



May 28, 2025

BY ELECTRONIC SUBMISSION

SEC Crypto Task Force  
U.S. Securities and Exchange Commission  
100 F Street, NE  
Washington, D.C. 20549-0213

Dear Members of the SEC Crypto Task Force:

We submit this additional letter in response to questions about sandboxes raised during our May 20, 2025 meeting.

We believe a regulatory sandbox for digital asset products, like tokenized Real World Assets (RWAs), allows digital asset markets, innovative products, and value-creating services to operate in a controlled environment while subject to regulatory oversight. It provides a practical mechanism for both regulators and market participants to understand how emerging technologies interact with existing frameworks, highlighting where current regulations may be ineffective or where additional guidance may be needed. Regulatory sandboxes have played a vital role in fostering financial innovation in countries outside the United States, enabling companies to test new financial products in a controlled environment before transitioning to full-scale market operations.

### **A Robust Regulatory Sandbox**

To incentivize innovation and support the development of fit-for-purpose regulatory frameworks, Ripple recommends establishing and encouraging regulatory sandboxes, at least for specific use cases such as tokenized RWA markets.

Today, a key challenge in the growth of digital asset markets is the feedback loop between innovation and regulation: regulators may be reluctant to develop tailored rules in the absence of tested market models, while industry participants cannot confidently build new solutions without clear regulatory pathways. This results in a regulatory deadlock.

Ripple believes that regulatory sandboxes can be a pragmatic solution to build this holistic feedback loop. This goes beyond experimental pilots, but includes dynamic environments that support safe and scalable innovation. When implemented effectively, a regulatory sandbox should:

1. Allow specific digital asset products, platforms, or services to operate at scale, but with appropriate safeguards;

2. Allow regulators to observe and learn from these real-world operations;
3. Use those observations to concurrently evolve applicable regulations and, where appropriate, licenses; and then
4. Allow the use cases to “graduate” out of the sandbox.

To support institutional readiness and broader adoption of use cases such as tokenized RWAs, sandboxes should reflect production-like conditions. In other words, regulatory sandboxes should go beyond limited, small-scale pilots. They should simulate production-like conditions, enabling firms to test products and infrastructure under circumstances that closely mirror real market environments. This includes testing with actual customer cohorts, real transaction volumes, and, in relevant cases, cross-border operational elements.

Critically, sandboxes also should be embedded within a longer-term regulatory strategy. This means they must not operate in isolation or as one-off experiments, but as part of a deliberate regulatory learning agenda. Their insights should feed into rulemaking processes, supervisory frameworks, and licensing pathways that provide regulatory certainty for firms post-sandbox.

For example, sandboxes designed for tokenised RWAs should allow participants to explore:

- Asset issuance and settlement;
- Custody models for digital securities;
- Secondary trading under real-time compliance constraints; and
- Interoperability with traditional financial infrastructure.

Such environments also create a safe space for regulators to observe novel risk profiles, refine consumer protection measures, and assess market conduct standards while giving institutional participants confidence that their innovations are being vetted in a forward-looking, legally grounded framework.

When sandboxes include a graduation pathway to full authorization or tailored regulation, they signal to the market that experimentation is not only allowed, but encouraged as a bridge to commercially viable innovation. In this way, sandboxes become a catalyst for both policy evolution and market maturity—not simply regulatory exceptions, but stepping stones towards the responsible scaling and evolution of innovative market infrastructures.

## **Global Case Studies**

### **1. The Monetary Authority of Singapore, Project Guardian (Singapore)**

Project Guardian,<sup>1</sup> initiated by the Monetary Authority of Singapore (MAS), is a leading example of how regulatory sandboxes can drive the development of RWA tokenization. Project Guardian is considered a successful example of a regulatory sandbox because it enables real-world experimentation with tokenized assets at institutional scale, under active regulatory supervision.

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<sup>1</sup> See <https://www.mas.gov.sg/schemes-and-initiatives/project-guardian> *Project Guardian*.

The initiative also goes beyond testing, laying the groundwork for shared infrastructure through the Global Layer 1 (GL1) project<sup>2</sup> –an important step toward cross-border interoperability and regulatory alignment.

There are currently twenty-seven industry partners exploring thirty-six use cases across all approved asset classes (fixed income, foreign exchange, and asset & wealth management).<sup>3</sup> Regulators from France, Germany, Japan, Switzerland, and the UK have also joined the Policymaker Group, which seeks to deepen cross-border collaboration between policymakers and advance discussions on standardization and interoperability under Project Guardian.

Project Guardian operates within a regulatory framework that ensures compliance with existing regulations while addressing the unique challenges posed by tokenization. This controlled environment enables companies to innovate with reduced risk under the supervision of regulators, who can address potential legal and operational issues as they arise. Project Guardian’s success underscores the importance of regulatory sandboxes in fostering technological innovation while maintaining market integrity and protecting consumers.

## 2. The European Commission, European Blockchain Regulatory Sandbox (European Union)

The EU Blockchain Regulatory Sandbox<sup>4</sup> allows financial services firms to test the use of distributed ledger technology (DLT) in the trading and post-trading of crypto assets that qualify as financial instruments—such as tokenized securities—by offering exemptions<sup>5</sup> from certain requirements under the Markets in Financial Instruments Directive (MiFID II)<sup>6</sup> and the Central Securities Depositories Regulation (CSDR), which might otherwise limit their use.

With Regulation 2023/1114 on markets in crypto assets (MiCA)<sup>7</sup> subsequently being implemented, the EU Blockchain Regulatory Sandbox serves to enable participants to not only test their products and services, but to also measure their expected level of compliance with MiCA. This demonstrates how regulatory frameworks can effectively support the development of tokenized RWAs within a structured and compliant environment.

It’s also important to note that the insights gained from the EU Blockchain Regulatory Sandbox directly influenced the development of MiCA, helping to create a regulatory framework that not only addresses the specific challenges of tokenized RWAs but also aligns with industry needs. The EU’s approach, like that of Singapore’s Project Guardian, combines practical testing with

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<sup>2</sup> See <https://www.mas.gov.sg/publications/monographs-or-information-paper/2024/gl1-whitepaper>, *Global Layer 1 (GL1) Whitepaper*.

<sup>3</sup> See <https://www.mas.gov.sg/-/media/mas-media-library/development/fintech/guardian/guardian-fis-annex-table.pdf>, *List of Participants in Project Guardian Industry Group*.

<sup>4</sup> See <https://digital-finance-platform.ec.europa.eu/cross-border-services/ebsi> *European Blockchain Regulatory Sandbox*.

<sup>5</sup> See <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014L0065>, *Directive 2014/65/EU of the European Parliament and of the Council*.

<sup>6</sup> See <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014R0909m>, *Regulation (EU) No 909/2014 of the European Parliament and of the Council*.

<sup>7</sup> See <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32023R1114>, *Regulation (EU) 2023/1114 of the European Parliament and of the Council*.

robust regulation, enabling the secure and efficient integration of tokenized RWAs into the financial system.

### 3. The Financial Conduct Authority and Bank of England, Digital Securities Sandbox (United Kingdom)

The Digital Securities Sandbox (DSS),<sup>8</sup> a joint initiative by the Financial Conduct Authority (FCA) and the Bank of England (BoE), was established to facilitate experimentation with DLT by financial market infrastructures (FMIs) in the tokenization of securities issuance, trading, and settlement, while ensuring regulatory oversight. Under the DSS framework, financial instruments such as equities, bonds, funds, and money market instruments can be issued and traded within the controlled environment of the sandbox. This initiative represents the first sandbox specifically designed for FMIs, introduced by the UK Treasury.<sup>9</sup>

The legislative framework governing the DSS was enacted by the UK Parliament and came into effect in January 2024. Its primary objective is to allow FMIs that fall outside the existing regulatory framework to test new developments and business models within a real-world environment, albeit under a modified regulatory regime, for a limited period of five years. The first cohort of participants was announced in September 2024.<sup>10</sup>

The UK regulators have outlined a clear progression pathway for sandbox participants, comprising five stages:

- Initial application;
- Testing;
- Go-live;
- Scaling; and
- Exit from the sandbox and ultimately transition to a permanent regulatory regime if successful.

In a keynote at the 2025 Innovative Finance Global Summit,<sup>11</sup> the Rt Hon Rachel Reeves MP also highlighted discussions with US Treasury Secretary Bessent on opportunities to support cross-border innovation, including proposals put forward by SEC Commissioner Hester Peirce about a transatlantic sandbox for digital securities, potentially allowing greater digital collaboration between capital markets in New York and London.

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<sup>8</sup> See <https://www.bankofengland.co.uk/paper/2024/cp/digital-securities-sandbox-joint-bank-of-england-and-fca-consultation-paper>, *Digital Securities Sandbox*.

<sup>9</sup> See <https://www.legislation.gov.uk/ukpga/2023/29/contents>, *Financial Services and Markets Act 2023*.

<sup>10</sup> See <https://www.bankofengland.co.uk/financial-stability/digital-securities-sandbox/digital-securities-sandbox-dashboard>, Sandbox Entrant information and Sandbox Approval notices

<sup>11</sup> See <https://www.gov.uk/government/speeches/chancellor-speech-at-global-innovate-summit-2025>, *Chancellor speech at Innovate Finance Global Summit 2025*.

#### 4. The Swiss Financial Market Supervisory Authority, Swiss Sandbox and FinTech License (Switzerland)

One of the key regulatory developments from the Swiss Financial Market Supervisory Authority (FINMA) in the adoption of blockchain technology is the introduction of the Swiss sandbox,<sup>12</sup> which was designed to support new opportunities for financial service providers aiming to collaborate with fintech startups. Launched in 2018, the Swiss sandbox allows market participants to experiment with new business models using technologies such as DLT and tokenized RWAs while operating under flexible regulatory requirements. This framework is particularly beneficial for startups that do not initially meet the full regulatory requirements, enabling them to refine their business models before scaling up.

The sandbox provisions include:

- Allowing participants to accept deposits of up to CHF 1 million in funds without needing a license; and
- The obligation to inform clients that they are not under FINMA supervision and that there is no depositor protection for the funds.

Insights gained from the sandbox have enabled FINMA to better understand the associated risks and opportunities, informing its regulatory approach and leading to the refinement of regulatory guidelines. For instance, the amendments to its circular on "Public deposits with non-banks",<sup>13</sup> were influenced by findings from the sandbox and industry feedback, which helped to reduce regulatory uncertainty and streamline the compliance process. Targeted adjustments, such as participants being able to accept up to CHF 1 million in deposited funds, demonstrate how the sandbox has led to more flexible regulatory practices that support innovation without stifling it.

The FINMA FinTech license<sup>14</sup> was subsequently introduced in 2019, allowing companies to accept public deposits of up to CHF 100 million or crypto assets, provided these funds are not invested and no interest is paid on them, under a simplified regulatory regime that is separate from the traditional banking license. The license was introduced as a separate measure from the Swiss sandbox but is broadly part of Switzerland's continued efforts to cultivate a supportive regulatory environment for financial innovation. It allowed for companies that had successfully developed their business models to scale operations beyond the parameters of the sandbox.

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<sup>12</sup> See <https://www.finma.ch/en/documentation/dossier/dossier-fintech/finanztechnologie-und-digitalisierung-2017/>, *Introduction of the Swiss sandbox*.

<sup>13</sup> See <https://www.finma.ch/en/news/2017/12/20171214-mm-rs-publikumseinlagen/>, *FINMA revises "Public deposits with non-banks" circular*.

<sup>14</sup> See <https://www.finma.ch/en/authorisation/fintech/fintech-bewilligung/>, *FinTech license*.

## 5. The Abu Dhabi Global Market, Regulatory Lab (United Arab Emirates)

A cornerstone of the Abu Dhabi Global Market (ADGM)'s innovation strategy is the ADGM Regulatory Lab (RegLab),<sup>15</sup> launched in 2016 as a specialized regulatory sandbox designed to support FinTech startups in developing and scaling their innovative solutions. The ADGM RegLab provides a unique environment where participants can test their products and services under the supervision of ADGM's regulatory authority,<sup>16</sup> with reduced regulatory requirements during the early stages of development.

The ADGM RegLab lays out a clear pathway from testing to scaling for successful participants,<sup>17</sup> which includes:

- Initial authorization from the Financial Services Regulatory Authority (FSRA): FSRA will customize regulatory controls for each applicant based on the specific risks and needs of their business model, potentially modifying rules that are irrelevant to their operations. They may also limit the scope and scale of the testing to manage the associated risks.
- Participation at the ADGM RegLab: Once authorized, participants can operate in the RegLab for up to two years, during which they are expected to develop their innovations to a commercially viable stage.
- Sandbox exit: Once the participants' business model has been made commercially viable, they will be ready to transition to a full financial services authorization, while those not ready may exit the RegLab. The exit strategy of a participant may vary according to its commercial needs. For example, a participant may choose to cease its business at the end of the validity period, or it may transfer its product and any clients to other authorized financial institutions.

The ADGM RegLab showcases a strong public-private collaboration as it enables in-depth engagements with the sandbox participants to understand their different business models and associated processes. It also provides the necessary regulatory and infrastructure support for companies to scale their business model in a controlled environment and eventually transition to a fully licensed framework upon successful market entry.

## 6. The Dubai Financial Services Authority, Innovation License and Regulatory Sandbox (United Arab Emirates)

The Dubai Financial Services Authority (DFSA) operates a licensed sandbox, known as the DFSA Innovation Testing Licence (ITL) Programme,<sup>18</sup> which enables ITL holders to test new and innovative financial products, services, and business models within the Dubai International

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<sup>15</sup> See <https://www.adgm.com/setting-up/fintech/overview>, *Leverage ADGM's best-in-class technology ecosystem and regulatory innovation.*

<sup>16</sup> See <https://www.adgm.com/documents/legal-framework/guidance-and-policy/fsra/fintech-reglab-guidance.pdf>, *FinTech Regulatory Laboratory Guidance.*

<sup>17</sup> See <https://www.adgm.com/documents/publications/en/fintech-regulatory-authority-brochure.pdf>, *How does the RegLab work?*

<sup>18</sup> See <https://www.dfsa.ae/innovation>, *DFSA Crypto and Innovation.*

Financial Centre (DIFC). Launched in 2017, the DFSA ITL program provides temporary regulatory flexibility, allowing firms to experiment with concepts such as tokenized securities, debt offerings, and tokenized crowdfunding, among others, without being subject to the full suite of regulatory requirements.<sup>19</sup>

In response to growing industry interest in tokenization, the DFSA introduced a Tokenization Regulatory Sandbox,<sup>20</sup> a specialized initiative under the ITL Programme. This framework seeks to facilitate experimentation with tokenized financial instruments while recognizing and addressing key challenges, such as platform interoperability, the need for scale, customer education, and regulatory clarity.

The sandbox comprises two stages:

- Expression of Interest in Tokenisation: Allows firms to signal their interest in developing tokenised products or services within the DIFC.
- ITL Tokenization Cohort: Provides selected firms with a controlled environment to test and refine their tokenization-related business models without being subject to the full suite of regulatory obligations.

To enter the ITL Tokenization Cohort, firms must first apply for and obtain a DFSA licence. Applications undergo a preliminary assessment of the business model, regulatory alignment, and market value proposition. Firms chosen for the second stage benefit from temporary regulatory flexibility, such as waivers or modifications to prudential and capital requirements, to support live testing and iteration. The testing period typically lasts 6 to 12 months, after which firms may either graduate into a full regulatory authorization or exit the program.

The tokenization initiatives undertaken by the DFSA demonstrate its continued efforts to promote responsible innovation, adapt to evolving market dynamics, and strengthen the DIFC's role as a hub for tokenization and digital asset experimentation.

### **Principles for Regulatory Sandbox Design**

To maximize impact and effectiveness, regulatory sandboxes for digital assets should be designed around a set of core principles that balance innovation with the policy goals of financial stability, market integrity, and consumer protection. Drawing from Ripple's experience and successful international models (outlined in detail in the Global Case Studies section above), the following design principles are suggested:

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<sup>19</sup> See

<https://dfsaen.thomsonreuters.com/rulebook/9-october-2019-dfsa-invites-applications-its-2020-regulatory-sandbox-winter-cohort>, *The DFSA invites applications for its 2020 regulatory sandbox "winter cohort"*

<sup>20</sup> See

[https://365343652932-web-server-storage.s3.eu-west-2.amazonaws.com/files/5017/4220/6854/DFSA\\_Tokenisation\\_Regulatory\\_Sandbox\\_Guide.pdf](https://365343652932-web-server-storage.s3.eu-west-2.amazonaws.com/files/5017/4220/6854/DFSA_Tokenisation_Regulatory_Sandbox_Guide.pdf), *Innovation Testing Licence Tokenisation Cohort: DFSA's Tokenisation Regulatory Sandbox*.

### 1. Purpose-Driven and Use-Case Specific

Regulatory sandboxes must be anchored in a clearly defined purpose. For example, for tokenized RWAs this means enabling end-to-end testing of infrastructure for asset issuance, settlement, secondary trading, and custody. A narrowly tailored and specific scope prevents mission creep and ensures relevant oversight.

### 2. Risk-Proportionate Regulation

Regulatory requirements within the sandbox should be commensurate with the risk profile of the innovation. This may include modified compliance obligations or supervisory exemptions, as seen in the DFSA Innovation Testing Licence (ITL) or FINMA's Swiss Sandbox. Lowering entry thresholds, such as limited deposit caps or simplified licensing, fosters early experimentation while still meeting the policy goals of protecting consumers and market integrity.

### 3. Real-World Conditions

To provide meaningful insights, sandboxes must simulate production-like environments. This includes using real transaction flows, institutional-grade infrastructure, and, when relevant, cross-border elements—an approach exemplified by Project Guardian in Singapore, where over 30 use cases are being explored across real asset classes with operational participants.

### 4. Time-Bound and Graduated Pathways

Sandbox participants should follow a time-bound process with clearly defined stages: application, testing, evaluation, and exit or graduation. The UK's Digital Securities Sandbox (DSS) offers a five-stage progression that culminates in either full authorization or transition to permanent frameworks, providing clarity for both innovators and regulators.

### 5. Embedded in a Broader Regulatory Strategy

A regulatory sandbox is not a standalone policy tool. It should form part of a longer-term regulatory strategy to inform supervisory practices, shape licensing regimes, and update legal definitions. The EU Blockchain Regulatory Sandbox, for instance, directly influenced the Markets in Crypto Assets (MiCA) regulation by integrating sandbox insights into formal rulemaking.

### 6. Public-Private Collaboration

Regulators should actively engage with participants to co-learn, co-design, and co-collaborate. Regulatory sandboxes work best when dialogue is iterative and trust-based. For example, ADGM's RegLab tailors supervisory frameworks to each startup's risk profile and iteratively adjusts them during testing.

## 7. Global Interoperability

Given the borderless nature of digital assets, sandbox design should—where appropriate and practical—encourage cross-border regulatory collaboration. The GL1 initiative under Project Guardian includes international regulators and aims to enable interoperable ledger systems, addressing one of the key friction points in scaling digital asset markets.

### **Best Practices for Regulatory Sandboxes**

The following best practices are suggested for jurisdictions aiming to establish or optimize sandboxes in the context of digital asset markets:

#### 1. Enable Pre-Licensing Validation

Sandboxes should offer pathways that enable firms to de-risk product development before seeking full authorization. For instance, Switzerland’s dual framework—the sandbox plus the FINMA FinTech license—lets firms test business models and later apply for a simplified license for expansion.

#### 2. Facilitate Institutional Participation

Beyond startups, regulatory sandboxes should accommodate institutional participants. Singapore’s Project Guardian, for example, involves established banks and asset managers, allowing real-world testing of tokenized bonds and structured products. This enhances credibility, capital commitment, and eventual adoption.

#### 3. Allow for Adaptive Supervision

Flexible supervisory practices, including waivers or conditional exemptions, where relevant, are critical to managing innovation risk. For example, the DFSA ITL program adjusts capital and prudential requirements for each firm, based on their risk profiles and use cases.

#### 4. Publish Findings and Encourage Knowledge Sharing

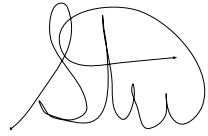
Transparency and dialogue builds market confidence and fosters policy learning. Regulators should publish periodic updates or post-mortems from sandbox activities. For instance, MAS’s reports on Project Guardian provide valuable insights into tokenized asset use cases, settlement models, and technology interoperability.

#### 5. Ensure Clarity for Participants

Clear guidance on what is permitted within the sandbox—and what happens afterwards—is essential. For example, the UK DSS and ADGM RegLab both include detailed frameworks outlining participant responsibilities, data reporting, and exit/graduation scenarios.

We appreciate the opportunity to continue this dialogue.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Stuart Alderoty".

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A handwritten signature in black ink, appearing to read "Sameer Dhond".

Sameer Dhond  
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