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### **Designing Blockchain Ecosystems for Small Island Developing States in 2026: Institutional Surface, Geopolitical Configuration, and Architectural Layering**

by the Boli Association, with technical contribution from  
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**Subject classification:** tokenised settlement; wholesale  
CBDC; regulated stablecoins; verifiable digital identity; SIDS  
economic policy.

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# Designing Blockchain Ecosystems for Small Island Developing States in 2026: Institutional Surface, Geopolitical Configuration, and Architectural Layering

*A discussion paper on how SIDS — Pacific, Caribbean, and AIS — should approach institutional tokenisation, wholesale settlement infrastructure, regulated stablecoin rails, verifiable digital identity, and programmable compliance, in a global financial system that is being rewired in 2026 along bloc lines.*

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## **Abstract**

The 39 Small Island Developing States recognised by the United Nations share a structural condition. They have small domestic markets, narrow export bases, constrained fiscal positions, and acute climate exposure. They also share thin financial infrastructure, and between 2018 and 2026 that thinness made them an unwilling test bed for blockchain-related sovereign experiments. This paper does not propose specific projects. It asks a different question. Given the poor empirical record of those experiments, and given the reorganisation of the global financial system in 2026 around tokenised settlement, wholesale CBDC, regulated stablecoin frameworks, and verifiable digital identity, what does a serious blockchain ecosystem agenda for SIDS actually look like?

**Keywords:** Small Island Developing States, Canton Network, Project Agorá, Pontes, Helvetia, mBridge, GENIUS Act, MiCA, MLETR, sovereign tokenisation, verifiable credentials, programmable compliance.

**Subject classification:** tokenised settlement; wholesale CBDC; regulated stablecoins; verifiable digital identity; SIDS economic policy.

## Executive summary

The 39 Small Island Developing States recognised by the United Nations share a structural condition. They have small domestic markets, narrow export bases, constrained fiscal positions, and acute climate exposure. They also share thin financial infrastructure, and between 2018 and 2026 that thinness made them an unwilling test bed for blockchain-related sovereign experiments. This paper does not propose specific projects. It asks a different question. Given the poor empirical record of those experiments, and given the reorganisation of the global financial system in 2026 around tokenised settlement, wholesale CBDC, regulated stablecoin frameworks, and verifiable digital identity, what does a serious blockchain ecosystem agenda for SIDS actually look like?

Four observations frame the paper. First, every retail CBDC programme attempted in the SIDS context — in the Bahamas, the Eastern Caribbean, Jamaica, and in pre-launch form in Palau and the Marshall Islands — has either failed to achieve material adoption, been formally discontinued, or been abandoned at the legislative stage. The evidence base is now sufficient to draw conclusions. Second, the institutional financial system is organising itself around a small number of tokenised settlement venues: the Canton Network commercially, and Project Helvetia III, Project Ensemble, Project Guardian, Project Agorá, the Eurosystem’s Pontes and Appia tracks, and mBridge in the central-bank programmes. The question for SIDS is no longer whether to engage with that plane but how. Third, where blockchain-related infrastructure is working in SIDS contexts, the working layer is identity, not currency. The Maldives’ eFaas and the emerging Tonga, Samoa, and Tuvalu programmes have produced more measurable inclusion than any sovereign currency experiment in the region. Fourth, the institutional surface on which any of this work lands is not a single bloc. It is organised along observable lines: a US-aligned configuration anchored in the GENIUS Act, the CLARITY trajectory, and the Strategic Bitcoin Reserve; an EU-aligned configuration anchored in MiCA, Pontes, Appia, and the EU’s twentieth sanctions package; a China-sphere configuration anchored in the e-CNY’s 2026 transition, mBridge’s post-BIS governance, and Hong Kong’s stablecoin regime; and a BRICS scaffolding from the Rio and Kazan declarations. Choosing which configurations to interoperate with carries extraterritorial supervisory and sanctions consequences that bear on every other choice in the paper.

Against these observations, the paper sets out nine candidate opportunities: interoperability with the institutional tokenised settlement plane; regulated cross-border remittance corridors; verifiable digital identity at population scale; methodologically-sound climate-finance instrumentation; regulatory-framework competition under credible supervisory standards; programmable compliance composed with intelligent orchestration, alongside cost-augmentation in measurement-and-verification workflows; regional pooling of supervisory and operational capacity with bloc-level competitive positioning; tokenisation of economic verticals where SIDS have established sectoral advantage (tourism receivables, fisheries-quota documentation, maritime-registry tokenisation, citizenship credentials, custody hosting, diaspora vehicles); and first-mover legal-domicile positioning through clean functional-equivalence legislation. The architectural reading the paper proposes treats settlement finality as a venue choice — Canton, Pontes, Helvetia, an Article 6.4-recognised registry, or another supervised platform — and multi-virtual-machine support as an accessibility layer above it, with programmable-compliance and orchestration logic composed across

both. Each layer does work the institutional literature has sanctioned. The model-risk, accountability, and third-party-dependency obligations identified by IOSCO and the FSB attach to the AI layer and do not transfer to the smart-contract layer below it.

The paper is equally explicit about the structural constraints — eleven of them — that bound each of these opportunities. They include institutional and supervisory capacity; fiscal position; scale and adoption economics; geographic dispersion; dependency on infrastructure governed elsewhere; talent pipeline and execution capacity; distributional incidence and domestic value capture; the underdevelopment of the legal infrastructure that tokenised settlement requires; the geopolitical configuration of the institutional surface; the political-economy critique of the new institutional venues; and the empirical record of underperformance documented in §2. The alignment work that any SIDS choice will require is set out in six layers, including a sixth that the public conversation rarely surfaces: institutional capacity-building, education, and execution capability — supervisor training, domestic technical-talent pipelines, validator-operations capability, judicial training, public financial literacy, and regional pooling. Without that sixth layer, the prior five are operationally inert.

The paper proceeds region by region — Caribbean, Pacific, AIS — through the documented record, with a cross-cutting reading of the adoption-mechanic and value-capture lessons. It surveys the institutional context being built elsewhere, describes the geopolitical configuration of that surface descriptively rather than prescriptively, identifies the opportunities and challenges presented to small island jurisdictions, and closes with unresolved questions — including questions on legal infrastructure, education and capacity-building, execution sequencing and off-ramp planning, and the realistic economic prize of well-executed engagement. We do not propose pilots. We propose questions.

## **1. The SIDS condition and why it matters**

The category “Small Island Developing State” is a United Nations construct dating to 1992, capturing a group of states whose development circumstances are shaped by smallness, openness, and geographic dispersion. The 39 jurisdictions span three regions of varying institutional density: the Caribbean (16 states, anchored by the Eastern Caribbean Currency Union and CARICOM), the Pacific (16 states, with the Pacific Islands Forum as the principal regional body), and the AIS region — Atlantic, Indian Ocean, and South China Sea — which gathers Cabo Verde, Comoros, Guinea-Bissau, the Maldives, Mauritius, Sao Tome and Principe, Seychelles, and Singapore (the last conventionally treated as a SIDS for some purposes and a high-income peer for most policy questions).

Several economic features recur across these jurisdictions. They are small open economies with a narrow productive base — typically tourism, fisheries, financial services, agricultural commodities, and remittances from overseas workforces, in varying combinations. They face high per-unit costs of public administration relative to revenue, including in regulatory and supervisory functions. They run thin foreign-currency reserves and are typically dependent on a small number of correspondent-banking relationships for cross-border settlement; the gradual contraction of those relationships under Basel III and FATF risk-rating pressures over the past decade has been a sustained source of concern. They face climate adaptation costs that are very large relative to gross domestic product. And — most relevantly to this paper — they operate in financial systems whose institutional plumbing is set elsewhere, by venues, regulators, and standard-setters in jurisdictions with different priorities.

The export and revenue structure of these jurisdictions matters here because the opportunities surveyed in §4 map onto sectoral advantages that already exist. Tourism dominates foreign-currency earnings across most Caribbean SIDS, the Maldives, Mauritius, Seychelles, and several Pacific jurisdictions. Fisheries anchor several Pacific economies; the South Pacific tuna fishery alone is a category of roughly US\$6 billion in annual gross value, governed in part by the Parties to the Nauru Agreement’s Vessel Day Scheme. The Marshall Islands and the Bahamas operate two of the world’s largest open ship registries, generating registry, ship-finance, and professional-services revenue. Offshore financial services — at scale in Mauritius, Seychelles, Vanuatu, and (as adjacent non-SIDS comparators) the British Virgin Islands and Cayman — generate licensing fees, professional services, and corporate tax revenue that are large relative to GDP. Citizenship and residency programmes are run by several Caribbean and AIS jurisdictions. Remittance receipts run at roughly 41% of GDP in Tonga and 33% in Samoa; these are not exports in the conventional sense but are the dominant cross-border foreign-currency inflow in those economies. Tokenisation did not create any of these specialisations and will not displace them. The question is whether tokenisation infrastructure, applied to existing sectoral activity, changes the cost structure or the counterparty set in ways the institutional surface of §3 recognises.

These features are the relevant baseline against which any blockchain proposal directed at a SIDS jurisdiction must be assessed. They are also the baseline against which the empirical record of past proposals can fairly be evaluated.

## 2. The empirical record across SIDS regions

This section surveys the documented public record of blockchain, digital-currency, and adjacent fintech initiatives across the three SIDS regions from approximately 2018 through May 2026. It does not attempt completeness; it attempts an honest characterisation of what has been tried and what the outcomes have been.

### 2.1 The Caribbean

The Caribbean is the most-tested SIDS region for retail central bank digital currency. Three programmes have been launched and one has been formally discontinued.

The **Bahamas Sand Dollar**, issued by the Central Bank of The Bahamas in October 2020, was the world’s first fully launched retail CBDC. As of 2025, the stock in circulation stood at approximately B\$2.48 million, equivalent to roughly 0.39% of the country’s physical cash supply. Person-to-person transactions declined approximately 19.9% in count and 14% in value during 2024; person-to-business transactions also declined modestly. Business-to-business activity remains numerically immaterial (45 transactions recorded across the entire year of 2024). Physical cash in circulation rose approximately 20% in 2024, and the Central Bank announced a two-year plan in mid-2024 compelling commercial banks to integrate Sand Dollar wallets at point-of-sale.

The **Eastern Caribbean Central Bank’s DCash**, launched in March 2021 across the Eastern Caribbean Currency Union, was the first blockchain-based CBDC issued by a currency union. In early 2022, the platform suffered a two-month outage attributed to an expired digital certificate on the underlying Hyperledger Fabric infrastructure. The pilot was formally discontinued in January 2024 after thirty-four months. A successor programme, “DCash 2.0,” was scoped through late 2024 and 2025 but was formally suspended at the 112th Meeting of the ECCB Monetary Council on 13

February 2026, with resources redirected to a Regional Fast Payment System and to the CARICOM Payments and Settlement System. This is, to our knowledge, the most significant documented retail-CBDC abandonment in any currency union to date.

The **Bank of Jamaica’s JAM-DEX**, launched in July 2022, has not improved on the Sand Dollar trajectory in proportional terms. JAM-DEX issuance has remained essentially flat at approximately J\$276 million minted, against physical currency in circulation of J\$286.1 billion at end-2024 — approximately 0.1% of currency in circulation. Merchant on-boarding has been limited (approximately 2,379 merchants by September 2024). Transaction value did rise sharply in 2025 (approximately 550% year on year), but from a small base; the Bankers Association cited high integration costs and weak demand, and the Bank of Jamaica’s governor publicly criticised commercial banks’ slow on-boarding in early 2026.

Beyond CBDCs, **Bitt Inc.**, the Bridgetown-based fintech that contracted as the technical provider for DCash, continues to operate **mMoney** as a regulated Digital Barbados Dollar e-money product under a sandbox framework, and previously held the contract for Nigeria’s eNaira through 2023. The **Central Bank of Barbados** participates in a planned Caribbean Payment Settlement Arrangement (C-PSA) alongside the ECCB, the Bank of Jamaica, the Bank of Guyana, and the Trinidad and Tobago central bank. The **Banco Central de la República Dominicana** has had an internal CBDC working group since 2022; an IMF technical-assistance summary published in August 2024 found the banking system could withstand the income hit from CBDC issuance but flagged constitutional and Monetary and Financial Law amendments as preconditions; no issuance decision has been taken.

What is the honest interpretation of this record? Three SIDS-anchored retail CBDC programmes have either been discontinued, are at fractional-percentage adoption, or are stalled at the legislative-amendment stage. The ECCB’s February 2026 decision is a particularly material data point: a currency union with regional-bank ownership and pooled supervisory capacity tried twice and concluded that conventional fast-payment infrastructure is the better use of the same resources. Any proposal to a Caribbean state of further retail-CBDC work in the absence of a clearly differentiated value proposition over a regional fast-payment rail bears the burden of explaining what has changed.

## 2.2 The Pacific

The Pacific record is shorter, more varied, and more cautionary in tone.

The **Republic of the Marshall Islands** authorised, by the Sovereign Currency Act of 2018, the issuance of “the Sovereign” (SOV), a decentralised cryptocurrency intended as a second legal tender alongside the United States dollar. The International Monetary Fund objected continuously from 2018 onward on grounds of economic, reputational, governance, and AML/CFT risk. SOV never launched. The Sovereign Currency Act was repealed by the Marshall Islands’ Monetary Authority Act of August 2025. A separate, smaller-scale digital-wallet and stablecoin pilot (“Lomalo” and “USDM1”) was launched in late 2025 in connection with a universal-basic-income experiment; this is materially different from SOV in scale and character.

The **Republic of Palau** ran a pilot of a USD-pegged stablecoin on the XRP Ledger (the Palau Stablecoin, “PSC”), with technical and financial backing from Ripple Services Inc. In June 2025, the Office of the Public Auditor of the Republic of Palau published audit AR-2025-005, which found two procedural breaches: neither the October 2021 Memorandum of Understanding nor the December 2022 Ripple Master Hosted Stablecoin Services Agreement was certified for form and

legality by the Attorney General as required, and the National Director of Programme, Budget and Management did not certify fund availability when the services agreement was signed. The auditor concluded that the Ministry of Finance “acted within its broad authority and did not violate its mandate” and found no evidence of misuse of resources. Total project expenditures were US\$14,035 against a US\$25,000 Ripple deposit. The pilot has effectively concluded; a supplemental review was deemed unnecessary.

**Tuvalu’s Digital Nation** initiative, announced at COP27 in 2022, included plans for a blockchain-based digital identity, digital passports, and a virtual replica of national territory. The early National Digital Ledger project did not proceed past Phase 1; the public assessment was that the available 2020–2021 blockchain tooling was too immature for a national-scale platform. The 2025 activation of the Tuvalu Vaka Cable (submarine fibre) is the more consequential digital-infrastructure milestone of the Digital Nation effort.

**Tonga’s** TongaPass digital identity, launched in May 2025, links every individual registered in the Civil Registration System to the gov.to portal and provides API integration for service delivery. The National Reserve Bank of Tonga has remained at early-stage CBDC research. **Samoa’s** first national digital identification system is being built with the support of a US\$21 million World Bank grant approved in October 2024, alongside national payment system upgrades. **Vanuatu** passed its Virtual Asset Service Provider Act in March 2025, establishing licensing, ICO, NFT-marketplace, custody, and fintech-sandbox provisions. **Fiji’s** Reserve Bank, by contrast, prohibited virtual-asset service providers from August 2025, taking the most restrictive Pacific stance. **Nauru** established the Command Ridge Virtual Asset Authority in 2025, positioning itself as a small regional digital-finance hub. **Papua New Guinea** announced a CBDC proof-of-concept in early 2025 with Japanese International Cooperation Agency support.

Two Pacific-regional themes are consequential. The 2025 Forum Economic Ministers’ Meeting elevated the Pacific Regional Fast Payments System from concept to formal policy; a Pacific Fast Payments Workshop was held in December 2025. The IMF, in its 2024 Pacific guidance, recommended CBDCs and well-regulated stablecoins for cross-border use cases while warning against unbacked crypto assets. The pattern is consistent with the Caribbean direction: regional fast-payment infrastructure is being prioritised over jurisdiction-specific retail digital currency.

### **2.3 The Atlantic, Indian Ocean, and South China Sea region**

The AIS region presents the most institutionally varied record across the three SIDS regions.

The **Maldives** has, in eFaas, what is — measured by enrolment — the most successful national digital identity in the SIDS group. Approximately 272,000 individuals, or roughly 80% of the population over age ten, are enrolled. The OneGov platform aggregates services from seventeen agencies. A Smart-ID rollout is targeted for 2026, with a five-year agreement signed with Mastercard for payment integration. The **Favara** instant-payments platform, launched in August 2023 with Tietoevry as technical partner, handled more than 84% of retail transactions in 2024, valued at over MVR 23.7 billion. These two systems together represent the most tangible digital-finance infrastructure in any SIDS jurisdiction. The 2021 sovereign sukuk cycle — US\$500 million issued at a 9.875% profit rate, distressed through 2024, settled in April 2026 with bilateral assistance from India — is a separate, sobering data point about credit and small-economy vulnerability. The Maldives International Financial Centre, announced in May 2025 with Dubai-based MBS Global Investments at a US\$8.8 billion headline figure, is at the announcement stage as of this writing.

**Seychelles** gazetted its Virtual Asset Service Providers Act in August 2024, with the Financial Services Authority as the regulator. The Act permits four classes of activity (wallet provision, exchange, broking, investment provision); mining and mixers/tumblers are prohibited both onshore and from Seychelles. Penalties for unlicensed operation reach US\$350,000 and fifteen years' imprisonment. The transitional period for existing operators ended in December 2024. The supervisory regime — including in-person “Show and Tell” sessions covering KYC, transaction monitoring, and SAR filing — is unusually rigorous for a small jurisdiction.

**Mauritius** brought its Virtual Asset and Initial Token Offering Services Act into force in February 2022, supervised by the Financial Services Commission. Five VASP licence classes are available; 2024 guidance brought DeFi protocols, staking services, and DAOs into scope. Stablecoin issuers are required to hold 1:1 fiat reserves in segregated Mauritian bank accounts with quarterly auditor verification. Annual cybersecurity audits, stricter AML/CFT and transaction-monitoring rules, and physical-presence requirements were tightened from March 2025. Mauritius and Seychelles together represent the most credible offshore VASP regimes in the SIDS group.

**Cabo Verde** has private-sector fintech activity — a Cabo Verde-headquartered stablecoin-based remittance platform, CaboPay, was profiled at Web Summit Lisbon 2025 — but no central-bank-issued digital currency. **São Tomé and Príncipe** and **Comoros** have negligible documented blockchain or digital-currency activity in the public record.

## **2.4 What worked, what did not, and what the evidence supports**

Stepping back from the regional detail, three patterns are consistent across the SIDS sample.

**Identity rails have outperformed currency rails.** The Maldives' eFaas (≈80% population enrolment) and the early Tonga, Samoa, and Tuvalu efforts provide the only consistent record of measurable inclusion gains. These are paired with conventional instant-payment infrastructure (Favara in the Maldives is the cleanest example) rather than with CBDC. Where digital identity has reached working scale in a SIDS jurisdiction, it has done so without a sovereign blockchain currency component.

**Conventional instant-payments systems have outperformed retail CBDCs.** Maldives Favara captured more than 84% of retail transactions in 2024, a level no Caribbean retail CBDC has approached. The ECCB's pivot in February 2026 from DCash 2.0 to a Regional Fast Payment System is a data point of the same character. Where retail CBDCs were tried (Sand Dollar, JAM-DEX, DCash), adoption has uniformly remained at fractional-percentage levels.

**Speculative sovereign-cryptocurrency projects have not produced verifiable benefits.** The Marshall Islands' SOV was repealed seven years after authorisation without ever launching; Palau's audit-flagged stablecoin pilot expended approximately US\$14,000 and concluded without scaling. The pattern across both cases is the same: ambitious sovereign-cryptocurrency frameworks that did not survive contact with the international financial system or with the audit and legality requirements of the issuing state.

These patterns are sufficiently consistent across the SIDS sample, across regions, across underlying technologies, and over a sustained period of empirical observation, that they justify a stronger inferential claim. The hypothesis that retail CBDC issuance is, in itself, a productive use of small-state institutional capacity is not supported by the SIDS evidence. The hypothesis that digital-identity infrastructure plus modern fast-payment rails produces more measurable inclusion than blockchain-native sovereign currency is supported by the same evidence.

This is not a universal claim — wholesale settlement applications are different (we treat them in §3) and the institutional context against which any new SIDS programme would be assessed in 2026 is materially different from the context of 2018 (we treat that in §4). But for retail CBDC specifically, in SIDS specifically, the evidence base now justifies caution, not enthusiasm.

The adoption mechanics and value-capture record across the SIDS sample also bear on any future agenda, and they are rarely surfaced explicitly in public commentary. Favara captured more than 84% of retail-transaction share in 2024 because it was launched into a banking system that had already converged on a small number of mobile-banking applications, paired with eFaas at population-scale enrolment, and integrated with merchant point-of-sale infrastructure that the Maldives Monetary Authority and Tietoevry rolled out together. The merchant side and the consumer side were on-boarded as a coordinated programme rather than serially, so the network-effect threshold was crossed quickly. Sand Dollar, JAM-DEX, and DCash were each launched into systems where the merchant-onboarding and bank-integration sequencing was uneven, where public communication did not match launch cadence, and where user-side incentives were too weak to displace cash and existing card rails. The pattern is not technological. It is a sequencing-and-coordination pattern.

The cost-of-failure side concentrates in a handful of vendor relationships: Bitt Inc. for DCash and Sand Dollar, eCurrency Mint for JAM-DEX, Soramitsu for Cambodia’s Bakong (the closest non-SIDS comparator), Tietoevry for Favara, and Ripple Services Inc. for Palau’s stablecoin pilot. Contractual economics are not fully public, but the available record points to thin domestic-talent capture relative to the gross flow of public expenditure, and to non-trivial migration costs when a vendor relationship ends — as the ECCB’s DCash transition showed. Any future SIDS digital-finance work that ignores these adoption, sequencing, and value-capture lessons is repeating an experiment whose conditions have not changed.

### **3. The institutional context being built elsewhere**

Independent of the SIDS retail-CBDC record, the institutional financial system is in the middle of a substantive technological reorganisation. The relevant question for a SIDS-directed blockchain agenda is no longer whether the major financial institutions are tokenising — they are — but where the tokenised settlement plane is being constructed, by whom, and on what terms of access.

#### **3.1 The Canton Network as the institutional commercial venue**

The **Canton Network** is, as of mid-2026, the institutional blockchain venue with the largest verified production volumes. The network is a public, permissioned Layer-1 blockchain built on the DAML smart-contract language, with sub-transaction privacy as its distinguishing technical property — counterparties to a transaction see its data, while a Global Synchronizer ensures atomic settlement across otherwise-isolated participants without exposing transaction contents.

Governance is concentrated in the Canton Foundation, established in 2024 in Zug, with the Depository Trust and Clearing Corporation joining as co-chair alongside Euroclear in December 2025. As of January 2026, the network had approximately 575 validators, of which 26 were Super Validators (the consensus layer); the Super Validator count expanded to forty-five plus by April 2026, and the validator count to roughly 600. Documented Super Validators include DTCC, Goldman Sachs, BNP Paribas, Deutsche Börse, Broadridge, Tradeweb, BNY Mellon, Cboe Global

Markets, Microsoft, Paxos, Chainlink Labs, S&P Global, Moody's, Nasdaq, Citadel Securities, Hex Trust, Taurus, and — as of March 2026 — Visa, which joined under a privacy-preserving-payments framing.

Production volumes on Canton in 2025 and 2026 are substantial. **Broadridge's Distributed Ledger Repo platform**, historically built on a DAML/Canton stack, recorded approximately US\$384 billion in average daily volume and roughly US\$9 trillion in monthly volume in December 2025. **HQLA's** collateral mobility service to Eurex Clearing went live in Q2 2025 and announced migration to Canton in April 2026. **DTCC's Treasury tokenisation programme** with Digital Asset, supported by an SEC No-Action Letter to DTC in December 2025, is scheduled for minimum-viable-product launch in the first half of 2026, limited production in July 2026, and full platform availability in October 2026, with subsequent expansion contemplated to additional eligible-securities classes. **Tradeweb's** August 2025 industry working-group transaction was the first fully on-chain US Treasury repo transaction settled against USDC; a December 2025 tranche added cross-border, multi-currency intraday repos using tokenised deposits. **Hashnote's** USYC tokenised money-market product, available on Canton with sub-transaction privacy, reached approximately US\$1.52 billion in assets under management at the time of its acquisition by Circle in January 2025. **Circle's USDCx** went live on Canton in December 2025, making Canton the first chain to integrate Circle's xReserve. **JPMorgan's** Kinexys (formerly Onyx) announced in January 2026 that it would issue its USD JPM Coin (JPMD) natively on Canton, with phased rollout through 2026. **Goldman Sachs** has stated that GS DAP, which runs natively on Canton, will be spun out as an independent, market-neutral entity by mid-2026.

The figures with the most consequence for SIDS policy: the Canton Foundation and ecosystem participants report that the network supports more than US\$6 trillion in tokenised real-world assets, more than US\$1.5 trillion per month in tokenised US Treasury repo activity, and approximately US\$9 trillion in monthly transaction volume. These are publicly reported, not independently audited. The underlying claim — that Canton is the institutional settlement venue at which the major balance sheets of the global financial system are accumulating — survives that caveat.

Several headline 2026 milestones are announced and scheduled but not yet delivered as of May 2026: DTCC tokenised-Treasury production, JPMD on Canton, Protocol 3.5 with logical synchronizer upgrades, the GS DAP spinout, and the Visa privacy-payments build. The delivered footprint will be larger by year-end if these milestones land.

### 3.2 The wholesale CBDC and tokenised-settlement programmes

Parallel to Canton's commercial development, central banks have advanced wholesale tokenised settlement.

The **Swiss National Bank's Project Helvetia III** placed wholesale CBDC into live issuance on the SIX Digital Exchange at the end of 2023; in June 2025 the pilot was extended through at least mid-2027 and broadened to settle tokenised assets against central bank money via an RTGS link. The **Hong Kong Monetary Authority's Project Ensemble** moved from sandbox to live pilot ("EnsembleTX") in November 2025 for tokenised-deposit and tokenised-money-market-fund transactions throughout 2026, with HSBC, Standard Chartered, Bank of China (Hong Kong), and others participating, and BlackRock and Franklin Templeton on the asset-management side. The **Monetary Authority of Singapore's Project Guardian** spans more than forty institutional participants across seven jurisdictions; a November 2025 SGD Testnet trial used tokenised MAS bills as a live settlement asset. The **Bank for International Settlements' Project Agorá** — seven central banks

(the Federal Reserve Bank of New York, Bank of England, Banque de France for the Eurosystem, Bank of Japan, Bank of Korea, Banco de México, Swiss National Bank) and forty-one private institutions — concludes its Phase 1 design and prototype phase in the first half of 2026 with a public report.

The **mBridge** programme moved from BIS-hosted minimum-viable-product to participant-led operation in October 2024, with the BIS framing the handover as “graduation”; the platform is now governed by the People’s Bank of China, the Hong Kong Monetary Authority, the Bank of Thailand, the Central Bank of the United Arab Emirates, and the Saudi Central Bank under a member-state steering rulebook. Cumulative settled volume reportedly reached approximately US\$55.5 billion across roughly 4,000 transactions by November 2025, with the e-CNY accounting for over ninety-five percent of settlement volume. The **United Arab Emirates’ Digital Dirham** launched at retail in March 2026, with cross-border corridors via mBridge. The **People’s Bank of China’s** e-CNY transitioned in January 2026 from a digital-cash to a remunerated digital-deposit model under the PBoC’s Digital RMB Management Committee, with cross-border functions consolidated in a Shanghai-based Digital Yuan International Operations Centre and reported integration with all ten ASEAN states and six Middle Eastern jurisdictions. The **Bank of Korea’s** Project Hangang Phase 2 began in March 2026 with nine commercial banks. The **European Central Bank** concluded the digital euro preparation phase in October 2025 and entered a successor phase oriented to technical readiness, market engagement, and the legislative process; first issuance is targeted for 2029 conditional on co-legislator adoption of the Regulation in 2026, with pilot transactions possibly beginning in mid-2027. The Eurosystem’s separate wholesale-tokenisation track, articulated as **Pontes** (a near-term DLT bridge to TARGET for tokenised settlement in central-bank money, with pilot scheduled for the third quarter of 2026) and **Appia** (a longer-term blueprint for a native DLT European market by 2028), is the more directly relevant Eurosystem vehicle for cross-border tokenised settlement involving non-EU counterparties. The **Bank of England**, having declined to commit to a digital pound, is delivering wholesale tokenised settlement via the renewed RTGS plus DLT-based synchronisation. The **Hong Kong Monetary Authority** granted the first two stablecoin issuer licences under the Stablecoins Ordinance on 10 April 2026 — to HSBC and to Anchorpoint Financial Limited (a Standard Chartered Hong Kong, HKT, and Animoca Brands joint venture) — both for HKD-referenced issuance, with public launch targeted for mid-to-late 2026; PRC regulators in February 2026 classified unauthorised offshore-renminbi stablecoin issuance as illegal financial activity, foreclosing the offshore-CNH stablecoin track for the present.

The composition of these efforts matters for SIDS agenda-setting: there is now a substantial set of public-sector validation, across a representative sample of major economies, that wholesale tokenised settlement is moving from research into production. The institutional question is no longer “will this happen?” but “how do we interoperate with it?”.

### **3.3 Stablecoins, regulatory frameworks, and tokenised real-world assets**

The legal scaffolding for tokenised money crystallised in 2025–2026.

The **GENIUS Act** in the United States, signed in July 2025, established a federal framework for payment stablecoins (one-hundred-percent reserve backing in cash and short Treasuries, monthly public reserve disclosure, OCC oversight for federal nonbank issuers, full Bank Secrecy Act and AML applicability). Implementing rules are at the notice-of-proposed-rulemaking stage as of May 2026 — the OCC’s NPRM was published in March 2026, the FDIC’s in April 2026, and a joint Treasury–FinCEN–OFAC NPRM on AML/CFT and sanctions compliance also in April 2026; the

regime takes effect at the earlier of eighteen months after enactment (approximately 18 January 2027) or one hundred and twenty days after final rules are issued, and **no issuer has yet been licensed as a Permitted Payment Stablecoin Issuer** as of May 2026. Section 18 of the GENIUS Act prohibits United States digital-asset service providers from offering a foreign-issued stablecoin to United States users unless the Treasury has designated the home jurisdiction as having a “comparable regulatory and supervisory framework” and the issuer registers with the OCC, holds United States-domiciled reserves sufficient for United States-customer liquidity, and can comply with United States lawful orders (freezes, seizures, sanctions). Separately, the **Anti-CBDC Surveillance State Act**, which has passed the House and is at advanced legislative stage as of May 2026, codifies the prohibition on a Federal Reserve retail central bank digital currency that was first established by Executive Order in January 2025; the United States posture is, accordingly, that institutional dollar tokenisation will run on regulated private stablecoins rather than on a Federal Reserve CBDC. The **Digital Asset Market CLARITY Act** (H.R. 3633), which would clarify SEC and CFTC jurisdiction over digital-asset market structure, passed the House in July 2025, with Senate passage targeted by the White House for July 2026; its eventual form will determine whether and how SIDS-issued tokenised sovereign instruments can be distributed to United States retail investors.

The **European Union’s MiCA** stablecoin provisions have been live since June 2024, with the full crypto-asset service provider regime in force since December 2024 and the transitional period expiring on 1 July 2026. As of February 2026, more than forty CASPs were fully MiCA-authorised, concentrated in the Netherlands, Germany, and Malta. MiCA does not provide an equivalence regime for third-country stablecoin issuers: a non-European Union issuer of an asset-referenced or e-money token that wishes to passport into the European Union must establish a European Union legal entity and obtain authorisation. Article 23 of MiCA imposes binding caps on non-euro stablecoins used as means of payment within the European Union — where daily transactions exceed one million in count or two hundred million euros in value, the issuer must cease issuance and submit a remediation plan; this is the operative chokepoint on dollar-denominated stablecoin scaling within European Union flows. The **United Kingdom’s** Cryptoassets Regulations 2026 were laid before Parliament in February 2026, with the regime in force from October 2027. **Hong Kong’s** Stablecoins Ordinance came into force in August 2025; the first two issuer licences were granted in April 2026 (see §3.2). **Singapore** maintains its single-currency stablecoin framework alongside Project Orchid and Project Guardian. The **DIFC** and **ADGM** in the United Arab Emirates have updated their respective digital-asset frameworks effective January 2026.

The aggregate stablecoin market reached an all-time high of approximately US\$321 billion in April 2026, with USDT at roughly 58% share and USDC at approximately 24%. **Tokenised real-world assets** (excluding stablecoins) reached roughly US\$19.3 billion in market capitalisation at the end of Q1 2026, including approximately US\$2.85 billion in BlackRock’s BUIDL tokenised Treasury fund, more than US\$3.5 billion cumulative in HSBC’s Orion digital bond issuance, and more than US\$1.5 trillion cumulative notional across JPMorgan’s Kinexys.

**Tokenised Islamic finance** reached commercial pilot scale in 2025–2026. Khazanah Nasional’s tokenised sukuk pilot (RM100 million, April 2026) and Abu Dhabi Islamic Bank’s Smart Sukuk platform (April 2025) are the most concrete examples; Saudi Arabia’s Capital Market Authority FinTech Lab facilitated approximately SAR 3.4 billion in digital sukuk during 2024 and approximately SAR 3.5 billion in 2025.

### 3.4 The multilateral and standards layer

The Financial Stability Board’s October 2025 thematic review on crypto-asset frameworks documents legislative progress while flagging persistent cross-border supervisory coordination gaps. The Financial Action Task Force’s June 2025 targeted update reports that ninety-nine of one hundred thirty-eight reporting jurisdictions are advancing Travel Rule implementation, with eighty-five having passed enabling legislation, but enforcement remains thin. The International Organisation of Securities Commissions’ November 2025 final report on Tokenisation of Financial Assets (FR/17/25) flags persistent gaps in legal certainty, custody and settlement finality, and cross-border conflict-of-laws.

The **Bank for International Settlements’ 2025 Annual Economic Report**, Chapter III, presents the most influential institutional critique of the stablecoin model: that stablecoins fall short on the “singleness, elasticity and integrity” tests for monetary singleness, and that only a unified ledger anchored in tokenised central bank money preserves monetary sovereignty. The argument is methodologically important for SIDS: it situates stablecoins not as a replacement for sovereign monetary systems but as an instrument whose stability depends on, and is bounded by, the integrity of the central bank money against which they are backed. Whether one accepts the BIS argument in its strong form or in a weaker form, it changes the conversation about what regulated stablecoin rails can plausibly do for a small-island remittance corridor.

### 3.5 The geopolitical configuration of the institutional surface

The institutional plane described in §§ 3.1–3.4 is, in 2026, less unitary than the phrase “global financial system” implies. Tokenised settlement is moving from research into production across jurisdictions, but it is not moving on a single shared institutional surface. Several distinguishable configurations exist; SIDS interoperability decisions are choices among them.

The **United-States-aligned configuration** is anchored by GENIUS-licensed payment stablecoins, by the prospective CLARITY Act regime for digital-asset market structure, by Canton and the Wall Street tokenisation consortium for institutional settlement, and by the statutory bar on a Federal Reserve retail central bank digital currency. United States policy has, since the change of administration in January 2025, shifted toward an explicitly facilitative posture for tokenised assets, including the establishment of a Strategic Bitcoin Reserve and a Digital Asset Stockpile by Executive Order in March 2025. Access to United States users by foreign-issued stablecoins is gated by the Treasury comparability-determination mechanism under Section 18 of the GENIUS Act; access to United States retail markets by tokenised securities or commodities will, once CLARITY is enacted, be gated by the SEC-CFTC bifurcation. Sanctions and “lawful order” capability — freezes, seizures, OFAC compliance — are required of any United States-licensed stablecoin issuer, with corresponding extraterritorial implications for foreign rails that touch United States-licensed instruments.

The **European-Union-aligned configuration** is anchored by MiCA-authorized crypto-asset service providers, by the Pontes wholesale-tokenisation pilot (planned for the third quarter of 2026) bridging tokenised settlement to TARGET in central-bank money, by the longer-horizon Appia DLT-native blueprint, and by the digital euro programme on a 2027–2029 horizon. The Eurosystem in 2026 has explicitly framed digital sovereignty in payments as a strategic concern; the European Central Bank’s February 2026 *Europe and monetary sovereignty* address and the March 2026 *Comprehensive Payments Strategy* cite digital dollarisation through United States-backed dollar stablecoins as a

risk to be managed. MiCA's Article 23 thresholds (one million transactions per day or two hundred million euros per day for non-euro stablecoins used as means of payment) are the operative chokepoint. Third-country issuers face no equivalence regime: a non-European-Union legal entity wishing to passport must establish a European Union subsidiary and obtain authorisation. The April 2026 twentieth sanctions package treated crypto rails as a primary target rather than as ancillary, including a categorical jurisdictional prohibition on European-Union persons engaging with crypto-asset service providers established in Russia or Belarus.

The **China-sphere configuration** is anchored by the e-CNY in its 2026 remunerated-deposit form, by the People's Bank of China's Shanghai-based Digital Yuan International Operations Centre, by mBridge in its post-BIS member-state-governed form (with the e-CNY accounting for over ninety-five percent of settlement volume), by the Hong Kong Monetary Authority's Stablecoins Ordinance and Project Ensemble, and by tokenised-deposit pilots routed through Hong Kong-domiciled entities. Project Agorá explicitly does not include the People's Bank of China; the institutional configuration is therefore parallel rather than nested with the United-States- and European-Union-aligned wholesale programmes. Documented engagement with Pacific SIDS by Chinese counterparties is at present weighted toward general information-and-communications-technology and security cooperation rather than payment-rail integration; the financial-rail layer in Pacific SIDS remains shaped largely by Western-funded submarine-cable infrastructure.

The **BRICS multilateral scaffolding** is, in 2026, institutional rather than operational. The Kazan declaration of October 2024 endorsed a BRICS Cross-Border Payments Initiative and tasked finance officials to study a "BRICS Clear" settlement and depository infrastructure; the Rio declaration of July 2025 produced the BRICS Multilateral Guarantee facility incubated within the New Development Bank and welcomed the BRICS Interbank Cooperation Mechanism's local-currency work, but did not launch a multilateral central bank digital currency framework or a live BRICS Pay system. India holds the 2026 chairship; the next summit is scheduled for September 2026 in New Delhi. The Bank of Russia's digital ruble is on a mandated rollout schedule from September 2026 for major banks and merchants, but cross-border use depends on bilateral arrangements rather than a multilateral platform. The European Union's twentieth sanctions package added the digital ruble and the RUBx stablecoin to its sanctions annex.

Three observations follow from this configuration, each relevant to SIDS agenda-setting.

First, **the institutional surface is not politically neutral**. Interoperating with Canton-anchored, GENIUS-stablecoin, Pontes-bridged rails means interoperating with a coalition jointly built by the United States, the European Union, the United Kingdom, Switzerland, Hong Kong (via Project Ensemble), Japan, Korea, and Singapore. Interoperating with mBridge or with e-CNY-denominated cross-border settlement means interoperating with a parallel coalition. A jurisdiction that operates across both does so on terms each coalition's sanctions and supervisory architectures permit.

Second, **extraterritorial reach has become a first-order design parameter**. The April 2026 EU sanctions package and the GENIUS Act's lawful-order requirements both make sanctions-screening capability a precondition of access. A SIDS-licensed stablecoin off-ramp without OFAC- and EU-grade screening cannot transact at scale with US- or EU-regulated counterparties. That is a capacity-build cost that did not appear on the SIDS agenda before 2025.

Third, **“alignment with global efforts” is no longer a single question.** It is now: alignment with which efforts, on what terms, with what hedge against the others. “The international financial system” remains a useful description of a connected network. It is no longer a useful description of a coordinated regulatory or technical architecture. SIDS strategy questions are correspondingly more granular than they were three years ago.

This paper’s positioning on the geopolitical configuration is descriptive, not prescriptive. We surface the configuration because it bears on the opportunities of §4 and the constraints of §5. We do not propose a coalitional choice for any SIDS jurisdiction.

#### 4. Opportunities for SIDS in this institutional context

Read against the SIDS empirical record (§2) and the institutional context being constructed elsewhere (§3), several candidate opportunities for SIDS jurisdictions emerge. We frame them as opportunities, not as proposals: in each case, the binding question is whether the SIDS jurisdiction’s specific conditions justify the institutional investment, and that question is one the jurisdiction itself must answer.

The first opportunity is **interoperability with the institutional tokenised settlement plane.** Canton Network, the BIS- and central-bank-led wholesale programmes, and the regulated stablecoin frameworks are converging on a shared institutional surface. SIDS jurisdictions that wish to access tokenised liquidity — for sovereign debt distribution (including sukuk variants for jurisdictions with prior issuance histories, drawing on the DIFC, ADGM, Bursa Malaysia, and Saudi Capital Market Authority frameworks), for institutional remittance flows, for tokenised sustainable-finance instruments — will, over the foreseeable horizon, do so by interoperating with this surface rather than by building parallel systems. The question is what level of participation is feasible (observer, correspondent, validator-light, full participant) given the operational and regulatory capacity of the jurisdiction. Tokenisation in this category does not improve credit; it improves distribution, and whether that matters for any specific issuer depends on the jurisdiction’s credit position and on the marginal value of a tokenised retail tranche relative to a conventional institutional placement.

The second opportunity is **regulated cross-border remittance corridors using stablecoin or tokenised-deposit rails.** SIDS remittance dependencies are large in proportional terms — Tonga at approximately 41% of GDP, Samoa at approximately 33% of GDP, with similar magnitudes in Caribbean and AIS jurisdictions. The cost differentials between formal and informal channels are also large; in the Pacific, formal-corridor costs reached 8.7%–11.2% in early 2024, well above the SDG target of 3%. Regulated stablecoin rails — under the GENIUS Act in the United States, MiCA in the European Union, Hong Kong’s Stablecoins Ordinance, or Singapore’s framework — represent a category that did not exist in supervisable form when the first SIDS digital-money experiments were attempted. Whether any specific SIDS jurisdiction can secure regulatory clearance for such a corridor depends on bilateral agreements with the originating-jurisdiction supervisor and on the jurisdiction’s own foreign-exchange and AML/CFT controls.

The third opportunity is **verifiable digital identity at the national level, anchored in W3C verifiable-credential standards.** The Maldives’ eFaas and the emerging Tonga, Samoa, and Tuvalu efforts demonstrate that SIDS-scale digital identity is operationally feasible. The opportunity is to extend such systems with verifiable-credential issuance — citizenship, residency, professional licensure, KYC tier, regulated-investor status — that can be presented and verified across borders

without exposing underlying data. This is the implementation pathway followed by the European Union’s eIDAS 2.0 wallet programme and Singapore’s Singpass; it composes naturally with regulated stablecoin remittance corridors and with cross-border tokenised-asset distribution.

The fourth opportunity is **methodologically-sound climate-finance instrumentation**. SIDS jurisdictions are disproportionately exposed to climate risk and disproportionately represented in voluntary-carbon and blue-carbon programmes; AOSIS, the Alliance of Small Island States, has positioned strongly on climate-finance governance. The aggregate tokenised voluntary-carbon market reached approximately US\$4.48 billion in 2025; no SIDS-led tokenised blue-carbon programme has reached operational scale, in part because the binding constraint is the upstream measurement, reporting, and verification methodology rather than the registry or the tokenisation layer. The Loss and Damage Fund’s early call for proposals under the Barbados Implementation Modalities — a US\$250 million envelope for 2025–2026 — is a directly relevant disbursement frame; it does not currently use DLT-native rails, but the audit-trail and verifiable-credential infrastructure being constructed elsewhere is plausibly applicable.

The fifth opportunity is **regulatory-framework competition under credible supervisory standards**. Mauritius (VAITOS Act 2021), Seychelles (VASP Act 2024), and Vanuatu (VASP Act 2025) have demonstrated that small jurisdictions can issue credible, FATF-aligned, supervisorily rigorous regulatory frameworks for virtual-asset activity. The opportunity for other SIDS — particularly those with established offshore financial-services sectors or with proximity to large unbanked populations — is to enter the framework-issuing space on terms that meet international supervisory expectations. The risk of doing so without adequate supervisory capacity is, however, a reputational liability that has historically been costly for SIDS jurisdictions to repair.

The sixth opportunity is **programmable compliance composed with intelligent orchestration, and cost-augmentation in measurement-and-verification workflows**. Two distinct but related institutional currents inform this category.

The first concerns the relationship between smart-contract logic and AI orchestration. The IMF’s April 2026 note *How Agentic AI Will Reshape Payments* sets out a three-layer framework in which agentic AI operates in an upstream “intent and orchestration” layer while strict, rule-based controls are retained in the authorisation and settlement layers. The BIS 2025 Annual Economic Report, Chapter III, treats programmability and composability as properties of the unified ledger itself, with compliance logic embedded in the ledger rather than in any AI overlay. IOSCO’s March 2025 consultation on AI in capital markets, and the FSB’s November 2024 and October 2025 reports, treat AI in financial workflows as a risk-bearing input that requires senior-management oversight, model-risk governance, and third-party-concentration controls. The composite institutional position is consistent: smart contracts are the appropriate locus for deterministic, formally verifiable compliance logic; AI is the appropriate locus for dynamic orchestration above that layer; and the governance burden — model risk, accountability, third-party dependency monitoring — does not transfer to the smart-contract layer when AI is composed with it. This framing is explicit at the IMF, implicit at the BIS, and treated as a governance problem at IOSCO and the FSB. It is an emerging consensus, not a settled one.

The second concerns measurement-reporting-verification cost structures for environmental-asset and sustainability tokenisation. World Bank technical literature places conventional MRV costs at roughly 20–30% of credit revenue for typical voluntary-carbon projects, and over 50% of project cost for novel removal categories such as ocean alkalinity enhancement and enhanced rock

weathering. Small jurisdictions, which usually lack indigenous MRV capacity and rely on external firms, bear a disproportionate share of this burden. Vendor and aggregator literature claims that AI-assisted “digital MRV” can cut these costs by 50–70%. Those figures are not validated by registries or supervisors and should be read as industry assertions, not recognised performance. The institutional position from registries and assurance standards is more conservative and more consistent. Verra has integrated remote sensing into VM0047 and runs a Digital MRV Working Group, but AI-derived measurements function as inputs to a human-led VVB process, not as audit-grade evidence. Gold Standard’s digital-MRV pilot runs through October 2026 and is explicitly pilot-stage. The ICVCM has called AI and remote-sensing tools an opportunity but its Core Carbon Principles Assessment Framework does not recognise AI-derived data as a substitute for VVB verification. The Article 6.4 Supervisory Body permits remote sensing and modelling as quantification techniques but not as audit substitutes. The IAASB’s ISSA 5000, effective 2025, requires comprehensive audit procedures and critical evaluation of source documentation; neither ISSA 5000 nor ISSB pronouncements designate AI-derived measurements as audit-grade. The FSB, IOSCO, and the NGFS all treat AI as augmentation of audit capacity, not substitution.

The reading of this evidence for SIDS is therefore narrower than the most enthusiastic industry framing. AI-assisted MRV can plausibly lower the per-unit cost of evidence collection, which matters given documented MRV burdens and the limited indigenous capacity of small jurisdictions. Accountable signoff remains institutional. AI does not relieve a SIDS supervisory authority of accountability for audit quality; it can reduce the marginal cost at which credible audit is producible, provided the human verification layer is preserved at registry-recognised standard. Whether the relevant standards bodies move to recognise AI-assisted MRV outputs at audit grade is an open question of standards-body trajectory, not a present fact.

The relationship between multi-VM architectures and the unified-ledger direction is best read as architectural layering, not as competing alternatives. Settlement finality is a venue choice, anchored in the institution’s chosen recognised system: Canton, Pontes via TARGET, Helvetia via the SIX Digital Exchange, an Article 6.4-recognised registry, or another supervised platform with the corresponding rulebook and supervisory recognition. Accessibility is a separate concern: how counterparties on EVM, SVM, or other execution environments can hold representations of an asset, transact retail or programmable flows, and access stablecoin liquidity, without those representations claiming the status of authoritative legal records. The settlement-finality and conflict-of-laws questions raised by IOSCO in its November 2025 final report on Tokenisation of Financial Assets are sharpest when multiple VMs are treated as competing records of legal title; they are reduced when the architecture anchors finality in one venue and treats other-venue representations as derivative claims with defined redemption back to the canonical record. The institutional preference for unified-ledger architectures — Project Agorá, Pontes, Appia, Helvetia, Ensemble — reflects supervisory recognition of those venues as recognised systems for finality. The case for multi-VM accessibility is independent of that preference and complementary to it.

A SIDS deployment can, and arguably should, make both choices: a recognised system for finality, with multi-VM accessibility above it, and programmable-compliance and orchestration logic composed across both layers. The finality venue carries supervisory recognition; the multi-VM layer carries cross-counterparty reach; the programmable-compliance and orchestration layer carries dynamic compliance, screening, and audit-provenance work. The institutional question is not unified ledger versus multi-VM. It is how to layer the architecture so each layer does work the institutional literature has sanctioned.

The seventh opportunity is **regional pooling of supervisory and operational capacity, and bloc-level competitive positioning**. SIDS sub-regional bodies already pool capacity in adjacent areas: the ECCB acts as monetary authority for eight member jurisdictions; PFTAC and CARTAC administer IMF capacity-development programmes; AFRITAC supports AIS-region jurisdictions in Africa; the Pacific Islands Forum, through its Forum Economic Ministers' Meeting, has moved the Pacific Regional Fast Payments System from concept to policy. Extending this pattern to digital-asset supervision — shared examiners, shared chain-analysis tooling, shared Travel-Rule infrastructure — would lower per-jurisdiction FATF-compliance costs and bring smaller SIDS within reach of the supervisory standard Mauritius and Seychelles maintain individually. The same logic carries to bloc-level positioning: CARICOM as a digital-asset-services bloc, the Pacific Islands Forum as a climate-finance bloc, AOSIS as a methodology bloc — each can negotiate with the configurations of §3.5 on terms no single SIDS can secure. Maldives at population-scale, Mauritius at supervisory-capacity-scale, and Vanuatu at framework-issuance-scale show that small jurisdictions can specialise credibly. Whether they can pool that specialisation regionally is the open question.

The eighth opportunity is **tokenisation of economic verticals where SIDS have sectoral comparative advantage**. Several categories the 2026 institutional surface makes newly accessible map directly onto SIDS export structures. **Tourism receivables and forward sales** — pre-sale of room-nights, cruise-berth, and marine-excursion capacity with on-chain escrow and cancellation logic — are being prototyped in non-SIDS contexts and fit jurisdictions where tourism is the dominant foreign-currency earner. **Fisheries-quota and catch-documentation rails** are relevant to the South Pacific tuna fishery (approximately US\$6 billion in annual gross value) and to the PNA Vessel Day Scheme; tokenised quota with cryptographic catch-documentation anchoring against IUU fishing is an FAO and PNA priority where institutional appetite for verifiable provenance is established. **Maritime-registry and ship-finance tokenisation** is relevant to the Marshall Islands and Bahamas open registries; the shift toward MLETR-pattern electronic transferable records and the on-chain eBL and ship-finance work on Canton and other venues makes this a category in which SIDS-domiciled registries can compete. **Citizenship, residency, and golden-visa programmes** — operated by several SIDS — fit verifiable-credential issuance under the third opportunity above. **Digital-asset custody and prime-services hosting** is a category Mauritius and Seychelles have begun to establish; other SIDS with credible supervision can compete. **Compute-hosting and AI-services hosting** in jurisdictions with cheap renewable energy or strategic geography is an emerging adjacency; Iceland is the closest analogue, and several Pacific and AIS SIDS have geothermal, hydro, or solar advantages. **Diaspora-bond and diaspora-equity vehicles** denominated in regulated stablecoins, at SIDS scale (US\$50–500 million), are newly feasible in a way they were not when the India, Israel, and Ethiopia diaspora-bond programmes were structured. The binding constraint in each vertical is not the technology but the supervisory and legal infrastructure required to make the activity credible to the counterparties of §3.5.

The ninth opportunity is **first-mover legal-domicile positioning through clean functional-equivalence legislation**. The institutional plane being constructed elsewhere is anchored in jurisdictions whose legal frameworks treat tokenised instruments either through amendments to existing securities, payments, and finality statutes or through dedicated DLT acts (Liechtenstein's TVTG, Wyoming's DAO and digital-asset statutes, the UK's Electronic Trade Documents Act, Singapore's Payment Services Act amendments). The international model-law work — UNCITRAL's MLETR, UNCITRAL's Model Law on the Use and Cross-Border Recognition of Identity Management and Trust Services, UNIDROIT's *Principles on Digital Assets and Private Law* (2023), and the Hague Conference work on the private international law of digital assets — provides a

template SIDS can adopt without bespoke legislative drafting. The opportunity for an early-acting SIDS jurisdiction is to legislate clean functional equivalence (tokenised instruments recognised as the legal record, not as a representation of one) and pair it with rulebook-level designation of recognised settlement venues. Legislation cost is low in absolute terms; the prize is the legal-domicile flow that follows when counterparties seek a jurisdiction whose tokenised-instrument issuance is unambiguously enforceable. Cayman, the BVI, Bermuda, and Jersey are not SIDS but compete for the same flows. Whether a SIDS jurisdiction with credible supervision and a tokenisation-ready legal framework captures a defensible share of the issuance activity §3 will originate is the SIDS-specific question.

## 5. Challenges and structural constraints

Each of the opportunities in §4 is bounded by structural constraints that any honest agenda must surface.

The first constraint is **institutional capacity**. Regulating digital-asset activity to international standards requires supervisory infrastructure that small jurisdictions have generally found difficult to fund and staff. Mauritius and Seychelles have made the relevant investments; most SIDS have not. The cost of doing so well is non-trivial, and the cost of doing so poorly — reputational damage, FATF listing, correspondent-banking impacts — is large.

The second constraint is **fiscal position**. Several SIDS are at sovereign credit ratings that constrain the policy space for ambitious financial-sector experiments. The Maldives' 2021 sukuk cycle is one data point. The fiscal capacity to underwrite settlement obligations, to capitalise digital-asset supervisory authorities, or to fund domestic CBDC infrastructure is limited.

The third constraint is **scale and adoption economics**. Small populations and thin merchant networks mean that the network-effects benefits of digital-payment infrastructure accrue slowly and at high per-unit cost. The Sand Dollar, JAM-DEX, and DCash trajectories all illustrate this. Conventional fast-payment systems, by contrast, integrate with existing card and account infrastructure and inherit network effects from other layers.

The fourth constraint is **geographic and infrastructural dispersion**. Pacific and Caribbean SIDS in particular are distributed across many islands, with submarine-cable connectivity that is uneven and that has improved (e.g., Tuvalu's Vaka Cable in 2025) only recently. Validator operation, node hosting, and continuous-availability requirements for production digital-asset infrastructure are non-trivial in such conditions.

The fifth constraint is **dependency on infrastructure governed elsewhere**. The Canton Foundation co-chairs are DTCC and Euroclear; the BIS-led wholesale programmes are anchored in G7 and G20 central banks; the regulated stablecoin frameworks are issued by US, EU, UK, Hong Kong, and Singapore authorities. SIDS jurisdictions that interoperate with this institutional plane do so as customers and counterparties, not as co-equal governors. The terms on which this infrastructure remains accessible to SIDS over time are not under SIDS control. The question of how to retain optionality and avoid lock-in to any single venue is a persistent strategic question.

The sixth constraint is **talent pipeline, education, and execution capacity**, distinct from the supervisory-capacity question of the first constraint. Operating a Canton validator, an EVM full node, a Solana RPC endpoint, a digital-identity-system maintenance team, an AI-assisted MRV pipeline, or a chain-analysis and Travel-Rule operations function each requires sustained domestic staffing with

on-call coverage. The SIDS digital-finance record is a record of vendor-led implementation: Bitt for the Sand Dollar and DCash, eCurrency Mint for JAM-DEX, Soramitsu for Cambodia's Bakong (the closest non-SIDS comparator), Tietoevry for the Maldives' Favara, and Ripple Services for Palau's stablecoin pilot. Vendor-led implementation is not by itself a failure mode, but a thin domestic pipeline means programme longevity is bounded by the vendor relationship, migration cost when that relationship ends is non-trivial, and supervisory capacity to interrogate vendor technical claims is limited. The University of the South Pacific, the University of the West Indies, the Maldives National University, the University of Mauritius, the University of Seychelles, and other SIDS-region tertiary institutions do not at present sustain digital-asset, distributed-ledger, or applied-cryptography curricula at the depth operational staffing requires. Capacity-building pathways exist — IMF STI, the Toronto Centre, BIS FSI Connect, the Commonwealth Secretariat, World Bank FIRST grants, and bilateral central-bank twinning — but they are uncoordinated, and outward-migration pressure on trained specialists is acute. Judicial training is a particular gap: a tokenised-asset insolvency dispute, a stablecoin-redemption dispute, or a cross-border digital-identity-credential dispute reaching the SIDS courts meets a bench whose preparation, with rare exceptions, is not at the level the matter requires. Public financial literacy on digital-asset products is a further gap, and the Sand Dollar and JAM-DEX adoption records indicate it was material to outcome. The execution-capacity constraint is at least as binding as the supervisory-capacity constraint.

The seventh constraint is **distributional incidence and domestic value capture**. The SIDS digital-finance record is partly a record of foreign vendors collecting fees against thin domestic adoption: foreign technology suppliers, foreign professional-services firms, and foreign custodians have captured most of the value generated by programmes ostensibly built for domestic populations. Any agenda extending this pattern to tokenised settlement, regulated stablecoin corridors, or tokenised verticals must surface value-capture explicitly: who runs the validator, who collects issuance fees, who holds the custody mandate, who supplies the chain-analysis and audit infrastructure, who licenses the AI-assisted MRV pipeline, and on what share of gross flow each is compensated. The distributional incidence of remittance-cost reductions — whether sending diaspora, receiving household, or intermediary captures the welfare gain — is a parallel question that depends on corridor structure. Financial-inclusion-versus-exclusion risk for older, rural, and low-literacy populations on digital-only rails is acute in the Pacific and Caribbean rural-remote profile. Pacific and Caribbean remittance receipt is disproportionately female; payment-rail design choices have gendered incidence, and the design that minimises corridor cost is not necessarily the design that maximises welfare for the marginal recipient. Tax-base visibility — whether tokenised activity in a SIDS jurisdiction is visible to the domestic tax authority, and whether the OECD Crypto-Asset Reporting Framework and the EU's DAC8 implementation will deliver cross-border flow visibility — bears on whether the fiscal benefit of new verticals materialises domestically or accrues elsewhere. None of these questions is settled by technology alone.

The eighth constraint is **legal infrastructure for tokenised settlement, underdeveloped in most SIDS**. Beyond the VASP and stablecoin-issuance frameworks discussed in §3.3 and §6, the legal infrastructure that tokenised-settlement operations require is distinct and largely underdeveloped in the SIDS group. Settlement-finality designation under a recognised system, asset-segregation and bankruptcy-remoteness rules for tokenised holdings, conflict-of-laws certainty over which jurisdiction's law governs a tokenised instrument held across borders, functional-equivalence statutes that recognise tokenised records as the legal record (not as a representation of one), electronic-transferable-records legislation for trade-finance and shipping documentation, and judicial recognition of cryptographic evidence are each required. The model-law work that would furnish a

template — UNCITRAL’s MLETR, UNIDROIT’s *Principles on Digital Assets and Private Law* (2023), IOSCO’s November 2025 final report on Tokenisation of Financial Assets, and CPMI-IOSCO’s PFMI applied to tokenised platforms — is broadly available, but SIDS adoption is patchy. The OECD Crypto-Asset Reporting Framework, with first exchanges in 2027 and onboarding obligations from 2026, is a separate compliance layer that small tax authorities will need to absorb. The constitutional and monetary-law preconditions identified in the August 2024 IMF TA summary on the Dominican Republic — central-bank-statute and Monetary and Financial Law amendments before any retail CBDC issuance — apply, with variations, across most SIDS considering analogous programmes. Clean legal infrastructure is low-cost in absolute terms relative to supervisory or operational capacity; the political and parliamentary effort to enact it has been chronically underestimated.

The ninth constraint is **the geopolitical configuration of the institutional surface**, surfaced descriptively in §3.5. The institutional surface is, observably, organised around several distinguishable configurations whose supervisory and sanctions architectures impose extraterritorial requirements. The Treasury comparability-determination mechanism under Section 18 of the GENIUS Act, MiCA’s absence of a third-country equivalence regime, MiCA Article 23’s thresholds on non-euro stablecoin scaling, the lawful-order and OFAC-grade screening obligations attaching to United States-licensed stablecoin issuers, and the European Union’s twentieth sanctions package’s categorical treatment of crypto-asset service providers in sanctioned jurisdictions all operate as structural conditions on SIDS interoperability rather than as discretionary policy choices. A SIDS jurisdiction that wishes to maintain access to multiple configurations must build screening, freeze, and lawful-order capability to the standard of the most demanding among them; a SIDS jurisdiction that aligns with a single configuration accepts the corresponding extraterritorial reach as a precondition. Neither posture is costless, and neither is reversible without institutional disruption.

The tenth constraint is **the political-economy critique of the new institutional venues**. Substantive critiques in the public record cluster around five themes: that the Canton Super Validator set is invite-only and that many Super Validators are themselves investors in Digital Asset; that DRW’s concentrated investment position raises questions of competitive neutrality; that Canton Coin distribution favours permissioned Super Validators; that DAML contracts must be deployed bilaterally for every counterparty workflow, raising operational requirements; and that detailed governance and tokenomics descriptions remain underspecified relative to public-chain norms. These are not disqualifying critiques, but they are real, and they bear directly on whether and how a SIDS jurisdiction with thin operational capacity should participate.

A related observation, distinct from the institutional venues discussed above, concerns the broader landscape of privately-issued tokens that adopt names evoking the Commonwealth or comparable groupings. Commonwealth Union, an independent media venture with a footprint across the United Arab Emirates, the United Kingdom, and Sri Lanka, operates under the framing “Voice of the Commonwealth.” A related blockchain project is hosted at [blockchain.commonwealthunion.com](https://blockchain.commonwealthunion.com) — a subdomain of the same parent domain — with an associated Solana-based token, \$CWU, that began trading in April 2026. The institutional relationship between the two projects, beyond the shared parent domain, is a matter for independent verification.

The eleventh constraint is **the empirical record of underperformance** documented in §2. The base rate for retail-CBDC experiments in SIDS jurisdictions is poor. Any new programme bears the burden of articulating what is different.

## 6. Aligning with global efforts: what alignment actually requires

The phrase “aligning with global efforts” is often used loosely. We propose a more disciplined formulation: alignment requires that a SIDS jurisdiction make a deliberate set of choices, at the institutional level, about which of the emerging global venues to interoperate with, on what terms, with what supervisory perimeter, and with what continuity of staff capacity. As §3.5 notes, the institutional surface is sufficiently configured along bloc lines that “alignment” in 2026 is a question that admits more than one answer; the layers below describe the categories of alignment work that any choice will require.

Six layers of alignment can be distinguished.

The first layer is **observer participation in multilateral programmes**. Project Agorá, Project Guardian, Project Ensemble, and the Bank for International Settlements Innovation Hub all admit observer participation on terms compatible with central banks of small jurisdictions. The marginal cost of observer participation is the cost of staff time; the benefit is institutional knowledge and counterparty relationships that compound over time. The question for any SIDS central bank is which programmes to observe, in what depth, and at what staff cost.

The second layer is **regulatory-framework alignment with FATF Travel Rule and crypto-asset standards**. The FATF October 2025 implementation review identifies eighty-five jurisdictions with passed legislation but persistent enforcement gaps. The SIDS-specific question is whether the jurisdiction’s supervisory framework can be brought to a level where its VASP licensees can secure correspondent-banking relationships with major-jurisdiction counterparties.

The third layer is **alignment with regulated stablecoin frameworks for cross-border remittance**. A United States-licensed stablecoin issuer (under the GENIUS Act) will not transact at scale with a SIDS-licensed off-ramp absent a credible AML/CFT regime in the SIDS jurisdiction and bilateral supervisory recognition. For United States-user access by a SIDS-issued stablecoin, the operative mechanism under Section 18 of the GENIUS Act is a Treasury determination that the SIDS jurisdiction has a “comparable regulatory and supervisory framework,” coupled with the issuer’s registration with the OCC, maintenance of United States-domiciled reserves, and capacity to comply with United States lawful orders (freezes, seizures, sanctions). For European-Union-user access, no equivalence regime is currently available: a SIDS-domiciled issuer must establish a European-Union legal entity and obtain MiCA authorisation, and Article 23 thresholds limit the scaling of non-euro stablecoins used as means of payment within the European Union. The alignment question is therefore not abstract: it is the concrete sequence of supervisory assessments and bilateral recognitions a SIDS jurisdiction must obtain to make its rails usable by counterparties in the configurations described in §3.5.

The fourth layer is **W3C verifiable-credential interoperability**. EU eIDAS 2.0 wallets, Singapore’s Singpass, and the open identity standards ecosystem are converging on a common credential format. SIDS digital-identity programmes that issue credentials in the W3C VC Data Model, with cryptographic anchoring of credential status, will interoperate with this ecosystem; programmes that do not, will not.

The fifth layer is **technical interoperability with institutional settlement venues**. Where this matters — for sovereign-debt tokenisation, for institutional remittance flows, for tokenised commodity provenance — the question is how a SIDS-originated asset reaches Canton or Helvetia or Ensemble

counterparties without bespoke per-counterparty integration. Multi-virtual-machine architectures (under which a single asset model compiles to contracts on multiple settlement venues) are one technical answer to this question.

The sixth layer is **institutional capacity-building, education, and execution capability**. Each of the prior five layers is operationally inert without sustained domestic capability behind it. The work decomposes into several workstreams. **Supervisor training**: IMF STI, the Toronto Centre, BIS FSI Connect, and FATF-affiliated regional bodies offer relevant training, but SIDS uptake is uneven and the training is most useful paired with domestic on-the-job examiner work. **Domestic technical-talent pipelines**: SIDS tertiary institutions (the University of the South Pacific, the University of the West Indies, the Maldives National University, the University of Mauritius, the University of Seychelles, and others) do not at present sustain digital-asset, distributed-ledger, or applied-cryptography curricula at operational depth. What combination of curriculum partnerships with international universities, internationally-funded scholarships, and domestic regulatory-internship arrangements could produce a sustained pipeline is the open question. **Validator-operations capability**: operating a Canton validator, a Solana RPC endpoint, an EVM full node, or a digital-identity-system team is a sustained staff commitment with 24-hour on-call coverage — a capability category that vendor relationships have historically displaced rather than produced. **Judicial training**: the Hague Conference and UNCITRAL support judicial-officer education on digital-asset and electronic-evidence questions; the Commonwealth Magistrates' and Judges' Association is a parallel pathway for Commonwealth-aligned SIDS. **Public financial literacy**: the Sand Dollar and JAM-DEX adoption records indicate that public-communication and merchant-onboarding strategy was a material determinant of outcome. **Regional pooling**: CARTAC, PFTAC, AFRITAC, the ECCB's pooled-supervision pattern, and the Pacific Islands Forum's regional-fast-payments work show that sub-regional pooled capacity is feasible; whether it extends to digital-asset supervision and to validator-operations capability is a present-tense question. The aggregate ten-year cost of running this layer credibly, across the supervisor, technical, judicial, and literacy workstreams, is in the low tens of millions of US dollars annualised based on analogous programmes; the cost of running it inadequately is the empirical record of §2.

In each layer, the work is institutional, sustained, and undramatic. None of the layers is solved by a single pilot or a single announcement.

## 7. The role of Tenzro Network and Tenzro Labs as technical partner

Two distinct entities are involved on the technical side of this paper. **Tenzro Network** is the decentralised protocol — a multi-virtual-machine settlement and identity layer governed by its participants and validators rather than by any single corporate entity. **Tenzro Labs Pte. Ltd.** (Singapore) is a separate engineering entity that contributes code to the protocol, operates a validator on the Canton Network's Global Synchronizer, and maintains the developer tooling described below. Tenzro Labs joins this paper as the technical partner. The protocol code, SDKs, and specifications are published at [github.com/tenzro](https://github.com/tenzro) under Apache 2.0.

Tenzro Network supports three execution environments natively: the Ethereum Virtual Machine via `revm`, the Solana Virtual Machine via `solana_rbpf`, and Canton's DAML through the JSON Ledger API. Cross-VM token movement is handled by a shared pointer. Consistent with the architectural layering set out in §4's sixth opportunity, the protocol treats finality as a venue choice and multi-virtual-machine support as an accessibility layer above it. An institution issuing on Tenzro Network

can elect Canton as the finality venue, with Ethereum-Virtual-Machine and Solana-Virtual-Machine representations available as derivative claims for counterparty reach — regulated-stablecoin settlement legs on the Ethereum Virtual Machine, high-throughput retail flows on the Solana Virtual Machine — without those representations claiming the status of authoritative legal records. A single SIDS-issued instrument can therefore reach counterparties across the configurations of §3.5 without bespoke per-counterparty integration and without asserting competing records of legal title. The protocol implementation is at [github.com/tenzro/tenzro-network](https://github.com/tenzro/tenzro-network), with Rust and TypeScript SDKs at [github.com/tenzro/tenzro-sdk-rust](https://github.com/tenzro/tenzro-sdk-rust) and [github.com/tenzro/tenzro-sdk-typescript](https://github.com/tenzro/tenzro-sdk-typescript).

For programmable-compliance composed with intelligent orchestration, Tenzro Network includes a decentralised AI layer alongside the Agent-to-Agent protocol. Deterministic logic sits in smart contracts; dynamic orchestration sits in the AI layer. This separation matches the three-layer framework articulated by the IMF’s April 2026 *How Agentic AI Will Reshape Payments*: the model-risk, accountability, and third-party-dependency obligations identified by IOSCO and the FSB attach to the AI layer and do not transfer to the smart-contract layer. The same composition is the technical pattern by which AI-assisted measurement-reporting-verification — discussed under §4’s sixth opportunity — can be operationalised, subject to the registry and assurance-standards position that AI-derived outputs function as inputs to validation-and-verification-body processes and to ISSA 5000 assurance rather than as audit-grade evidence. The Agent-to-Agent server implementation is at [github.com/tenzro/tenzro-a2a-server](https://github.com/tenzro/tenzro-a2a-server); the Machine Payments Protocol specification is at [github.com/tenzro/mpp-specs](https://github.com/tenzro/mpp-specs).

The Tenzro Decentralised Identity Protocol issues W3C-compatible Decentralised Identifiers and Verifiable Credentials for both human and machine identities, with anchoring, agent-identity binding, and delegation primitives at the network layer. This addresses the verifiable-credential interoperability layer of §6. The DID method specification is at [github.com/tenzro/did-method-tenzro](https://github.com/tenzro/did-method-tenzro) and the DID ecosystem extensions at [github.com/tenzro/did-extensions](https://github.com/tenzro/did-extensions).

Tenzro Labs operates a validator on the Canton Network’s Global Synchronizer; the party identifier is `tenzro-validator-1: :12201c72ce3ad0f8a1b4e45994e77705de29583a1524-fa67d791b8eaa691be5a08e1`, visible at [cantonscan.com](https://cantonscan.com). Tenzro Labs also publishes Canton-specific developer tooling, including a Model Context Protocol server for Canton (with related MCP servers at [github.com/tenzro/mcp-servers](https://github.com/tenzro/mcp-servers)) and DAML developer tooling. This is the operational point of contact between the institutional Canton settlement plane of §3.1 and any SIDS-jurisdiction work that requires Canton interoperability.

For cross-chain settlement, Tenzro Network integrates LayerZero V2, Chainlink CCIP, deBridge DLN, Wormhole, and Li.Fi aggregation. For cryptographic verification, Plonky3 STARK proofs over the KoalaBear field provide post-quantum-conjectured zero-knowledge verification with no trusted setup; hybrid post-quantum signatures and key encapsulation are deployed across the protocol layer. The Agent-to-Agent protocol implements the Google A2A specification with twenty-four registered skills covering wallet, identity, settlement, verification, staking, and cross-chain operations. The CLI is at [github.com/tenzro/tenzro-cli](https://github.com/tenzro/tenzro-cli); the wallet at [github.com/tenzro/tenzro-wallet](https://github.com/tenzro/tenzro-wallet); developer recipes at [github.com/tenzro/tenzro-cookbook](https://github.com/tenzro/tenzro-cookbook).

This section sets out the technical position of Tenzro Network and Tenzro Labs and the public location of the code that backs it. It does not recommend a specific deployment in any SIDS jurisdiction; that is a matter for the jurisdiction’s own institutions.

## 8. Unresolved questions

The honest contribution of a working paper of this kind is to surface the questions that any serious SIDS blockchain agenda must answer, and to be clear that several of these questions are not, at present, satisfactorily answered.

**On retail digital currency.** Given the SIDS empirical record of 2018–2026, what conditions, if any, would justify a new retail-CBDC programme in a SIDS jurisdiction? Can any such programme demonstrate marginal value over a well-implemented fast-payment system plus a national digital identity? If the answer is no, what is the institutional cost of a continuing retail-CBDC research workstream that has not produced productive outcomes?

**On wholesale tokenised settlement.** Can a SIDS central bank participate as observer or correspondent in Project Agorá, Project Ensemble, or Project Guardian without committing to the eventual issuance of tokenised central bank money? What is the staff-capacity cost of meaningful observer participation, and how is that cost weighed against the alternative uses of central-bank human capital? Is regional pooling of such participation — at the ECCB, at the Pacific Islands Forum, or at AIS-region level — feasible and desirable?

**On regulated stablecoin remittance corridors.** What does it take, concretely, for a SIDS jurisdiction to obtain bilateral supervisory recognition that permits a US-licensed (GENIUS-compliant), MiCA-compliant, or Hong-Kong-licensed stablecoin issuer to settle remittance transactions with a SIDS-licensed off-ramp? Which jurisdiction’s regulatory framework is the rate-limiting constraint, and what is the realistic timeline for resolving it?

**On verifiable digital identity.** For the Caribbean specifically, which lacks a pan-regional digital-identity rail at the maturity of the Maldives’ eFaas or the EU’s eIDAS 2.0, is a CARICOM-level verifiable-credential layer institutionally feasible? What would it cost, who would operate it, and against what revenue model?

**On tokenised climate finance.** Is the binding constraint on SIDS-led tokenised blue-carbon programmes the registry layer or the upstream measurement, reporting, and verification methodology? If the latter, what is the institutional pathway to a defensible methodology, and which standards body is the natural counterparty?

**On regulatory-framework competition.** Mauritius, Seychelles, and Vanuatu have demonstrated the supervisory rigour required to operate credible VASP regimes. For SIDS jurisdictions considering similar frameworks, what is the realistic supervisory-capacity-build cost, and what is the failure mode when supervisory capacity does not keep pace with licensee growth?

**On governance dependency.** Canton Network governance is concentrated in DTCC and Euroclear. The BIS-led wholesale programmes are concentrated in G7 and G20 central banks. The regulated stablecoin frameworks are issued by US, EU, UK, Hong Kong, and Singapore authorities. What is the SIDS jurisdiction’s posture toward this governance asymmetry? Is the appropriate strategy active interoperation, deliberate optionality across multiple venues, regional pooling of bargaining power, or some combination?

**On the political economy of the new institutional venues.** The Canton Super Validator set is invite-only and includes investor-counterparty relationships. The mBridge architecture has been adopted partly as a non-Western settlement option in a fragmenting global financial-payments

environment. The empirical record of which institutional venues remain stably accessible to small jurisdictions over a multi-decade horizon is, of necessity, untested. What is the appropriate hedge against venue-specific political risk?

**On the geopolitical configuration of the institutional surface.** Given the configurations described in §3.5 — the United-States-aligned, the European-Union-aligned, the China-sphere, and the BRICS scaffolding — what is a SIDS jurisdiction’s defensible posture? Is single-configuration alignment cheaper to operate but more fragile to bloc-level disruption; is multi-configuration interoperability more expensive in screening and supervisory capability but more resilient; or is there a regional posture (CARICOM, Pacific Islands Forum, AOSIS) that mediates the choice for individual member states? The Treasury comparability-determination process under Section 18 of the GENIUS Act, the absence of a third-country MiCA equivalence regime, MiCA Article 23’s quantitative thresholds, and the European Union twentieth sanctions package’s categorical jurisdictional treatment of crypto-asset service providers in sanctioned jurisdictions are concrete instruments through which this question becomes operational. What is the realistic sequence — and cost — of obtaining and maintaining standing across more than one configuration?

**On legal infrastructure for tokenised settlement.** Which SIDS jurisdiction is positioned to legislate clean functional-equivalence for tokenised instruments, settlement-finality designation under a recognised system, asset-segregation and bankruptcy-remoteness rules for tokenised holdings, and conflict-of-laws certainty along the lines of UNCITRAL’s MLETR, UNIDROIT’s *Principles on Digital Assets and Private Law*, and IOSCO’s November 2025 final report on Tokenisation of Financial Assets? What is the realistic legislative pathway, given the political and parliamentary effort the record shows is chronically underestimated, and is the legal-domicile flow against Cayman, the BVI, Bermuda, and Jersey large enough to justify it?

**On education, capacity-building, and the talent pipeline.** Which SIDS jurisdiction or sub-region (CARICOM, Pacific Islands Forum, the AIS group) should anchor a regional digital-asset training programme — for supervisors, technical operators, judicial officers, and public-financial-literacy work — and what is the funding and accreditation pathway? Is the right model a partnership with an established international training institution (IMF STI, the Toronto Centre, BIS FSI, the Commonwealth Secretariat) or a SIDS-region institution funded through pooled regional contribution? How is outward-migration pressure managed, given that the same skills are in demand in larger jurisdictions? What is the ten-year cost of running this layer credibly, and against what fiscal envelope?

**On execution sequencing and off-ramp planning.** What does a credible execution sequence look like for a SIDS jurisdiction that chooses to act — legal-framework amendment, supervisory-capacity build, infrastructure procurement, pilot, scale, monitoring-and-evaluation — with realistic ordering constraints? Which vendor-selection patterns does the record support and which does it contraindicate, and how is vendor lock-in avoided without surrendering execution speed? Equally pointed: what does a credible off-ramp from a non-performing programme look like? The ECCB’s pivot from DCash 2.0 to the Regional Fast Payment System in February 2026 is one data point of orderly shutdown. Is the absence of comparable off-ramp planning in the broader SIDS digital-finance record itself a finding, and what would a default off-ramp clause in a SIDS digital-asset programme look like?

**On economic opportunity sizing and value-capture incidence.** What is the addressable economic prize for a SIDS jurisdiction that executes well on the combination of institutional interoperation, clean functional-equivalence legislation, supervisory-capacity build, and targeted vertical specialisation in tourism receivables, fisheries-quota documentation, maritime-registry tokenisation, citizenship-credential issuance, custody hosting, or diaspora-vehicle origination? In welfare terms, what is the absolute-dollar gain from compressing the Pacific remittance corridor cost from 8.7%–11.2% to the SDG 3% target across the Tonga, Samoa, and broader Pacific flow base; from compressing the 20–30% MRV burden on SIDS climate-finance projects; from compressing cycle time on Loss and Damage Fund and analogous disbursements; and from displacing the cost of thinning correspondent-banking relationships? On the value-capture side, what share of gross flow accrues domestically (validator operation, custody mandates, professional services, tax revenue) versus to foreign vendors and counterparties, and how is the domestic share defended? What is the downside if execution fails — programme write-down, reputational cost, FATF listing, correspondent-banking impact — and how is that downside bounded ex ante?

These questions are not rhetorical. They are the questions a serious SIDS blockchain agenda must address, and they are not answered in the existing public record.

## 9. Closing observation

The institutional financial system is in the middle of a substantive technological reorganisation, and that reorganisation is no longer happening on a single institutional surface. The empirical record of small-island sovereign digital-currency experiments from 2018 to 2026 is poor enough to support a strong claim about what does not work for SIDS at retail scale. The institutional context being constructed elsewhere — at Canton, at the Bank for International Settlements Innovation Hub, in the wholesale-central-bank-digital-currency programmes of Switzerland, Hong Kong, Singapore, and the United Arab Emirates, in the Eurosystem’s Pontes and Appia tracks, in the e-CNY’s 2026 transition and the post-Bank-for-International-Settlements continuation of mBridge, in the regulated stablecoin frameworks of the United States, the European Union, the United Kingdom, Hong Kong, and Singapore — is moving from research into production at a pace, and across a configuration of blocs, that makes the question of SIDS interoperation pressing and the question of SIDS choice of configuration unavoidable.

The strongest empirical pattern in the SIDS evidence base is that conventional fast-payment rails plus national digital identity have outperformed blockchain-native sovereign-currency experiments in every SIDS context where both have been tried. The most consequential institutional question for SIDS jurisdictions in 2026 and beyond is therefore not whether to launch a new sovereign blockchain currency, but how to compose modern fast-payment infrastructure, working national digital identity, selective interoperation with the institutional tokenised-settlement plane being constructed elsewhere, and a deliberate posture toward the geopolitical configuration of that plane — without surrendering optionality, supervisory integrity, or governance voice.

The architectural pattern that follows from this reading is one of layering rather than of choice between alternatives. Settlement finality is a venue choice, anchored in a single recognised system with the corresponding rulebook and supervisory recognition; multi-virtual-machine support is an accessibility layer above it, carrying derivative claims rather than competing records of legal title; programmable compliance and intelligent orchestration are composed across both, with the governance burden identified by the International Monetary Fund, the International Organisation of

Securities Commissions, and the Financial Stability Board attaching to the artificial-intelligence layer and not transferring to the smart-contract layer. The institutional surface admits more than one finality venue, and a SIDS jurisdiction's choice — or, more realistically, its sequence of choices across configurations — will determine the extraterritorial supervisory and sanctions reach it accepts as a precondition.

The economic-strategy dimension is the one on which the public conversation has been thinnest. The opportunities are not generic. They map onto sectoral substrates SIDS jurisdictions already possess: tourism, fisheries, maritime registries, financial services, citizenship and residency programmes, remittance corridors, and climate-finance positioning. The competitive comparators are not generic either. Cayman, the BVI, Bermuda, and Jersey are not SIDS but compete for the same flows, and the SIDS case is built or undermined on the same legal-infrastructure, supervisory-capacity, and value-capture dimensions those comparators have invested in over decades. The binding constraint on whether the opportunity translates into welfare gain is the execution record: vendor-led implementation, thin domestic-talent capture, and uneven sequencing of merchant and user onboarding. The welfare endpoints are concrete — households at the receiving end of a remittance corridor, fiscal authorities at the receiving end of a tax base, supervisors at the receiving end of a sanctions-and-screening regime, citizens at the receiving end of a digital-identity programme. The execution-capability layer of §6, the talent-pipeline and value-capture constraints of §5, and the unresolved questions on education, execution sequencing, and economic-opportunity sizing in §8 are the questions on which SIDS engagement with the institutional surface of §3 will succeed or fail.

This paper is not the answer to that question. It is, we hope, a starting frame for the conversation that the answer requires.

## About the issuers

**Boli Association** (boli.org) is an independent, non-profit research entity constituted as a Swiss Verein in Zurich. It is a pure research organisation, funded at present through member contributions, and convenes working groups on tokenisation standards, AI verification and authenticity, stablecoins and cross-border settlement, and market structure. The Association contributes its research outputs to third parties under open and commissioned arrangements; one such recipient is the Boli platform (boli.technology), an independent for-profit platform that is operationally separate from the Association. Field research underpinning this paper has been conducted across the SIDS regions over multiple years.

**Tenzro Network** is a decentralised multi-virtual-machine settlement and identity protocol with execution environments for the Ethereum Virtual Machine, the Solana Virtual Machine, and Canton's DAML, the Tenzro Decentralised Identity Protocol, and the Agent-to-Agent protocol. Protocol code, SDKs, and specifications are published at [github.com/tenzro](https://github.com/tenzro) under Apache 2.0.

**Tenzro Labs Pte. Ltd.** (tenzro.com) is a Singapore-domiciled engineering entity, separate from the protocol, that contributes code to Tenzro Network, operates a validator on the Canton Network's Global Synchronizer, and maintains the developer tooling referenced in §7.

This paper is published by Boli Association, with Tenzro Network as decentralised protocol and Tenzro Labs as engineering partner. It does not constitute investment advice, regulatory guidance, or a commitment by either institution to undertake any specific programme of work in any SIDS jurisdiction. Inquiries: [boli.org](https://boli.org), [tenzro.com](https://tenzro.com).

## References

### SIDS empirical record – Caribbean

- Central Bank of The Bahamas. *Sand Dollar public update*. <https://www.centralbankbahamas.com/news/press-releases/press-release-public-update-on-the-bahamas-digital-currency-sanddollar-1>
- The Tribune (Bahamas). *Bahamas going in reverse through 20% cash increase*. 17 January 2025. <https://www.tribune242.com/news/2025/jan/17/bahamas-going-in-reverse-through-20-cash-increase/>
- Eastern Caribbean Central Bank. *DCash discontinuation; DCash 2.0 RFI; 112th Monetary Council suspension*. CBDC Tracker (HRF). <https://cbdctracker.hrf.org/currency/eccu> ; Discover Montserrat. *ECCB suspends DCash 2.0*. 16 February 2026. <https://discovermni.com/2026/02/16/eccb-suspends-dcash-2-0-to-prioritise-regional-fast-payment-system/>
- Bloomberg. *Eastern Caribbean DCash outage*. 21 February 2022. <https://www.bloomberg.com/news/articles/2022-02-21/eastern-caribbean-dcash-outage-is-test-for-central-bank-digital-currencies>
- Bank of Jamaica. *JAM-DEX*. <https://boj.org.jm/core-functions/currency/cbdc/> ; Jamaica Observer. *Byles blasts banks on JAM-DEX delays*. February 2026. <https://www.jamaicaobserver.com/2026/02/25/byles-blasts-banks-jam-dex-delays/>
- International Monetary Fund. *Dominican Republic – Assessing the Implications of a Retail CBDC*. HLSEA2024031. <https://www.imf.org/en/publications/high-level-summary-technical-assistance-reports/issues/2024/08/28/dominican-republic-assessing-the-implications-of-a-retail-central-bank-digital-currency-554119>

### SIDS empirical record – Pacific

- IMF. *Republic of the Marshall Islands 2025 Article IV Concluding Statement*. <https://www.imf.org/en/news/articles/2025/09/10/cs-091025-republic-of-the-marshall-islands-concluding-statement-of-the-2025-article-iv-mission>
- Office of the Public Auditor, Republic of Palau. *Stablecoin Pilot Project Audit AR-2025-005*. June 2025. <https://www.palauopa.org/pdf/opa-audits/Year%202025/Stablecoin-Pilot-Project-AR-2025-005.pdf>
- Tuvalu Digital Nation update (2026). <https://www.georgesiosi.com/blog/tuvalu-digital-nation-2026-update>
- Biometric Update. *Tonga launches TongaPass*. June 2025. <https://www.biometricupdate.com/202506/tonga-launches-tongapass-digital-id-and-government-portal>
- World Bank. *Samoa Finance Sector Resilience and Development Project*. October 2024. <https://www.worldbank.org/en/news/press-release/2024/10/28/samoans-set-to-benefit-from-improved-national-payments-systems-and-first-ever-national-digital-identification-system>
- Lowy Institute. *Reducing remittance costs in the Pacific Islands*. <https://www.lowyinstitute.org/publications/reducing-remittance-costs-pacific-islands>
- Pacific Islands Forum. *FEMM 2025 Money Goals*. [https://forumsec.org/sites/default/files/2024-09/Money%20Goals%202025\\_Final.pdf](https://forumsec.org/sites/default/files/2024-09/Money%20Goals%202025_Final.pdf)

### SIDS empirical record – AIS

- Maldives Monetary Authority / Tietoevry. *Favara instant-payments launch*. <https://www.tietoevry.com/en/newsroom/all-news-and-releases/press-releases/2023/10/tietoevry-and-the-maldives-monetary-authority-have-launched-transformative-instant-payments-and-smart-addressing-system/>
- Maldives International Financial Centre. <https://www.mifc.gov.mv/about>

- Biometric Update. *Maldives to launch Smart ID in 2026*. December 2025. <https://www.biometricupdate.com/202512/maldives-to-launch-smart-id-in-2026>
- Global Finance. *India-Maldives bailout, sukuk bonds, default*. April 2026. <https://gfmag.com/economics-policy-regulation/india-maldives-bailout-sukuk-bonds-default/>
- Financial Services Authority Seychelles. *Virtual Asset Service Providers Act 2024*. <https://fsa-seychelles.sc/vasp/legal-framework>
- Appleby. *Seychelles Virtual Asset Regulation: the Reality Check of 2025*. <https://www.applebyglobal.com/publications/seychelles-virtual-asset-regulation-the-reality-check-of-2025/>
- Financial Services Commission Mauritius. *Virtual Asset and Initial Token Offering Services Act*. <https://www.fscmauritius.org/media/119928/the-virtual-asset-and-initial-token-offering-services-act.pdf>

## Canton Network

- Canton Network. *Protocol overview; A technical primer*. <https://www.canton.network/protocol> ; <https://www.canton.network/blog/a-technical-primer>
- Canton Foundation. *About; current validators offering nodes*. <https://canton.foundation/about-the-foundation> ; <https://canton.foundation/current-validators-offering-nodes/>
- DTCC. *DTCC and Digital Asset partner to tokenize DTC-custodied US Treasury securities*. 17 December 2025. <https://www.dtcc.com/news/2025/december/17/dtcc-and-digital-asset-partner-to-tokenize-dtc-custodied-us-treasury-securities>
- Canton Network. *Tradeweb / industry working-group on-chain US Treasury financing*. <https://www.canton.network/canton-network-press-releases/digital-asset-complete-on-chain-us-treasury-financing>
- Broadridge. *Distributed Ledger Repo December 2025 volumes; January 2026 508% YoY*. <https://www.broadridge.com/press-release/2026/broadridge-distributed-ledger-repo-platform-december>
- Circle. *USDCx now live on Canton via xReserve*. <https://www.circle.com/blog/usdcx-on-canton-now-available-via-circle-xreserve>
- PR Newswire / Digital Asset and JPMorgan Kinexys. *Intent to bring USD JPM Coin (JPMD) to Canton*. 7 January 2026. <https://www.prnewswire.com/news-releases/digital-asset-and-kinexys-by-jp-morgan-announce-intention-to-bring-usd-jpm-coin-jpmd-natively-to-the-canton-network>
- Tenzro Labs validator on Canton Network Global Synchronizer. *Canton Scan party record*. <https://cantonscan.com/party/tenzro-validator-1%3A%3A12201c72ce3ad0f8a1b4e45994e77705de29583a1524fa67d791b8eaa691be5a08e1>
- DL News. *Canton Network CEO addresses criticism from crypto ideologues*. <https://www.dlnews.com/articles/defi/canton-network-ceo-addresses-criticism-from-crypto-ideologues>

## Wholesale CBDC and tokenised settlement

- Swiss National Bank. *Project Helvetia III extension*. 30 June 2025. [https://www.snb.ch/en/publications/communication/press-releases/2025/pre\\_20250630](https://www.snb.ch/en/publications/communication/press-releases/2025/pre_20250630)
- Hong Kong Monetary Authority. *EnsembleTX launch*. 13 November 2025. <https://www.hkma.gov.hk/eng/news-and-media/press-releases/2025/11/20251113-3/>
- Monetary Authority of Singapore. *Project Guardian*. <https://www.mas.gov.sg/schemes-and-initiatives/project-guardian>
- Bank for International Settlements. *Project Agora*. <https://www.bis.org/about/bisih/topics/fmis/agora.htm>
- Bank for International Settlements. *Project mBridge*. [https://www.bis.org/about/bisih/topics/cbdc/mcbdc\\_bridge.htm](https://www.bis.org/about/bisih/topics/cbdc/mcbdc_bridge.htm)

- Central Banking. *BIS to hand over Project mBridge to central banks*. <https://www.centralbanking.com/fintech/cbdc/7962626/bis-to-hand-over-project-mbridge-to-central-banks>
- Bank of Korea. *Project Hangang*. <https://www.bis.org/publ/othp77.htm>
- European Central Bank. *Digital euro preparation phase closing report*. October 2025. [https://www.ecb.europa.eu/euro/digital\\_euro/progress/html/ecb.deprp202510.en.html](https://www.ecb.europa.eu/euro/digital_euro/progress/html/ecb.deprp202510.en.html)
- Bank of England. *Digital pound update October 2025; systemic stablecoins consultation*. <https://www.bankofengland.co.uk/report/2025/digital-pound-update-october>

### **Tokenised real-world assets and Islamic finance**

- BlackRock BUIDL. <https://securitize.io/blackrock/buidl>
- Franklin Templeton OnChain US Government Money Fund (BENJI). <https://www.franklintempleton.com/investments/options/money-market-funds/products/29386/SINGLCLASS/franklin-on-chain-u-s-government-money-fund/FOBXX>
- JPMorgan Kinexys. <https://www.jpmorgan.com/kinexys/index>
- HSBC Orion / DIGIT mandate. <https://www.hsbc.com/news-and-views/news/media-releases/2026/hsbc-orion-awarded-digit-platform-mandate>
- Khazanah Nasional. *Malaysia's first tokenised sukuk pilot*. April 2026. [https://www.khazanah.com.my/news\\_press\\_releases/khazanah-leads-malysias-first-tokenised-sukuk-pilot-in-collaboration-with-the-sc/](https://www.khazanah.com.my/news_press_releases/khazanah-leads-malysias-first-tokenised-sukuk-pilot-in-collaboration-with-the-sc/)
- Abu Dhabi Islamic Bank. *Smart Sukuk launch*. April 2025. <https://www.adib.ae/en/news/2025/apr/abudhabi-islamic-bank-becomes-first-bank-to-offer-fractional-sukuk>

### **Stablecoin and regulatory frameworks**

- White House. *GENIUS Act fact sheet*. July 2025. <https://www.whitehouse.gov/fact-sheets/2025/07/fact-sheet-president-donald-j-trump-signs-genius-act-into-law/>
- Office of the Comptroller of the Currency. *Implementing the GENIUS Act for U.S. stablecoins — proposed rule*. Federal Register, 2 March 2026. <https://www.federalregister.gov/documents/2026/03/02/2026-04089/implementing-the-guiding-and-establishing-national-innovation-for-us-stablecoins-act-for-the>
- FDIC. *GENIUS Act requirements and standards for FDIC-supervised permitted payment stablecoin issuers*. Federal Register, 10 April 2026. <https://www.federalregister.gov/documents/2026/04/10/2026-06974/genius-act-requirements-and-standards-for-fdic-supervised-permitted-payment-stablecoin-issuers-and>
- US Treasury. *AML/CFT and sanctions compliance NPRM for permitted payment stablecoin issuers*. April 2026. <https://home.treasury.gov/news/press-releases/sb0435>
- US Congress. *Digital Asset Market CLARITY Act (H.R. 3633)*. <https://www.congress.gov/bill/119th-congress/house-bill/3633>
- US Congress. *Anti-CBDC Surveillance State Act (H.R. 1919)*. <https://www.congress.gov/bill/119th-congress/house-bill/1919>
- SEC. *SEC clarifies application of federal securities laws to crypto assets*. March 2026. <https://www.sec.gov/newsroom/press-releases/2026-30-sec-clarifies-application-federal-securities-laws-crypto-assets>
- ESMA. *MiCA*. <https://www.esma.europa.eu/esmas-activities/digital-finance-and-innovation/markets-crypto-assets-regulation-mica>
- European Commission. *Crypto-assets*. [https://finance.ec.europa.eu/digital-finance/crypto-assets\\_en](https://finance.ec.europa.eu/digital-finance/crypto-assets_en)

- HKMA. *Stablecoin issuers regulatory page*. <https://www.hkma.gov.hk/eng/key-functions/international-financial-centre/stablecoin-issuers/>
- HKMA. *Granting of stablecoin issuer licences*. 10 April 2026. <https://www.hkma.gov.hk/eng/news-and-media/press-releases/2026/04/20260410-4/>
- UK Government. *Cryptoasset Regulations 2026 policy note*. <https://www.gov.uk/government/publications/policy-note-draft-statutory-instrument-amending-the-cryptoasset-regulations/draft-statutory-instrument-amending-the-financial-services-and-markets-act-2000-cryptoassets-regulations-2026-policy-note>

## Geopolitical configuration of the institutional surface

- Executive Order. *Strengthening American leadership in digital financial technology*. 23 January 2025. <https://www.whitehouse.gov/presidential-actions/2025/01/strengthening-american-leadership-in-digital-financial-technology/>
- Executive Order. *Establishment of a Strategic Bitcoin Reserve and United States Digital Asset Stockpile*. 6 March 2025. <https://www.whitehouse.gov/presidential-actions/2025/03/establishment-of-the-strategic-bitcoin-reserve-and-united-states-digital-asset-stockpile/>
- European Central Bank. *Europe and monetary sovereignty*. 12 February 2026. <https://www.ecb.europa.eu/press/key/date/2026/html/ecb.sp260212~9fabe9baaa.en.html>
- European Central Bank. *The Eurosystem's comprehensive payments strategy*. March 2026. <https://www.ecb.europa.eu/press/pubbydate/2026/html/ecb.eurosystemcomprehensivepaymentsstrategy202603.en.html>
- European Central Bank. *Building the rails for Europe's tokenised financial markets*. 23 March 2026. <https://www.ecb.europa.eu/press/key/date/2026/html/ecb.sp260323~a88f20c049.en.html>
- European Commission. *DLT and tokenisation: paving the way for the internet of value*. 21 April 2026. [https://finance.ec.europa.eu/news/dlt-and-tokenisation-paving-way-internet-value-2026-04-21\\_en](https://finance.ec.europa.eu/news/dlt-and-tokenisation-paving-way-internet-value-2026-04-21_en)
- European Parliament. *Resolution on European technological sovereignty and digital infrastructure (TA-10-2026-0022)*. 22 January 2026. [https://www.europarl.europa.eu/doceo/document/TA-10-2026-0022\\_EN.html](https://www.europarl.europa.eu/doceo/document/TA-10-2026-0022_EN.html)
- Council of the European Union. *Twentieth round of EU sanctions including crypto measures*. 23 April 2026. <https://www.consilium.europa.eu/en/press/press-releases/2026/04/23/russia-s-war-of-aggression-against-ukraine-20th-round-of-stern-eu-sanctions-hits-energy-military-industrial-complex-trade-and-financial-services-including-crypto/>
- People's Bank of China / State Council. *Action Plan for Further Strengthening the Digital Yuan Management Service System*. 2026. [https://english.www.gov.cn/news/202512/29/content\\_WS69526d4ec6d00ca5f9a08511.html](https://english.www.gov.cn/news/202512/29/content_WS69526d4ec6d00ca5f9a08511.html)
- BRICS Summit. *Rio Declaration*. July 2025. <http://www.brics.utoronto.ca/docs/250706-declaration.html>
- BRICS Summit. *Kazan Declaration*. October 2024. <http://static.kremlin.ru/media/events/files/en/RosOySvLzGaJtmx2wYFv0IN4NSPZploG.pdf>
- Bank of Russia. *Digital ruble rollout schedule*. <https://cbr.ru/eng/press/event/?id=25774>

## Multilateral and standards layer

- Bank for International Settlements. *Annual Economic Report 2025, Chapter III: The next-generation monetary and financial system*. <https://www.bis.org/publ/arpdf/ar2025e3.htm>
- Financial Stability Board. *Thematic review on FSB global regulatory framework for crypto-asset activities*. October 2025. <https://www.fsb.org/2025/10/thematic-review-on-fsb-global-regulatory-framework-for-crypto-asset-activities/>

- Financial Action Task Force. *Best Practices on the Travel Rule*. June 2025. <https://www.fatf-gafi.org/content/dam/fatf-gafi/recommendations/Best-Practices-Travel-Rule-Supervision.pdf>
- IOSCO. *Tokenisation of Financial Assets, FR/17/25*. November 2025. <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD809.pdf>
- IMF. *Tokenized Finance*. INSEA2026001. <https://www.imf.org/-/media/files/publications/imf-notes/2026/english/insea2026001.pdf>

### **Climate finance and SIDS-relevant disbursement**

- Climate Funds Update. *Fund for Responding to Loss and Damage 2025*. <https://climatefundsupdate.org/publications/fund-for-responding-to-loss-and-damage-2025/>
- Frontiers in Blockchain. *Decentralised blue-carbon MRV — recent literature*. <https://www.frontiersin.org/journals/blockchain/articles/10.3389/fbloc.2025.1603695/full>

### **Programmable compliance, AI orchestration, and digital MRV**

- IMF. *How Agentic AI Will Reshape Payments*. NOTE/2026/004, April 2026. <https://www.imf.org/en/publications/imf-notes/issues/2026/04/22/how-agentic-ai-will-reshape-payments-575560>
- IOSCO. *Artificial Intelligence in Capital Markets*. CR/02/25, March 2025. <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD788.pdf>
- Financial Stability Board. *The Financial Stability Implications of Artificial Intelligence*. November 2024. <https://www.fsb.org/uploads/P14112024.pdf>
- Financial Stability Board. *Monitoring AI Adoption in the Financial Sector*. October 2025. <https://www.fsb.org/uploads/P101025.pdf>
- World Bank. *Measuring, Reporting, and Verifying Carbon Credits*. <https://openknowledge.worldbank.org/entities/publication/f234e09d-29d6-4373-9043-d38dab2a448d>
- Verra. *Digital MRV Working Group; Pachama AI/satellite pilot*. <https://verra.org/worlds-largest-carbon-program-pilots-digital-measuring-of-forest-carbon/>
- Gold Standard. *Digital Measurement, Reporting and Verification Pilot Programme*. <https://www.gold-standard.org/news/new-pilot-programme-for-digital-measurement-reporting-verification>
- Integrity Council for the Voluntary Carbon Market. *Core Carbon Principles Assessment Framework*. <https://icvcm.org/assessment-framework/>
- ICVCM. *Continuous Improvement Work Programs: Market Modernisation, Transparency, Oversight*. <https://icvcm.org/continuous-improvement-work-programs/market-modernisation-transparency-oversight/>
- UNFCCC. *Article 6.4 Supervisory Body*. <https://unfccc.int/process-and-meetings/bodies/constituted-bodies/article-64-supervisory-body>
- IAASB. *International Standard on Sustainability Assurance (ISSA) 5000*. 2025.
- Network for Greening the Financial System. *Climate Scenarios for Central Banks and Supervisors*. <https://www.ngfs.net/en/publications-and-statistics/publications/ngfs-climate-scenarios-central-banks-and-supervisors-phase-v>

### **Legal infrastructure for tokenised settlement**

- United Nations Commission on International Trade Law. *Model Law on Electronic Transferable Records*. [https://uncitral.un.org/en/texts/e-commerce/modellaw/electronic\\_transferable\\_records](https://uncitral.un.org/en/texts/e-commerce/modellaw/electronic_transferable_records)
- United Nations Commission on International Trade Law. *Model Law on the Use and Cross-Border Recognition of Identity Management and Trust Services*. [https://uncitral.un.org/en/working\\_groups/4/electronic\\_commerce](https://uncitral.un.org/en/working_groups/4/electronic_commerce)

- International Institute for the Unification of Private Law (UNIDROIT). *Principles on Digital Assets and Private Law*. 2023. <https://www.unidroit.org/instruments/capital-markets/principles-on-digital-assets-and-private-law/>
- Hague Conference on Private International Law. *Project on the law applicable to the cross-border legal issues regarding digital tokens*. <https://www.hcch.net/en/projects/legislative-projects/digital-tokens>
- Committee on Payments and Market Infrastructures and IOSCO. *Principles for Financial Market Infrastructures*. <https://www.bis.org/cpmi/publ/d101a.pdf>
- Organisation for Economic Co-operation and Development. *Crypto-Asset Reporting Framework (CARF)*. <https://www.oecd.org/tax/exchange-of-tax-information/crypto-asset-reporting-framework.htm>
- European Union. *DAC8 Directive on administrative cooperation for crypto-assets*. [https://taxation-customs.ec.europa.eu/dac8\\_en](https://taxation-customs.ec.europa.eu/dac8_en)
- International Chamber of Commerce. *Digital Standards Initiative — electronic trade documents*. <https://www.dsi.iccwbo.org/>

### **Capacity-building, education, and training pathways**

- IMF Singapore Regional Training Institute. <https://www.imfsti.org/>
- Toronto Centre. *Programme catalogue for financial-sector supervisors*. <https://www.torontocentre.org/>
- Bank for International Settlements. *Financial Stability Institute Connect*. <https://www.bis.org/fsi/fsiconnect.htm>
- Pacific Financial Technical Assistance Centre. <https://www.pftac.org/>
- Caribbean Regional Technical Assistance Centre. <https://www.cartac.org/>
- AFRITAC. <https://www.afritacsouth.org/>
- Commonwealth Secretariat. *Trade, oceans and natural resources*. <https://thecommonwealth.org/>
- Commonwealth Magistrates' and Judges' Association. <https://www.cmja.org/>
- World Bank. *Financial Sector Reform and Strengthening (FIRST) Initiative*. <https://www.firstinitiative.org/>

### **Economic verticals: fisheries, maritime, tourism, identity**

- Food and Agriculture Organisation. *State of World Fisheries and Aquaculture (SOFIA) 2024*. <https://www.fao.org/publications/sofia/en>
- Parties to the Nauru Agreement. *Vessel Day Scheme*. <https://www.pnatuna.com/vds>
- Pacific Islands Forum Fisheries Agency. <https://www.ffa.int/>
- Marshall Islands Maritime Administrator (IRI). <https://www.register-iri.com/>
- Bahamas Maritime Authority. <https://www.bahamasmaritime.com/>
- Digital Container Shipping Association. *Electronic bill of lading*. <https://dcsa.org/standards/ebill-of-lading/>
- World Travel and Tourism Council. *Economic Impact reporting*. <https://wttc.org/research/economic-impact>
- Caribbean Tourism Organisation. <https://www.onecaribbean.org/>
- Pacific Tourism Organisation. <https://southpacificislands.travel/>

### **Tenzro Network and Tenzro Labs (technical partner)**

- Tenzro Labs. <https://tenzro.com>
- Tenzro published code (Apache 2.0). <https://github.com/tenzro>

- Tenzro Network protocol. <https://github.com/tenzro/tenzro-network>
- Rust SDK. <https://github.com/tenzro/tenzro-sdk-rust>
- TypeScript SDK. <https://github.com/tenzro/tenzro-sdk-typescript>
- Agent-to-Agent server. <https://github.com/tenzro/tenzro-a2a-server>
- Machine Payments Protocol specifications. <https://github.com/tenzro/mpp-specs>
- did:tenzro DID method specification. <https://github.com/tenzro/did-method-tenzro>
- DID ecosystem extensions. <https://github.com/tenzro/did-extensions>
- MCP servers (including Canton). <https://github.com/tenzro/mcp-servers>
- Tenzro CLI. <https://github.com/tenzro/tenzro-cli>
- Tenzro Wallet. <https://github.com/tenzro/tenzro-wallet>
- Tenzro Cookbook. <https://github.com/tenzro/tenzro-cookbook>
- Canton Scan validator party record. <https://cantonscan.com/party/tenzro-validator-1%3A%3A12201c72ce3ad0f8a1b4e45994e77705de29583a1524fa67d791b8eaa691be5a08e1>

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