به نام خدا

موضوع:

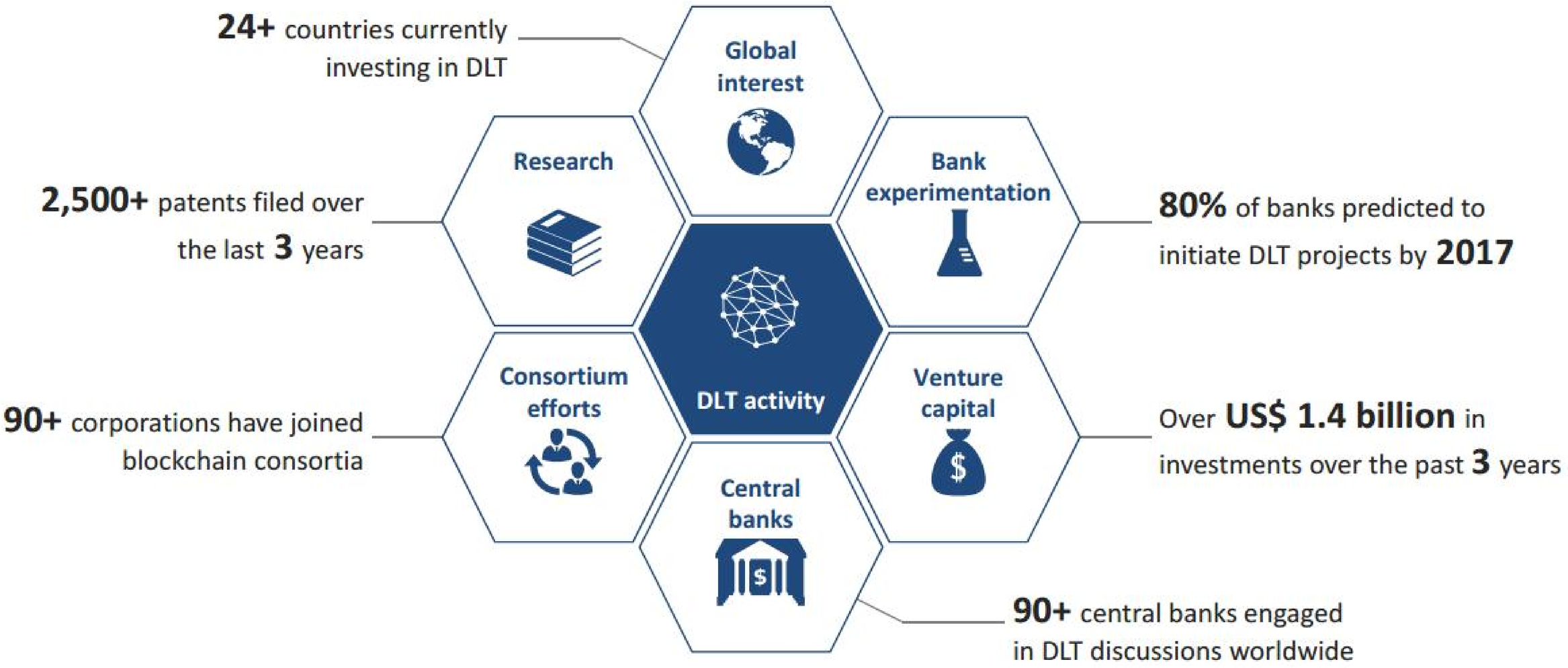
نقش فناوری بلاکچین در شکل گیری ابزارهای مالی در اکوسیستم نوین خدمات مالی

مرداد ۱۳۹۸

The Future of Financial Infrastructure Reports

2015 - June	How disruptive innovations are reshaping the way financial services are structured	WEF in collaboration with Deloitte
2016 - August	A Blueprint for Digital Identity: The Role of Financial Institutions in Building Digital Identity	
2016 - August	**An ambitious look at how Blockchain can reshape financial services**	
2017 - August	Beyond Fintech: A Pragmatic Assessment Of Disruptive Potential In Financial Services	
2018 - August	The New Physics of Financial Services: Understanding how artificial intelligence is transforming the financial ecosystem	

Distributed Ledger Technology (DLT), more commonly called “Blockchain” and Financial Services Ecosystem



Source:
The Future of Financial Infrastructure, *August 2016, pp. 1-130.*

WORLD ECONOMIC FORUM

Implications Of Distributed Ledger Technology (DLT) On The Future Of Financial Services

1. DLT has **great potential to drive simplicity and efficiency** through the establishment of new financial services infrastructure and processes

2. DLT is **not a panacea**; instead it should be viewed as **one of many technologies** that will form the foundation of **next-generation** financial services **infrastructure**

3. Applications of DLT will **differ by use case**, each **leveraging the technology in different ways** for a diverse range of benefits

4. **Digital Identity** is a **critical enabler** to broaden applications to new verticals; **Digital Fiat (legal tender)**, along with other emerging capabilities, has the ability to **amplify benefits**

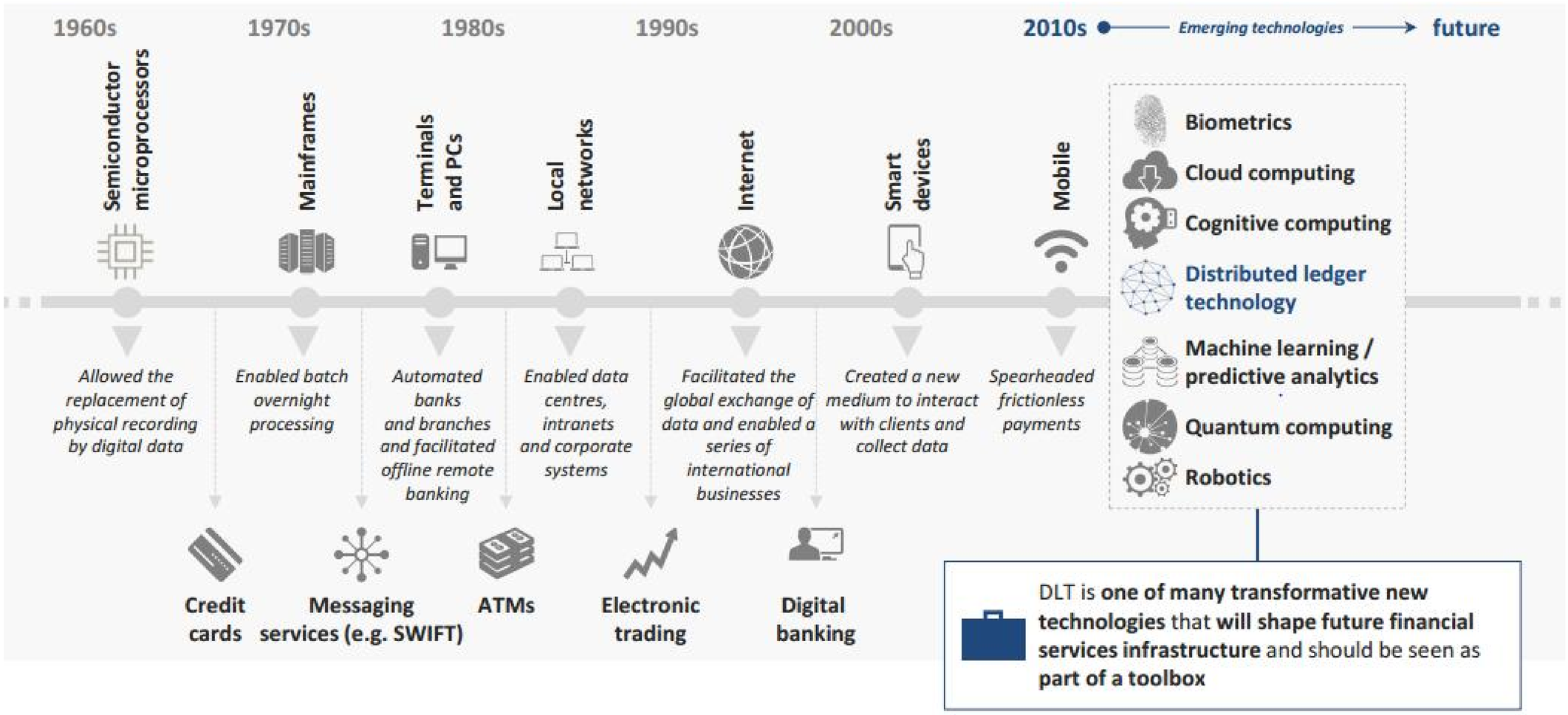
5. The most impactful DLT applications will require **deep collaboration between incumbents, innovators and regulators**, adding complexity and **delaying implementation**

6. New financial services infrastructure built on DLT will **redraw processes** and **call into question orthodoxies** that are foundational to today's business models

Source:
The Future of Financial Infrastructure, *August 2016, pp. 1-130.*

WORLD ECONOMIC FORUM

Distributed ledger technology is not a panacea; instead it should be viewed as one of many technologies that will form the foundation of next-generation financial services infrastructure



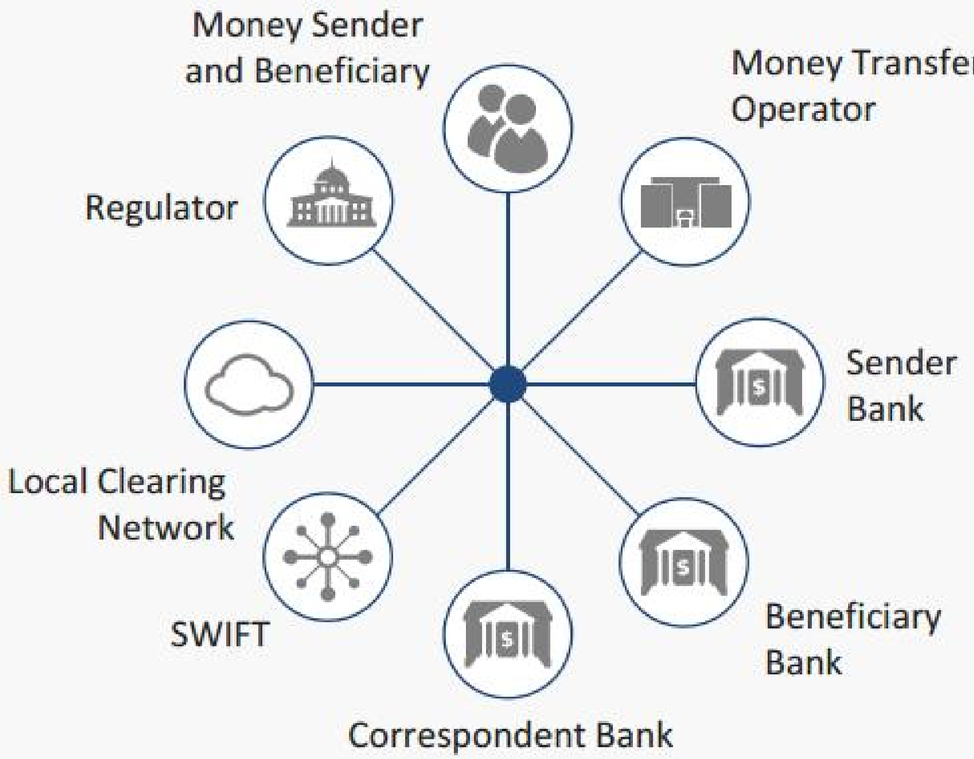
the World Economic Forum's The Future of Financial Services 2015 report,
the implementation of DLT is considered across each function of financial services

Disruptive innovation in Financial Services, June 2015

DLT use cases in Financial Services, July 2016

❶ Global Payments

Key ecosystem stakeholders

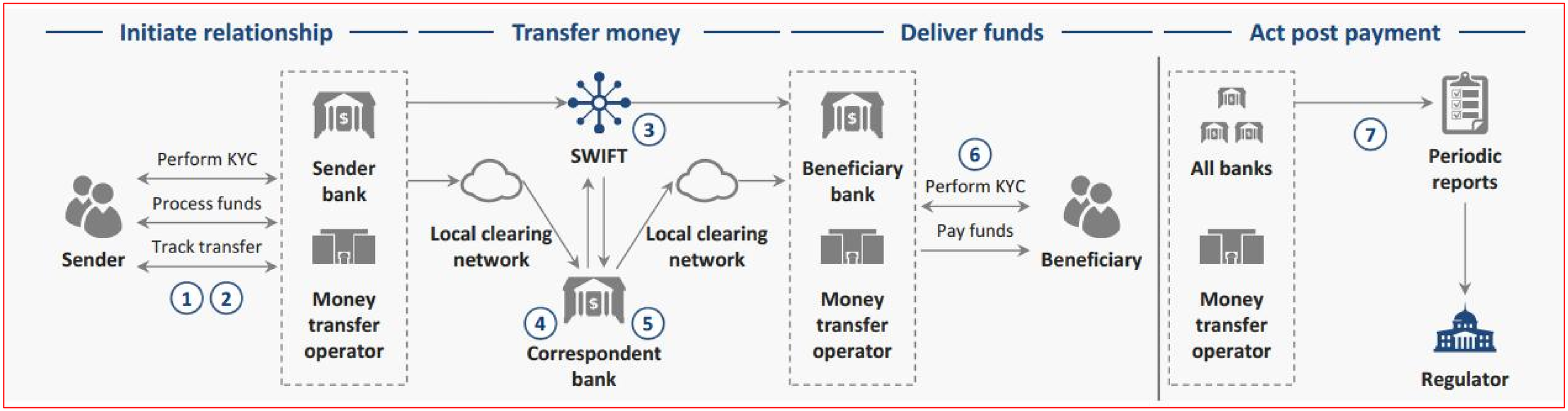


Overview

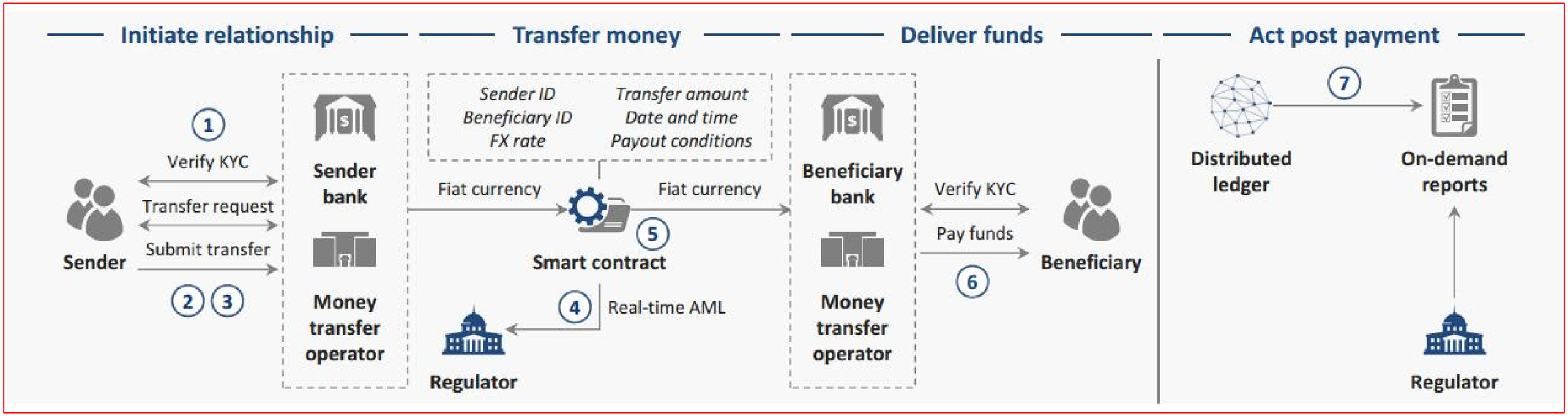
- **Business is growing fast and steadily :** The global payments volume is increasing at an approximate rate of 5% yearly worldwide and will reach an estimated US$ 601 billion in 2016.[1] Revenue is growing in all regions, especially in Asia where China will likely surpass Brazil as the third largest payment area after the United States and the Eurozone[2, 3]
- **Profit margins are high:** The average cost to the final customer (money sender) is 7.68% of the amount transferred
- **Newcomers are arriving:** Non-bank transactions are reaching up to 10% of the total payments volume[2]

The focus of this use case is on low value–high volume payments from an individual/business to an individual via banks or money transfer operators. These transfers are more commonly known as remittances

❶ Global Payments ✦ *Current-state pain points*

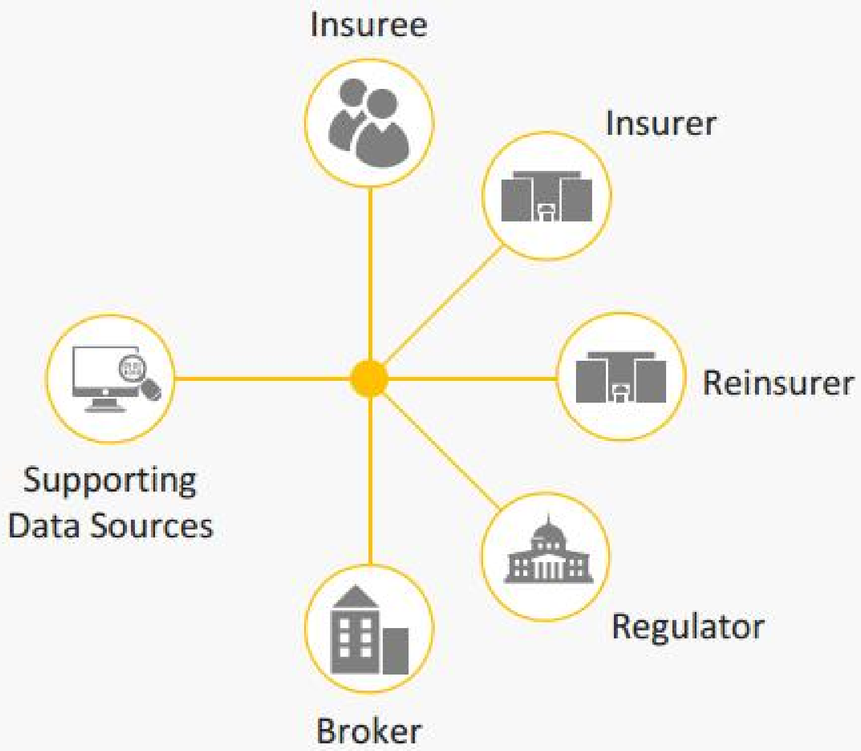


❶ Global Payments ✦ *Future-state process depiction*



❷ P&C Claims Processing (property and casualty)

Key ecosystem stakeholders

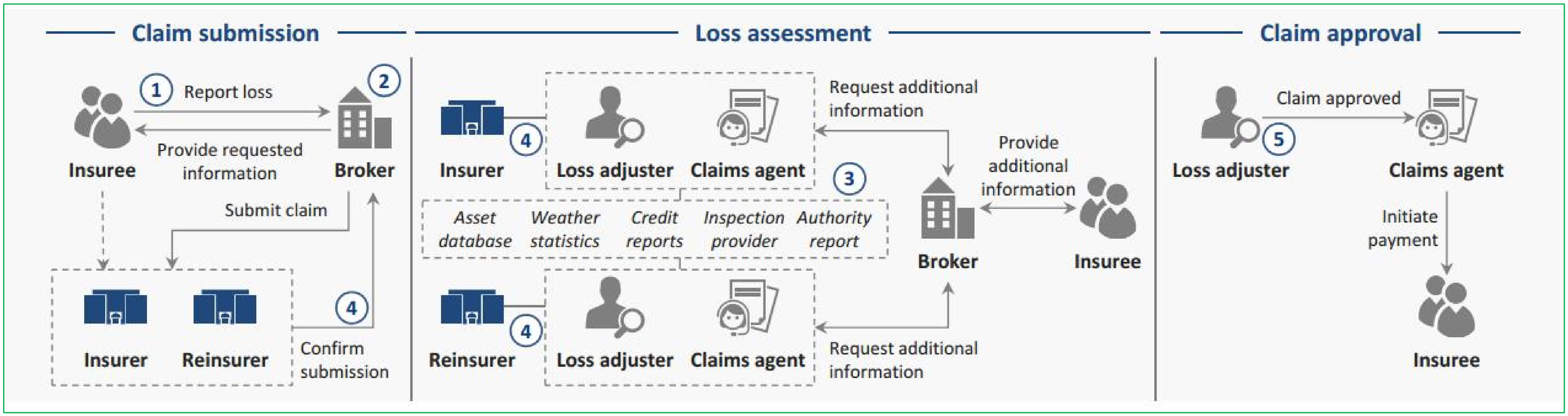


Overview

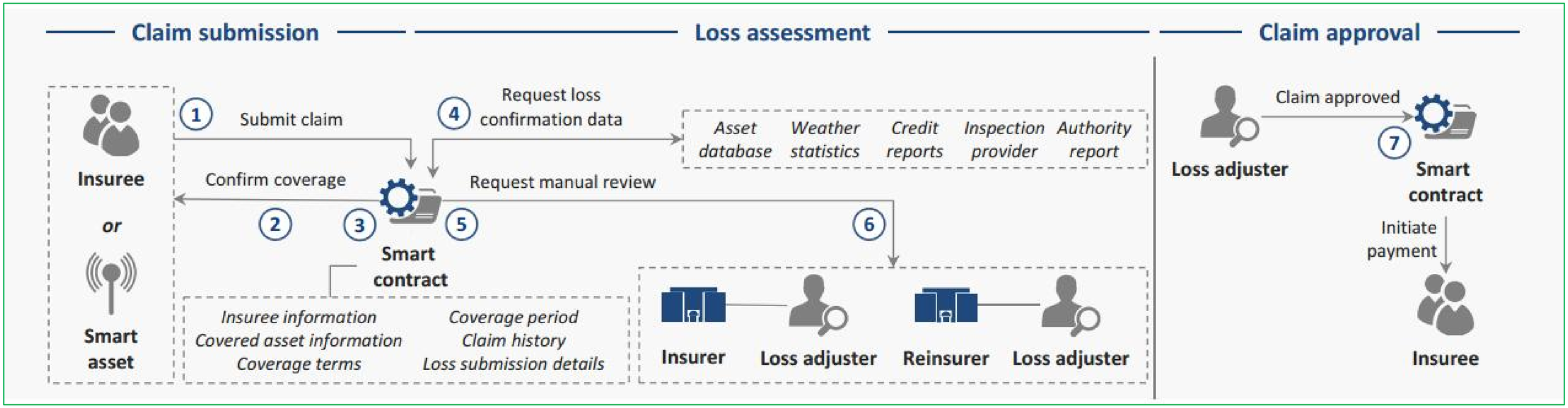
- **P&C is large:** P&C is the second largest segment of insurance worldwide (after life and health) with earned premiums in 2014 of US$ 728.6 billion, growing at 5.1% since 2010, and is set to reach US$ 895.1 billion by 2018[1]
- **Claims processing is a key bottleneck:** For P&C insurance, the tasks associated with claim and loss processing are a major source of friction, accounting for an average of 11% of the overall written premium (revenue)[2]

DLT has the potential to optimize the back-office operational costs of property and casualty insurers. This use case highlights the key opportunities in claims processing for the P&C commercial insurance business

❷ P&C Claims Processing ✦ *Current-state pain points*

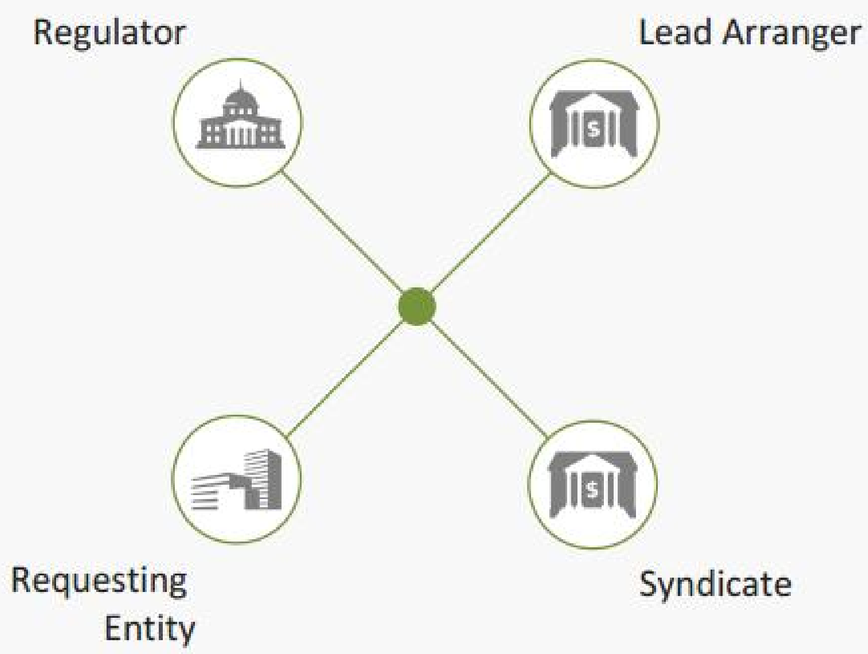


❷ P&C Claims Processing ✦ *Future-state process depiction*



❸ Syndicated Loans

Key ecosystem stakeholders

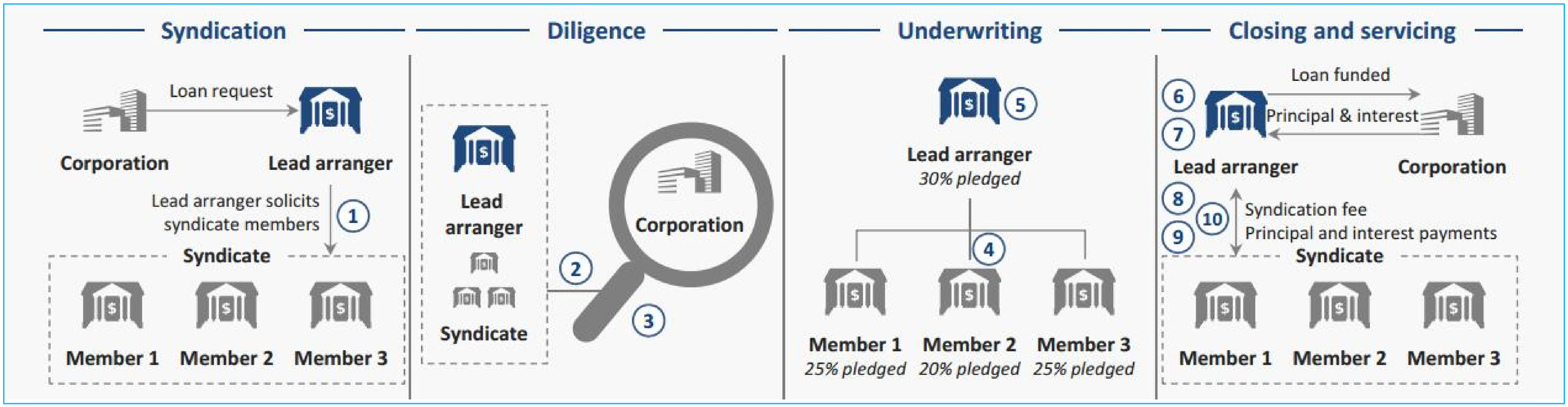


Overview

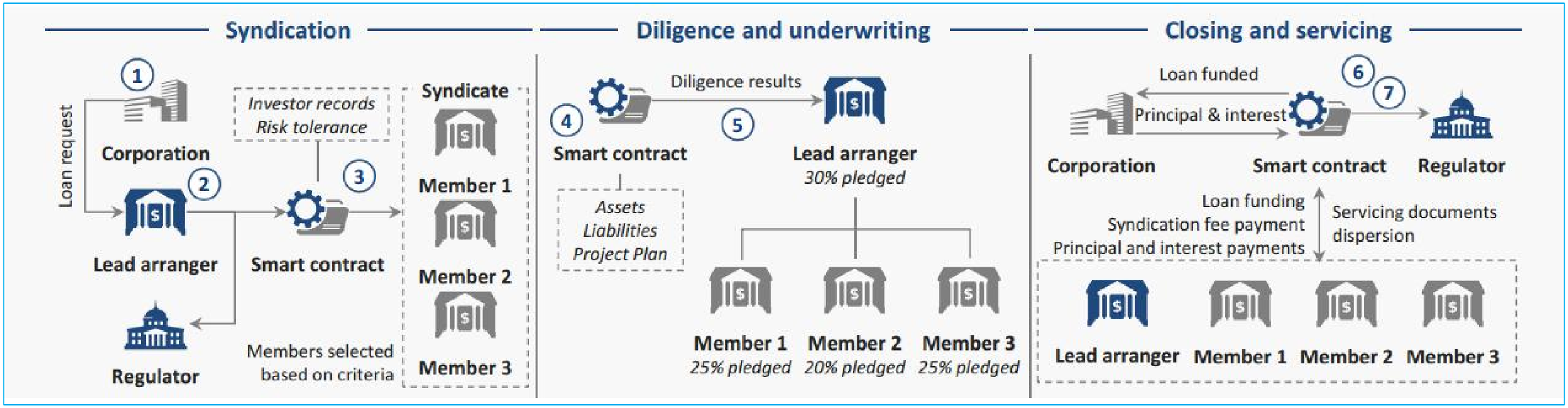
- **The US market is dominated by incumbents:** Four US FIs accounted for more than 50% of the market share (US$ 1,917 billion total volume) in 2014[1]
- **The EMEA market is large:** The total EMEA syndicated loan volume in 2014 amounted to US$ 1,214.5 billion[1]
- **The Asia-Pacific market is growing:** The Asia-Pacific (ex-Japan) syndicated loan volume increased by 22% in 2014, bringing total volume to US$ 524.2 billion[1]
- **The Latin American market is immature:** The total Latin American syndicated loan volume in 2014 amounted to US$ 42.2 billion[1]

DLT has the potential to optimize syndicated loan back-office operations. This use case highlights key opportunities in the end-to-end syndicated loan process

❸ Syndicated Loans ✦ *Current-state pain points*



❸ Syndicated Loans ✦ *Future-state process depiction*



❹ Trade Finance

Key ecosystem stakeholders

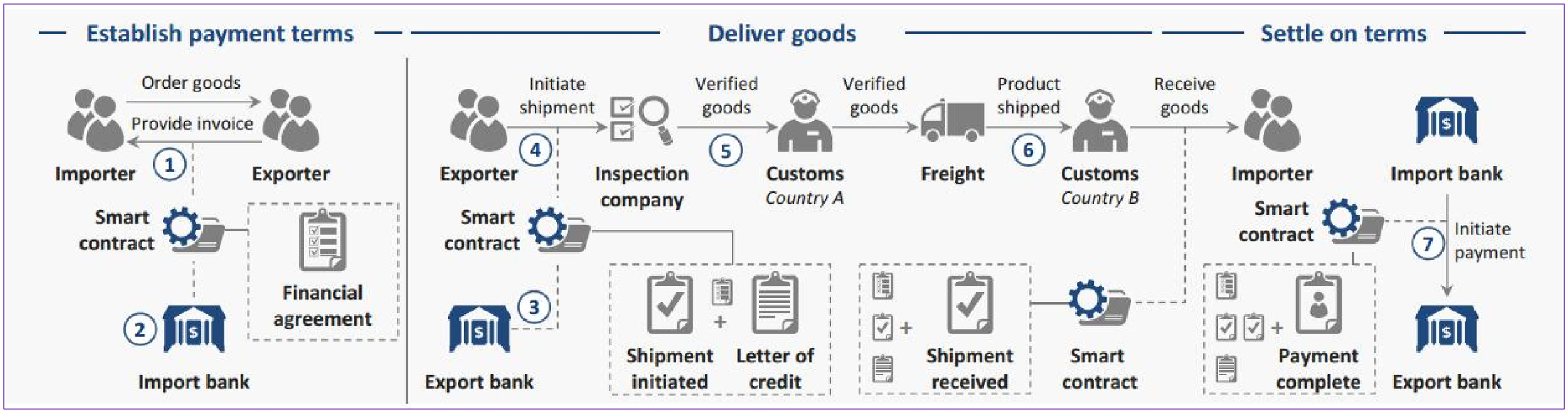
Overview

- **Financing dominates world trade:** Today's trade operations are facilitated through financing. US$ 18 trillion of annual trade transactions involve some form of finance (credit, insurance or guarantee)[1]
- **The trade finance market is large:** Since financing has become such an integral part of trading, the market has grown substantially to more than US$ 10 trillion annually[1]

DLT has the potential to optimize the regulatory and operations costs of trade finance. This use case highlights the key opportunities in the end-to-end trade finance process

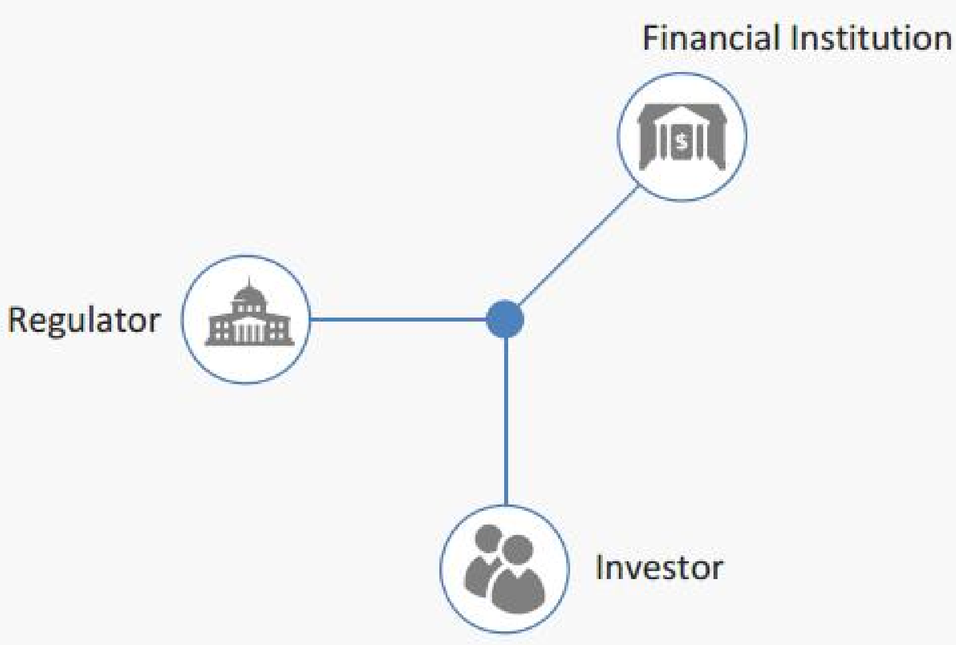
❹ Trade Finance ✦ *Current-state pain points*

❹ Trade Finance ✦ *Future-state process depiction*



❺ Contingent Convertible ("CoCo") Bonds

Key ecosystem stakeholders

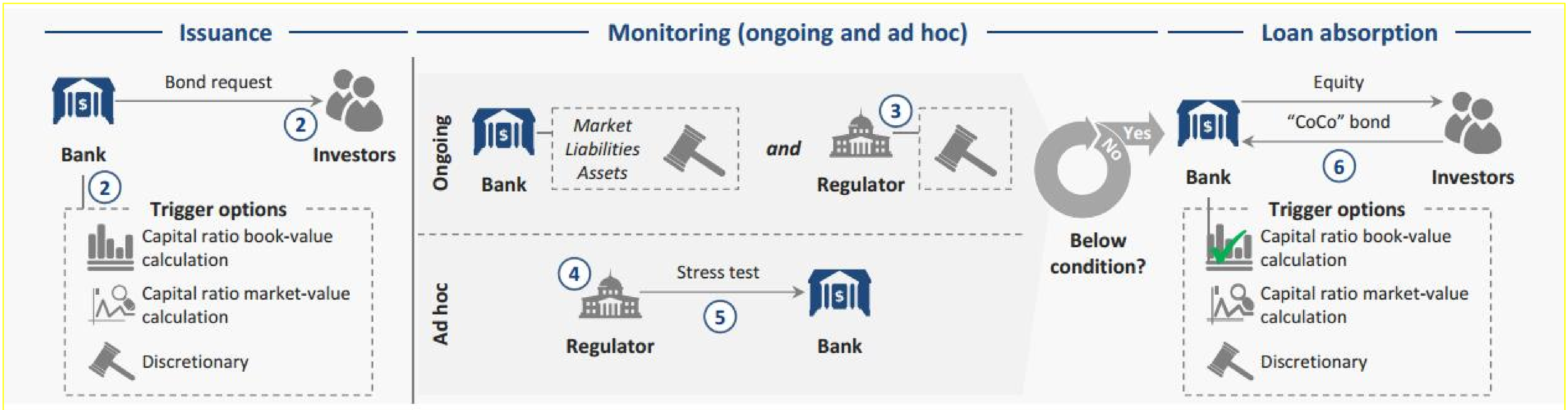


Overview

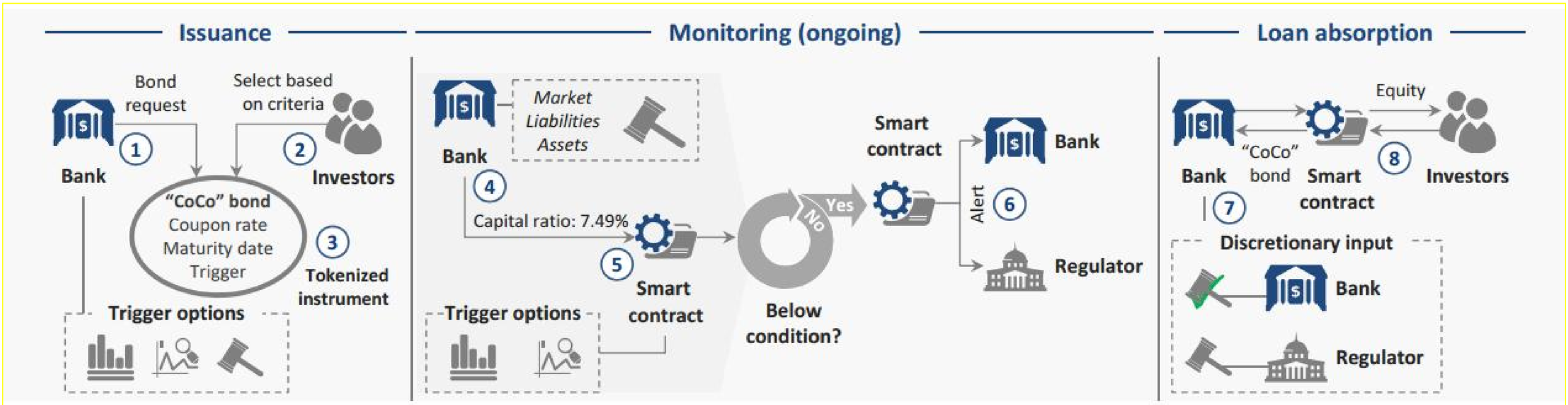
- **"CoCo" bond issuance has flatlined:** After experiencing continued double-digit market growth since 2013, issuance flatlined in European markets in 2015
- **A primary concern has been uncertainty:** After being developed as a mechanism to reduce the need for bailouts during financial crises, no "CoCo" bonds have required conversion to equity, making the market largely untested so far
- **Another key concern is the extreme volatility of these instruments:** While yields have been historically high, recent events have had significant impact. High market volatility, fuelled by regulator stress tests in 2016, eliminated all yields within six weeks

DLT has the potential to embed regulation into business processes. This use case highlights key opportunities to reduce volatility and uncertainty regarding this instrument and potentially to increase "CoCo" bond issuance in the future

❺ Contingent Convertible ("CoCo") Bonds ✦ *Current-state pain points*

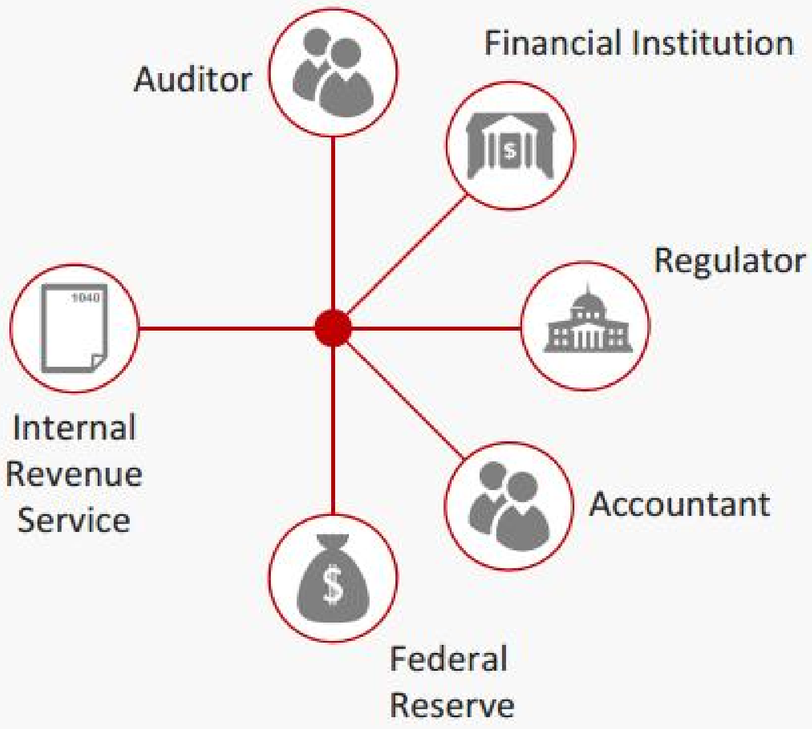


❺ Contingent Convertible ("CoCo") Bonds ✦ *Future-state process depiction*



❻ Investment Management: Automated Compliance

Key ecosystem stakeholders

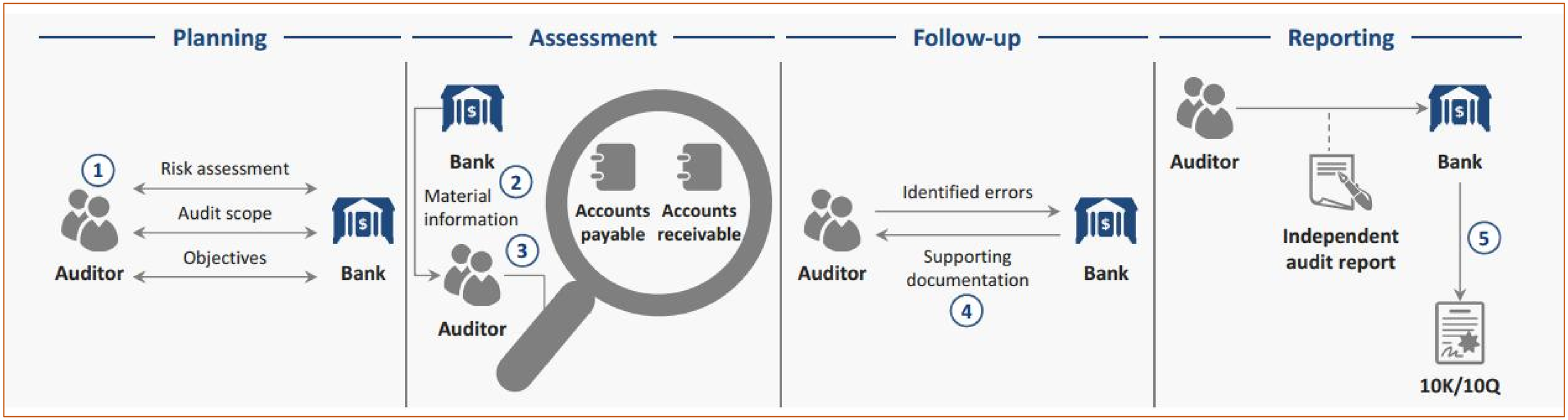


Overview

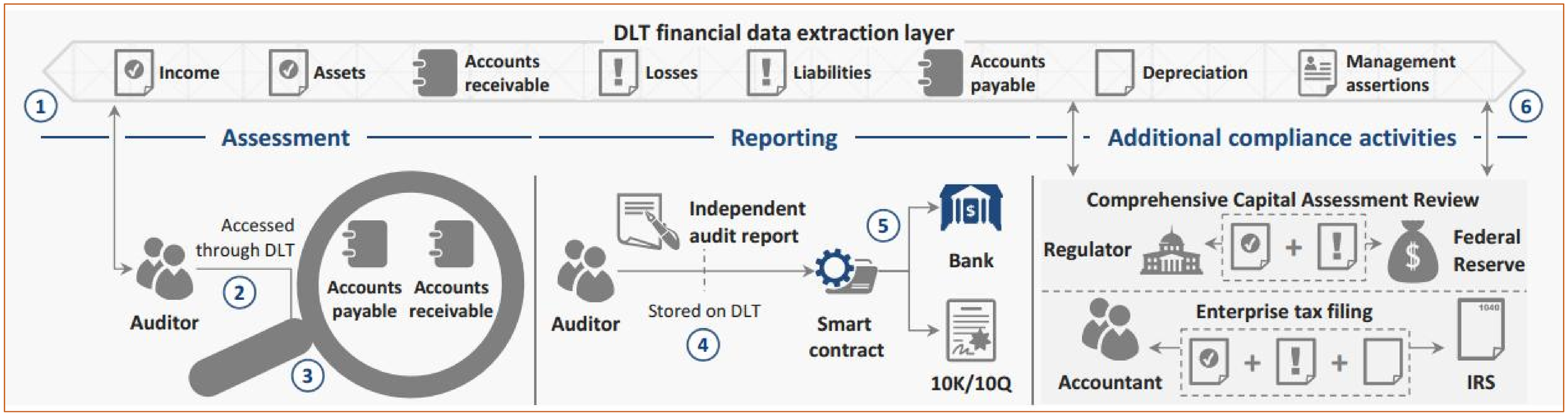
- **Compliance costs are high:** Compliance activities are a major portion of the cost overhead FIs deal with. In 2014 the largest FIs spent US$ 4 billion in compliance-related activities[1]
- **Auditing costs are high:** Auditing represents one of the largest annual compliance costs for FIs. On average, public companies paid in excess of US$ 7.1 million in audit fees in 2013[2]

DLT has the potential to increase operational efficiencies and provide regulators with enhanced enforcement tools. This use case focuses on the key opportunities in the financial statement audit process to highlight an automated compliance solution

❻ Automated Compliance ✦ *Current-state pain points*

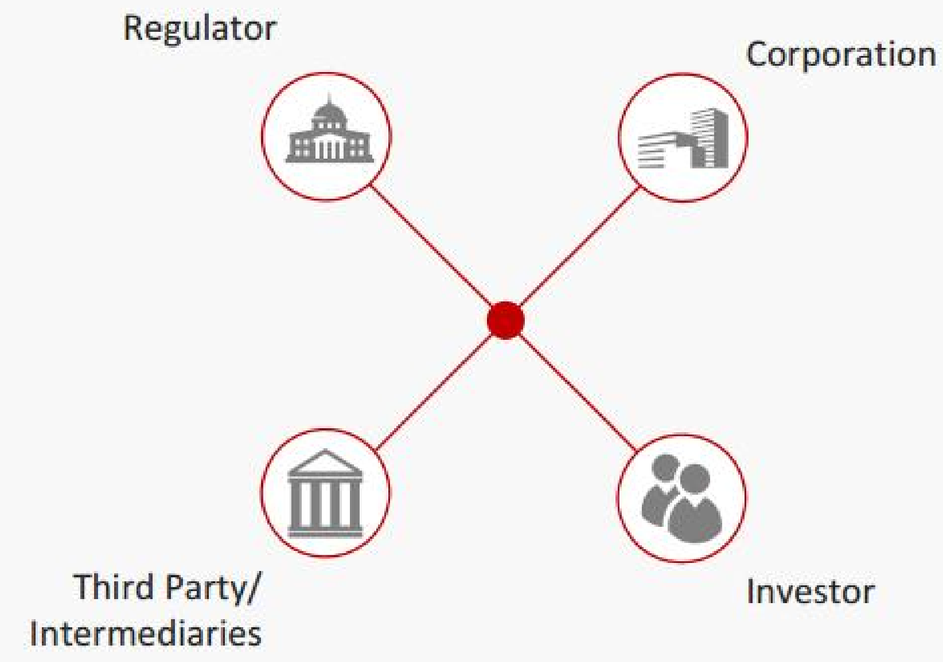


❻ Automated Compliance ✦ *Future-state process depiction*



❼ Investment Management: Proxy Voting

Key ecosystem stakeholders

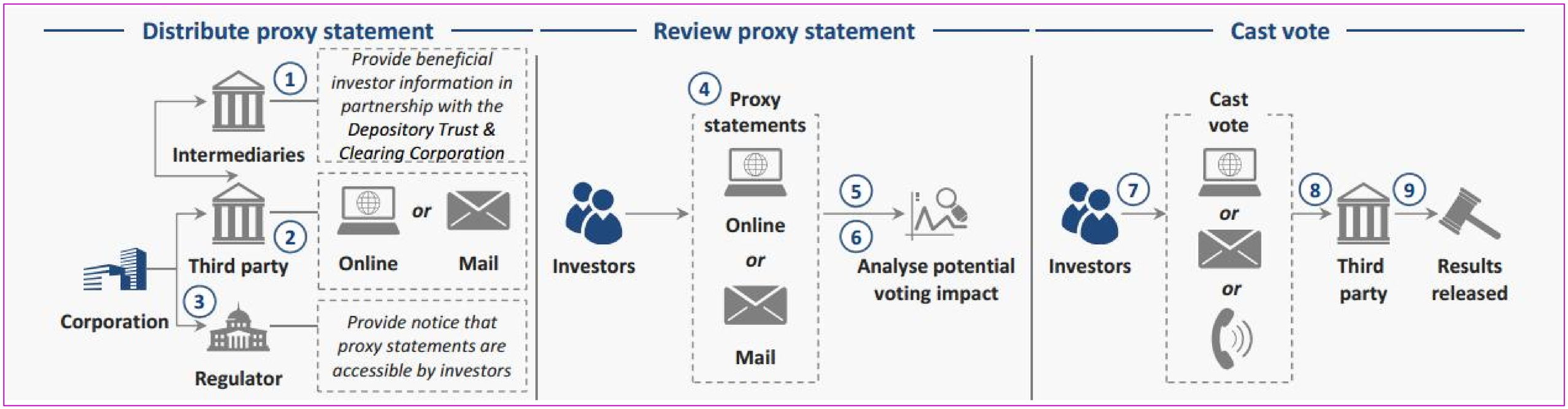


Overview

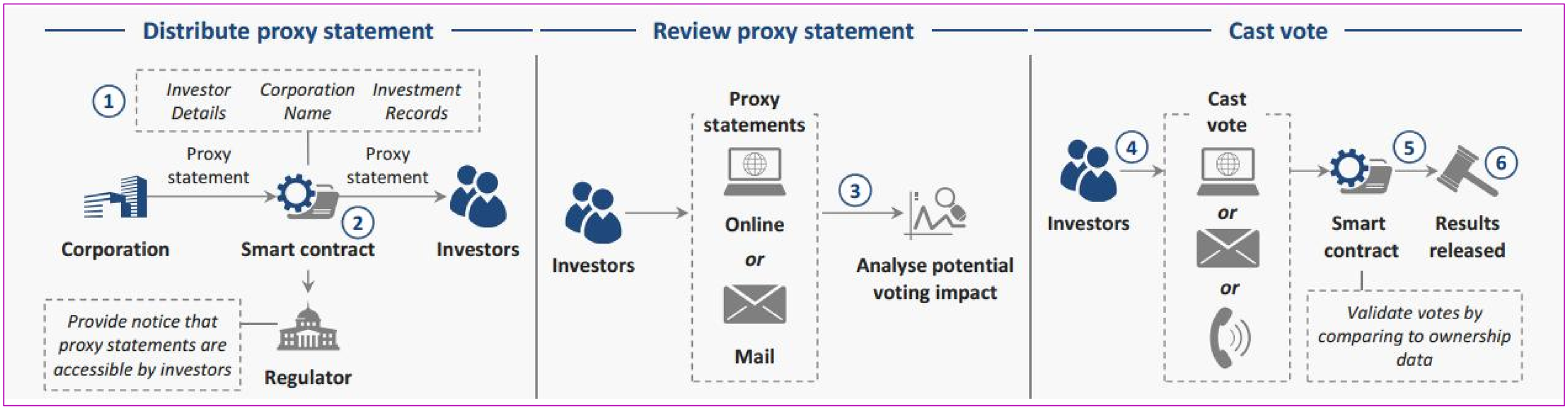
- **Retail investor participation is low compared to institutional investor participation:** On average, institutions voted 83% of their shares, while retail investors voted 28% of their shares[1]
- **As a result, significant participation in elections is lacking each year:** From 1 July to 31 December 2015, approximately 24 billion shares remained "un-voted" as a result of this turnout[1]
- **Efforts are being launched to improve retail participation:** As investor activism strengthens, leadership is recognizing the need to engage all shareholders throughout the voting process

DLT has the potential to transfer value irrefutably. This use case highlights the key opportunities to improve retail investor participation in proxy voting

❼ Investment Management: Proxy Voting ✦ *Current-state pain points*

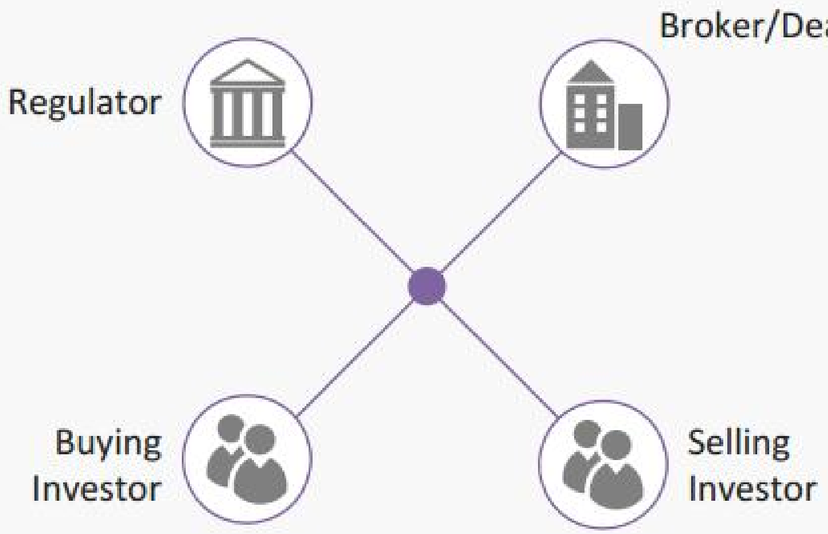


❼ Investment Management: Proxy Voting ✦ *Future-state process depiction*



❽ Asset Rehypothecation

Key ecosystem stakeholders

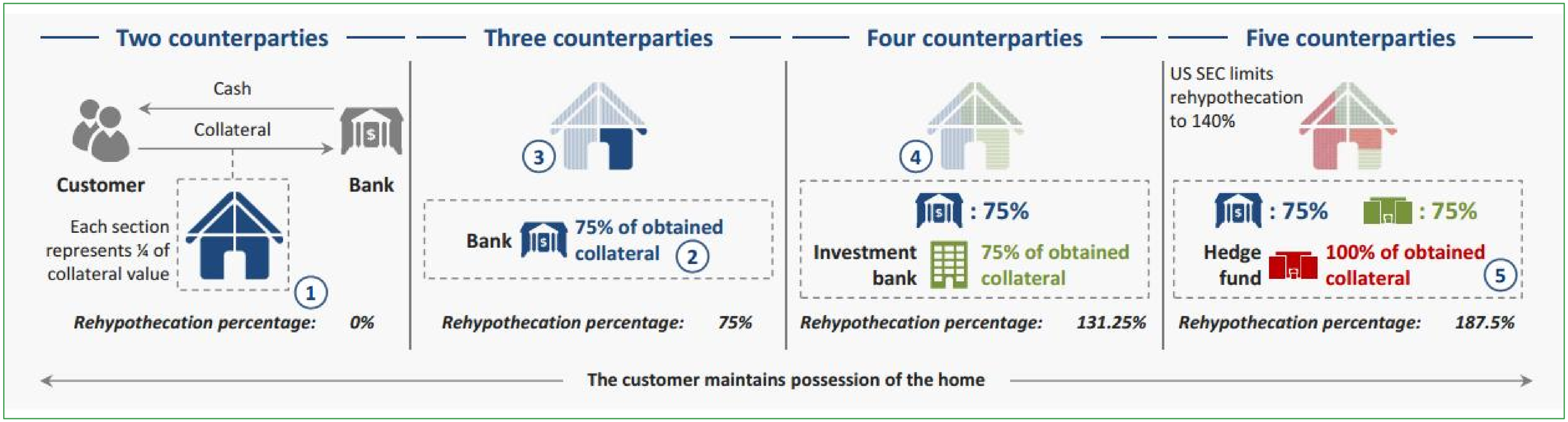


Overview

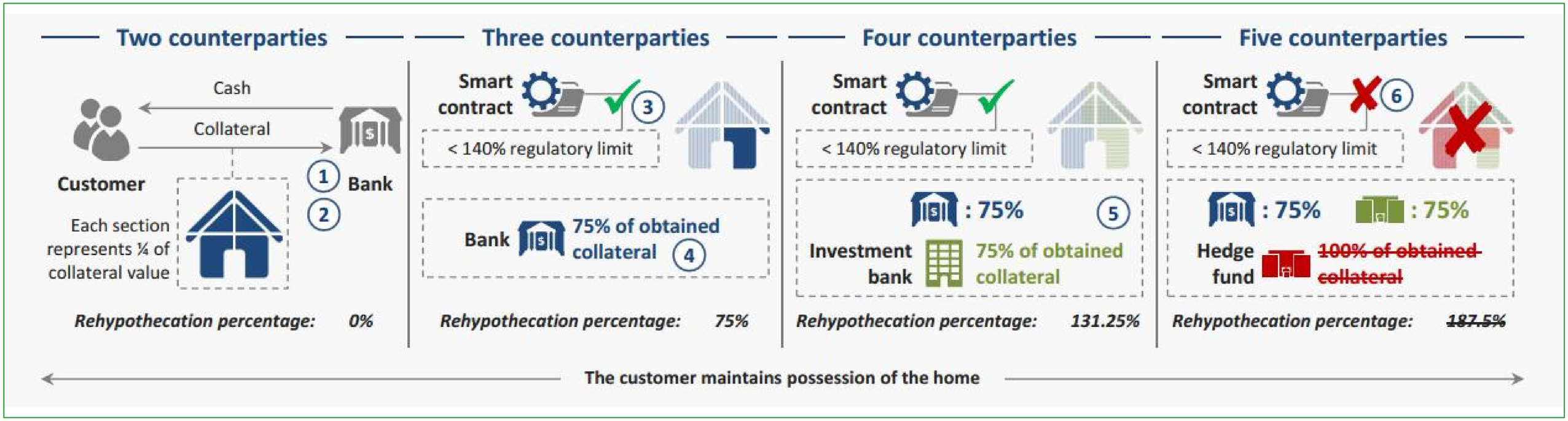
- **The secondary trading market is large:** Secondary trading has become an extremely common practice, driving its volume in the US loan market to US$ 628 billion in 2014[1]
- **Secondary market trading is increasing:** Although the secondary trading market is already substantially large, it continues to grow; between 2013 and 2014 secondary trading volume increased by 21%[1]

DLT has the potential to optimize the regulatory components of asset rehypothecation. This use case highlights the key opportunities to improve information transfer in the end-to-end broker/dealer process

❽ Asset Rehypothecation ✦ *Current-state pain points*

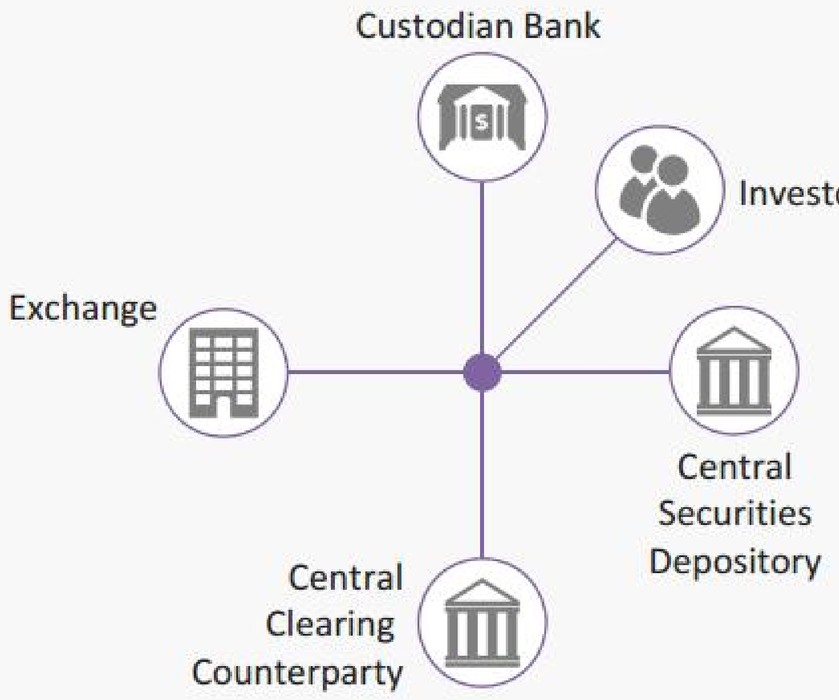


❽ Asset Rehypothecation ✦ *Future-state process depiction*



❾ Equity Post-Trade

Key ecosystem stakeholders

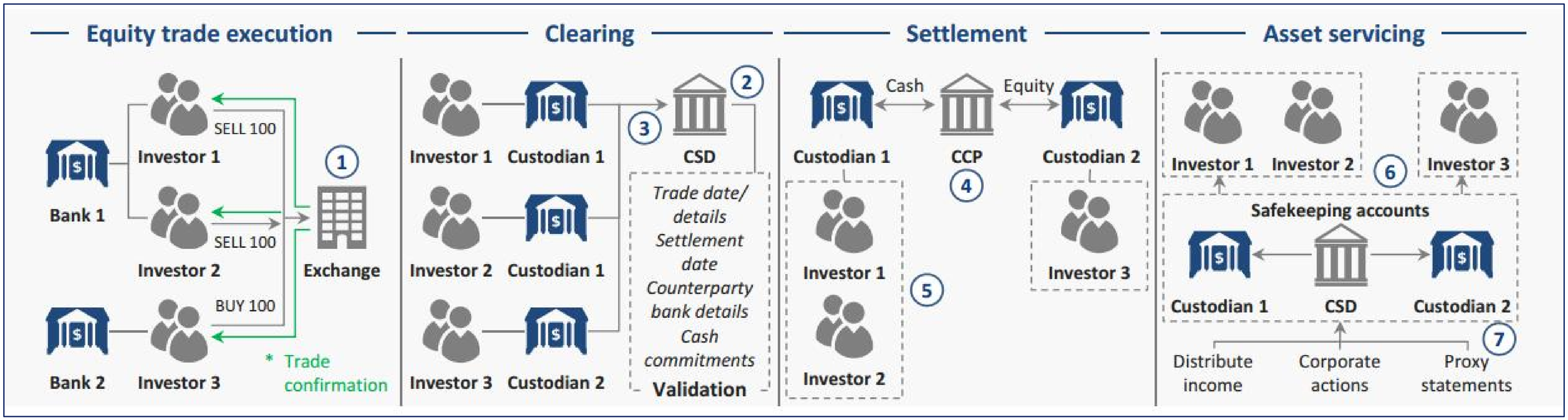


Overview

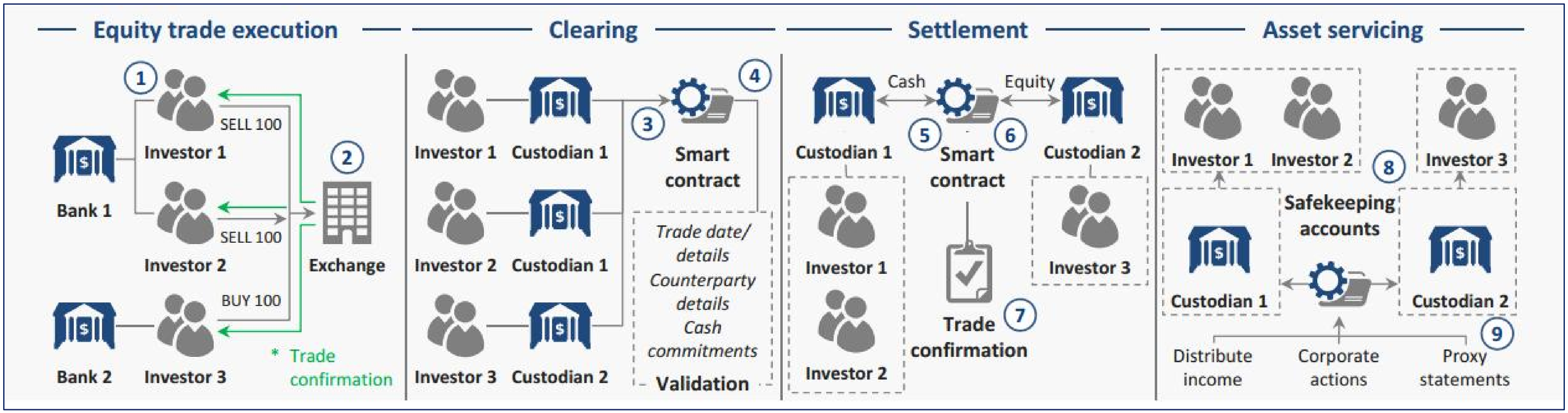
- **Significant volume exists within the equity market:** The NYSE, for example, processes millions of trades and billions of shares each day[1]
- **Processes are time-intensive:** Following confirmation of a trade, post-trade settlement and clearing processes take anywhere from one to three days to complete (depending on the market)
- **Intermediaries are costly:** Within the United States, banks, central agency bodies and intermediaries generate approximately US$ 9 billion in various post-trade activities[2]

DLT has the potential to improve the efficiency of asset transfer. This use case highlights the key opportunities to streamline clearing and settlement processes in cash equities

❾ Equity Post-Trade ✦ *Current-state pain points*



❾ Equity Post-Trade ✦ *Future-state process depiction*



Thanks for your notice

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