



## **Luxembourg, the place to be for digital assets**

An insight into Luxembourg's Blockchain  
Law fund tokenization opportunities

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# Introduction

In recent years, the EU has defined and deployed an EU-wide legal and regulatory framework for digital assets through initiatives like the Markets in Crypto-Assets (MiCA) Regulation<sup>1</sup> (July 2024 and January 2025) and the DLT Pilot Regime<sup>2</sup> (March 2023).

Moreover, some pioneering Member States have designed their own legal frameworks for digital assets. In 2019, Luxembourg was among the first countries to view their potential, introducing the so-called Blockchain Law I.

With the recent vote of the Blockchain Law IV, the country offers an extensive and innovative legal ecosystem for digital assets across the various stages of the security value chain, including issuance, registration, listing, distribution, settlement, custody and security financing.

This article provides insight into Blockchain Law IV's new business opportunities for the fund industry, including an example of a typical transfer agent model and its streamlining possibilities for fund distribution to retail investors.

1. MiCA's regulatory framework provides legal clarity and consumer protection for crypto-assets and their service providers.
2. The DLT Pilot Regime's regulatory framework allows market participants to test and develop distributed ledger technology (DLT) solutions for financial markets under a controlled, temporary regulatory sandbox.

# Luxembourg blockchain laws: An overview of the legal digital ecosystem

Luxembourg is a world leader in establishing a clear legal framework for digital asset issuance, distribution and custody services. This framework aims to attract major financial institutions, market infrastructures and global investors to launch new solutions that leverage distributed ledger technology (DLT) and tokenized financial instruments.

## **Blockchain Laws I, II and III: Building the foundation of a new digital asset value chain for debt securities**

### • **Blockchain Law I (March 2019)**

formally recognized secured electronic registration mechanisms like DLT for securities registration and transfer. The law confirmed that transfers recorded via DLT are legally recognized book transfers between securities accounts<sup>3</sup> and reaffirmed that maintaining securities accounts on DLT does not affect the underlying securities' fungibility.

### • **Blockchain Law II (January 2021)**

amended the Law of 6 April 2013 on dematerialized securities ("2013 dematerialized law"), enabling the maintenance of securities issuance accounts<sup>4</sup>—held with a settlement institution or central account keeper<sup>5</sup>

—and the securities registered in it using DLT. This development facilitated the direct issuance and registration of digital securities via DLT. The law also empowered any credit institution or investment firm authorized in the EEA<sup>6</sup> to act as a central account keeper, but only for unlisted debt securities.

### • **Blockchain Law III (March 2023)**

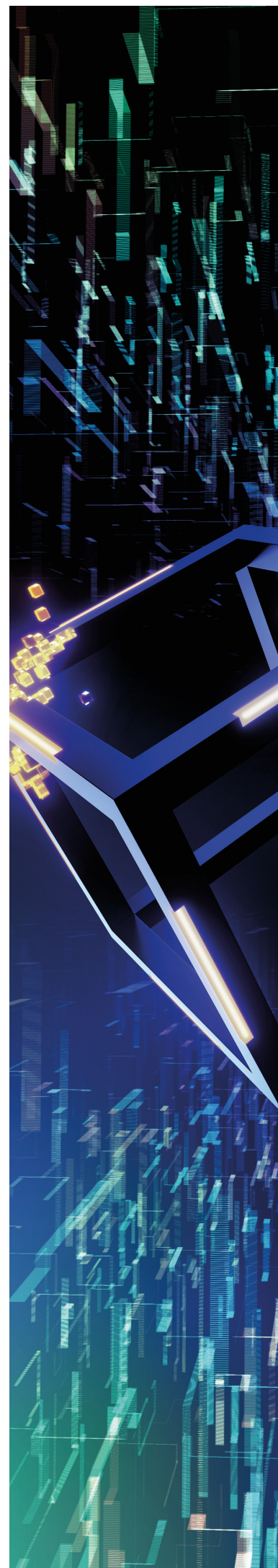
confirmed that financial instruments booked in securities accounts held on DLT qualify as financial instruments within the meaning of the law of 5 August 2005 on financial collateral arrangements, as amended ("Law of 2005"). This allowed financial collateral arrangements (like pledges) over these financial instruments to benefit from the Law of 2005's full protection. It also aligned Luxembourg's national framework with the DLT Pilot Regime.

3. Under the 2013 dematerialized law, this is an account maintained by a settlement organization, a central account keeper or an account keeper to which securities may be credited or debited. The securities issuance account held by a settlement organization, a central account keeper or a control agent does not constitute a securities account.

4. Under the 2013 dematerialized law, these are accounts held with a settlement institution, a central account keeper or a control agent in which an issuer's dematerialized securities must exclusively be recorded. This account may be maintained and securities may be registered within or through secured electronic registration mechanisms, including distributed electronic ledgers or databases.

5. Under the 2013 dematerialized law, this is any person authorized by the CSSF as a central account keeper according to the provisions of the Law of 5 April 1993 on the financial sector, as amended.

6. Under specific requirements.





### Blockchain IV: Expanding new opportunities for equity (fund) shares

- **Blockchain Law IV**, adopted by the Luxembourg Parliament on 20 December 2024, extends the previous laws' scope to include equity securities. Previously focused on unlisted debt instruments, the regime now also enables any EEA-authorized credit institution or investment firm<sup>7</sup> to act as a central account keeper for unlisted equity securities (including fund units), unlocking new possibilities for unlisted equity issuance and record-keeping.

Moreover, a core innovation is the introduction of the control agent,<sup>8</sup> an alternative to the central account keeper model. The latter involves a two-tier custody chain where custodians—i.e., account keepers—interested in holding the securities must open a custody account with the central account keeper. With the new control agent role, securities can be booked directly with a custodian that does not hold a custody account with the control agent for sub-custody purposes.

This alternative split-role system, which divides the central account keeper's traditional responsibilities between the control agent and the account keeper, paves the way for new custody frameworks. Combined with the use of DLT and the possibility for the control agent to be an EEA credit institution or investment firm, this new arrangement enables innovative business and operating models.

#### A. The control agent maintaining the securities issuance account bears no responsibility for performing know-your-customer (KYC) on securities account holders

As the control agent's role can be limited to maintaining the securities issuance account, it is not obliged to perform KYC checks on the securities accounts held by the account keepers, since it does not have custody of

these accounts. This setup benefits new control agents with limited capabilities and knowledge of complex KYC processes, allowing them to focus solely on controlling the securities issuance account.

However, while the control agent is exempt from KYC duties, the requirement remains—all account keepers must pass KYC and have their blockchain addresses (where they hold the securities) approved.

#### B. The control agent maintaining the securities issuance account can be an EEA credit institution or investment firm

Blockchain Law IV expands the possibility for EEA-authorized credit institutions or investment firms to act as central account keepers for unlisted equity securities. These firms can also serve as control agents that exclusively take care of the securities issuance account.

This alternative empowers an EEA-authorized asset manager with an investment firm license or a credit institution license to directly manage the issuance of unlisted equity securities, such as fund units. It also opens the door to innovative financing models, such as the cost-efficient issuance of unlisted equities to finance small and medium-sized enterprises, providing an alternative to bank loans.

#### C. Account keepers with the necessary infrastructure can now custody securities accounts on DLT without requiring a sub-custodian link with the control agent

In a DLT-enabled model, the control agent is responsible for issuing and redeeming (i.e., minting) the tokenized securities and transferring them

7. Under specific requirements.

8. As defined under the law of 20 December 2024 amending the 2013 dematerialized law, an investment firm within the meaning of Article 1, point (9), of the Law of 5 April 1993 on the financial sector, as amended, a credit institution within the meaning of Article 1, point (12), of the Law of 5 April 1993 on the financial sector or a settlement organization within the meaning of this law, appointed by the issuer and with defined tasks.

directly to the securities accounts, managed by “wallets” in the account keeper’s (i.e., the custodian’s) custody.

These securities accounts, practically represented as approved blockchain addresses, enable the direct transfer of tokenized securities via DLT rails between account keepers, eliminating the traditional two-tier custody layer. Issuers can also deal directly with account keepers for key asset servicing activities like voting or payments, such as dividends or the repayment of principal sums and interest.

### How Blockchain Law IV could impact the fund industry

#### An example of a typical transfer agent model in Luxembourg

Blockchain Law IV has the potential to disrupt the typical transfer agent role in Luxembourg, as illustrated in Figure 1. In this example, funds are “launched” by asset and investment managers, who

appoint a fund management company (ManCo) or an alternative investment fund manager (AIFM) to manage the fund. Distributors offer the funds to their retail customers (i.e., investors). Fund units or shares are typically issued and redeemed based on investor subscription or redemption orders, and these unlisted equity securities are recorded on the fund registrar.

In this model, retail investors do not have individual accounts in the fund registrar. Instead, distributors hold the fund units through omnibus or nominee accounts, assuming the account keeper role as a result.

While the ManCo or AIFM retain ultimate accountability for executing subscription or redemption orders, they frequently delegate order processing and fund registrar maintenance to a transfer agent. In this example, funds are “launched” by asset and investment managers, who appoint a fund management company (ManCo) or an alternative investment

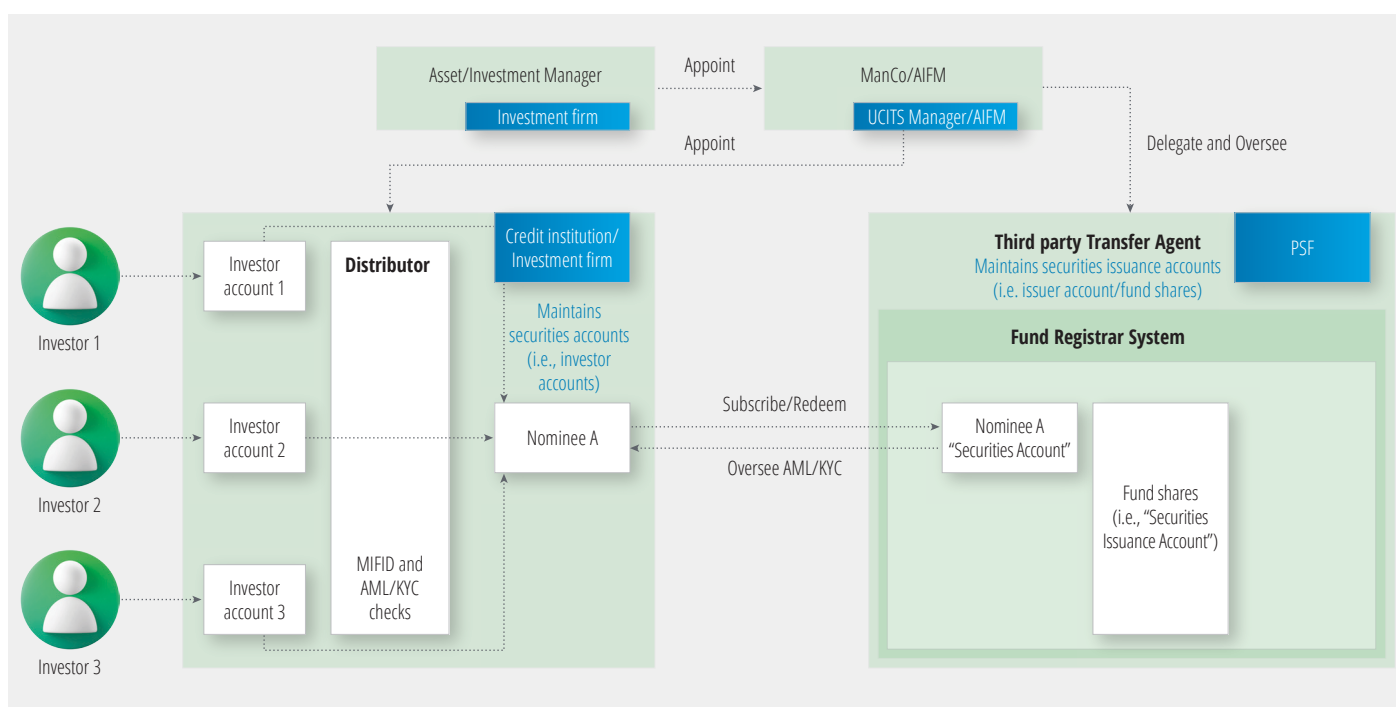
fund manager (AIFM) to manage the fund. Distributors offer the funds to their retail customers (i.e., investors). Fund units or shares are typically issued and redeemed based on investor subscription or redemption orders, and these unlisted equity securities are recorded on the fund registrar.

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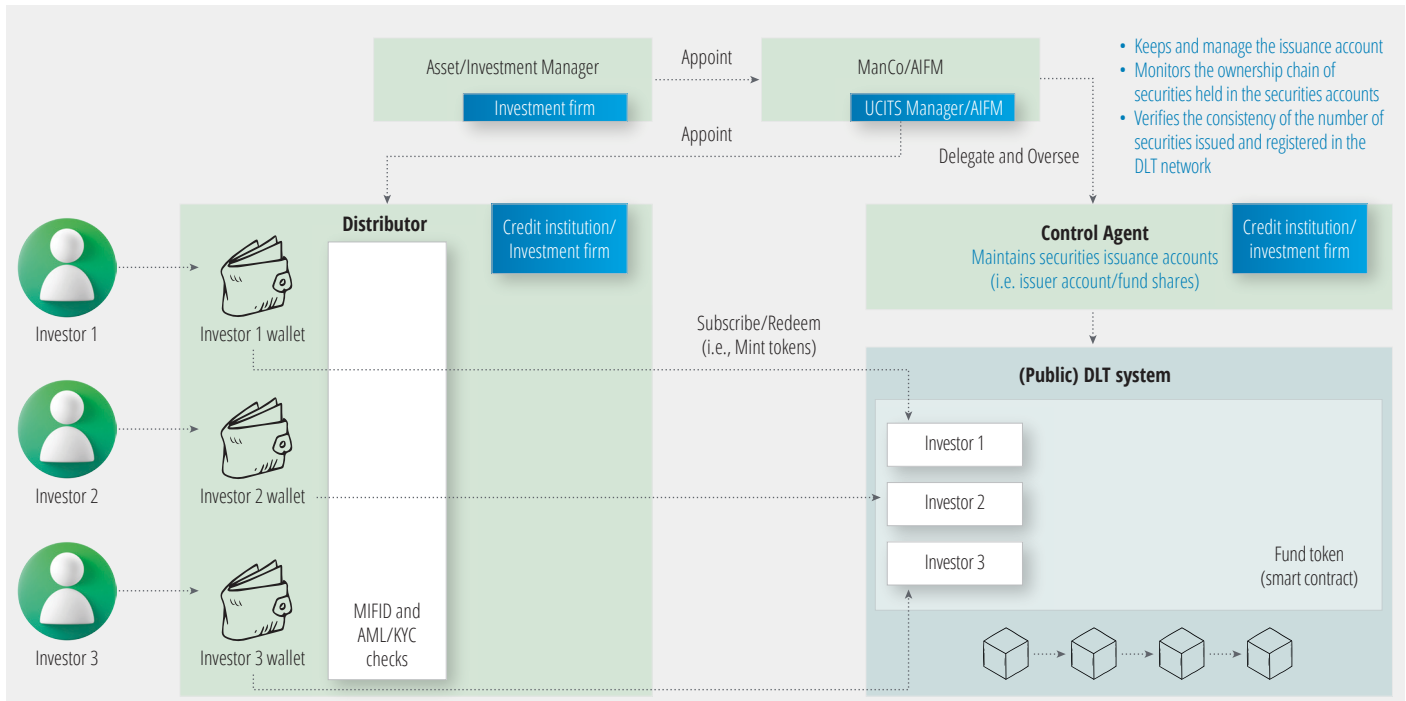
While the ManCo or AIFM retain ultimate accountability for executing subscription or redemption orders, they frequently delegate order processing and fund registrar maintenance to a transfer agent.

To perform the registrar function, the transfer agent, registered as an undertaking for collective investment (UCI) administrator under CSSF supervision, must hold a credit institution license or

Figure 1. Typical transfer agent model in Luxembourg



**Figure 2.** Blockchain Law IV's control agent model (high-level illustrative)



specialised and support professional of the financial sector (PFS) licenses. It maintains its own fund shareholder register system to track both investor positions and the total number of fund units in circulation, thereby effectively acting as the fund's central account keeper.

Furthermore, transfer agents are typically responsible for other activities, such as:

- Performing anti-money laundering (AML) and KYC processes on the investors or ensuring the distributors execute their AML/KYC checks on the investors;
- Reporting holdings and values to the investors or their nominees; and
- Reporting cash flows to the asset managers.

## Leveraging the control agent model for fund distribution to retail investors

Figure 2 illustrates how the control agent model can offer a streamlined alternative to the example transfer agent model in Figure 1.

Under Blockchain Law IV, fund units and shares can be issued and registered

through secured electronic registration mechanisms, including distributed electronic ledgers or databases. This means that funds can be tokenized.

Under this model, the control agent—responsible for maintaining the securities issuance account—holds the fund token wallet and instructs the fund token smart contracts to mint the tokenized fund units or shares. Once minted, the control agent transfers these tokenized units to the investors' or their nominees' blockchain addresses, which are considered the securities accounts and are typically managed by wallets in the account keepers' custody.

Theoretically, this means investors and their nominees can directly exchange fund units without involving the control agent, thereby enabling an efficient secondary market for fund unit transactions.

In this model, the control agent is not obliged to ensure AML/KYC compliance or perform the Markets in Financial

Instruments Directive's (MiFID) suitability checks. Smart contracts can be encoded to allow third parties to execute these verifications, such as a licensed distributor, the ManCo or the AIFM. In Figure 2, the distributor performs these checks.

One game-changer is that the control agent can be an EEA-registered investment firm or credit institution that is not licensed in Luxembourg. This permits non-Luxembourg-licensed distributors or investment managers to manage the fund's shareholder register without relying on a Luxembourg-licensed ManCo, AIFM or transfer agent, while still maintaining the Luxembourg-domiciled fund.

By leveraging DLT automation, the model flattens the fund value chain and disrupts the Luxembourg transfer agent role by reallocating some key UCI administration activities to other non-Luxembourg entities. Fund distribution becomes more cost-efficient and streamlined, while also facilitating an effective secondary market for fund units as well as their use as collateral.



# Leveraging MiCA to further streamline the securities value chain

MiCA's introduction allows the digital securities value chain to rely on stablecoins to settle securities transactions. Under MiCA, stablecoins are classified as either e-money tokens (EMTs) or asset-referenced tokens (ARTs), enabling a fully on-chain procedure. This speeds up processes through real-time "delivery versus payment" settlement and eliminates the need to maintain the cash leg off-chain.

Moreover, MiCA defines and regulates the services that crypto-asset service providers (CASPs) can offer. Luxembourg institutions acting as custodians for tokenized financial instruments must implement robust private key management solutions, which can mirror MiCA's technical crypto custody standards. This shared infrastructure brings several benefits, including:

- Improved operational efficiency by the ability to hold both fiat-backed stablecoins and tokenized fund shares in a single wallet custody solution, simplifying asset management and streamlining processes; and
- Enhanced investor protection, as MiCA-compliant EMT and ART issuers and custodians are required to maintain high security standards. This promotes greater trust among investors, with any associated stablecoin holdings safeguarded under harmonized European standards.



# Why Luxembourg?

Luxembourg has established itself as a leading jurisdiction for digital assets, combining a legal framework with a healthy financial marketplace and robust investor protections. Several key factors differentiate the country from other markets:



## **Innovative and holistic legal framework**

Luxembourg boasts a forward-looking legislative ecosystem that supports the digital security value chain, including issuance, distribution and custody, reinforcing its global leadership in debt issuance and fund domiciliation. Additionally, Blockchain Law IV enables asset managers and issuers to fully leverage DLT-based fund issuance and distribution, fostering new business opportunities in the country.



## **Constructive dialogue among key stakeholders**

The Luxembourg marketplace brings together all relevant stakeholders, providing the necessary expertise and support to successfully develop and launch digital asset business from Luxembourg.



## **Balanced regulation**

Luxembourg's regulatory approach fosters innovation while maintaining strong investor protection. The clear legal framework allows market participants to confidently engage with digital asset solutions while operating within well-defined guidelines.



## **Seamless European market access**

As an EU Member State, Luxembourg offers firms access to the single market, allowing financial services and digital asset offerings to be passported across the EU. This regulatory stability and international connectivity enhance Luxembourg's attractiveness as a hub for cross-border financial innovation.



## **Deep expertise and trusted marketplace**

The country offers long-term expertise in the domiciliation, issuance and custody of financial instruments. The Luxembourg marketplace's credibility and robustness have earned it a consistent AAA rating over several years.



Looking ahead, issuers, asset managers and custodians can leverage Luxembourg's marketplace to tokenize a broader range of assets while benefiting from legal certainty and operational efficiency.



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