

Consultation

MDIA Technology Driven ITA Sandbox

Technology-Driven ITA Sandbox Consultation

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This document seeks feedback from the industry and various stakeholders on a proposed Technology-Driven Innovative Technology Arrangement Sandbox, complementing the Malta Digital Innovation Authority's (MDIA) full certification of Innovative Technology Arrangements (ITAs).

The consultation is open until **31st July 2020**. Stakeholders are invited to send their feedback via email to info@mdia.gov.mt

The proposals presented in this document are not binding and are subject to changes and revisions at the discretion of the MDIA, following feedback received.

Malta Digital Innovation Authority
01 July 2020

MDIA Technology Driven ITA Sandbox

Digital Innovation is, by definition, a rapidly evolving sector. These guidelines are expected to be updated to keep abreast with technology, regulatory and operational developments.

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Scope and Purpose of the Consultation

The Authority is hereby issuing a consultation document to the industry to allow stakeholders to comment, make suggestions and provide feedback in relation to the setting up of a Technology-Driven ITA Sandbox. Following feedback from the stakeholders, the Authority will issue guidelines and procedures for such a sandbox.

Introduction and Rationale

Malta has developed a robust certification programme for Innovative Technology Arrangements and Services (ITAS), which provides user and investor assurances with regards to the functional correctness and dependability of such technologies. As launched, the certification was designed for high risk regulated activities, and thus came with high assurances levels, but which also mean high barriers-to-entry.

Certification awarded by a national authority showing that an independent technical audit took place, even if voluntary, is a powerful tool in terms of user and investor protection and a means for product and service providers to show that external due diligence was applied to their technology. The provision of such authority-recognised audits accessible to smaller enterprises, start-ups and systems-in-development can ensure that the scope of the regulatory framework and the legal certainty it provides can be used as they and these providers and their technologies grow. The goal is to provide a regulatory framework which enables operations to adopt gradual technology certification from an early stage until full deployment. It is, however, recognised that scaling down due diligence weakens the certainty provided, and MDIA is thus proposing a sandbox-approach in which accepted technologies will go through an audit based on the principle of proportionality, but will be monitored to ensure adherence to legal requirements but also that the audits scale as the ITAs grow in size and complexity.

The aim of this document is to outline how MDIA is proposing to set up such a technology-based sandbox framework to address this challenge and identify concrete questions to the stakeholders: systems auditors, potential participants, etc.

A Technology-Driven Regulatory Sandbox for ITAS

Regulatory sandboxes address the need for a controlled environment in which to test new business models. Current regulation does not cater for this and is either by being too restrictive or not offering the right form of protection. Operating in a sandbox environment permits operating within certain parameters supervised by the authorities, with most sandboxes focussing on a particular regulated activity (e.g. FinTech), with the authority taking the supervisory role being the lead authority for that activity.

Through the MDIA and ITAS Acts, Malta provides a unique regulatory framework for the application of due diligence on innovative technologies under the Malta Digital Innovation Authority (MDIA). Currently covering DLT-based technologies but soon to be extended to cover AI-based ones, certification mimics parallel auditing processes as is typically found in other regulated domains but focusing on the reliability and dependability of the technology.

As with other regulatory certification, in order to provide strong guarantees to users of and investors in the operations of the deployed arrangements and services, the process comes with substantial overhead in terms of cost.

A regulatory sandbox for ITAS certification will ensure that Malta can (i) provide regulatory certainty for ITAs still being rolled out and by smaller players in the market; (ii) whilst providing an incremental solution leading up to full certification yet lowering the high barriers to entry with the current all-or-nothing approach. The main barriers to be addressed are financial ones, since the costs of a full systems audit can be prohibitive for small startups, and technological ones, since full certification requires the technology must be set up, deployed and rolled out before certification.

MDIA is proposing a technology focused sandbox to be administered and overseen by the authority, not tied to any particular regulated activity.

Question 1.

Do you agree with the provision of a ITA Sandbox as a means of providing official recognition of technical audits based on the principle of proportionality?

Regulatory ITA Sandbox: Driving Principles

A regulatory sandbox for ITAs should build upon the strengths of the current certification process which MDIA is responsible for. The underlying principle is to ensure that recognised technologies have undergone an independent third-party audit by system auditors licensed by the the Authority, providing user and investor assurances regarding adequacy of technology, risk mitigation processes, etc., all performed against well-defined control objectives. In addition, legal certainty is also provided through requirements such as the appointment of a Technical Administrator legally bound to report and act in case of legal violations, and the requirement to have a forensic node to keep an audit log of the underlying system's operations and transactions, thus supporting investigation.

The key element in the design of a regulatory sandbox framework is the identification of which regulatory burdens can be reduced or modified, and which cannot during the sandbox phase. Although flexibility of the framework can be a key success requirement, it is crucial to define the limits of the sandbox approach to give value to operating within it. In keeping with the ethos of ITAS certification, the non-negotiable aspects of the ITAS sandbox should include:

1. Independent third-party auditing of certain aspects of the processes, technology and operations.
2. The design and setup of a Forensic Node to record all relevant activity which is available to the Authority and for future auditing.
3. Legal obligations arising from national legislation or due to other national authorities.

These are the core elements which provide certainty in the certification process. On the other hand, there are other requirements on the ITAS in question, the degree to which they are to be imposed at the different stages can be negotiable. These include:

1. The degree of readiness of the technology.
2. Aspects of the system that do not require initial auditing.
3. Adaptive measures for changing systems.
4. The operational limits until further technology auditing is required.
5. Certain control-objectives which are deemed not to be essential for the ITAS at the current state of development and deployment.

Due to the very nature of innovation, one envisages wide variation in ITAS which will be considered for sandbox certification. Due to this fact, the framework should allow for the applicants to identify the factors which they consider not to be required for initial auditing and certification, justification and a plan of how they will be addressing these issues during their sandbox residency. These will be considered as part of the evaluation and auditing process to qualify them to be considered for the ITAS Sandbox.

Question 2.

Do you agree with the underlying principles and non-negotiable aspects for acceptance within the ITA Sandbox?

ITAS Sandbox: The Processes

Participation in the ITAS Sandbox will be phased in a manner which is appropriate for each particular instance. Due to the overheads required to monitor participants with different sandbox conditions, the number of sandbox participants will be capped. Despite the different conditions, all participants will go through a standard onboarding, monitored sandbox residency and eventually standard offboarding phase.

Onboarding of ITAs

Registration of interest.

Onboarding starts with a registration of interest by the prospective applicant, thus allowing official recognition of the intent to obtain sandbox residency.

Application.

There are different options for the onboarding process which can be adopted: regular calls with fixed dates, ad hoc calls whenever there is capacity for more participants, an open call with fixed evaluation dates, or a completely open call with immediate evaluation. Which process to be adopted will depend largely on the Authority's strategic direction at the time, the sandbox capacity and the perceived needs of potential applicants.

What information is to be included at application stage will be published in MDIA guidelines, but will certainly include: (i) general information about the ITAs; (ii) information about what technology is already developed and deployed; (iii) risk analysis and mitigation plans; (iv) identification as to which control objectives are not relevant, with justification; (v) limitations on the operational aspects of the arrangement or service (e.g. number of users or number of transactions per day to handle) will be initially in place; (vi) information about the forensic

node setup; (vii) a plan for their sandbox residency period, highlighting how the solution will move towards full certification with concrete timelines; and (viii) an exit strategy addressing how they plan to exit the sandbox for full certification. As discussed, a forensic node will always be required to keep track of any ITAS relevant information and transactions must be updated as the system is extended. The only exception is if the application is submitted before the deployment of any technology, in which case a detailed plan on the setup of the forensic node must be included in the application.

Evaluation.

The evaluation of applications is required to ensure that sandbox residency is only granted to ITAs which follow the requirements set out and have concrete progress plans. Furthermore, since the number of sandbox residents will be limited due to the resources required to monitor them, evaluation will rank applications to justify the choice of which ITAs will be certified sandbox residents based on factors such as quality, strategic direction and inherent associated risk.

It is recommended that evaluation is performed fully or partially by parties external to the Authority, possibly delegating this as another role which can be performed by Systems Auditors. On the other hand, this will incur additional costs, and another solution is that MDIA appoints expert evaluators for an initial filtering and selection of proposals, and make the selection subject to the first Systems Audit that will be done on the ITAS.

Entry Systems Audit.

The onboarding process will end with the first entry-level systems audit performed on the ITAS, in order to ensure that the technology and plans are as described in the applicant's blueprint.

Monitoring of Sandbox Resident ITAS

Throughout its sandbox residency, the applicant must submit regular reports and hold meetings with the Authority as planned in the original application. These reports will be based on activity as recorded and stored on the Forensic Node in order to ensure that it is working within the pre-established limits.

Furthermore, regular updates of the ITAS blueprint are required to be submitted whenever substantial or material changes are done on the ITAS, whenever milestones are identified in the application or whenever the Authority deems it necessary. An update to the systems audit may be required to evaluate the accumulated changes to the technology.

Offboarding

Sandbox residents can exit in one of three ways: (i) when the ITA has advanced to full deployment and operations, and goes for full MDIA certification; (ii) the ITA provider chooses to withdraw from the sandbox; or (iii) the Authority decides to remove a participant in case of violation of conditions.

Question 3.

Do you agree with the proposed processes for sandbox residency?

Interaction with Other Regulatory Sandboxes

The role of a technology-driven sandbox is complementary to that of other operational domain-specific ones, such as MFSA's FinTech and MGA's regulatory sandboxes. Due to this, MDIA will strive to ensure that the different sandbox environments will be working together to reduce administrative overheads and costs for any entity which may choose to operate under different sandboxes with different authorities.