irish funds

CAREER PROFILES

YOUR FUTURE IN FUNDS

www.irishfunds.ie

Welcome

Colin Feely
Partner, Head of Financial Services Audit
Grant Thornton

©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton

An instinct for growth™

Grant Thornton IF Fintech Series

Can Blockchain Tokenize the Funds Industry?

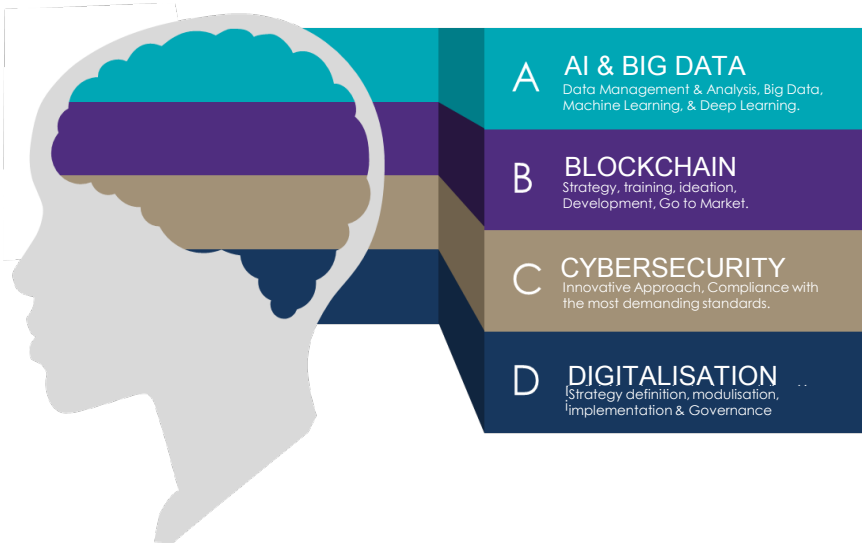
Adrian White

Grant Thornton Blockchain Lab

©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton Blockchain Lab

Grant Thornton Blockchain Lab 2015-2019



Grant Thornton Blockchain Lab

©2019 Grant Thornton Ireland. All rights reserved.

Blockchain Financial Credentials

2015-2019

Co-Founder of Alastria Network

International Payments Blockchain Application

Insurance Company Consortium Blockchain Network

Financial Markets Liquidiy Solutions

AML-KYC BLOCKCHAIN

©2019 Grant Thornton Ireland. All rights reserved.

Regulatory Entities: Blockchain

Data Protection Agency

The National Securities Market Commission

Public Treasurer

Spanish Central Bank

AML-KYC-Compliance

©2019 Grant Thornton Ireland. All rights reserved.

Blockchain Introduction

Blockchain - is NOT Crypto (or Bitcoin)

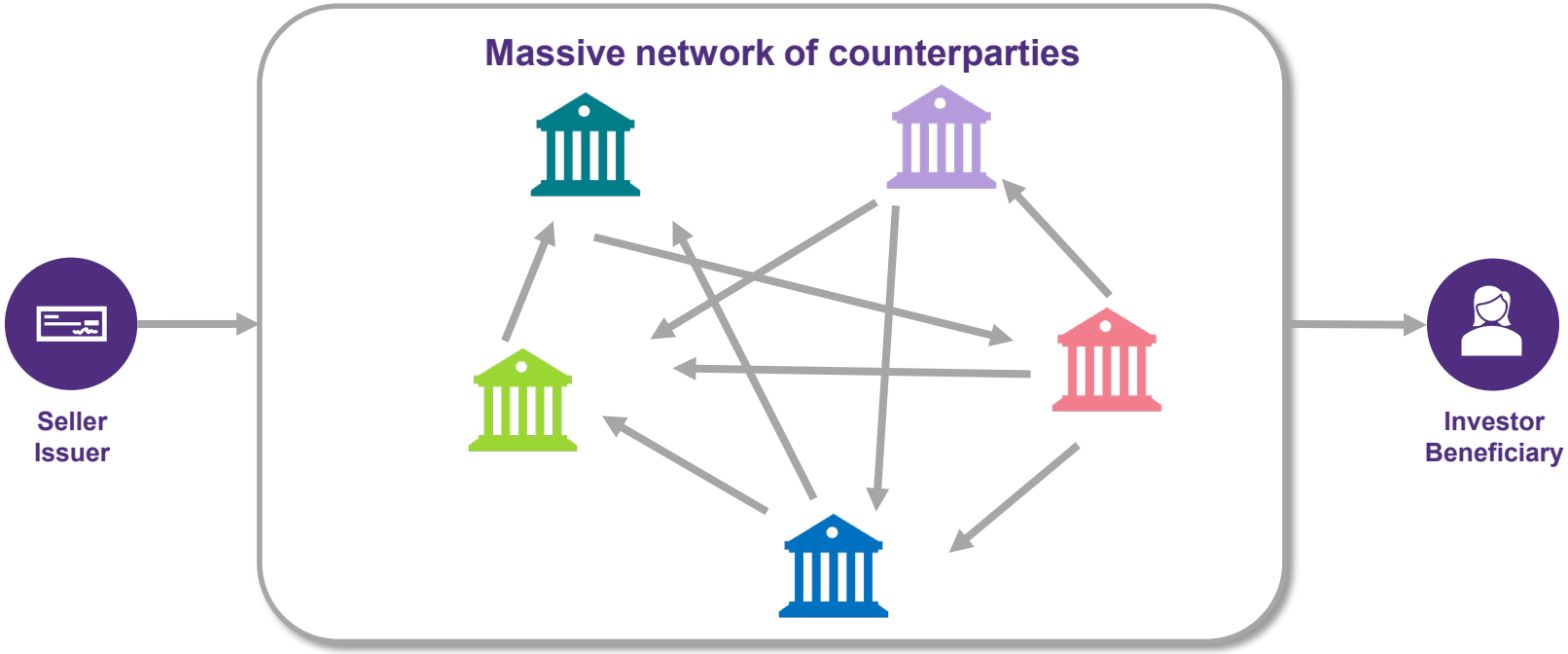
EXAMPLE OF SOMETHING USING BLOCKCHAIN

BITCOIN WAS THE FIRST CRYPTOCURRENCY

©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™

Today´s financial System



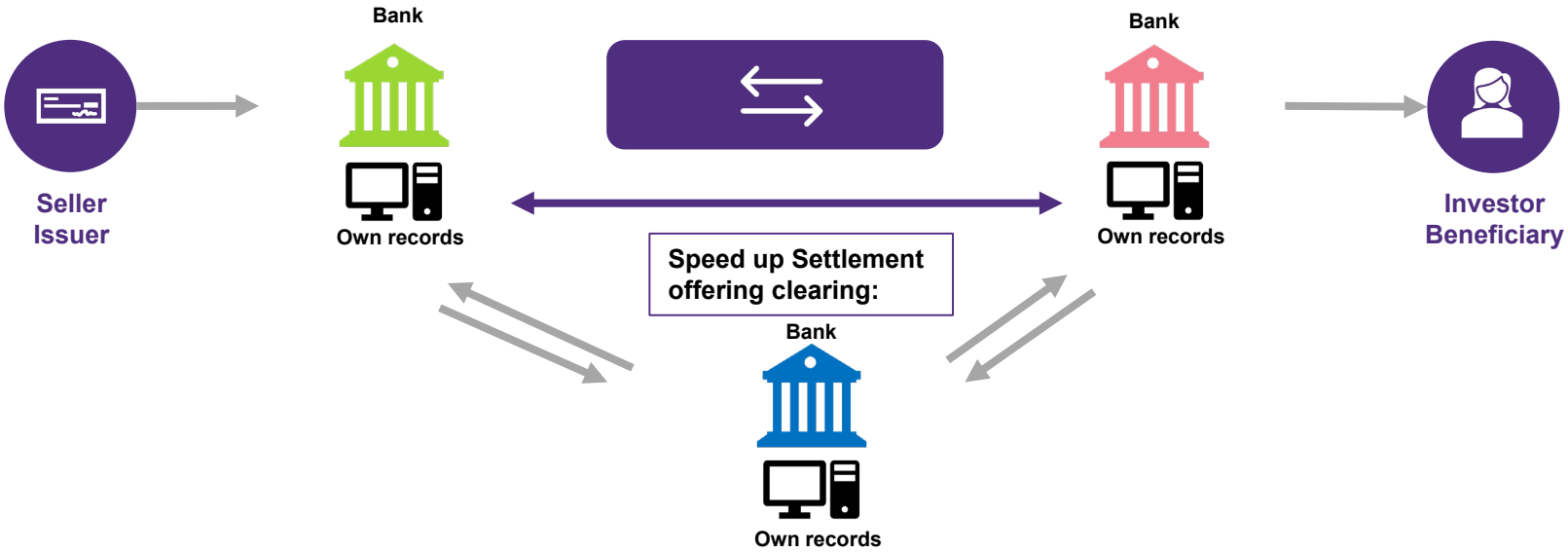
©2019 Grant Thornton Ireland. All rights reserved.

Today´s financial System

©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™

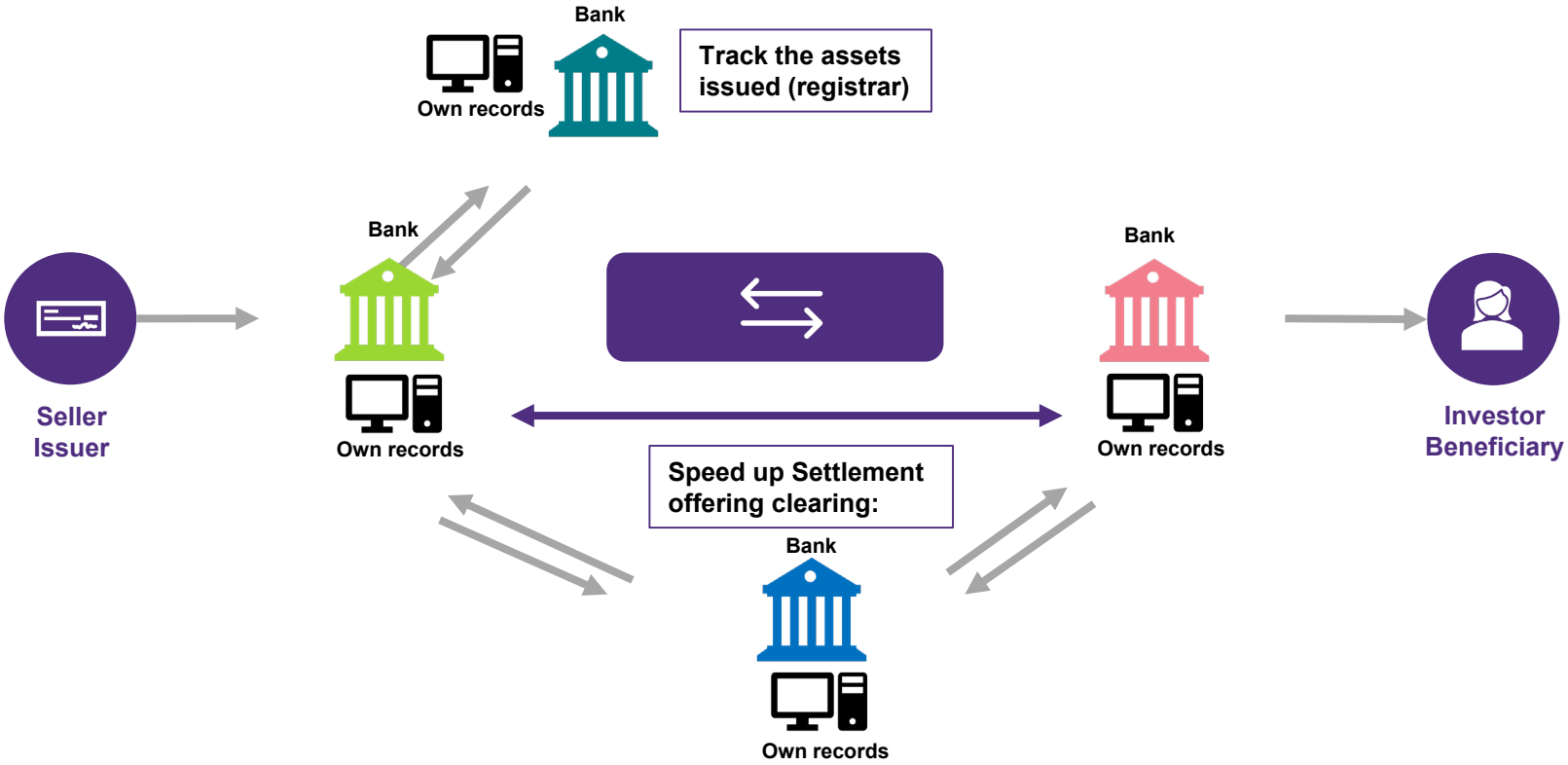
Today´s financial System



©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™

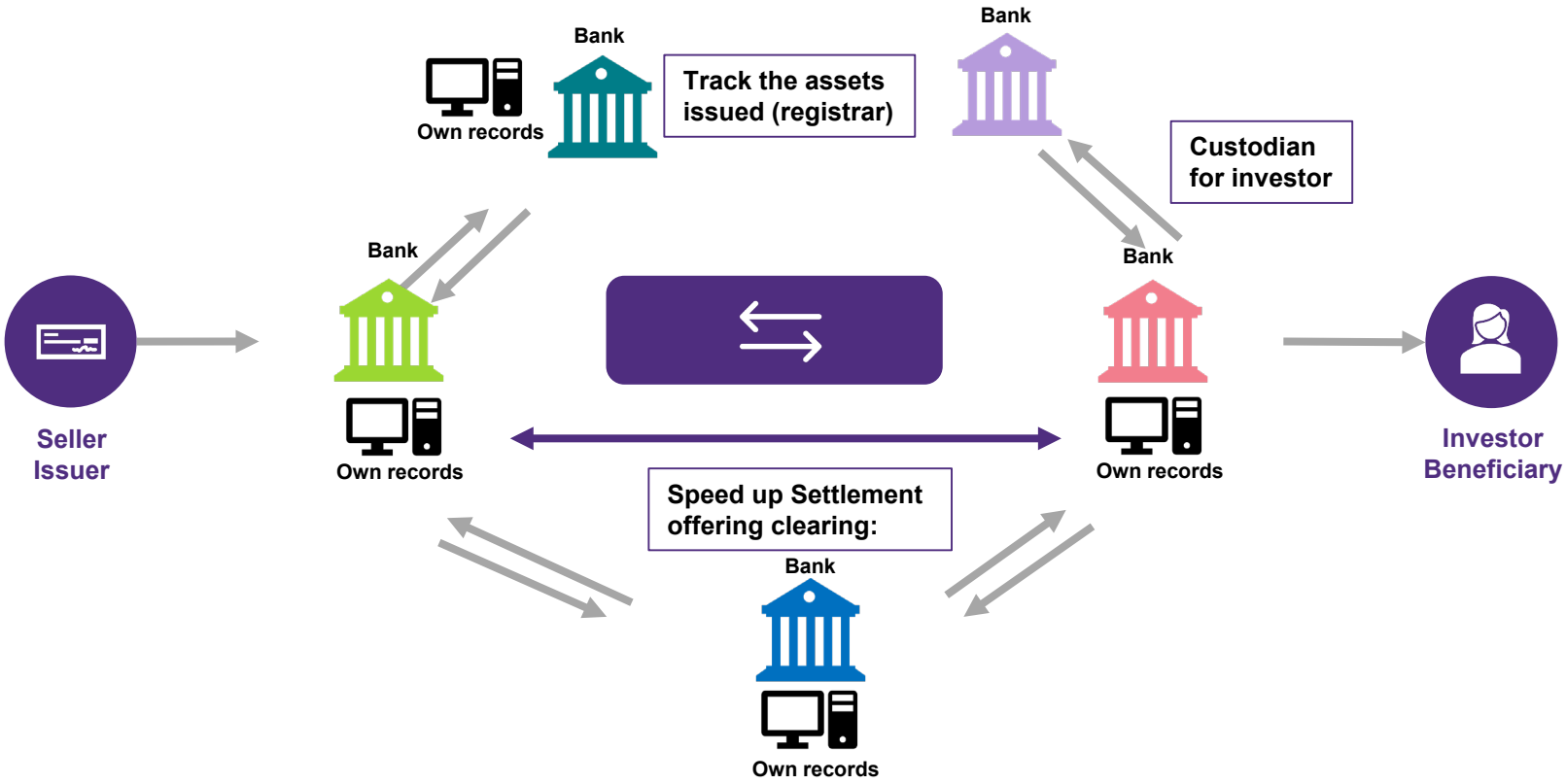
Today´s financial System



©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™

Today´s financial System



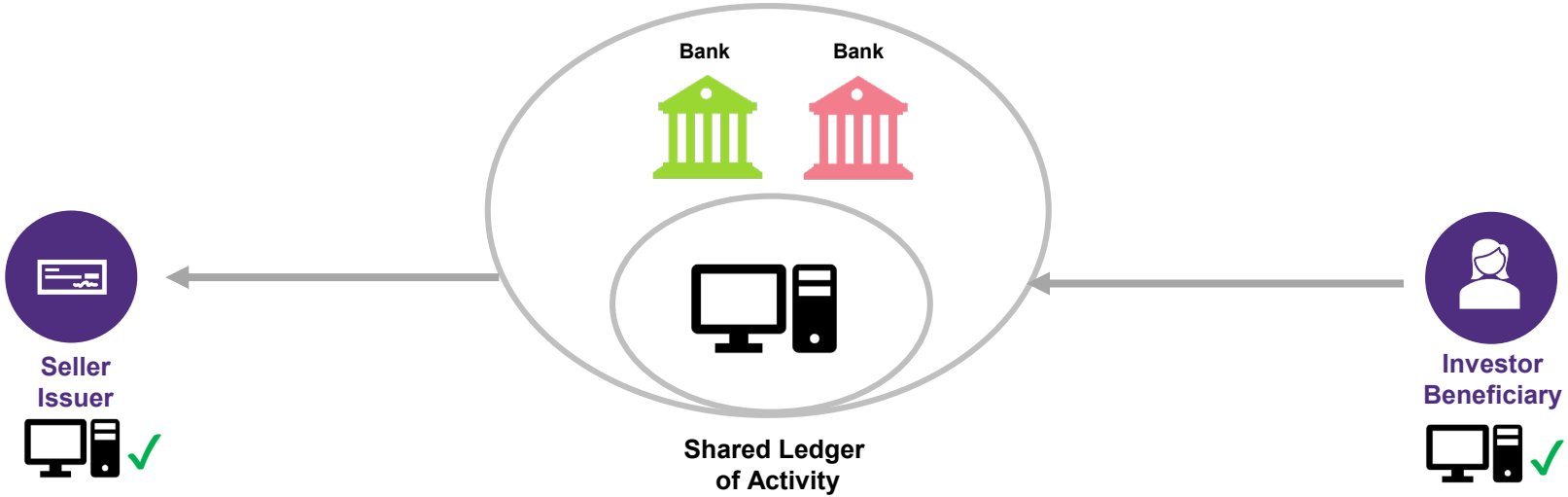
©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™

Solution to replace the need for trust

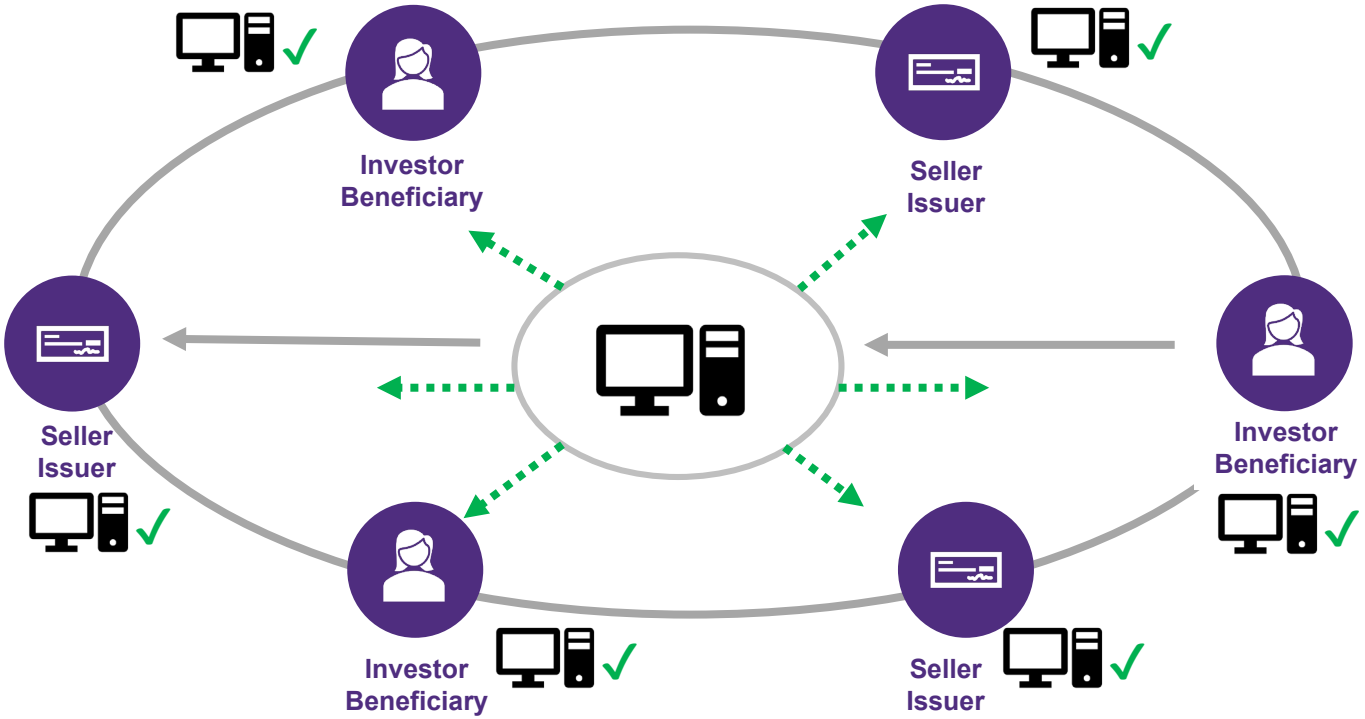
©2019 Grant Thornton Ireland. All rights reserved.

Shared records (real time)



©2019 Grant Thornton Ireland. All rights reserved.

Blockchain Network

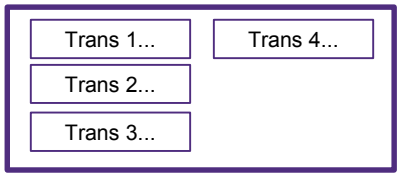


©2019 Grant Thornton Ireland. All rights reserved.

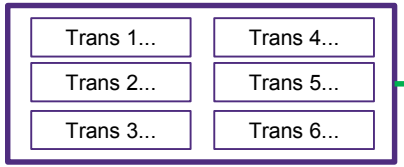
Grant Thornton | An instinct for growth™

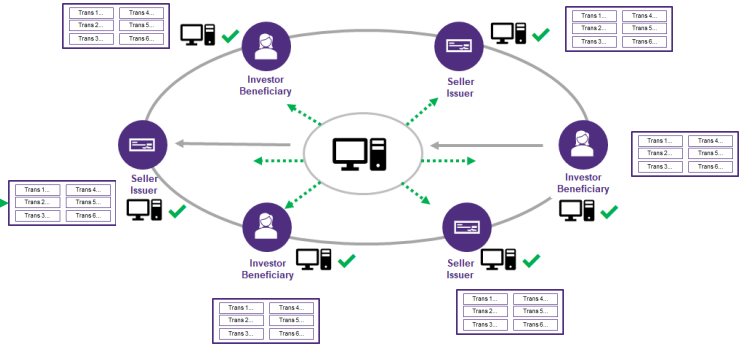
Blockchain Network

1. Each time a transaction takes place between participants in the network - a copy (hash) of each transaction is listed in a block:

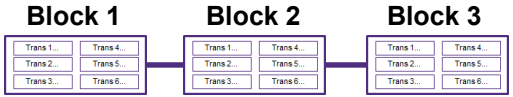


2. When the block is "full" it is then issued to all participants in the Blockchain network...





3. New blocks are added to the previous chain of blocks for each participant = "Blockchain"



4. Sending / receiving transactions are cryptographically protected. (The process involves "mining"

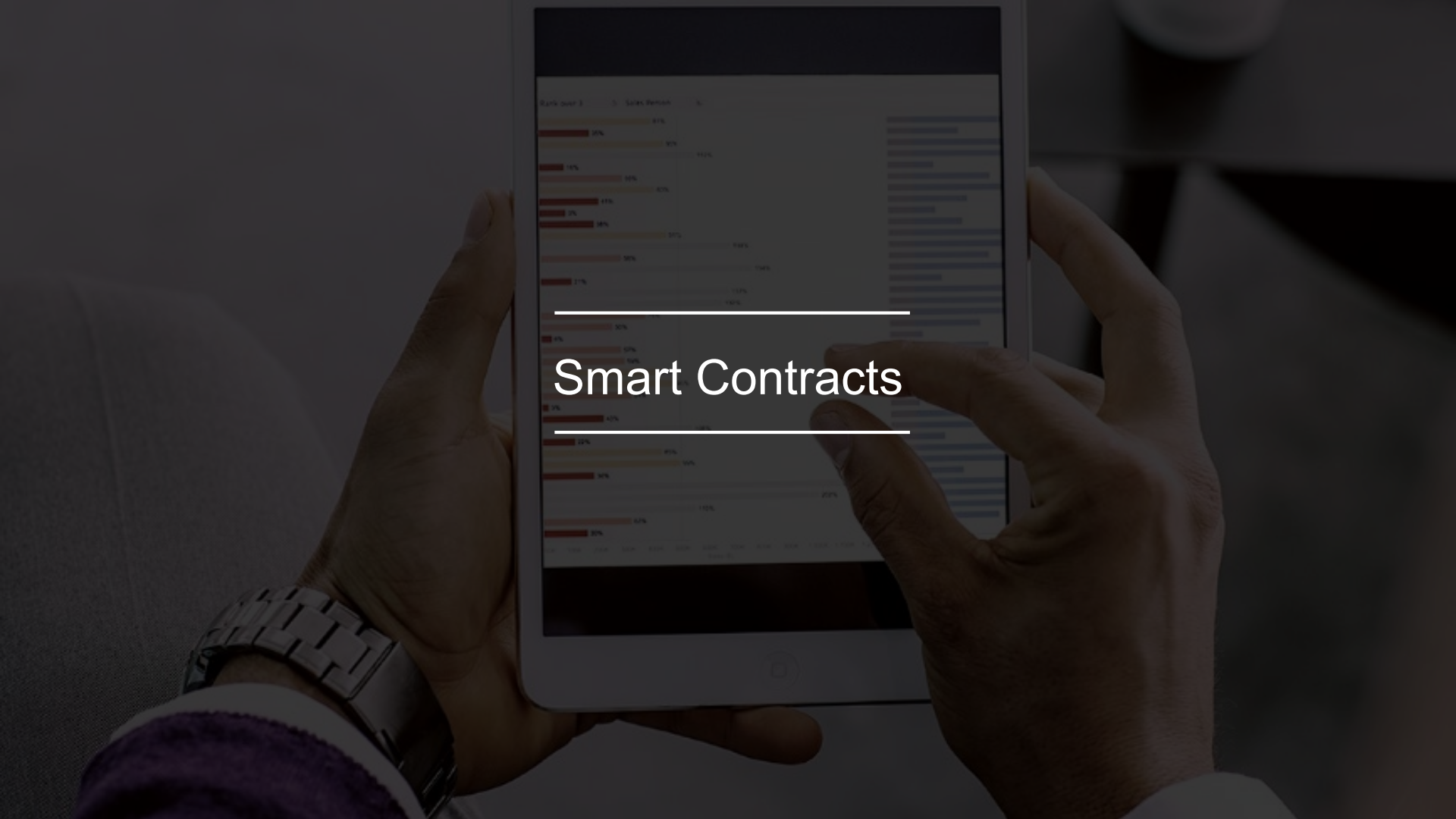
©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™

Blockchain enables...

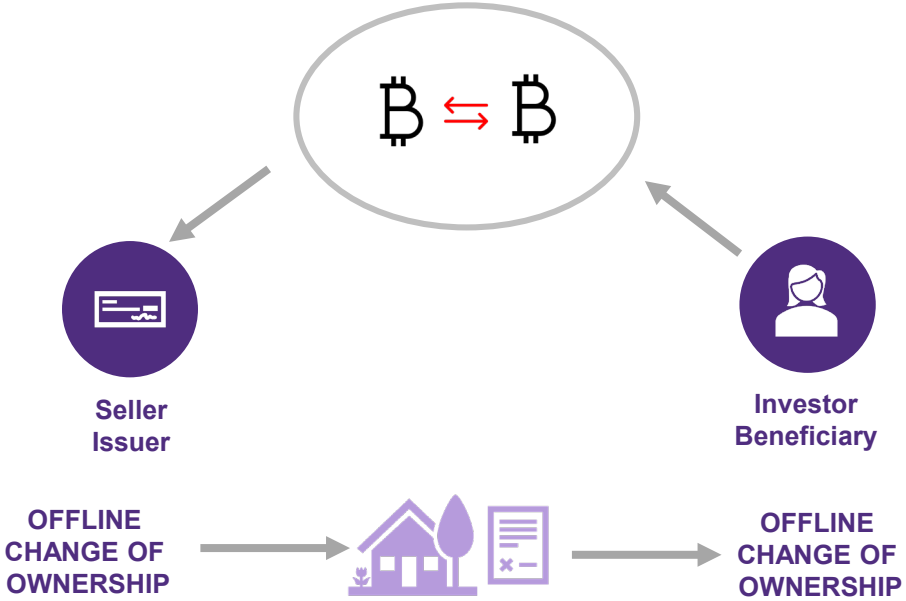
1. Completely digital representations of value
2. Controlled by cryptographic keys
3. Ownership is registered on a (distributed ledger)

©2019 Grant Thornton Ireland. All rights reserved.



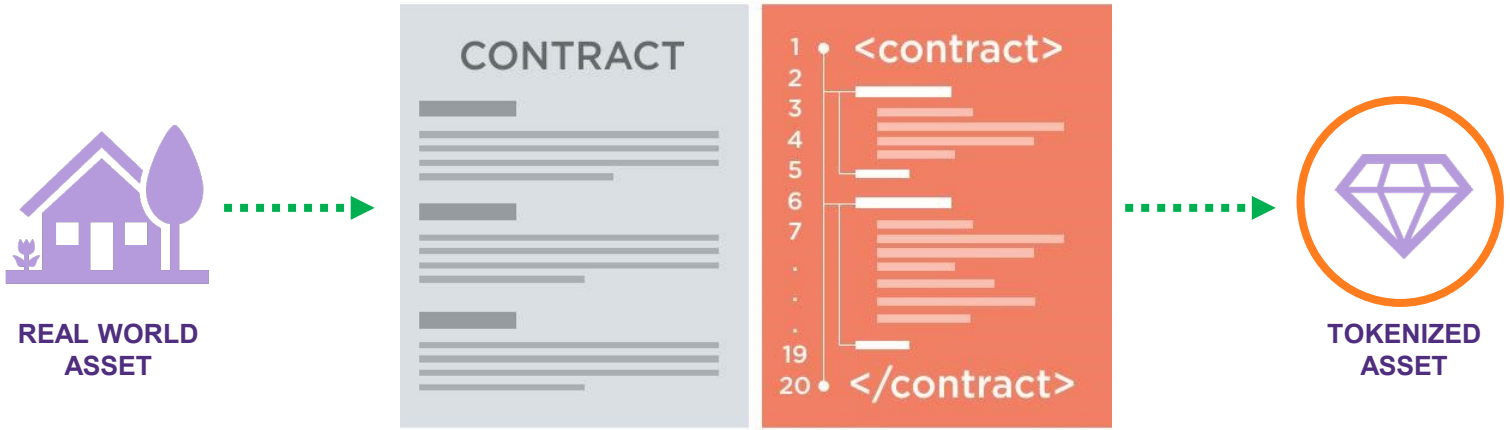
Smart Contracts

Before Smart Contracts (...2009-2015)



©2019 Grant Thornton Ireland. All rights reserved.
Grant Thornton | An instinct for growth™

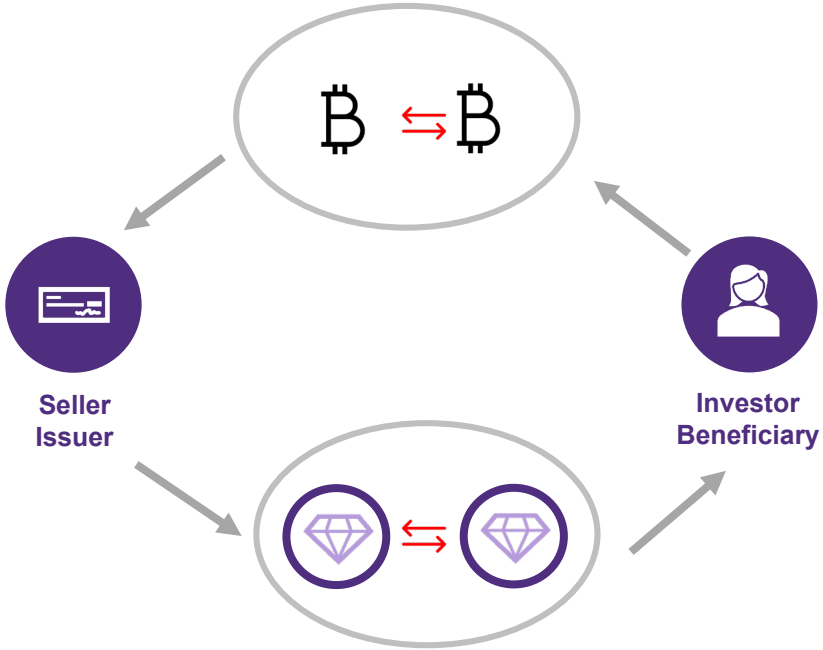
Smart Contracts... 2015 onwards



©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™

Smart Contracts... Digital Assets



©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™

Stability

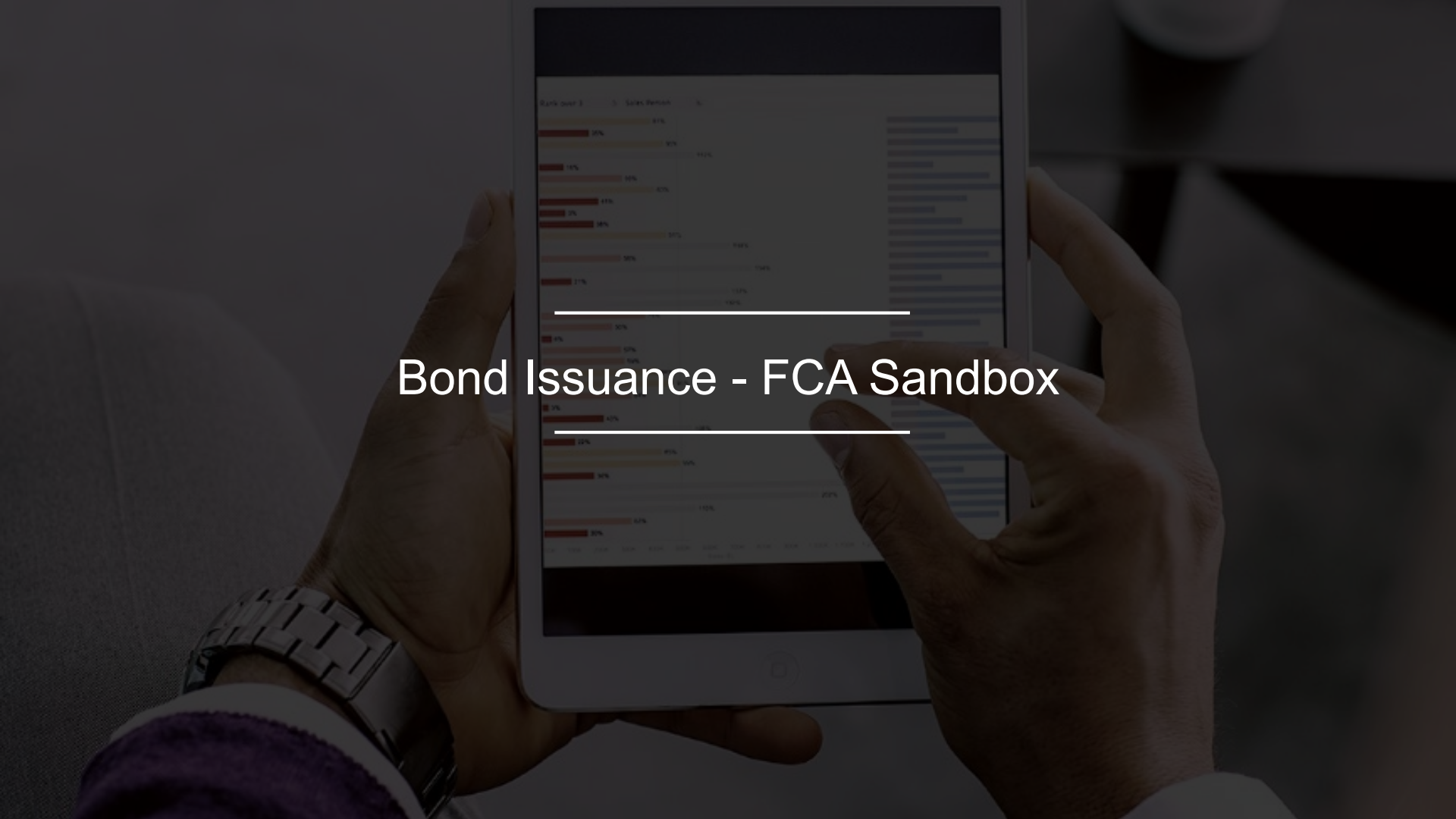
Stabilising Digital currency

CENTRAL BANK DIGITAL CURRENCIES

UTILITY SETTLEMENT COIN

EU Central Bank

©2019 Grant Thornton Ireland. All rights reserved.



Bond Issuance - FCA Sandbox

Bond Issuance - FCA Sandbox

In the second of the FCA´s regulatory Sandboxes, **two bonds were issued using Blockchain** which were governed by English law. The following entities were involved in the experimental processes: Link Asset Services, LuxDeco, Allen & Ovary, JP Morgan, Nivaura, Moodys.

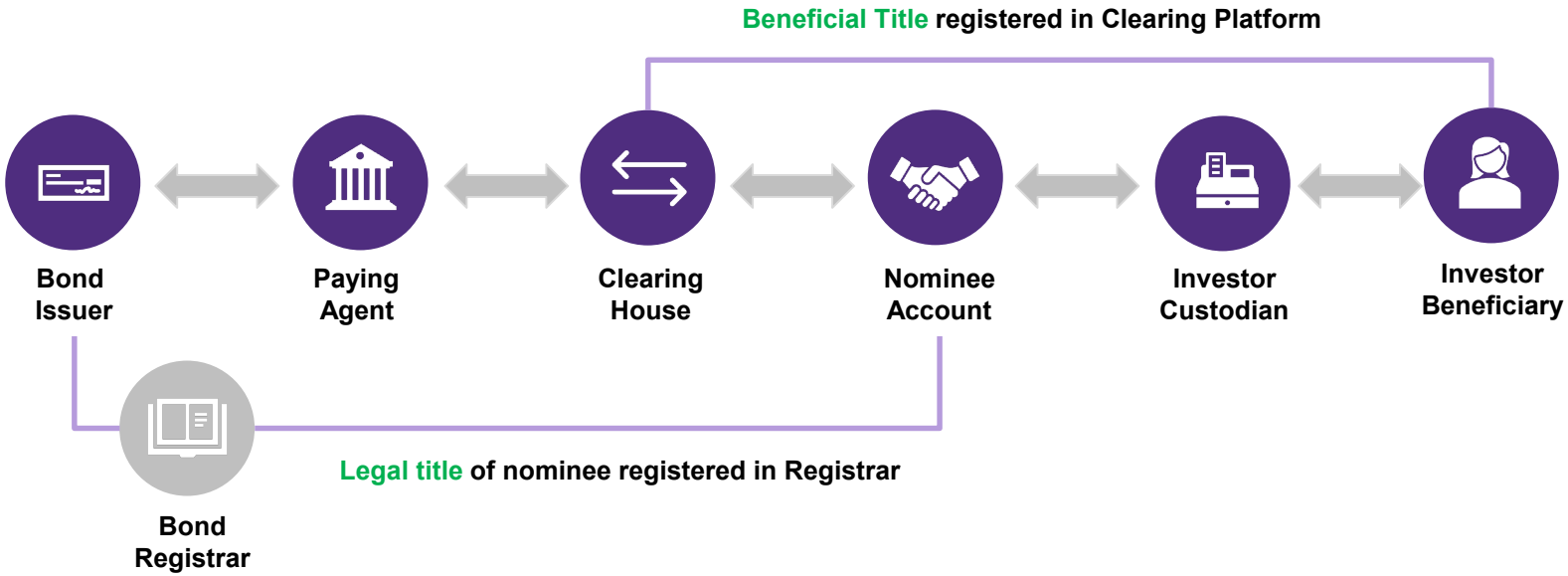
Traditional GBP
Bond Process
Partial Blockchain

Bond Process
Blockchain
Tokenization

©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™

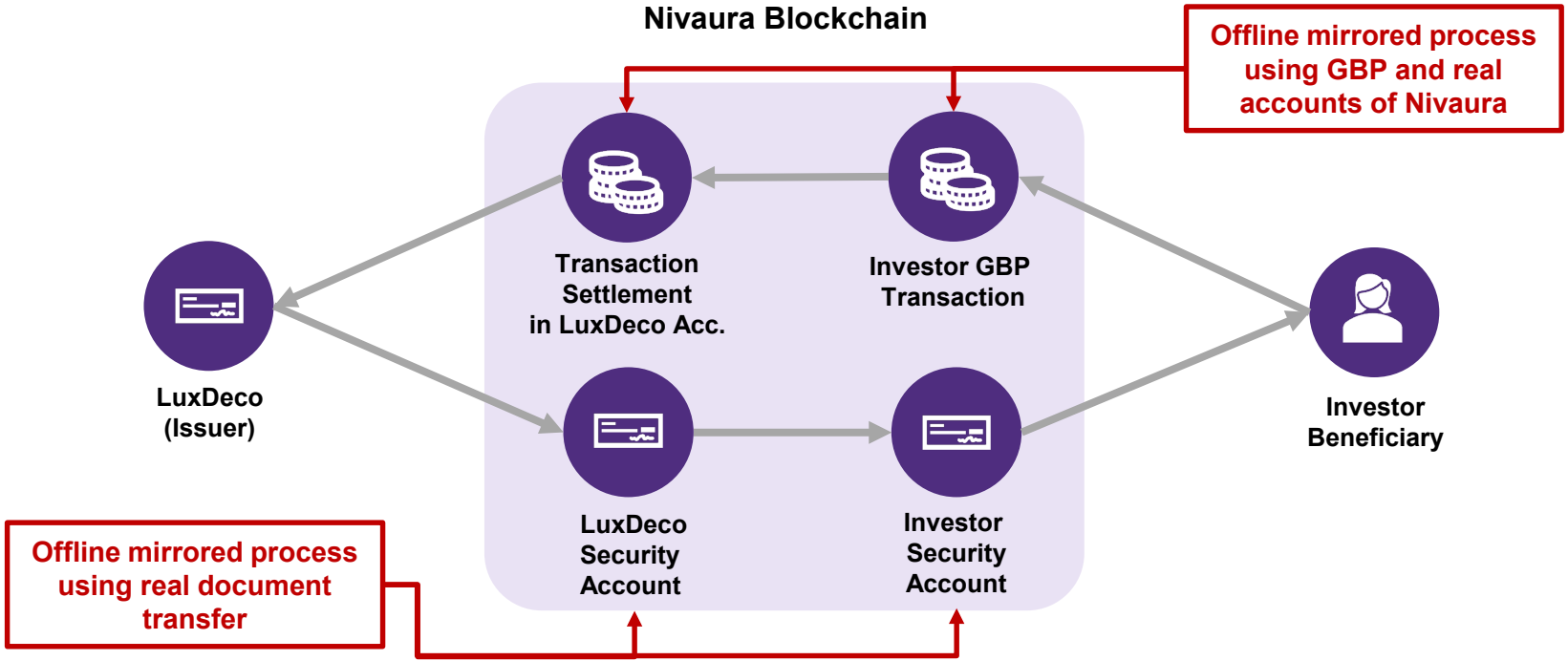
Traditional Bond Issuance (AS-IS)



©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™

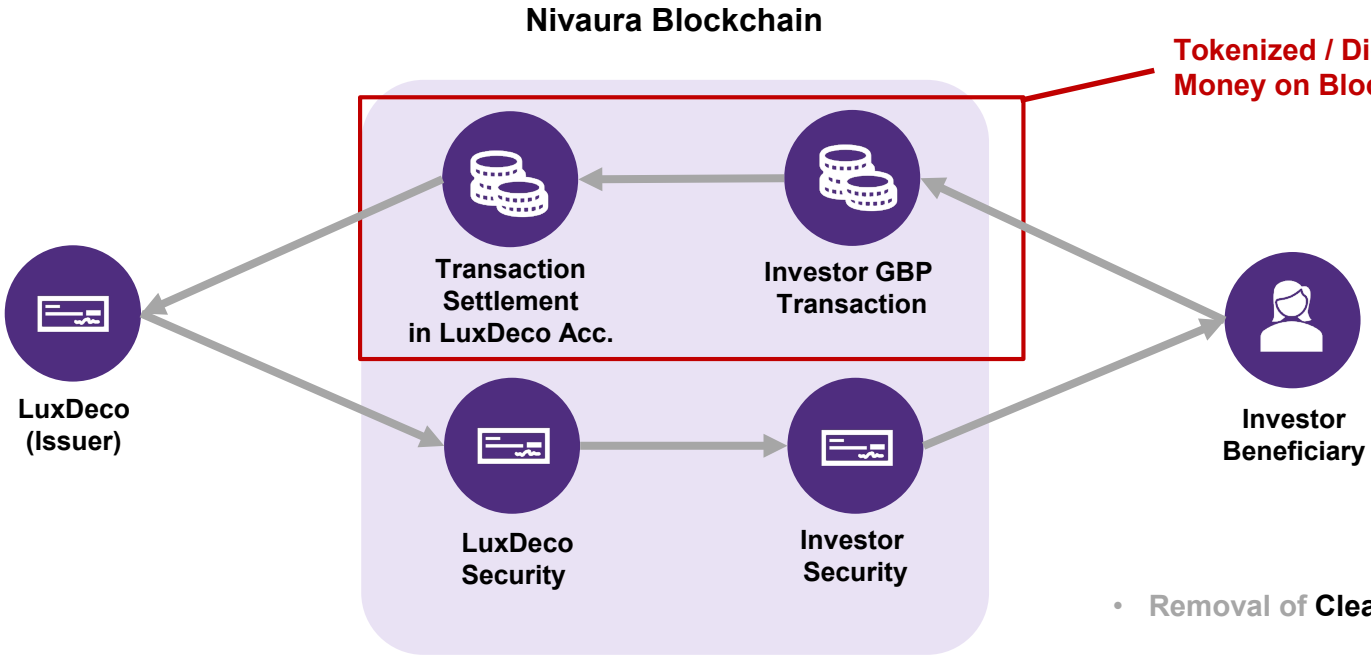
Bond Issuance (Partial Blockchain)



©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™

Bond Issuance (Partial Blockchain)

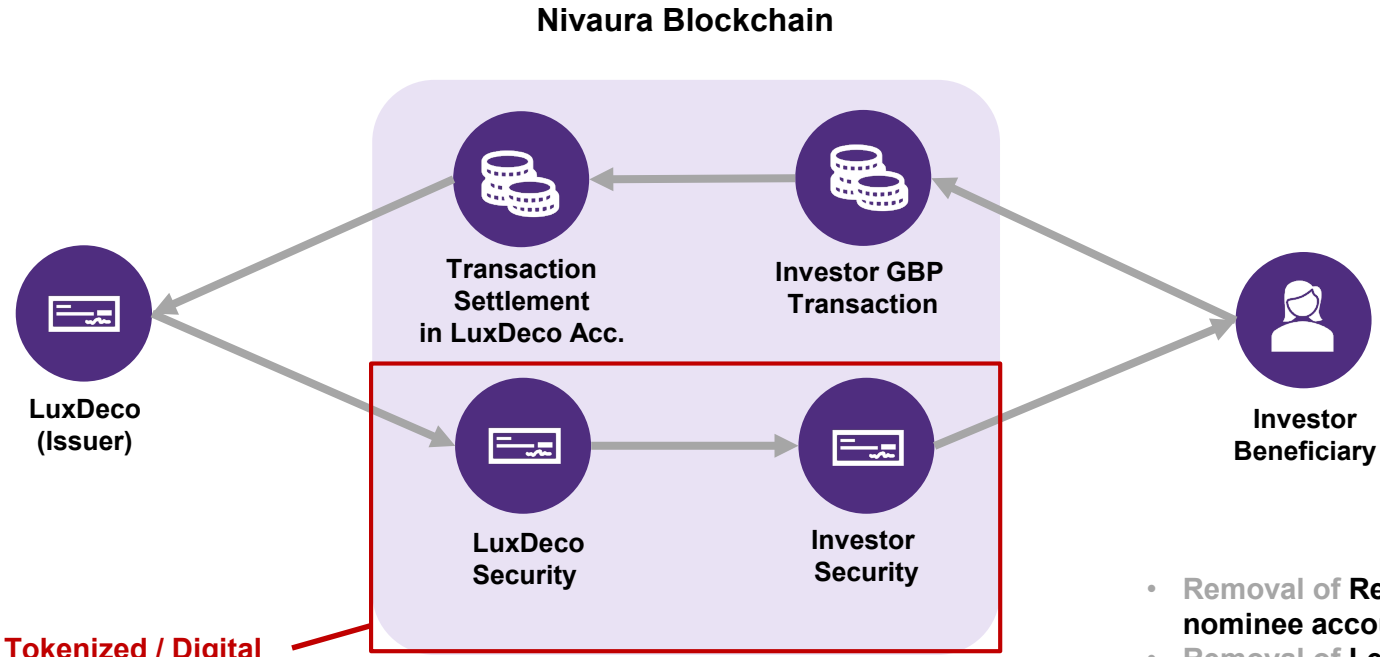


- Removal of **Clearing Function**

©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™

Bond Issuance (Partial Blockchain)

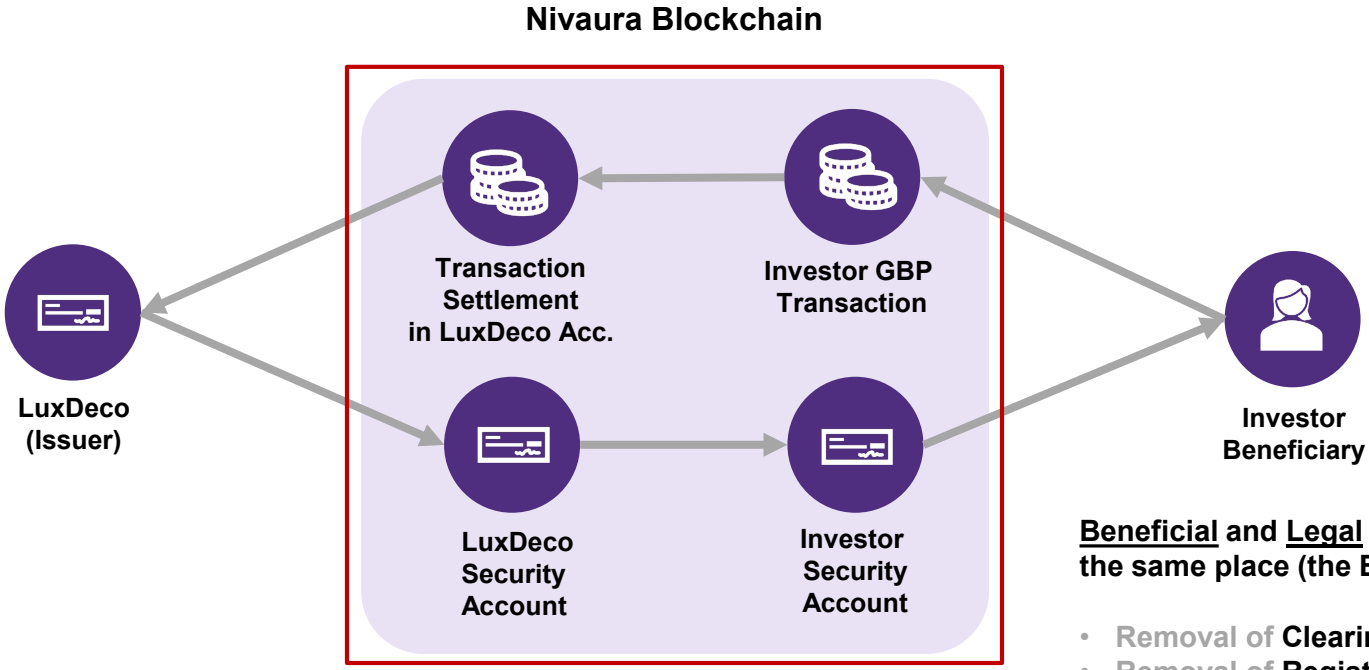


- Removal of **Registrar and nominee account**
- Removal of **Legal Process**

©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™

Bond Issuance (Partial Blockchain)



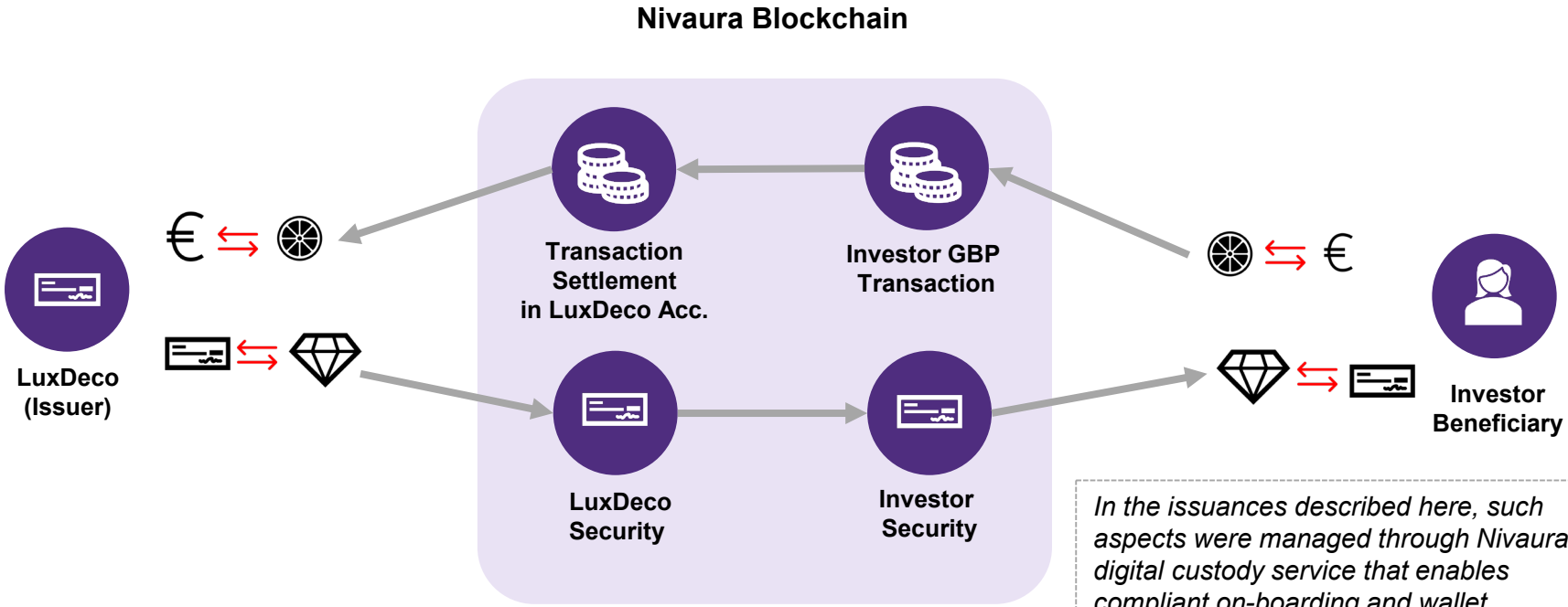
Beneficial and Legal Titles exist in the same place (the Blockchain)

- Removal of **Clearing Function**
- Removal of **Registrar**

©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™

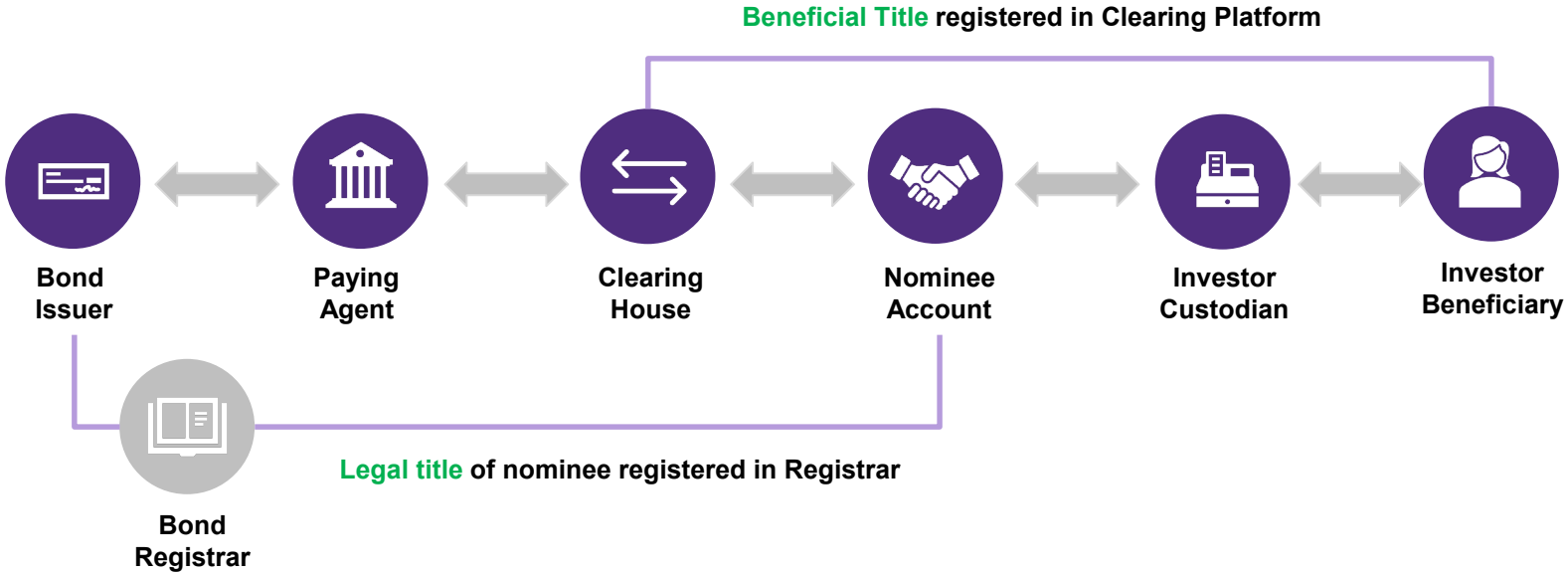
Bond Issuance FULL Blockchain



In the issuances described here, such aspects were managed through Nivaura's digital custody service that enables compliant on-boarding and wallet management.

©2019 Grant Thornton Ireland. All rights reserved.

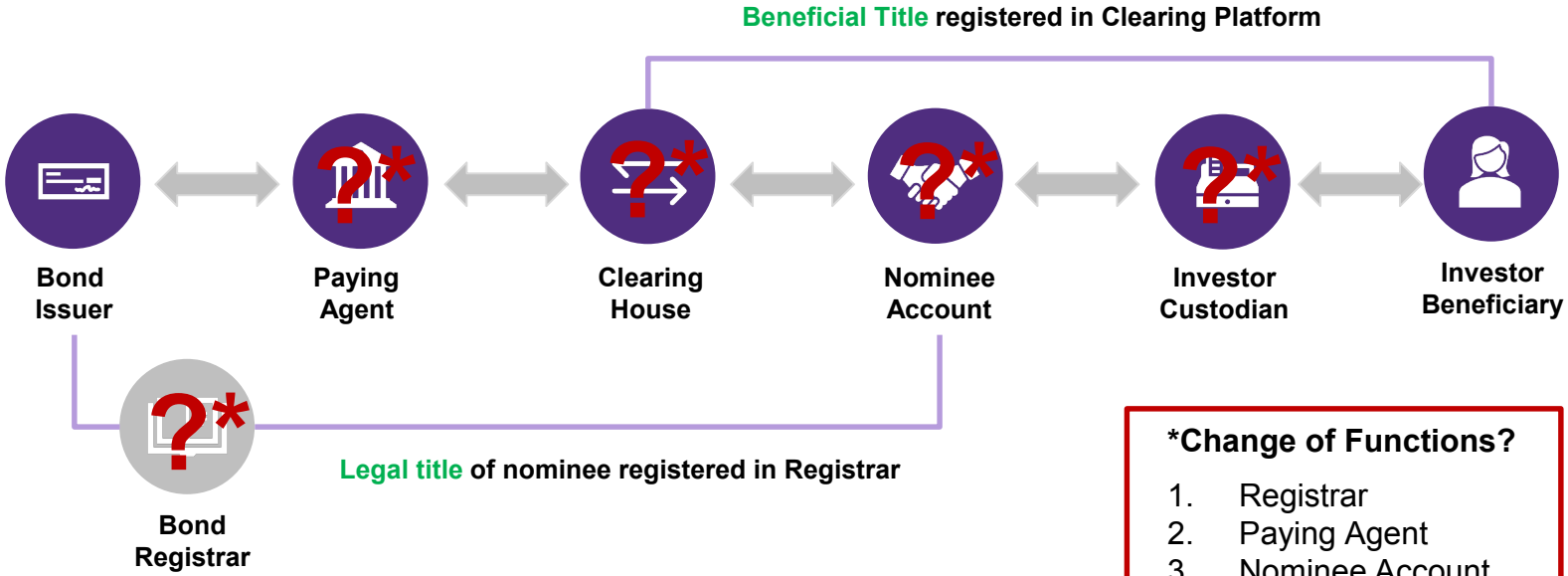
Tokenized Bond Process



©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™

Tokenized Bond Process



***Change of Functions?**

1. Registrar
2. Paying Agent
3. Nominee Account
4. Clearing Platform

©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™

Benefits and Challenges

Perceived Benefits

Beneficial and Legal Titles exist in the same place (the Blockchain)

Blockchain constituted an independent third party, which fulfilled the requirement for third party reconciliation of the registrar

Smart Contracts could allow for functions to be altered / changed / removed

Perceived Challenges

PRIVACY

SCALABILITY

PERFORMANCE

©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™

Crypto-Assets

Crypto Assets

Crypto-Assets Definition

ESMA & EBA
A type of private asset that depends primarily on **cryptography** and **Distributed Ledger Technology** as part of their perceived or inherent value.

FCA
A **cryptographically** secured digital representation of value or contractual rights that is powered by forms of **DLT** and can be stored, transferred or traded electronically.

©2019 Grant Thornton Ireland. All rights reserved.

Crypto Assets: Classifications

Exchange tokens:

These are not issued or backed by any central authority and are intended and designed to be used as a means of exchange.

Security tokens:

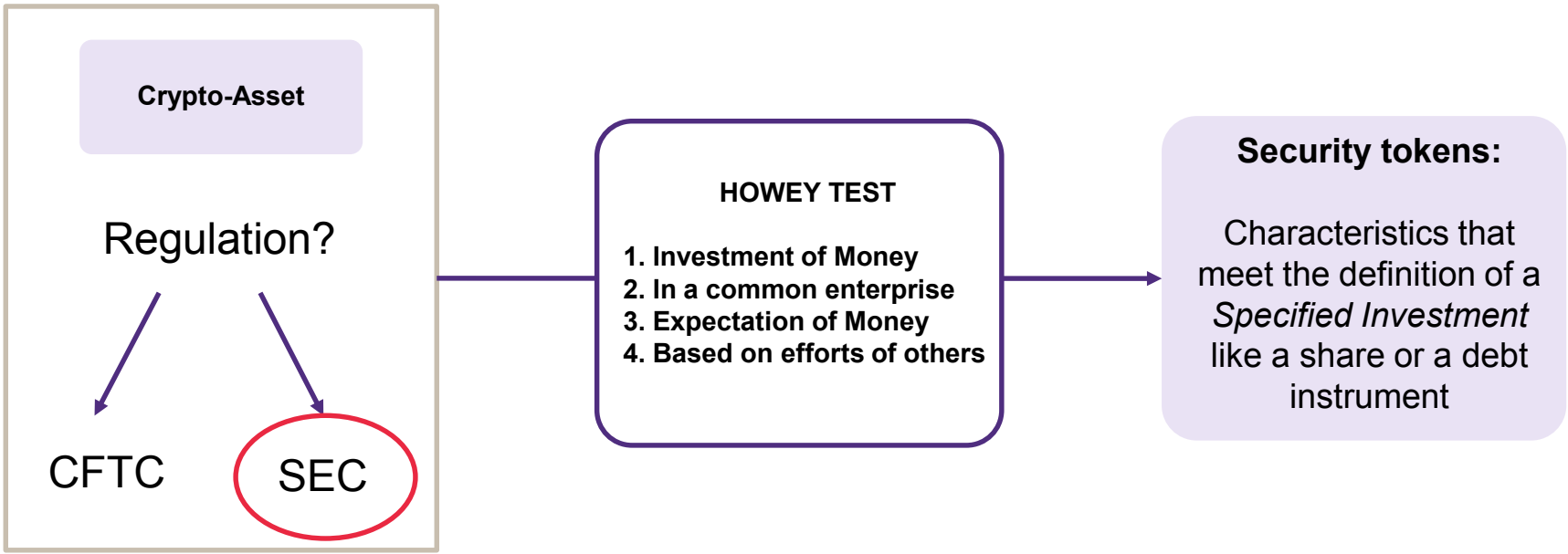
Characteristics that meet the definition of a *Specified Investment* like a share or a debt instrument

Utility tokens:

grant holders access to a current or prospective product or service but do not grant holders rights that are the same as those granted by specified Investments.

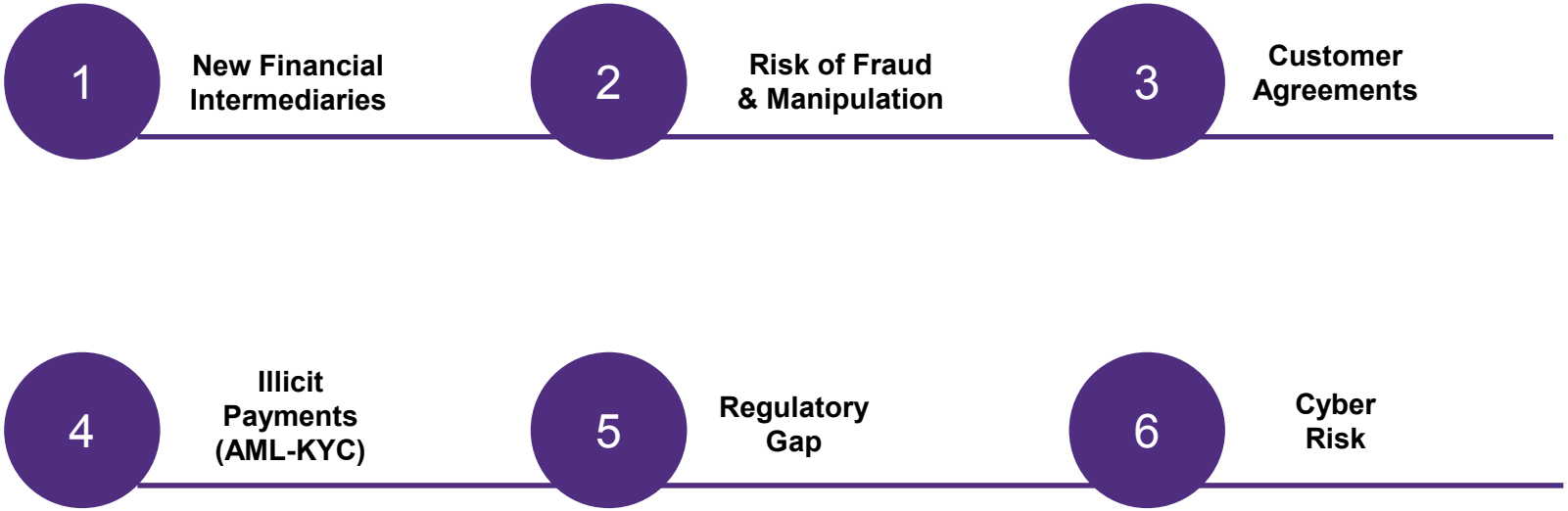
©2019 Grant Thornton Ireland. All rights reserved.

Crypto Assets: Regulation



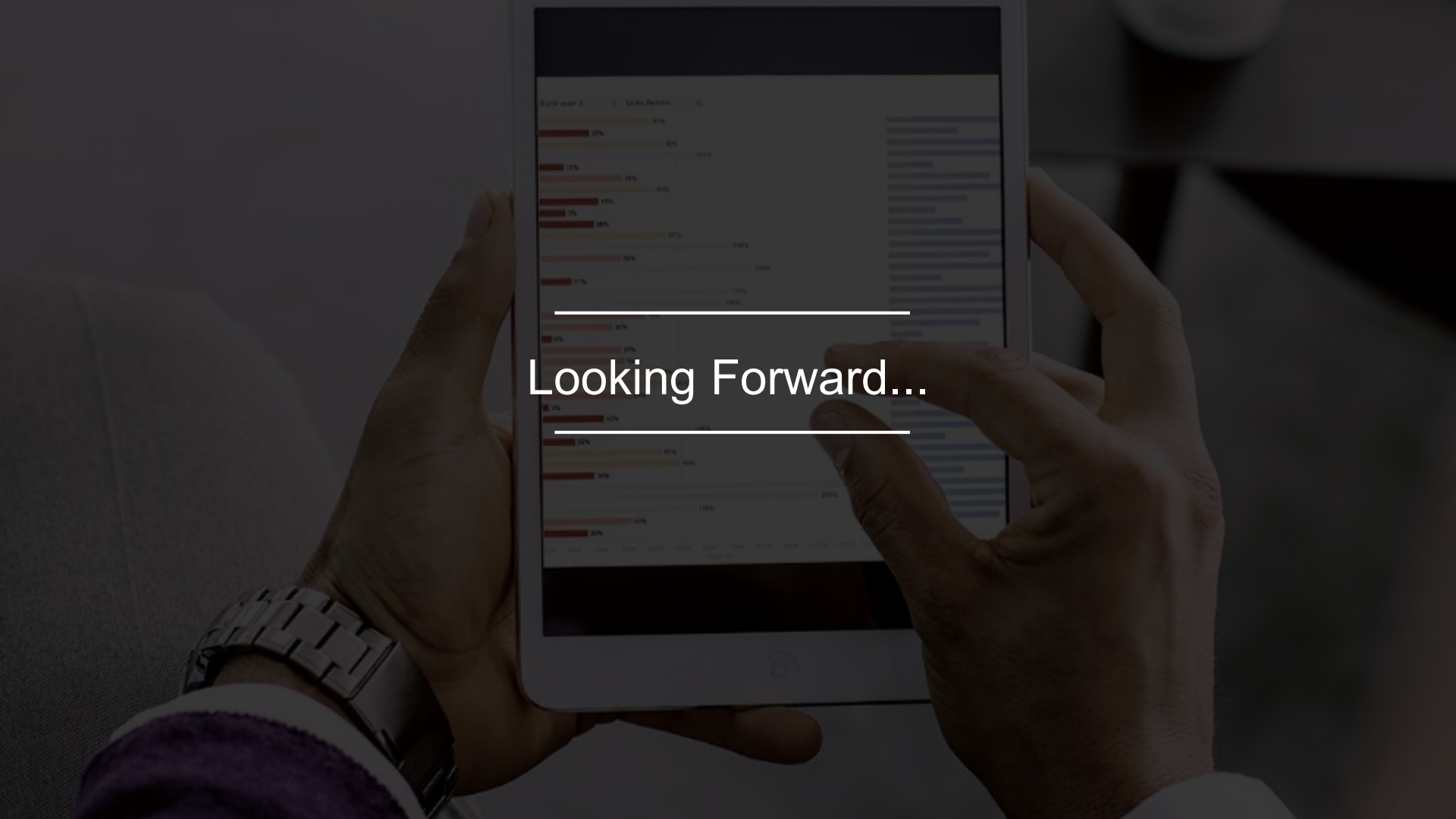
©2019 Grant Thornton Ireland. All rights reserved.

Crypto Assets: Regulatory Challenges



©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™


Looking Forward...

Considerations...

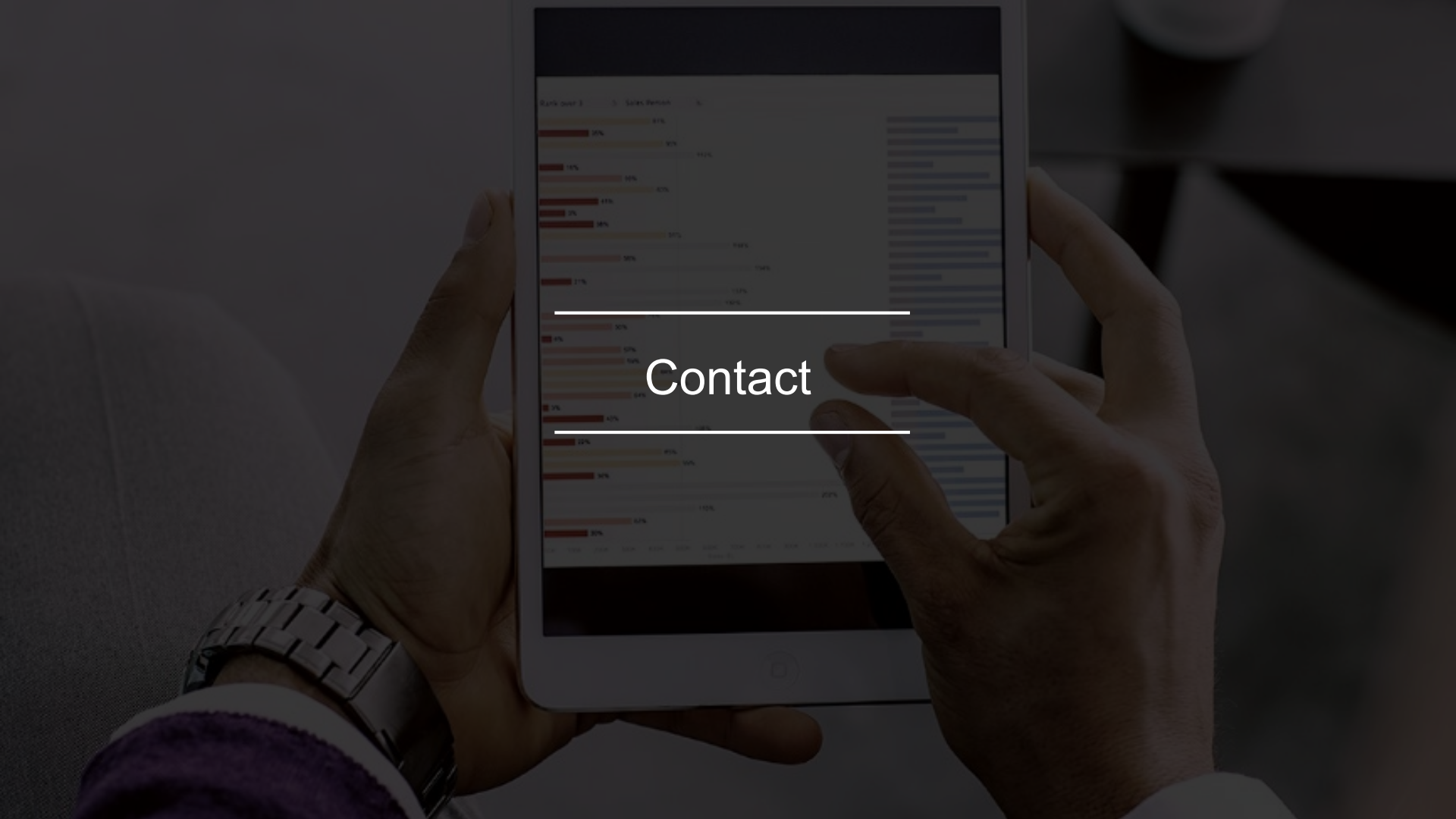
NEW ROLES

CODE DRIVEN

GEORGE ORWELL

©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™



Contact

Contacts

Adrian White
International Blockchain Initiatives
T +34 91 399 41 19
M +34 659 63 94 67
E Adrian.White@es.gt.com

 ©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™

Grant Thornton

An instinct for growth™

Compounding effect of Deep Tech in the Funds Ecosystem

Hesus Inoma

Associate Director - FinTech

©2019 Grant Thornton Ireland. All rights reserved.

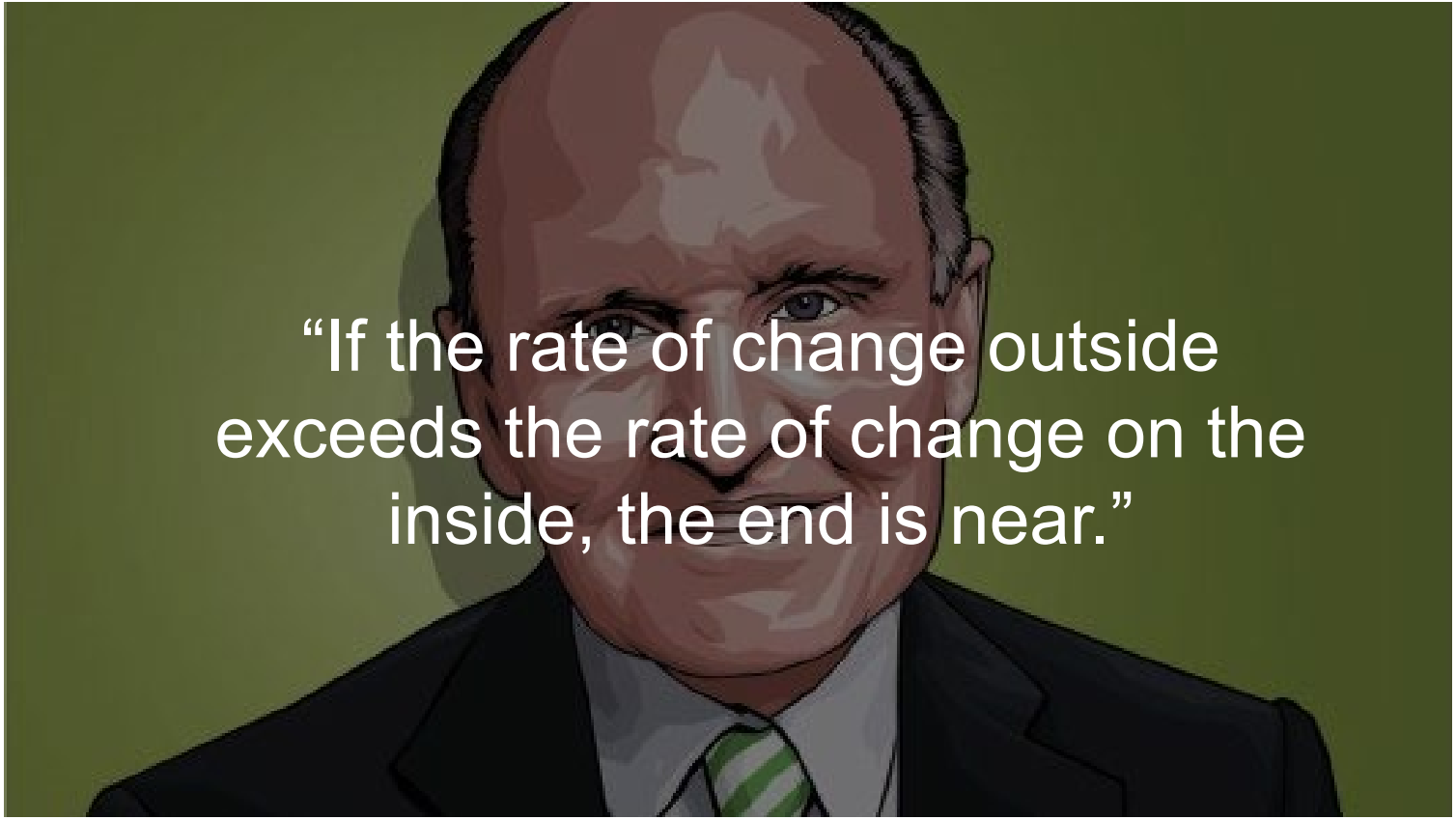
Our Roadmap Today

Compounding Effect of Deep Tech

“New Field” - Connected, Open and Sustainable Finance

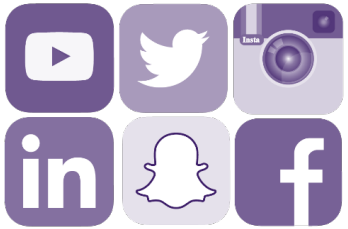
Survival by Embedding Re-Invention into an Organisation

©2019 Grant Thornton Ireland. All rights reserved.



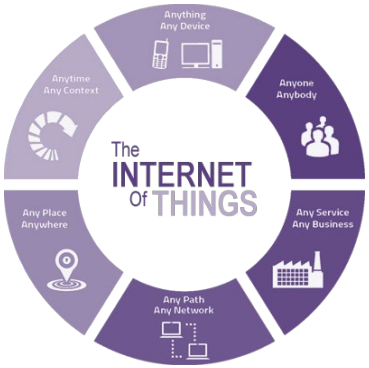
©2019 Grant Thornton Ireland. All rights reserved.

Compounding Effect of Deep Tech – Future Proof Strategy



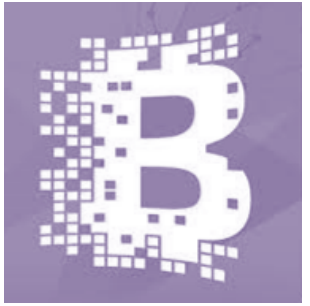
IoT

DLT & Blockchain



Big Data

RPA- ML - AI

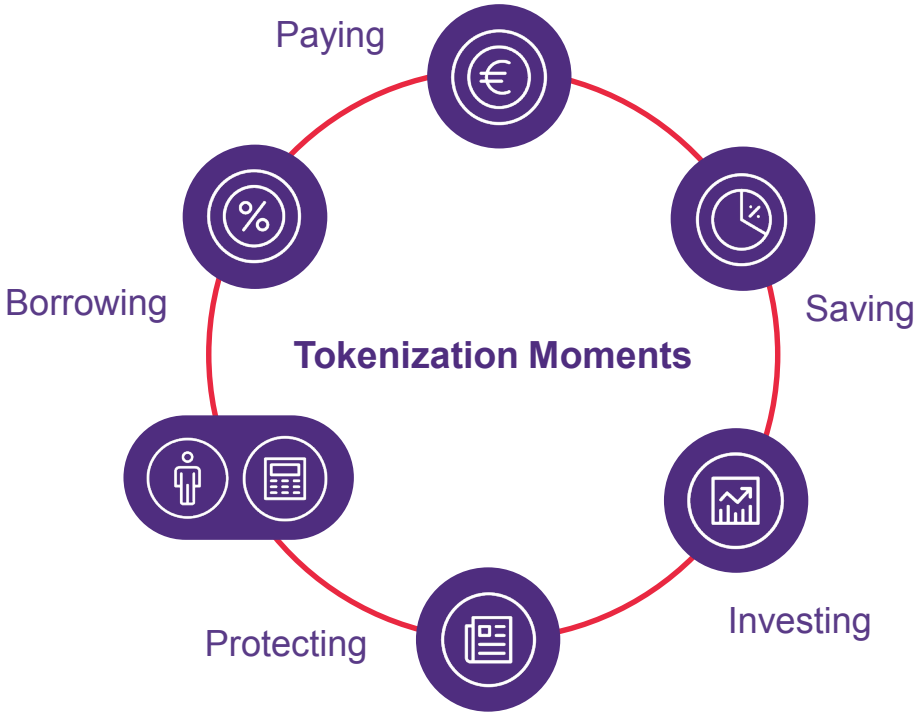


©2019 Grant Thornton Ireland. All rights reserved.

https://www.youtube.com/watch?v=NrmMk1Myrxc&app=desktop

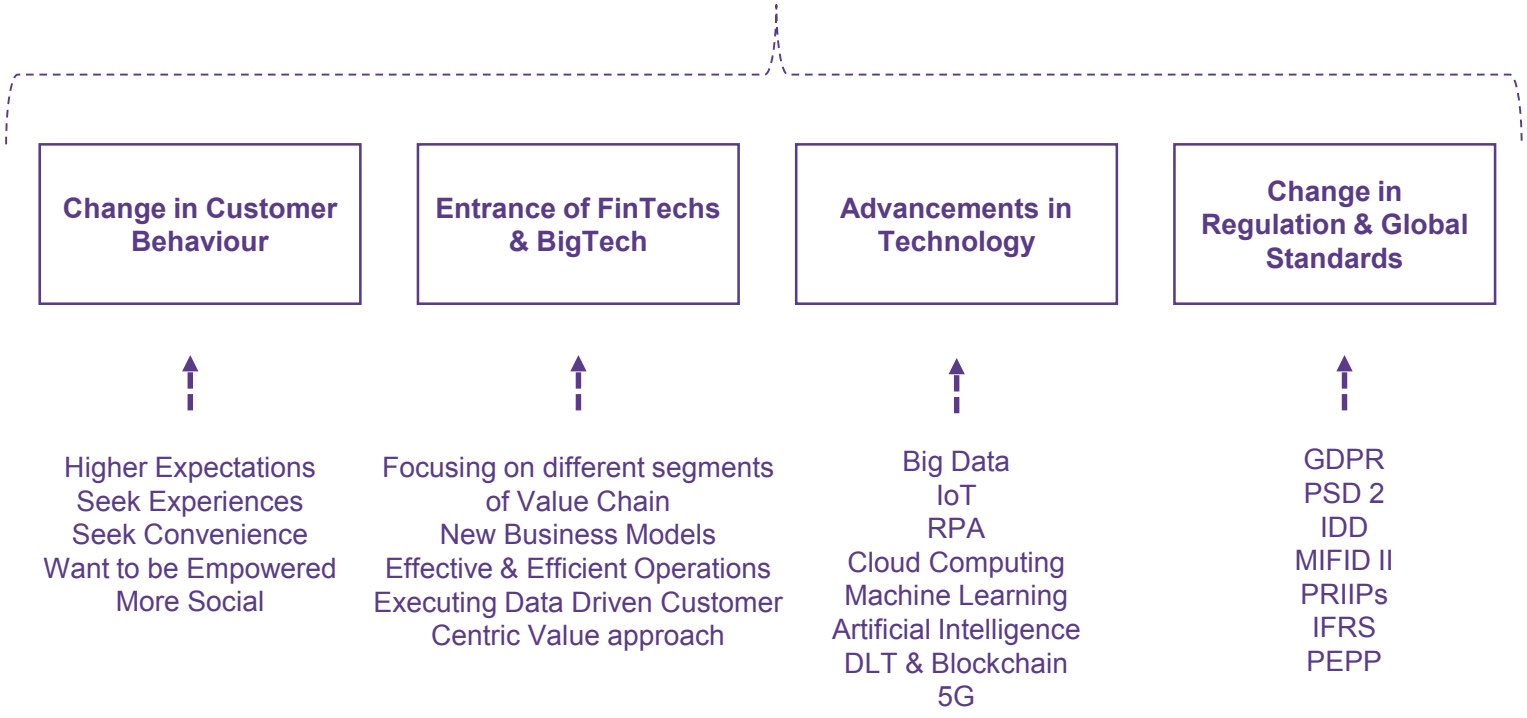
©2019 Grant Thornton Ireland. All rights reserved.

DLT Programmable FS Era



©2019 Grant Thornton Ireland. All rights reserved.

Accelerated Emergence of Open, Connected and Sustainable Finance Infrastructure

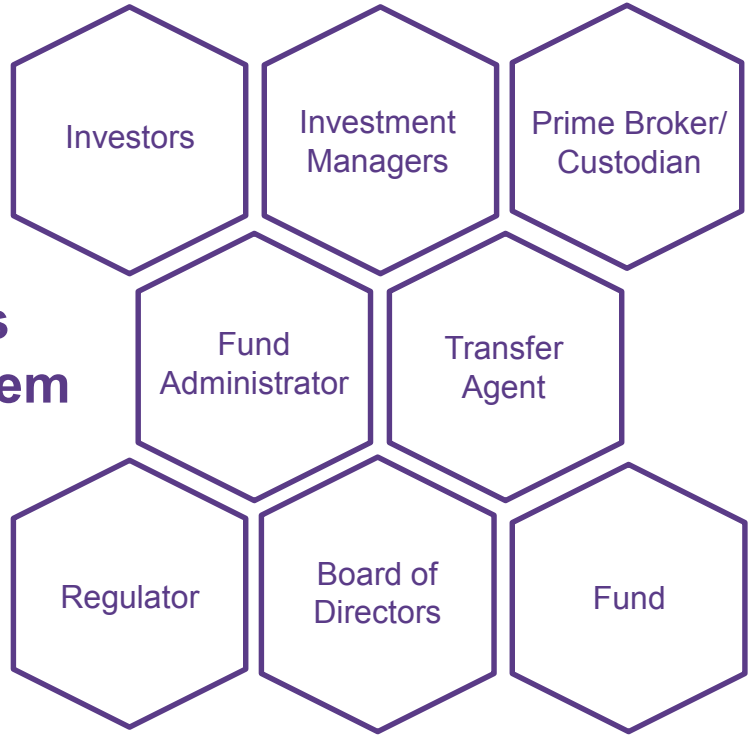


©2019 Grant Thornton Ireland. All rights reserved.

The Funds Landscape will Change

- Real Estate
- Securities
- Data

Funds Ecosystem



©2019 Grant Thornton Ireland. All rights reserved.

Can the Funds Ecosystem be unbundled?

- Real Estate
- Securities
- Data

©2019 Grant Thornton Ireland. All rights reserved.

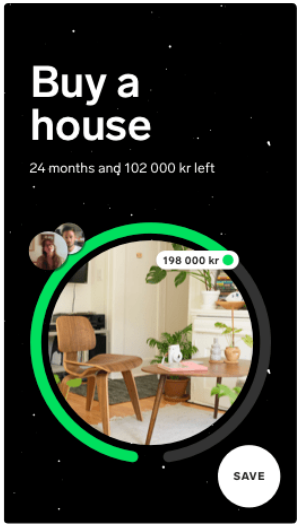
Grant Thornton | An instinct for growth™

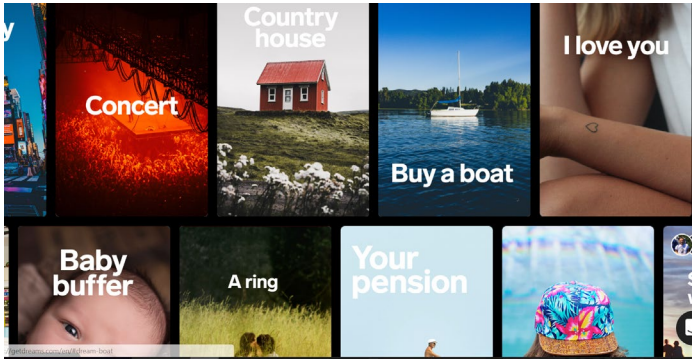
Experience = Brand = Trust = Access

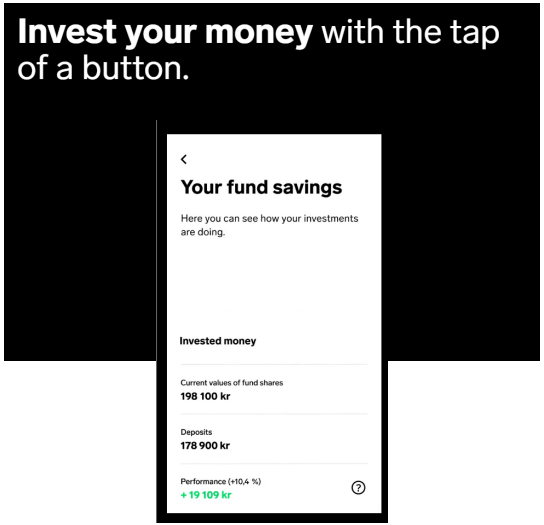
Elegant – Simplistic - Curated Experiences

©2019 Grant Thornton Ireland. All rights reserved.

Dreams – Behavioural (Cognitive)







©2019 Grant Thornton Ireland. All rights reserved.

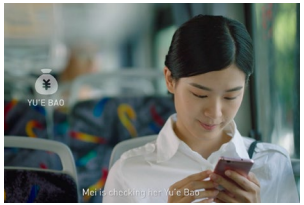
Grant Thornton | An instinct for growth™

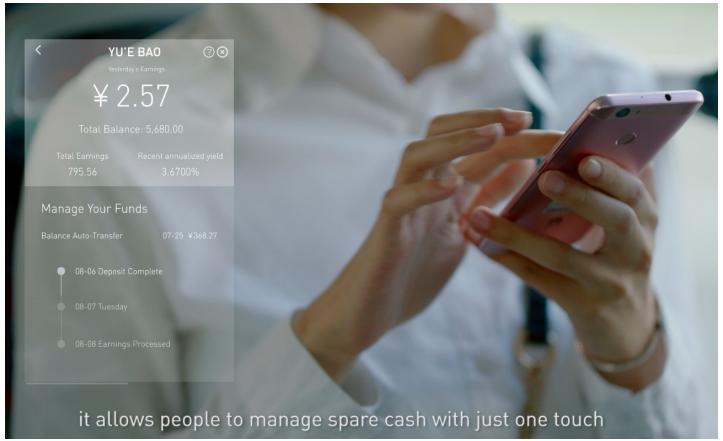
Folio – Themed (Algorithms & Gamification)

©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™

Ant Financial – Leftover Cash Investment (Micro-Investing)





©2019 Grant Thornton Ireland. All rights reserved.

Grant Thornton | An instinct for growth™

Survival by Embedding Re-Invention into your Organisation!

©2019 Grant Thornton Ireland. All rights reserved.

Thank You!

Reach me on:

Associate Director
Financial Services Advisory – FinTech
+353 (0)1 6805 755
hesus.inoma@ie.gt.com

©2019 Grant Thornton Ireland. All rights reserved.

Thank you

©2019 Grant Thornton Ireland. All rights reserved.

© 2019 Grant Thornton Ireland. All rights reserved.

'Grant Thornton' refers to the brand under which the Grant Thornton member firms provide assurance, tax and advisory services to their clients and/or refers to one or more member firms, as the context requires. Grant Thornton International Ltd (GTIL) and the member firms are not a worldwide partnership. GTIL and each member firm is a separate legal entity. Services are delivered by the member firms. GTIL does not provide services to clients. GTIL and its member firms are not agents of, and do not obligate, one another and are not liable for one another's acts or omissions.