

Longevity on the Blockchain

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Why Blockchain is the perfect technology for transacting longevity risk

- 1 What is a Blockchain
- 2 Smart Contracts
- 3 Case Study
- 4 The Blockchain transformation
- 5 The Future

What is a Blockchain?

A series of blocks and hashes...



The hashes are an identifier for that block and also identify the previous block



53A53FC9E2A03DA82G
A7DC442HS98CH2E19
D84L7635AB9F188DBE
713EEF67AC



5DH879EBG34A224BH
75EE9AD45F533EA87G
113DDB75CA64E7DDF
100GAA32

639EFC08ABB273B16
19E82E78C29A7DF02C
1051B1820E99FC395D
CAA3326B8



5DH879EBG34A224BH
75EE9AD45F533EA87G
113DDB75CA64E7DDF
100GAA32

Hash Month X = Fx (Hash Month X-1, Data Month X)

What is a Blockchain?

A series of blocks and hashes...

Data of any kind is stored in the blocks, agreed by the users

The blocks can also store a “smart contract” which is programme that executes using the data in the blocks

The hashes are a unique and time stamped identifier for the block and the previous block

The hashes make it possible to build up a perfect record

The immutable nature of the data in each block makes a Blockchain secure enough to use as the basis of cryptocurrencies



What is a Smart Contract?

A programme stored in a block on the chain...

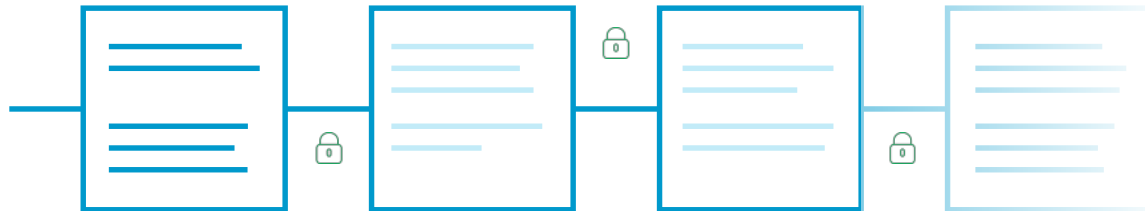
Allows the performance of a contract without third parties

The smart contract is visible to all users of the Blockchain

Enables contracts to be self executing

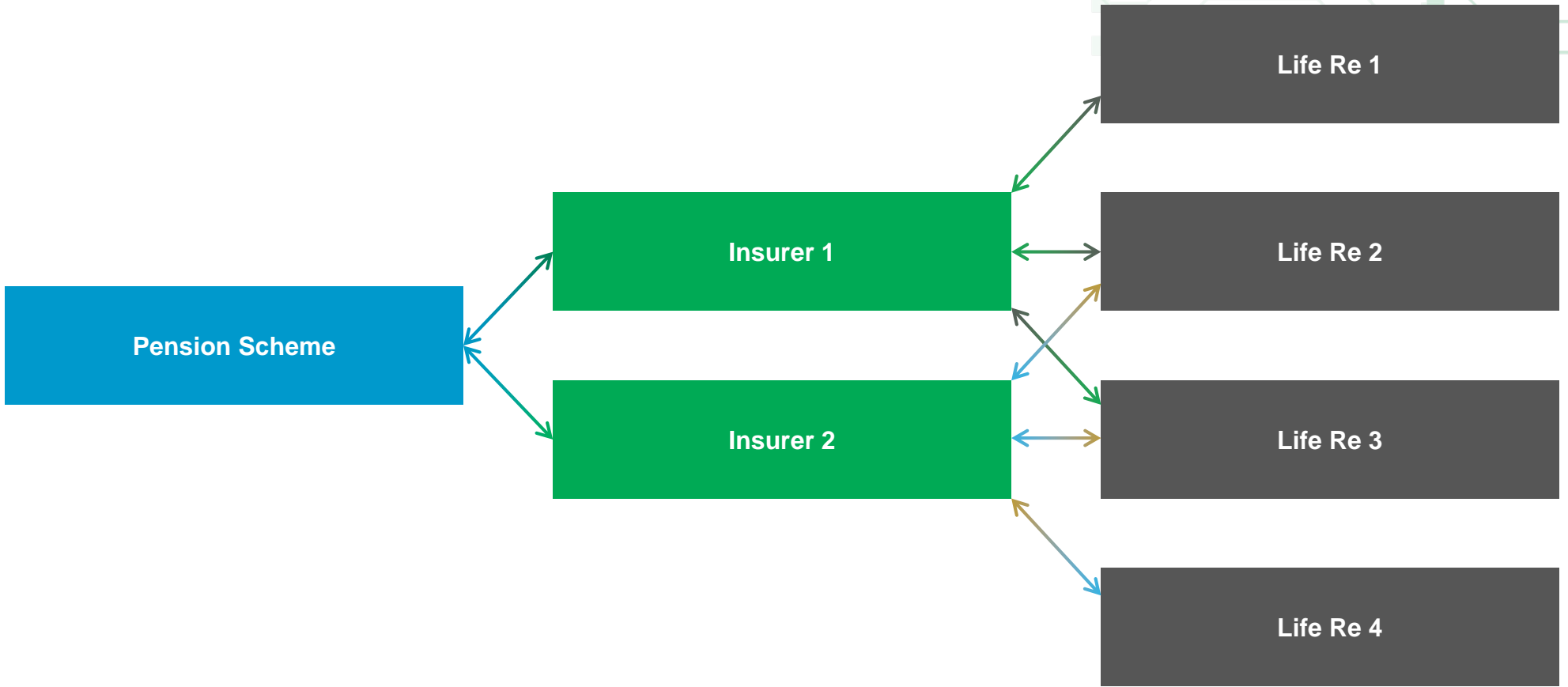
This can be to carry out a sequence of checks on the data, or....

To calculate, and pay, amounts based on the data



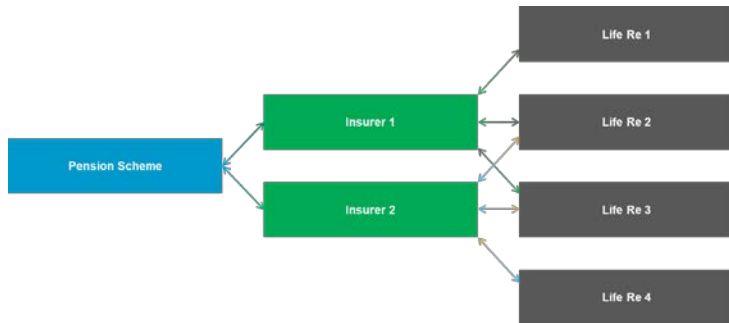
Blockchain for longevity risk transfer

Case study: Canadian PRT transaction



Blockchain for longevity risk transfer

Case study: Canadian PRT transaction

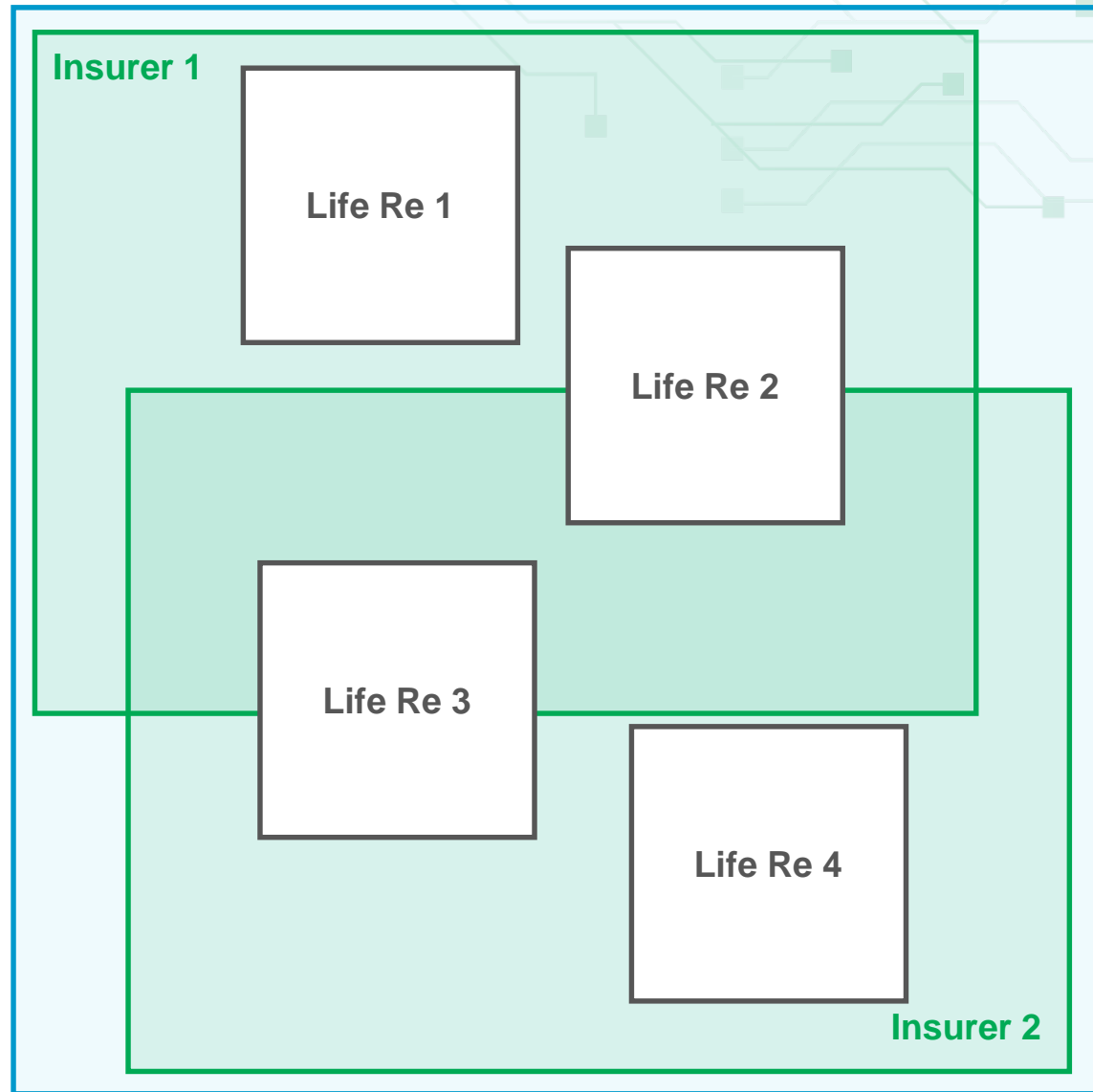


- A decentralized view of data
- Leading to different versions throughout the system
- Timing delays and lags as this data is processed
- Duplication of effort for all users
- Inefficiency leading to additional costs and friction across the system
- Applies both before and after execution

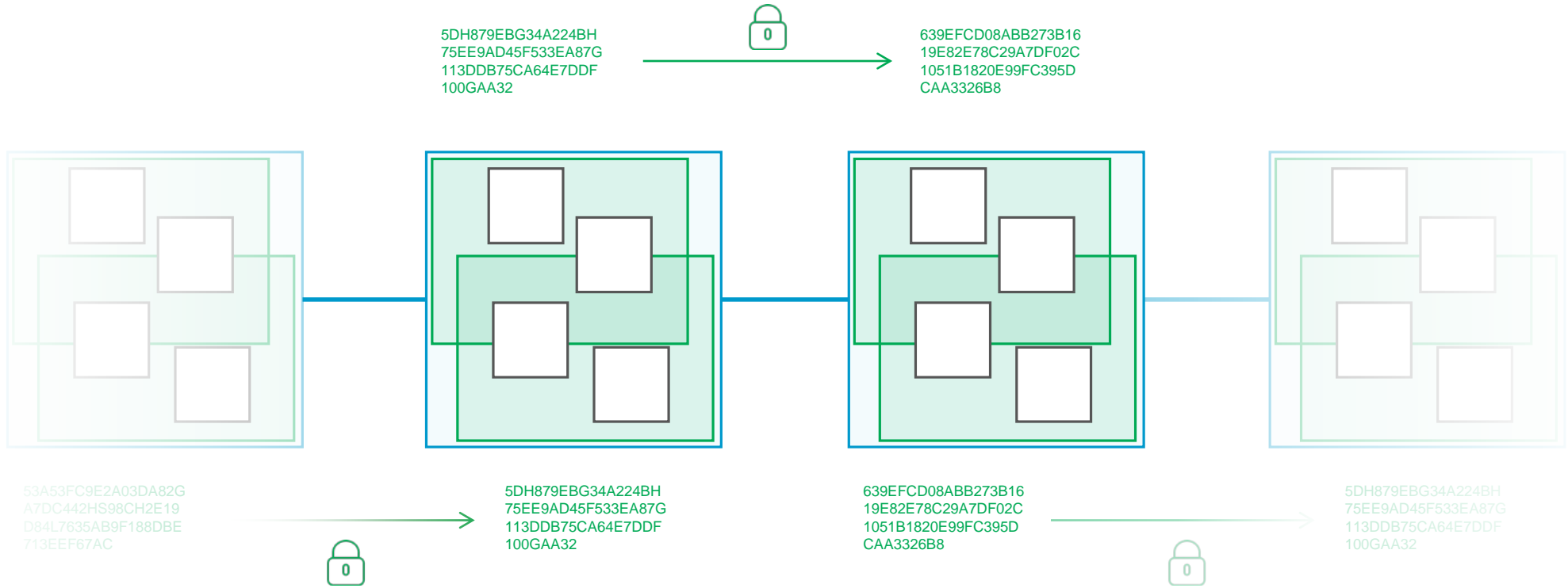
Blockchain for longevity risk transfer

- A “single version of the truth” for all users
- Every user sees the same data in real time
- It is peer to peer so harnesses the power of the collective

Pension Scheme



Blockchain for longevity risk transfer



- The chain is built as the data evolves with a **perfect** history for the duration of the contract

The Blockchain transformation for longevity risk transfer



PRICING

The data on the Blockchain will enable real time pricing for all participants

EXECUTION

Pricing can be offered and accepted, and transactions completed on the Blockchain

EXPERIENCE

Once transacted, the Blockchain can support real time monitoring of emerging experience

The Blockchain transformation for longevity risk transfer

Automation

Smart contracts execute every aspect of the value chain in real time



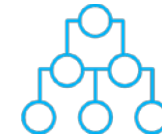
Speed

A system where all points of friction are removed



Trust

Security is in the DNA of Blockchain. Perfect audit for buyers and sellers



The Future

A global market place for the transacting of longevity risk built on a Blockchain ecosystem



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