

THE IMPERATIVE OF INTEGRATING INTERNATIONAL FINANCIAL STANDARDS IN TOKENIZATION PROTOCOLS

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Introduction

This report motivates for, and presents the primer of a framework to, the integration of international financial standards into tokenization protocols. It is a strategic endeavor by the Tokenized Economies Institute (TEI) in partnership with the ReTech Center of École des Ponts Business School. Launched by FeverTokens, which leads in the standardization of smart contract infrastructure, especially in tokenization, TEI is an extensive collaboration platform rooted in Europe, but with a global perspective. Its mission revolves around the practical research and application of tokenization in finance.

As the digitization of assets intensifies, particularly with Real World Assets, the call for a unified approach in smart contract infrastructure and tokenization has become more pronounced. In this report, we first motivate for integrating international financial standards in tokenization protocols; then, we present the next-gen, package-oriented smart contract infrastructure and outline the general steps key players, ranging from major financial institutions to regulators and research institutions, can take to achieve this. We hope this will serve as a primer for a productive collaborative framework.

Why Integrate International Financial Standards?

As the landscape of digital assets continue to evolve, particularly with Real World Assets (RWAs), the need to comply with established and emerging regulations becomes ever more apparent. Challenging even to major financial institutions, such compliance without regulatory clarity and interoperability greatly hinders innovation and dulls the allure of digital assets to investors. This is the context under which calls for integrating standards within tokenization protocols continue to grow louder.

Indeed, integrating international financial standards within tokenization protocols is not just a measure of compliance but a strategic approach that underpins efficiency through **clarity, security,** and **market efficiency.**

First, this integration simplifies the navigation of a fast-growing, complex ecosystem. It sets clear, easy-to-follow rules that liberate innovators by eliminating doubts in their pursuit of novel digital asset products and services. In so doing, standards will accelerate the growth and maturing of tokenization in finance.

At the same time, integrating standards into tokenization protocols, especially by the authoritative standard-setting organizations themselves, prevents the ecosystem from becoming distracted by disparate attempts of compliance. This not only helps players in the ecosystem in reducing their compliance workload but also empowers them with enhanced interoperability. That is, at least on the compliance front, innovators need not build everything themselves from the ground up; leveraging open-source materials as well as conducting closed-source R&D collaborations are much easier as a result.

As a side note, and as we shall detail in the following sections, the leading solution that is emerging as the answer to standard integration also enhances interoperability beyond compliance and fundamentally empowers innovation across the lifecycle of digital assets.

Secondly, integrating financial standards in tokenization protocols elevates security across the ecosystem. Compared to ad hoc implementations, this move helps every digital asset throughout its lifecycle to mitigate risks and to enforce compliance. Thus, it is liberating not only to innovators but also to other stakeholders, notably the regulators and investors, who have an easier time navigating multiple platforms.

As the entire ecosystem is made safer and free from regulatory setbacks, it can grow faster and create more value for every stakeholder, too.

Lastly, and as a result of the two aforementioned points, such integration builds market soundness and improves liquidity over time. As clarity and security from standards foster interoperability and *facilitate seamless interactions beyond token interfaces*, and as they help avoid implementation errors and strengthen security and compliance performances, the overall market participation is higher and the digital assets market is more sound.

As market participation grows from the side of innovators, the flexibility afforded by the ecosystem drives diverse implementations and improves the efficiency of the underpinning technologies. Meanwhile, from the side of investors, more active participation from a larger audience leads to better liquidity.

The Next-gen Smart Contract Infrastructure

Besides security and compliance, issues that range from **flexibility and modularity** to **interoperability and composability** all constrain the scalability of a smart contract infrastructure. In pursuit of solutions that overcome these constraints, FeverTokens has developed an *industry-first* package-oriented smart contract framework.

The FeverTokens Package Oriented Framework shares several characteristics with package-oriented software frameworks that we have become familiar with in the past decades. It implements modularity, dependency management, and versioning; encourages code reuse and standardization; and empowers collaboration. Moreover, this framework has been emphasizing **security, reliability, and compliance** from Day 1, considering that many Web3 applications involve digital assets. It fulfils FeverTokens' mission to be the leading fabric of tokenization solutions.

A flexible architecture can grow with user needs. Normally, one associates immutability with blockchain. To achieve functional scalability, a Web3 application must be able to update its old features and to introduce new ones; this should be implemented without sacrificing privacy and data integrity so crucial for Web3. The answer for flexibility is modularity: with functions organized as packages, they can be added, removed, and updated without unintended effects on other components of an application.

An ecosystem is more than the sum of its own parts. For a digital asset ecosystem to prosper, unrelated decentralized apps should be able to work seamlessly together. This is interoperability. It ensures that the ecosystem functions as a whole rather than numerous incompatible silos.

Composability is related to interoperability. It allows innovators to combine and build upon existing solutions to create new apps and services. Interoperability and composability together create a coherent ecosystem that offers innovators as well as users a smoother experience.

Digital assets are valuable. Their underlying smart contracts are subject to malicious as well as accidental attacks and exploitations. They should also have consistency in availability and performance. Security and reliability are easier to ensure with a smart contract architecture that takes these issues into consideration from the ground up. The same can be said about governance and compliance.

These features together make the FeverTokens Package Oriented framework an ideal foundation to integrate international financial standards into. Since its introduction, this industry-leading solution has been recognized and adopted by major financial institutions and regulators. A larger number of such players in the digital assets space are also using it as a benchmark when exploring their own functionally scalable Web3 applications. Its ecosystem will no doubt receive a bigger boost with the integration of international financial standards.

Financial Standards Adaptation: What and How?

Adapting international financial standards to the digital assets sphere involves a diverse array of benchmarks, from instrument description taxonomies provided by entities like ICMA (International Capital Markets Association) and the EU Commission to lifecycle function standards such as the ISDA (International Swaps and Derivatives Association) Common Domain Model (CDM), and cash flow calculation standards akin to the ACTUS framework.

At its core, the adaptation ensures that digital assets can integrate seamlessly into the current financial ecosystem, bolstering trust and utility.

With FeverTokens Package Oriented Framework, international financial standards can be integrated progressively as modules, preferably by the standard-setting organizations and/or regulators themselves or in collaboration with another entity such as the Tokenized Economies Institute. The modularity facilitates independent maintenance and upgrades and minimizes service interruptions.

Digital assets applications can then leverage these modules to meet their security and compliance needs. One option that many innovators can look forward to is the flexibility to meet diverse governance as well as compliance needs of different jurisdictions by switching out modules.

The framework is built around the idea of open sourcing with full-featured support for closed sourcing. The integration of standards is conceptually more suitable as open-source solutions. Once deployed, these modules integrate international financial standards at scale on EVM-compatible blockchains. It accommodates a wide array of components, from on-chain elements and off-chain oracles to multi-chain components, with the flexibility of making packages public or private to serve both internal and external development needs.

Conclusion

The integration of international financial standards within tokenization protocols is imperative for the robust development of digital asset markets. It not only boosts security and compliance but also underpins efficiency through clarity, security, and market efficiency. Integration can be implemented progressively with modules on FeverTokens Package Oriented Framework, which provides flexibility and modularity as well as interoperability and composability to amplify the benefits of such endeavor.

FeverTokens and the ReTech Center of École des Ponts Business School are forming a strategic alliance that welcomes international financial standards-setting organizations and regulators to join the collaborative initiative to integrate financial standards into tokenization protocols as part of the Tokenized Economies Institute. Together, we are sure to advance the tokenization industry by making the future of digital finance both scalable and secure.

Tokenized Economies Institute

The Tokenized Economies Institute (TEI) stands at the forefront of integrating and enhancing the application of blockchain technology. Launched by FeverTokens, TEI focuses on tokenization in the financial and industrial sectors. This initiative is an extensive collaboration platform originated in France, yet with an open, global perspective that reflects the company's open-source and ecosystem-driven approach.



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