

POLICYBRIEF

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Advancing Regional Regulatory Sandbox Cooperation for Data-Driven Growth in SADC

Stephanie Arnold

Regulatory Challenges and Digital Innovation in Southern Africa

Across Southern Africa, digital innovation is outpacing regulation. From AI chatbots supporting farmers to fintech platforms expanding access to credit, new technologies are transforming lives—but also exposing regulatory gaps. As cross-border payments, digital IDs, and data exchanges grow, policymakers face urgent questions: How to regulate emerging technologies? How can rights be protected without stifling innovation? While regulatory capacity in the Southern African Development Community (SADC) is strengthening, challenges persist—local innovators struggle to access data, and global tech players often bypass local rules. To keep pace, the region needs smarter, more inclusive approaches to data governance that foster innovation, ensure accountability, and reflect African priorities.

The SADC is at a pivotal stage in its digital transformation, guided by the SADC DTS. This strategy aligns with broader goals such as the African Union's Agenda 2063 and the UN Sustainable Development Goals (SDGs), envisioning a digitally integrated region supported by harmonised policies, modern infrastructure, and cross-sector coordination.

Growing private sector interest in the region's digital economy, alongside increasing volumes of data from telecom and financial service providers, signals a strong foundation for

Highlights

Regulatory sandboxes are emerging as critical governance tools across SADC, allowing regulators and innovators to test data-driven technologies in controlled environments while safeguarding fundamental rights

Current sandbox approaches remain fragmented and sector-specific, largely focused on fintech, with limited engagement from data protection authorities and little coordination across borders

Regional coordination is essential to address cross-border challenges such as data sharing, AI oversight, and market scale-up.

International models offer practical lessons for SADC, including the Pacific Islands' regional sandbox and the EU's multi-sandbox and observatory approaches, which reduce duplication and build regulatory capacity through cooperation

digital innovation. Academic institutions also offer capacity for research and technical support. Technologies like AI, big data, and IoT could transform key sectors such as agriculture, healthcare, education, and tourism—all regional development priorities.

However, persistent challenges remain. Regulatory capacity is limited in many member states, and legal frameworks are not harmonised. Emerging risks—from AI-driven decision-making that affect jobs for the masses to cybersecurity threats—create further uncertainty. These factors highlight the need for adaptive and collaborative regulatory approaches.

Against this background, regulatory sandboxes have emerged as valuable tools for supporting innovation. Countries like South Africa, Mozambique, and Mauritius have implemented national sandboxes, primarily in the fintech sector, and nearly all SADC member states allow for some type of regulatory experimentation (e.g. live-testing, innovation hubs). Despite this progress, the use of sandboxes across SADC

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remains fragmented and narrowly focused. Most existing regulatory sandboxes are tailored to the fintech sector and receive limited engagement from the nascent and widely under-resourced data protection authorities or regulators in areas beyond finance. As digital economies expand, issues like data privacy, liability, and cross-border data sharing are becoming increasingly critical—but are rarely addressed in current sandbox setups.

To maximize impact, SADC's approach to regulatory sandboxes must break sectoral and jurisdictional siloes. This policy brief outlines three key recommendations for the SADC Secretariat and its Member States to build capacity, support regional coordination, and promote a unified regulatory sandbox framework for inclusive innovation across borders—helping unlock the full potential of the region's digital transformation. The recommendations are relevant for the rest of Africa, beyond SADC.

Regulatory Sandboxes as Tools and Policy Labs for Governing Innovation

Regulatory sandboxes have become vital tools for navigating the complexities of digital and data-driven innovation. They offer a controlled environment, which enable experimentations, where new technologies, products, or business models can be tested with temporary regulatory flexibilities. This allows both innovators and regulators to explore real-world implications without immediately enforcing the full regulatory burden.¹ As noted by the OECD² and the German Federal Ministry for Economic Affairs and Climate Action³, sandboxes aim to support innovation that can enhance value addition from data and economic growth while safeguarding fundamental rights such as data privacy and protection.

Regulatory sandboxes, as governance tools, help to address a central regulatory dilemma: how to manage emerging technologies without stifling innovation. Regulatory sandboxes function as policy laboratories, enabling iterative and evidence-based adjustments to laws and frameworks. This approach allows innovators, startups and SMEs to enter the market more confidently, while providing regulators timely insights into the risks and impacts of innovation.

It supports innovation that is not only faster to market but also aligned with values like transparency, accountability, and inclusion.

From a policy perspective, sandboxes offer an agile way to apply existing laws to novel technologies that do not fit neatly within current regulations. They can also help align technical standards and regulation, particularly in areas such as AI and privacy-enhancing technologies.⁴ Although sandboxes first

1 Jeník I., & Duff, S. (2020). How to build a regulatory sandbox: A practical Guide for Policy Makers. Washington, D.C.: World Bank.

2 OECD (2024). Regulatory experimentation: Moving ahead on the agile regulatory governance agenda. OECD Public Governance Policy Papers, No. 47. Paris: OECD Publishing. Doi: 10.1787/f93910c-en.

3 Federal Ministry for Economic Affairs and Climate Action (Government of Germany) (2023). Regulatory Sandboxes – Testing Environments for Innovation and Regulation. Available at: <https://www.bmwk.de/Redaktion/EN/Dossier/regulatory-sandboxes.html>. Last accessed: 7 November 2025

4 OECD (2023). Regulatory Sandboxes in Artificial Intelligence, OECD Digital Economy Papers, No. 356. Paris: OECD Publishing. Available at: https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/07/regulatory-sandboxes-in-artificial-intelligence_a44aae4f/8f80a0e6-en.pdf

gained traction in the fintech sector, their use is expanding. A forerunner is Kenya's ICT regulatory sandbox launched by the Communications Authority in 2023. It is one of a kind on the continent, testing among others emerging technologies such as IoT devices, AI driven services, and smart city solutions.⁵ In the context of the G20 in South Africa, a policy brief proposed a model of a "quantum sandbox" in form of a mixed technical and regulatory sandbox that is "aligned with the G20's development goals and tailored to the needs of the Majority World countries"⁶. The UK's Information Commissioner's Office runs a sandbox focused on data privacy, and the EU has launched AI regulatory sandboxes.⁷ Similar models have been proposed in health, climate, and education, showing their potential as cross-sectoral governance tools.^{8,9}

Despite their usefulness and wide application, sandboxes are not without limitations. There is often a lack of standardized design principles, which can create governance inconsistencies.¹⁰ Sandboxes can also be resource-intensive and may not suit all regulatory environments. In some cases, lighter alternatives—such as innovation hubs or "test-and-learn" approaches—may offer more scalable options, especially where regulatory capacity is limited.

Moreover, national sandboxes rarely address regional challenges such as cross-border data flows or AI oversight. Their siloed nature can hinder regional scale-up and learning. To fully harness their potential, regulatory sandboxes must evolve into regionally coordinated tools that support harmonized, inclusive, and adaptive governance. The next

section explores examples of regulatory sandboxes at regional level.

Regulatory Sandboxes as Tools for Scaling Innovations and Strengthening Regional Integration

As digital innovation increasingly transcends national boundaries, regulatory collaboration has become essential to support safe, efficient, and scalable innovation. A leading example is the Pacific Islands Regional Initiative (PIRI) Regional Regulatory Sandbox, launched by the Alliance for Financial Inclusion.¹¹ This regional regulatory sandbox enables financial service providers and fintech firms to test innovations across participating Pacific Island countries through a single, unified application process. Innovators can select the jurisdictions in which they want to operate, and regulators in those countries can independently accept or reject the application. This shared but flexible approach

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allows innovators to apply and report only once, saving significant time and costs through economies of scale, while still giving each regulator the authority to apply national standards. For small, resource-constrained jurisdictions, this kind of collaboration enhances supervisory capabilities, encourages harmonized learning, and makes it easier to scale successful innovations. This approach is particularly suitable to achieve economies-of-scale across the structurally similar small island states but may not fit the SADC region where Member States are extremely diverse in terms of population size, income levels, regulatory maturity and innovation ecosystem.

In the European Union, similar models are evolving to foster cross-border innovation.¹² Through multi-sandbox testing, innovators can engage with two or more regulatory sandboxes

5 Datasphere Initiative (2025). Africa Sandboxes Outlook: Thinking outside the box for responsible innovation in the age of AI. Available at: <https://www.thedatasphere.org/wp-content/uploads/2025/02/Report-Africa-Sandboxes-2025.pdf>

6 Espanol, A.G., & Marco, F. (2025). Quantum Sandboxes for the Majority World: A Dual Governance Approach to Innovation and Regulation. G20 South Africa Policy Brief. Available at: https://t20southafrica.org/wp-content/uploads/2025/11/T20_TF2_SB3_PB9_QuantumSandboxes.pdf (p.6)

7 Novelli C., et al. (2025). Getting Regulatory Sandboxes Right: Design and Governance Under the AI Act. Available at SSRN: 10.2139/ssrn.5332161

8 Udayasankaran J., Tomlinson S., & Blest, H. (21 May 2025). Digital health innovation: Are sandboxes a new tool to scale? Datasphere Initiative. Available at: <https://www.thedatasphere.org/news/digital-health-innovation-are-sandboxes-a-new-tool-to-scale/>. Last accessed: 7 November 2025

9 Porciuncula, L. (14 Nov 2024). The sandbox potential for environmental data governance. Datasphere Initiative. Available at: <https://www.thedatasphere.org/news/the-sandbox-potential-for-environmental-data-governance/>. Last accessed: 7 November 2025

10 Novelli C., et al. (2025). Getting Regulatory Sandboxes Right: Design and Governance Under the AI Act. Available at SSRN: 10.2139/ssrn.5332161.

11 "Pacific Regional Regulatory Sandbox Guidelines" (27 Mar 2020). Regulatory Guideline No. 01. AFI Global. Available at: <https://www.afi-global.org/publication/pacific-regional-regulatory-sandbox-guidelines/>. Last accessed: 7 November 2025

12 "Cross-border testing" (n.d.). EU Digital Finance Platform. European Commission. Available at: <https://digital-finance-platform.ec.europa.eu/cross-border-services/cross-border-testing>. Last accessed: 7 November 2025

in different Member States, increasing visibility and facilitating mutual understanding among regulators. Multi-sandbox testing assumes that two or more regulatory sandboxes and the broader regulatory environment are sufficiently aligned to encourage an innovator to undergo regulatory experimentation simultaneously. In the SADC region, innovators are free to participate in multiple regulatory sandboxes at the same time. However, the lack of coordination and cooperation among supervisory authorities suggests that the additional efforts of these innovators are unlikely to deliver meaningful benefits in terms of cost-efficiency or cross-border visibility.

The EU also supports observatory sandbox testing, where a firm conducts testing in one jurisdiction but allows authorities in other countries to observe and learn from the process. To aid this, the EU maintains a public list of national competent authorities, indicating whether they operate a regulatory sandbox, act as “recipients of test findings”, or serve as “observers”.¹³ This transparency helps innovators identify relevant authorities and facilitates more informed, multi-jurisdictional testing strategies. With over ten regulatory sandboxes in operation, the SADC region is well positioned to strengthen these frameworks by integrating relevant and applicable lessons from the PIRI Regional Regulatory Sandbox and the European observatory sandbox models—beginning with a comprehensive mapping of regulatory authorities, their mandates, and capacities.

Overall, the implications of these collaborative models are significant. For innovators, cross-border sandboxes reduce duplicative regulatory efforts, cutting down on compliance costs and accelerating time-to-market. A single application and coordinated reporting streamline the path to testing and, ultimately, deployment. For regulators, these frameworks offer a cost-efficient way to build capacity, share resources, and collectively monitor risks. They also foster regulatory convergence, which is key to ensuring consumer protection and market integrity across borders.

Beyond sandbox collaboration, some countries in Africa are also piloting licensing passport frameworks to enable cross-border operations. In February 2025, the Bank of Ghana and the National Bank of Rwanda signed an MoU establishing Africa’s first license passporting framework.¹⁴ This agreement

allows licensed fintechs in one country to operate in the other with minimal additional regulatory hurdles. In parallel, the two central banks are also exploring cross-border payment interoperability. This approach reduces regulatory fragmentation, eases market expansion for fintechs, and promotes regional financial integration—laying the groundwork for a more cohesive digital economy in Africa.

Methodology for Deriving Policy Recommendations

The policy recommendations presented in this brief are grounded in insights generated during a regional workshop on Data Governance, held in Antananarivo, Madagascar, from 22–26 September. The event brought together over 50 delegates from across the Southern African Development Community (SADC), including representatives from ICT ministries, regulatory authorities, data protection bodies, and regional organisations such as SADC Secretariat, Communications Regulators’ Association of Southern Africa (CRASA), Southern Africa Telecommunications Association (SATA), and Southern Africa Postal Operators Association (SAPOA). Organised as part of the Team Europe Action “Data Governance in Africa” and jointly delivered by the BMZ-funded “DataCipation” and “Data Economy” programmes (GIZ), the workshop aimed to strengthen regional cooperation on digital policy, regulation, and innovation.

The policy recommendations were specifically derived from the training sessions held on Day 3, which focused on the critical question of how to balance data protection and rights with data access and use to enable responsible, inclusive, and context-relevant data-driven innovation. Participants engaged in a technical training on key regulatory tools, including data sharing agreements, innovative regulatory approaches, and regulatory sandboxes. These sessions provided a foundation for understanding how regulators can foster innovation while safeguarding public interest. Participants then engaged in group work using case studies and scenarios to develop concrete policy recommendations on regional regulatory cooperation.

The three policy recommendations featured in this brief reflect a combination of technical insights, regional priorities, and collaborative thinking expressed during the workshop—and are intended to inform both national and regional efforts to enhance digital governance and innovation within the SADC region.

¹³ “National Competent Authorities” (n.d.). EU Digital Finance Platform. Available at: <https://digital-finance-platform.ec.europa.eu/cross-border-services/cross-border-testing/participants>. Last accessed: 7 November 2025

¹⁴ “Ghana and Rwanda to Implement Africa’s First Fintech License Passport Framework” (3 Mar 2025). GFTN. Available at: <https://gftn.co/media-hub/ghana-and-rwanda-to-implement-africas-first-fintech-license-passport-framework>. Last accessed: 7 November 2025

Concluding Remarks and Key Messages

As regulatory sandboxes gain traction across the SADC region, there is a growing need to stimulate peer learning and exchange. Countries like South Africa, Mozambique, and Mauritius have developed mature sandbox models that offer valuable lessons for other Member States. In fact, South Africa's intergovernmental approach, Mozambique's multi-cohort system and annual innovation competition, and Mauritius' robust regulatory framework are all examples of sandbox innovation worth sharing.

However, not all SADC Member States have the resources or readiness to operate regulatory sandboxes independently. Bilateral or sub-regional cooperation can allow less-resourced countries to participate as observers or recipients of test results, drawing insights from countries with more advanced regulatory systems. Such collaboration can reduce redundancy, allow innovators to scale across borders, and promote more inclusive regional innovation.

As digital innovation increasingly spans borders, fragmented regulatory approaches create bottlenecks for innovation and consumer protection. In the long run, a unified regulatory sandbox framework—co-developed by Member States and led by the SADC Secretariat—can offer consistent operating procedures while allowing flexibility for national adaptation. Such a framework would ensure that innovations are tested fairly, consumer rights are upheld, and the benefits of data-driven solutions are equitably distributed. It could draw on the insights from the peer learning and knowledge exchange (see Recommendation 1) as well as concrete examples of bilateral or sub-regional cooperation around regulatory sandboxes (see Recommendation 2).

Recommendations

Recommendation 1: Strengthen Peer Learning and Knowledge Exchanges

- The SADC Secretariat should organize periodic peer exchanges – online or linked to programmed gatherings – where national regulators present their own experience with regulatory sandboxes or similar innovative regulatory approaches (e.g. test-and-learn, wait-and-see, passport licensing). Such knowledge exchanges also help regulators across the region identify best practices from the region and beyond, build capacity, and accelerate regulatory innovation.

- Individual regulators should also call for ad hoc regional consultations when faced with tricky regulatory questions or licensing requests for cutting-edge innovations. Where regulators assess the performance of their regulatory sandboxes, the reports or a summarized version should be circulated among the SADC Secretariat and regulators in the other SADC Member States. Once regulators have access to this information, they should integrate the experience and results of regulatory sandboxes across the region to fast-track licensing applications of sandbox graduates and to inform policies and regulations.

Recommendation 2: Encourage Bilateral Sandbox Cooperation

- The SADC Secretariat should curate a list of regulators with the respective mandates and how they can engage regionally—with their own regulatory sandbox, as observers, or as recipients of test results. Building transparency around which regulators are open to sandbox cooperation—and in what capacity—can support the identification of competent regulatory counterparts in other Member States and unlog communication channels.
- Once a regulator has indicated whether they can operate a regulatory sandbox of their own, partake as an observer or receive and consider test results from a foreign regulatory sandbox, regulators should develop concrete guidelines on how to monitor sandbox results and leverage the insights from other regulatory sandboxes in licensing or policy-making processes at home.
- SADC Secretariat should ensure that information on regulatory sandboxes in the region is publicly available and accessible to help innovators navigate regulatory differences across the region and accelerate regional scale-ups.

Recommendation 3: Move Toward a Unified Regional Regulatory Sandbox Framework

- The SADC Secretariat with the active participation from Member States should align sandbox operations with the SADC Digital Transformation Strategy and the broader regional goals for digital integration and regulatory harmonization would also support trust and interoperability across SADC markets.

EDITORIAL INFORMATION

About the Author: Stephanie Arnold is an is an Advisor to the Data Economy team at GlZ, where she is currently implementing the Team Europe Action “Data Governance in Africa.” She is also a Senior Associate Researcher at the Brussels School of Governance. Her work focuses on innovative regulatory approaches and cross-border data flows, with a strong emphasis on fostering an inclusive and sustainable data economy.

She holds a PhD in Political and Social Sciences, with a dissertation titled “The International Politics of Digital Development in Africa,” and a Master’s degree in Law specializing in European and comparative law.

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