendments and immediacy of endorsement terms	▪ Automated premium mgmt. through smart contract ▪ Technical bookings shared in distributed ledger	▪ Claim agreement process enhanced with immutable contract ▪ Smart contract reduces checking / verification need	▪ Fast cash flow leads to lower working capital requirements ▪ Reduction in unallocated cash
Main benefit	**Information transparency**	**Contract certainty**	**Process efficiency**	**Accelerated claim process**	**Accelerated payments**

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Recap: The B3i ecosystem – Facilitate the network

B3i ecosystem

Ecosystem services

- Consumer
- SME
- Large Commer-cial
- Private investor
- Risk manager
- Insurer
- Broker
- Reinsurer
- ...
- Financial institution

B3i products

Partner products

Partner services

B3i DLT Core

B3i software products target frictionless transfer of risks through smart contracts (e.g. Prop Cat XOL)
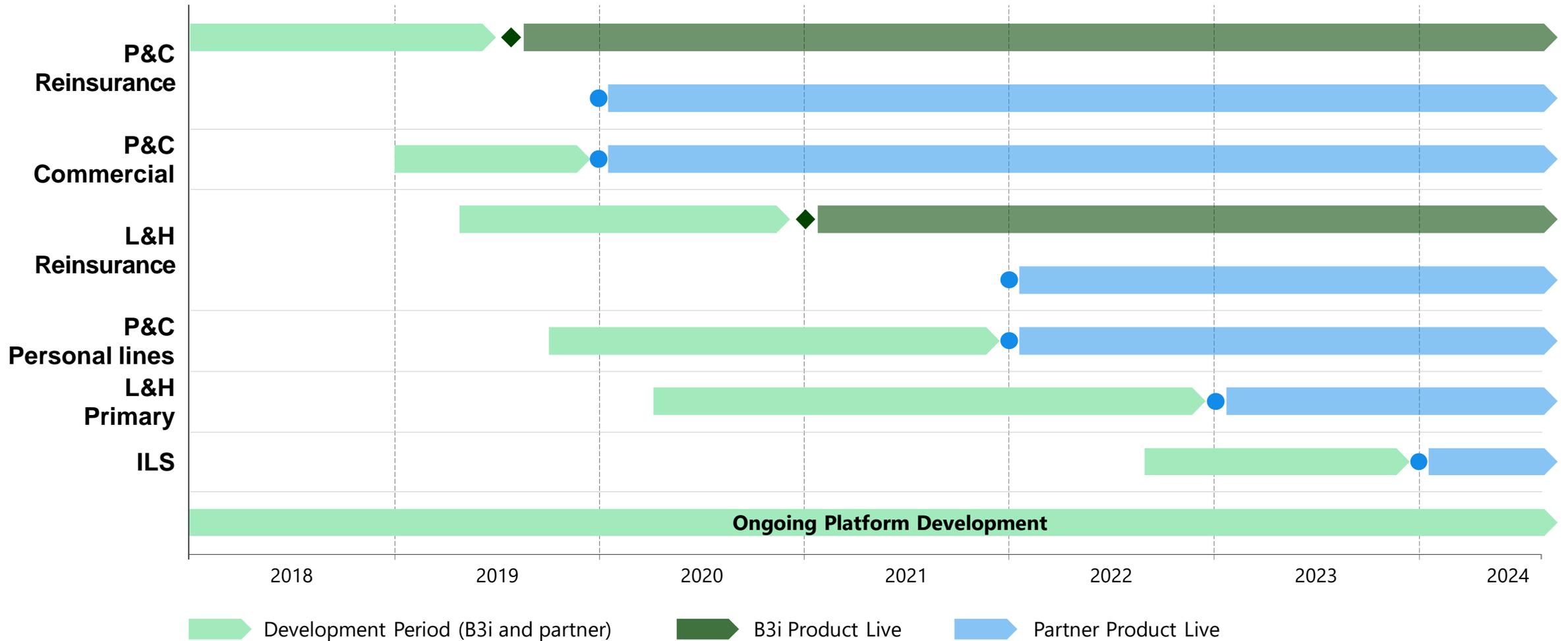
B3i distributed platform allows Partners to offer smart insurance contracts and value added services to the B3i network

B3i infrastructure enables customers to transact on a trusted and secure shared ledger network

B3i product roadmap

Growth potential in high growth markets
Low margin / high volume contracts

	Insurance problems in emerging markets		**B3i enabled future**	
Market	40% of the world's population possesses neither a bank account nor insurance[1]		Reduction of protection gap by reduced admin cost	
Regulation	Inefficient regulatory reviews through database with limited data protection		Regulator verification via B3i blockchain while maintaining data privacy	
Under-writing	Complex (or impossible) due to missing documents and bank accounts		Automated KYC checks based on mobile ID	
Identity management	Substantial portion of population without official address for localisation of insured object / land		Tokenized IDs and GPS coordinates as reference for contract	
Claim	High cost to verify claim in rural areas and subject to fraud		Claim determination by weather data, satellite pictures, social proof and Oracles	
Settlement	Operational burden of processing a large volume of small claims		Smart Contracts on B3i platform trigger automatic settlements with mobile payments	

> High administration costs of insurances and unfavourable local environment restrict insurance coverage

> Combination of DLT, Smart Contracts and IoT allow the coverage of a high number of small premium insurances

1 Source - World Bank Financial Inclusion Database 2015

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Your views - time to break out and discuss

Form up into groups of 8-10 with the people around you

In your groups
- Nominate a spokesperson
- Discuss the three discussion topics and identify key points for each topic

30 mins

Spokespersons feedback at a plenary sessions

10 mins

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Discussion topics

? Where do you see opportunities and risks when using Blockchain?

What are critical success factors for adoption of the B3i Ecosystem?

What could be relevant applications in the B3i Ecosystem?

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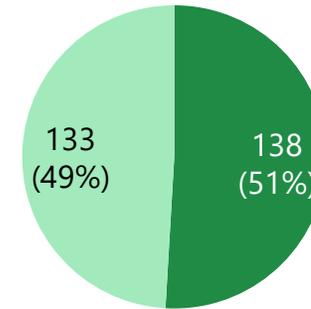# B3i insurance blockchain collaboration ... and growing

Founding Members

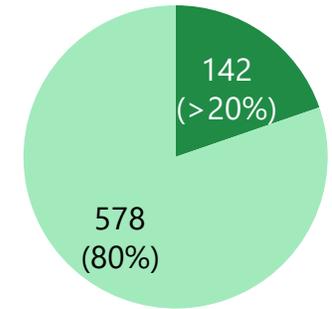Market testers

∑ >700bn USD overall GWP

Source: B3i Analysis, AM Best, Swiss Re Economic Research, Stern Stewart & Co., Annual Reports

GWP Share for B3i's Initial Product Categories

In bnUSD

Reinsurance

133 (49%) 138 (51%)

P&C Commercial lines premiums

142 (>20%) 578 (80%)

■ B3i Shareholders and Market Testers
■ Remaining market

MEMBER

CONFERENCES

THINK TANK

FEEDBACK GROUP

TECHNICAL LIBRARY

COMMUNITY

Strong network
How can YOU join?

B3i
MEMBERSHIP
COMMUNITY

    B3i roadmap re/insurance, commercial and primary insurance

THANK YOU

paul.meeusen@b3i.tech
Company info: https://b3i.tech/single-news-reader/the-b3i-way-with-paul-meeusen.html
Product info: https://youtu.be/c1cRDi2DUaY