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The future of financial messaging: navigating the ISO 20022 migration journey

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Highlights

- The adoption and harmonised implementation of ISO 20022 addresses long-standing inefficiencies in cross-border payments by enabling structured data, reducing message truncation and enhancing straight-through processing. This improves transaction speed, compliance and fraud prevention.
- The ISO 20022 migration journey spans pre-migration, migration and post-migration phases. Pre-migration includes stakeholder engagement and system readiness, while migration focuses on cutovers and reconciliation. Post-migration ensures stability, monitoring and long-term benefits through robust governance and harmonisation.
- ISO 20022 migration is complex: strategies like big bang or phased approaches must align with market infrastructure needs. This Brief shares practical experiences and technical approaches from successful migrations, addressing challenges and offering insights for operators across diverse adoption scenarios.

Introduction

In the early 2000s financial institutions' back offices faced rising costs and the complexity of managing multiple messaging standards. Cross-border payment formats, such as the Swift Message Type (MT), were seldom used for domestic transactions, where proprietary formats varied widely both from one another and from international message standards. Each format brought specific messaging interfaces, network settings and rules, complicating operations and driving inefficiencies. While the Swift MT format supported cross-border payments, it had limitations. Translating messages from domestic to MT formats often caused data truncation and fragmentation, undermining information quality. Additionally, insufficient or unstructured data in some fields hindered straight through processing (STP), delaying payments and increasing costs.

To address these challenges, the International Organization for Standardization (ISO) launched ISO 20022 in 2004, an industry-validated language for financial messaging. By standardising data objects,

[1] The views expressed are those of the authors and do not necessarily reflect those of the Bank for International Settlements, its Committee on Payments and Market Infrastructures or its member central banks. We thank the entire Community of Practice on Payment Systems (CoPS), Chakree Aksonthung, Ulrich Bindseil, Barbara Dreyer and Angela Thalakottur for their valuable comments. Special thanks to Michael Eganza, Aurin Heyliger, Boon Kee KWA, Maya Okamoto, Mark Streather, Shafeeqa binti Shamsudin and Denise Williams-Frank for their substantial contributions, without which the Brief would not have been possible, and to Carlos Conesa (CoPS Chair) for his overall guidance.

rules and processes, the ISO 20022 messaging standard eases interoperability between financial institutions, market infrastructures and end users. It enables them to communicate with a single standard across business domains, such as payments, securities and treasury, and offers pathways for integrated financial services.

The G20 Roadmap for enhancing cross-border payments identified fragmented messaging standards as a major friction contributing to their high costs, slow speed and lack of transparency. ISO 20022 adoption can reduce the time for and costs of mapping and maintaining interfaces. By enabling structured data, ISO 20022 helps to resolve STP and truncation issues, delivering efficiency gains and faster transactions. The rich ISO 20022 format can improve screening, compliance checks and security to address risks of fraud, money laundering and terrorism financing. For payment service providers (PSPs), the standard enables streamlined and automated operations and enhanced reporting. For corporates, structured and standardised data accelerate reconciliation and funds allocation, improving working capital management (Swift (2023), Quibria and Breen (2023)).

Although migration to ISO 20022 has seen a considerable uptick over the past few years, harmonised implementation is critical to fully realise the benefits of ISO 20022. The G20 Roadmap promotes the adoption of harmonised ISO 20022 standards for cross-border payments (FSB (2023)). To deliver on the Roadmap's goals, the BIS Committee on Payments and Market Infrastructures (CPMI) has taken a leading role in driving ISO 20022 harmonisation efforts. In collaboration with the Payments Market Practice Group (PMPG),[2] the CPMI established a joint task force of technical experts to develop harmonised data requirements for the use of ISO 20022 messages in cross-border payments, published in October 2023 (Graph 1).

The private sector, via the CPMI Payments Interoperability and Extension (PIE) task force is actively promoting the 12 harmonisation requirements across the globe. This effort supports the CPMI's ambition to achieve voluntary alignment with the harmonisation requirements by the end of 2027, with earlier implementation encouraged where feasible. Many public sector stakeholders and major market infrastructures have also welcomed the harmonisation requirements (BoE (2023b), CPMI (2023a), PIE task force (2025)).

The harmonisation requirements provide guidance on implementing ISO 20022 in a consistent way. These requirements complement existing market usage guidelines, aiming to ensure that the benefits of ISO 20022 can be realised to the maximum extent for cross-border payments. They represent ISO 20022 data use practices that, when consistently applied, will improve the efficiency of cross-border payments. The requirements are complemented by harmonised data models which define a minimum set of data to ensure consistent use of key data elements (CPMI (2023), (2026)).

The CPMI continues to engage with payment system operators, financial institutions and service providers to foster the harmonisation of ISO 20022 and enhance cross-border payments more broadly. The CPMI will maintain the harmonisation requirements at least until the end of 2027, during the G20 cross-border payments programme. To support the maintenance and encourage global adoption of these requirements, the CPMI has established a joint panel comprising members from the ISO 20022 global market practice groups. An updated version of the harmonisation requirements report, published in February 2026, takes into account standardisation and regulatory developments since 2023, provides clarification where market participants had sought further guidance and sets out the updated and expanded data model in a separate technical annex. This approach allows for more regular updates of the data models in line with the ISO 20022 release schedule, if and as needed (CPMI (2026)).

[2] The PMPG provides a global forum to drive better market practices which, together with correct use of standards, will help in achieving full straight-through processing and improved customer service.

CPMI's harmonised ISO 20022 cross-border payment data requirements Table 1

	Harmonisation requirement	Example
1	To use the **appropriate ISO 20022 message** for a specific business function	Implementation of a dedicated ISO 20022 message for return payments (ie pacs.004)
2	To use ISO **externalised codes** for payments and payment-related processes	Usage of an externalised purpose code "PENS" for a pension payment instead of a proprietary option
3	To support/restrict the **character set** used for ISO 20022 cross-border payment messages to current market practice	Support of the Latin character set: a–z, A–Z, 0–9, / - ? : ( ) . , ' + ! # & % * = ^ _ ` { | } ~ " ; @ [\ ] $ > <
4	To use a common **time convention** across all ISO 20022 messages associated with cross-border payments	Support of either Universal Time Coordinated (UTC) or local time with a UTC offset
5	To include a **unique end-to-end reference** for all cross-border payments	Usage of a unique end-to-end transaction reference (UETR)
6	To ensure full **transparency on amounts, currency conversions and charges** of cross-border payments	Exposure of amount, currency (including conversion) and charges applicable to a payment
7	To recommend use of **account numbers** (or proxies) to the extent possible	Usage of structured account identifiers (eg International Bank Account Number (IBAN))
8	To uniquely **identify all financial institutions** involved in an internationally recognised and standardised way	Usage of structured agent identifiers, such as Business Identifier Codes (BICs)
9	To **identify all entities** involved in a cross-border payment in a standardised and structured way	Usage of name and postal address, BICs or Legal Entity Identifiers (LEIs) for entity identification
10	To **identify all persons** involved in a cross-border payment in a standardised and structured way	Usage of name and postal address, complemented by structured identifiers (eg passport data) for person identification
11	To provide a common minimum level of **postal address information structured** to the extent possible	Usage of town name and country data elements as a minimum, complemented by further address information
12	To cater for the transport of customer **remittance information** across the end-to-end cross-border payment chain	Support the inclusion of remittance information

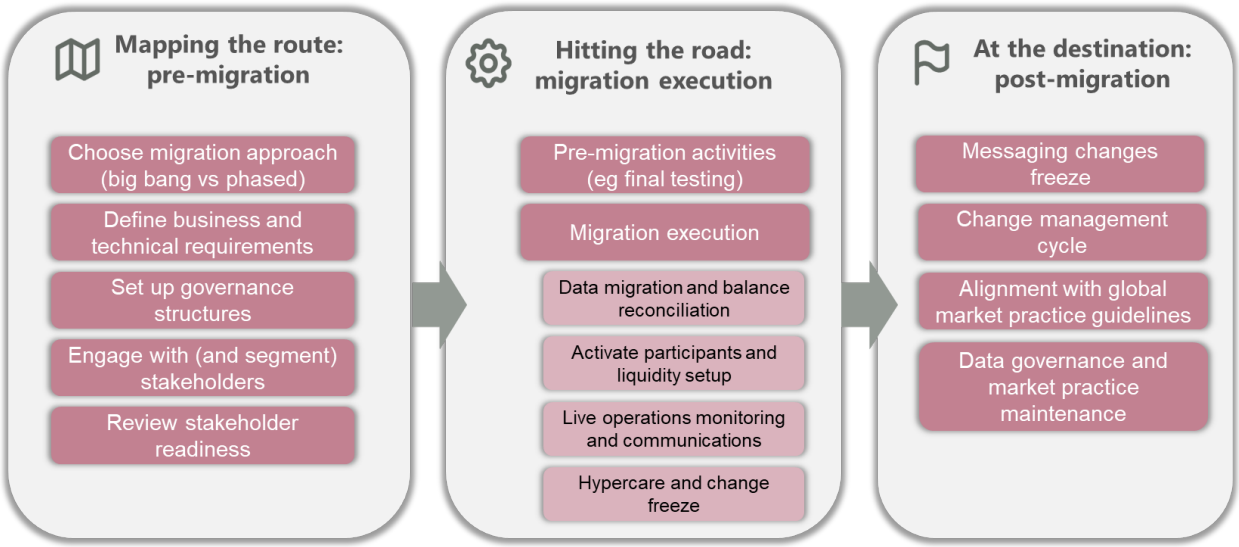
Source: PIE task force (2025) (based on CPMI (2023)).

While Swift retired the legacy MT payment messages in November 2025, some payment market infrastructures have still not fully adopted ISO 20022 for cross-border payments and rely on translation services. Furthermore, some jurisdictions are considering adopting ISO 20022 for their domestic payments as well.[3] Against this backdrop, the CPMI Community of Practice on Payment Systems (CoPS) has decided to complement existing efforts by providing practical insights into the planning and execution of the ISO 20022 migration, as well as its ongoing maintenance, building on the experience of the more than 60 central banks participating in CoPS. This Brief compiles practical experiences based on successful ISO 20022 migration, addresses technical considerations and challenges, and explores diverse scenarios, offering insights for operators navigating ISO 20022 adoption.

[3] The terms "country", "jurisdiction" and "economy" used in this publication also cover territorial entities that are not states as understood by international law and practice but for which data are separately and independently maintained. The designations used and the presentation of material in this publication do not imply the expression of any opinion on the part of the BIS concerning the legal status of any country, area or territory or of its authorities, or concerning the delimitation of its frontiers or boundaries. Names of countries or other territorial entities are used in a short form which is not necessarily their official name.

The rest of the document is divided into three sections, each covering a migration stage. The first section outlines preparatory steps, including stakeholder engagement. The second focuses on operational migration, addressing balance reconciliation and participant activation, with deliverables like a migration playbook. The final section explores post-migration steps, including maintenance processes and potential benefits (Graph 1).

The ISO 20022 migration journey — Graph 1



Source: CPMI.

Mapping the route: preparing for the ISO migration

When planning the migration to ISO 20022, two main paradigms are typically considered: the big bang approach and the phased approach. The choice of approach is critical, as it significantly influences all subsequent planning and implementation efforts. Carefully evaluating the advantages and disadvantages of each paradigm in advance ensures an informed decision that aligns with strategic goals and operational realities.

The big bang approach involves the simultaneous transition of an entire jurisdiction's financial industry. This method requires a single, coordinated cutover, during which legacy formats are replaced in one decisive move. The goal is to minimise, or ideally eliminate, the coexistence of old and new formats. In contrast, the phased approach enables a gradual migration, either by transitioning groups of participants in stages or by adopting specific solutions progressively. This approach offers greater flexibility, allowing market infrastructures and financial institutions to align their internal systems, processes and resources over time (RBA (2019)).

Key considerations and trade-offs in migration approaches

The choice between the big bang and the phased approach depends on several key factors. Understanding these factors and their implications is critical for determining the most suitable migration strategy, helping to facilitate a smooth transition that aligns with strategic goals and operational realities.

The size of the relevant stakeholder community plays an important role, as larger, more heterogeneous communities typically require greater coordination efforts and involve higher systemic risks. In such cases, a phased approach may be more suitable to manage these complexities incrementally, even if the ultimate objective is the complete adoption of ISO 20022. Conversely, for smaller, more homogeneous communities, a big bang strategy may be more straightforward due to reduced coordination requirements and a higher likelihood of consistent readiness among market participants.

The readiness of market participants is a critical factor, with the big bang approach often preferred when participants exhibit a relatively uniform level of technical and operational preparedness (MAS (2021), Swift (2017)). Under these conditions, the system operator can impose a freeze on changes and conduct multiple coordinated rehearsals. This approach is particularly beneficial in scenarios where payment systems are essential for cross-border transactions, as exemplified by systems such as the Bank of Japan Financial Network System (BOJ-NET), the Bank of England's Clearing House Automated Payment System (CHAPS), the US Federal Reserve's Fedwire Funds Service and the Eurosystem's T2. Conversely, a phased approach is generally more effective in environments where participant capabilities vary significantly, as chosen by the Central Bank of Malaysia (BNM) for the migration of RENTAS to ISO 20022 (Box 1). Inconsistent vendor readiness or an ecosystem with many non-bank PSPs or corporates with slower enterprise resource planning (ERP) upgrade cycles could make a strong case for a phased approach. It is also suitable when several infrastructures need to transition in a carefully staged sequence.

Box 1

Big bang versus phased approach: the cases of Kenya, Malaysia and South Africa

Malaysia adopted a phased approach for the migration of its real-time gross settlement (RTGS) system RENTAS, to mitigate risks and align with participant readiness. This coexistence of standards, proposed and agreed upon by an industry working group, provided participants with greater flexibility and minimised operational risks compared with a single cutover date. Stakeholders recognised key benefits of staggered migration activities, including the ability for institutions to distribute internal resources over a longer timeline, thereby easing pressure on project teams and reducing competition for specialised expertise.

RENTAS participants were required to conduct a holistic assessment of their systems to identify necessary enhancements, particularly for integrated systems supporting payment transactions. The BNM closely monitored progress through oversight, industry working groups, bilateral consultations and targeted training initiatives. These measures helped estimate the required enhancements and informed project planning. Following migration, monitoring mechanisms were implemented to ensure stability and address residual issues, with similar processes applied to cross-border payment migrations to align with global timelines.

At a technological level, a key enabler of this phased approach was the introduction of a centralised translator within RENTAS, complementing Swift's V-topology design. This ensured interoperability between participants using both Swift Messaging Type (MT) and ISO 20022 messages, allowing flexibility in migration timelines. However, the coexistence approach introduced operational complexities, such as managing dual message formats and addressing truncation risks in MT messages. To safeguard critical information, key intermediary institutions used compensating controls like supplemental MT199/MT299 messages to ensure complete data transmission to end beneficiaries.

Kenya adopted a big bang strategy for transitioning its RTGS system Kenya Electronic Payments and Settlement System (KEPSS) to ISO 20022 in October 2024. The Central Bank of Kenya (CBK) led the migration in collaboration with banks, payment service providers and technology partners. While all participants migrated on a single cutover date, additional measures addressed varying readiness levels.

CBK conducted an ecosystem-wide assessment and maintained frequent industry communication through forums, support sessions and technical training. Clear timelines were shared early, and progress was tracked via weekly updates on testing and system readiness. The migration left the KEPSS platform unchanged, allowing CBK to focus on preparing institutions to adopt the new messaging standard. Participants upgraded

system connections and made internal adjustments. CBK supported this with extensive end-to-end testing of message processing and connectivity via SWIFT and domestic channels to ensure smooth implementation.

The cutover occurred over a long weekend to minimise disruption, guided by a detailed schedule covering balance checks and system validations. Post-migration, CBK implemented a two-week monitoring period and temporary limits on system changes to ensure stability and address emerging issues.

The South African Reserve Bank (SARB) migrated the two RTGS systems it operates – the South African Multiple Option Settlement (SAMOS) system for domestic payments and SADC-RTGS for cross-border payments within the Southern African Development Community (SADC) – using a big bang approach for each. SARB prioritised the domestic migration, with SAMOS transitioning to ISO 20022 in September 2023, followed by SADC-RTGS in June 2024. The big bang approach enabled immediate harmonisation and avoided prolonging coexistence between legacy MT and ISO 20022 message formats.

The coexistence of a domestic and a regional settlement system required coordinated planning to ensure a seamless transition to ISO 20022. SARB led the migration, with the Payment Association of South Africa coordinating the domestic market and the SADC Bankers Association supporting the regional market. To ensure alignment and participant readiness, SARB established industry workstreams covering technical, business and project management aspects. These workstreams coordinated migration activities and ensured readiness across all participants. Market testing was conducted simultaneously, requiring full readiness by the cutover date.

Sources: Central Bank of Malaysia; Central Bank of Kenya (2024); Finextra (2024); SADC Banking Association (2022); SADC Committee of Central Bank Governors (2024); South African Reserve Bank.

The ability of payment system operators to assess participant readiness and coordinate stakeholders effectively is another important consideration. A big bang approach demands a high degree of synchronisation, while a phased approach allows for staggered engagement. Regardless of the approach, the central bank's capacity to lead and coordinate the transition – through instructing and testing the communities involved – plays a key role in ensuring success.

The nature and scope of the changes to be implemented also influence the choice of approach. Typically, the big bang approach seeks to achieve immediate harmonisation across the entire ecosystem and is therefore usually associated with a complete adoption of the new standard, thus leading to substantial enhancements. By contrast, a phased approach can be used where a like-for-like replacement of the current messaging standard is considered more appropriate in the initial stage, with further enhancements introduced over time (ECB (2022)). In addition to these structural aspects, both approaches have certain features that might influence the decision-making process (Table 2).

Comparison of the big bang and phased approaches Table 2

Aspect	Big bang approach	Phased approach
Standardisation	Immediate harmonisation across the ecosystem, eliminating dual message standards and reducing complexity and reconciliation overheads.	Gradual harmonisation, accommodating diverse readiness levels but requiring coexistence of dual standards, increasing complexity.
Risk management	High concentration risk, as a single migration event can disrupt the entire ecosystem if issues arise.	Incremental implementation may significantly reduce the risk of widespread disruption by addressing issues in controlled stages.
Implementation speed	Accelerates adoption of richer data standards, enabling faster realisation of benefits such as enhanced analytics and compliance screening.	More gradual realisation of benefits, as full advantages are delayed until widespread adoption is achieved.
Flexibility and readiness	Limited flexibility, as the success of the migration depends on all participants being fully prepared by the go-live date.	More flexibility, as institutions can align their timelines with internal readiness and resources, ensuring inclusivity.
Resource management	Requires concentrated effort over a defined period, including focused financial, technical and human resources, especially for smaller players. This upfront investment can be challenging for smaller institutions or those balancing other strategic priorities.	May allow resource smoothing over time, avoiding intense effort peaks but prolonging the migration process and associated costs (ie market infrastructures and financial institutions have to maintain both the legacy messaging standard and ISO 20022 for a certain period of time).
Governance	Simplified governance through the use of a single standard at a time, which enables clear compliance structures and accelerates decision-making.	Prolonged coexistence of two standards increases governance complexity.
Operational complexity	Reduces complexity by avoiding overlapping phases and extended coexistence periods.	Dual-system complexity persists during coexistence, leading to inefficiencies and operational frictions until full migration.
Stakeholder engagement	A unified go-live date may energise stakeholders, driving collective commitment and confidence in the timeline.	Prolonged timelines may risk stakeholder fatigue and reduce urgency, making it challenging to maintain focus over the migration period.

Sources: Swift (2017); RBA (2019); FRB (2018).

Business and technical requirements

ISO 20022 introduces a structured, model-driven standard built on a well-defined framework, ensuring consistent organisation and exchange of data across systems. It is based on XML schemas, which enforce strict syntax, semantics and data typing.[4] The migration aims to replace loosely structured or proprietary message formats with a standardised data model, enabling consistent data interpretation, improved automation and long-term interoperability. It is essential that the migration preserves operational stability and ensures uninterrupted continuity of existing business services.

Preparing for the migration to ISO 20022 involves conducting a system inventory and impact analysis. All applications handling legacy messages (eg generating, transforming, routing or storing) must

[4] XML schemas act as templates defining the structure, elements and relationships within messages. Strict syntax governs the arrangement and encoding of data, ensuring uniformity in message formats. Semantics standardises the interpretation of data, reducing ambiguity and enabling consistent understanding among participants. Data typing specifies the type of data allowed in each field (eg numbers, text, dates), reducing errors and improving automation.

be identified and mapped to their interfaces, dependencies and operational constraints. Failure to account for these elements could lead to significant issues during later phases or on migration day. Message volumes, technical requirements, peak loads and latency expectations should also be assessed to ensure the infrastructure is correctly sized, avoiding any risk of performance degradation. This may necessitate new infrastructure to handle increased data volumes or enable new functionalities.

Defining and governing ISO 20022 message standards is another critical aspect. ISO 20022 is a library of business models, message definitions and versions that evolve over time. When adopting ISO 20022, stakeholders will need to agree on supported business areas, message types and versions, along with applicable market practice guidelines.[5]

The target architecture defines the structure and orchestration of messaging, data transformation, validation and operational controls to support ISO 20022.[6] The ISO 20022 messaging layer acts as the primary standard for exchanging payment messages. It receives inbound messages, detects formats and routes them to appropriate systems or business functions. For legacy systems, this layer often includes translation and enrichment services to convert legacy formats into ISO 20022 fields. In phased migrations, this layer plays a pivotal role in managing coexistence complexities.

The messaging layer must support secure, reliable and high-performance exchanges. Robust communication protocols, encryption, digital signatures and strong authentication controls are essential for security. Resilience mechanisms, such as back pressure, safe retries and dead letter handling, ensure message integrity and stability under normal and exceptional conditions.[7]

Migration to ISO 20022 increases reliance on shared network connectivity and security-sensitive processes, making cyber security assurance critical and security features vital design elements. It is important that access to configurations, mapping definitions and message flows is controlled based on roles, with critical actions logged for audits.[8] Security measures also extend to third parties and vendors through contractual controls or independent attestations. Swift's Customer Security Programme is a practical model which mandates baseline security controls and independent assessments. Embedding similar frameworks, covering access control, segmentation, logging, vulnerability management and incident response, helps mitigate risks and enhances confidence during coexistence and cutover phases.

Data mapping from legacy message formats to ISO 20022 formats requires translating both data fields and business meaning. Legacy formats often rely on flat structures and free-text fields, while ISO 20022 enforces structured, semantically precise representations. Mapping involves interpreting legacy content, decomposing unstructured fields and enriching data where necessary, while addressing conditional logic, default values and data truncation scenarios. Mappings should be aligned with

[5] This usually includes aligning domestic usage rules with global market practices (eg HVPS+ for large-value systems and CBPR+ for cross-border flows). It also involves implementing a core set of messages, including pacs.002, pacs.004, pacs.008 and pacs.009. Returns are processed using pacs.004 and cancellation or recall requests through camt.056, in line with established practices. Correct use of message types across the payment chain (eg pacs.009 for FI-to-FI payments and pacs.008 for customer credit transfers) should avoid mid-process reclassification. Any deviations from harmonised baselines are typically documented, justified and formally governed through a structured process. These deviations are often impact-assessed, time-bound with a planned sunset, reviewed periodically and designed to align back to the baseline over time, ensuring minimal disruption to interoperability and STP.

[6] The target architecture refers to the overall design and organisation of systems and processes required to implement and support ISO 20022. In the context of ISO 20022, orchestration involves managing the flow of messages and data across various systems and ensuring that all actions happen in the correct sequence and at the right time.

[7] Back pressure, safe retries and dead letter handling are standard patterns in high-volume messaging systems. Back pressure slows or pauses upstream senders when downstream capacity is constrained. Safe retries reattempt processing after transient failures without duplicating business effects. Dead letter handling moves messages that cannot be processed to a dedicated queue for investigation and controlled reprocessing.

[8] Cryptographic elements, such as keys and certificates, are typically managed through policies enforcing multi-factor authentication, role-based access, least privilege principles and comprehensive logging.

harmonised data models (CPMI (2026)) and cross-border usage guidelines (eg CBPR+, HVPS+).[9] to support interoperability. Documenting the mapping process in versioned guidelines ensures traceability and audit compliance (BoE (2023a)).[10]

Message validation ensures ISO 20022 message correctness and prevents errors that could disrupt operations. Validation spans the end-to-end process, from early formatting checks during payment initiation to system-level checks against XML schemas, market practice rulebooks and network-specific rules. Standardised error codes and descriptive messages facilitate root-cause identification. Validation supports STP, preserves data richness and can help ensure compliance with the Financial Action Task Force Recommendation 16 on payment transparency.

Comprehensive testing is essential throughout the migration journey. Given the complexity of mappings, validations and integrations, it is necessary to ensure both functional correctness and system robustness. Unit tests verify transformation and validation components, while end-to-end tests confirm system-wide behaviour. Performance and stress testing validate peak load capacity, and automated regression tests detect unintended side effects from mapping changes or schema upgrades (Swift (2023)).

Operational readiness and monitoring are critical when switching to production. End-to-end traceability allows messages to be tracked across systems. Centralised logging, real-time metrics and proactive alerts enable quick responses to incidents. Key signals include validation reject rates, latency and queue build-up and exception volumes. Rollback strategies during coexistence and contingency plans are essential for addressing unexpected issues during cutover and should be linked to predefined go/no-go criteria and decision-making processes.

Stakeholder engagement

The migration to ISO 20022 requires active, timely and coordinated involvement from all participants. It is not merely an internal technical implementation for the payment system operator but a coordinated exercise involving a diverse community of financial institutions and technical providers. Effective engagement ensures participants are aware of the activities and adaptations required for the migration as well as the corresponding timelines. Clearly defining roles and responsibilities is critical for accountability and effective execution. Community readiness frameworks often help assign roles and responsibilities to each stakeholder, ensuring alignment with the migration objectives. Continuous communication throughout the migration ensures stakeholders remain informed, aligned and prepared to respond to changes, while monitoring the readiness of key stakeholders supports a smooth transition.

Identification and categorisation of stakeholders

The first step is to identify and categorise all parties involved in or affected by the migration to ensure no relevant actor is overlooked. Stakeholders can be internal or external, each with different objectives, levels of influence and technical expertise. Internal stakeholders may include governance bodies, business owners, operations teams, information technology (IT) development teams, infrastructure and security functions, compliance teams and programme management. External stakeholders typically comprise payment system participants, market infrastructures, clearing and settlement systems, vendors, service providers and regulatory, supervisory and oversight authorities. External stakeholders will also define their own internal roles, such as project teams, senior management, IT staff and legal teams. This approach allows the payment system operator to tailor engagement strategies, allocate resources efficiently and

[9] See Annex 3 for the definition of key terms.

[10] This typically entails publishing version-controlled domestic usage guidelines, validation rules (eg for non-Latin scripts) and sample messages in a publicly accessible, machine-readable repository (eg Swift MyStandards). Accompanying change logs for each release are often included to enhance clarity and facilitate faster implementation.

identify potential risks or bottlenecks in advance, while prioritising participants that are critical to the migration's success. The approaches adopted by selected central banks are outlined in Box 2.

In a phased migration, participants do not need to progress at the same pace. Some may have the resources and technical expertise to migrate early, while those with limitations (eg budget or staffing constraints) may follow in later phases. While a phased approach increases complexity for the payment system operator, it reduces risks associated with uneven readiness among participants.

Box 2

Identifying relevant stakeholders: the approaches of the Bank of Spain, Bank of Japan and Bank of England

The Bank of Spain (BdE) implemented structured approaches to monitor and support participant readiness, tailored to their respective systems' needs and complexities. As part of its ISO 20022 migration project, BdE categorised its participants into four distinct groups based on their criticality. The first group comprised entities deemed critical to the success of the migration and, accordingly, subject to the highest level of monitoring regarding their readiness. For the remaining three groups, the intensity of monitoring was progressively reduced in line with the decreasing criticality of each group's role in the migration process.

In addition to this segmentation, BdE adopted a dual monitoring approach: one focused on individual entity readiness, and another aimed at assessing the overall preparedness of the community. For individual monitoring, specific criteria were established to evaluate each entity's self-assessment of readiness. These criteria also outlined the actions to be taken in cases of non-compliance with project milestones, depending on the group to which the entity belonged. The monitoring criteria provided a framework for assessing the community's overall readiness, based on aggregated individual assessments, confidence levels in the community's readiness and escalation procedures for reporting non-compliance. The monitoring of Eurosystem participants' readiness was anchored in the principle that "*Each T2 participant is responsible for ensuring its own readiness and establishing its own adaptation plan to start operations with the T2 service*". However, the process still required objective evidence demonstrating compliance with a number of key preparatory elements (such as connectivity and mandatory test cases) (ECB (2020)).

The Bank of Japan (BoJ), in collaboration with the Japanese Bankers Association, has also taken proactive steps to ensure readiness for the ISO 20022 migration in the Foreign Exchange Yen Clearing System (FXYCS). Since 2022, the BoJ has established a sector-wide working group dedicated to supporting migration efforts, holding meetings and conducting surveys with financial institutions and other FXYCS participants to monitor individual readiness and assess sector-wide preparedness for the migration. Additionally, the BoJ has conducted various tests to facilitate the migration (eg sector-wide testing and dress rehearsals) whose results were shared and discussed among participants during these meetings. Furthermore, the BoJ organised additional working groups for further engagement, specifically, for information technology vendor outreach. This ongoing collaborative effort is intended to further enhance the readiness of the community.

The Bank of England (BoE) also identified the potential impact that the readiness of individual institutions could have on the wider ecosystem with regards to the implementation of ISO 20022 in CHAPS. To address this, the BoE introduced an evidence-based readiness framework aimed at mitigating the risk of a potential market disruption caused by a single participant at the point of transition. This included assigning individual relationship managers to each direct participant in the CHAPS payment system, working with the participant on their preparation for the transition and ensuring that each firm's own internal plans had the required technical connectivity, contingency planning and senior oversight. For the largest banks, this was further strengthened through the commission of third-party external assurance of the individual bank's preparedness for the transition, prepared on behalf of the participant and reviewed by the BoE.

Sources: Bank of Spain; Bank of Japan; Bank of England.

Communication and engagement

For the payment system operator, communication serves several purposes: ensuring participants are prepared to execute the required steps, collecting feedback to validate design choices and providing support where needed. Communication can take various forms, including regular meetings, briefing sessions, email exchanges and information boards. To support transparent communication during cutover and hyper care (ie the period immediately following the go-live), operators should prepare authoritative risk communications. These include status templates, frequently asked questions and escalation paths, which help to reduce confusion, provide clear updates to clients and regulators and facilitate effective issue resolution.

Governance

A well-defined governance framework is essential for a successful ISO 20022 migration. A steering committee serves as the strategic decision-making body, setting the programme's course, clearing obstacles and ensuring delivery and accountability. The steering committee oversees subcommittees and working groups, ensuring they operate with well-articulated objectives and clear guidance. It reviews and approves key deliverables, such as scorecards and roadmaps, to maintain alignment with the migration's strategic vision (RBA (2019)).

The composition of the steering committee depends on the payment market structure. It may be chaired by a national payment association (if the major payment systems are privately owned) or a central bank. Regardless of who chairs the committee, fair representation of all stakeholders – including large, medium-sized and smaller institutions – is essential to ensure balanced decision-making (RBA (2019)). While the steering committee provides strategic direction, it should also consider stakeholders' views. The migration to a new standard is a collective effort, and its success hinges on strong market buy-in. Decisions are often made by consensus, with industry feedback gathered through consultative procedures, surveys, working groups and seminars. These mechanisms ensure both strategic and technical insights are incorporated (ECB (2025)).

Reviewing stakeholder readiness

A milestone-based project timeline is essential for guiding participants in planning their adaptations. Milestones help prioritise activities and assess community readiness. These typically include the formal establishment of the project and initial impact assessments for stakeholders, the internal development of required processes and software, and the procurement of network service providers and new connectivity where applicable. Testing phases, legal adaptations, training and awareness sessions, and preparatory activities for migration are also key components of the timeline. Each milestone should have a clearly defined cutover date and expected deliverables to ensure alignment and progress (BoE (2021a)).

Reviewing stakeholder readiness is a core element of the pre-migration phase. Readiness assessments help the operator understand whether key participants, vendors and other stakeholders are on track to meet the agreed milestones and to identify where additional support or adjustments to the plan may be needed. Readiness can be assessed across several dimensions, including governance (eg project structures and decision-making), technical implementation (eg completion of development and internal testing), operational preparedness (eg updated procedures and training) and legal or contractual changes. Operators can use structured tools such as self-assessment questionnaires, scorecards, surveys and bilateral meetings to gather information from stakeholders. Participation in community testing and the results of those tests provide additional evidence of readiness.

Aggregated readiness information should be monitored regularly and reported to the steering committee and relevant working groups. This information can guide decisions on whether to proceed with planned milestones, adjust timelines or provide targeted support to specific segments (eg smaller institutions or those relying heavily on service providers). Clear communication of readiness expectations

and reporting formats ensures consistent information and supports a smooth transition to ISO 20022 (ECB (2021)). Participant readiness information, combined with independent assessments, plays a critical role in determining whether the migration could proceed as planned. While such approaches can be effective, they are resource-intensive and may not be proportionate for less interconnected infrastructures. Operators may therefore wish to consider the impact an individual participant could have on the whole ecosystem when deciding what level of participant readiness assurance is proportionate.

Hitting the road: navigating the ISO 20022 cutover step-by-step

Successful execution of the migration relies on careful planning and disciplined execution of the cutover. Documenting plans and defining the critical steps, decision points and responsibilities for the migration day are essential components. Identifying and addressing these elements in advance enables the payment system operator and participants to align their internal processes with the overall project timeline and requirements.

Preparing for the cutover: pre-migration activities and deliverables

Institutions need to ensure that all necessary activities, conditions and requirements are met leading up to migration day and that the migration runbook is followed (see Box 3). Connectivity testing is a critical step to confirm that the Swift environment is fully prepared for ISO 20022 message exchanges. Technical staff should ensure that the relevant channels are configured to send and receive XML messages, with contingency measures in place for MT messages. Participants are often encouraged to submit final test messages to validate message formats and confirm access to the payment platform. These tests should include checks for valid Relationship Management Applications (RMAs), which are essential for the receipt and dispatch of all XML messages within scope.

Final data propagation is a critical task immediately following the close of business on the last day before the cutover. This ensures that the rich data elements of ISO 20022 messages are accurately transferred without loss or truncation. Pilot validation should include test cases where flows between financial institutions pass through the market infrastructure. These "market infrastructure in the middle" pilots between financial institutions help verify the correct functioning of messages and ensure end-to-end transaction reference continuity before the cutover. Validation of these data is important to ensure accuracy and completeness. Both IT and operational staff should be actively involved in this process to verify the integrity of the data ahead of migration day.

The go/no-go decision represents a pivotal moment in the migration process. This decision is typically based on the outcomes of prior activities, such as connectivity testing, data propagation and validation. It is usually taken by the payment system operator's executive management in line with the defined governance. If a go decision is reached, the migration proceeds as planned. If a no-go decision is made, all staff are required to revert the system to its pre-migration state, and the community should be informed of the revised migration timeline (ECB (2021)).

Box 3

Schedule of activities for cutover weekend: the Bank of England experience

The approach followed by the Bank of England (BoE) for its implementation of ISO 20022 was consistent with the broader objectives of its RTGS Renewal Programme, focusing on a key migration weekend. This process involved the core teams from the operations, business and technology areas, internal senior decision-makers and external participants. The live cutover weekend was extensively discussed and planned with key stakeholders, and a detailed minute-by-minute runbook was drafted and followed to ensure each step was enacted correctly and sequentially. A series of "dress rehearsals" was conducted prior to the cutover weekend to walk through the runbook, identify unforeseen issues and demonstrate successful implementation to accountable decision-makers. These rehearsals proved invaluable for identifying migration issues that only became apparent during implementation.

The centre of the weekend activities was the key go/no-go decision on Saturday evening. The 24 hours leading up to this decision were focused on the Friday evening technical cutover following the closure of the live system, followed by extensive participant testing of the implementation throughout Saturday. If a go decision was made, activity tapered off, with final preparations for the live opening on Monday morning. In contrast, a no-go decision would trigger a reversal of the previous 24 hours, with an overnight reversion and subsequent testing with participants. Throughout both stages, calls were held with all participants, involving both senior managers and operational staff, to address common issues proactively.

While this approach involved a significant investment of resources from both the BoE and participants, stakeholders recognised that the focused attention ultimately reduced delivery risk and the overall cost of implementation. In estimating the cost of preparation, it is necessary to factor in not only the industry's implementation efforts but also the theoretical cost of potential disruption. The BoE also found an open and accessible approach to the migration was helpful in mitigating concerns. Including all participants in weekend testing proved particularly effective for identifying individual implementation issues prior to the go live. However, this approach may be less practical for infrastructures with a larger and more diverse participant base relative to the complexity of the delivery.

Graph B1: Bank of England's schedule of cutover activities

<table>
<tr><th></th><th colspan="2">Friday</th><th colspan="3">Saturday</th><th colspan="2">Sunday</th><th colspan="2">Monday</th><th>Tuesday</th></tr>
<tr><th></th><th>Day</th><th>Night</th><th>Day</th><th></th><th>Night</th><th>Day</th><th>Night</th><th>Day</th><th>Night</th><th>Day</th></tr>
<tr><td>Go decision</td><td rowspan="2">Payment system on legacy messaging open</td><td>Payment system closes</td><td rowspan="2">Testing of ISO 20022 message exchange with participants</td><td rowspan="2">Go/no-go decision</td><td>No action</td><td>No action</td><td>Preparation for Monday open on ISO 20022</td><td>Payment system open on ISO 20022 in hyper care</td><td>Payment system on ISO 20022 closes</td><td>Payment system open on ISO 20022 in hyper care</td></tr>
<tr><td>Dress rehearsal / no-go decision</td><td>Cutover from legacy messaging to ISO 20022</td><td>Reversion from legacy messaging to ISO 20022</td><td>Testing of legacy messaging message exchange with participants</td><td>Preparation for Monday open on legacy messaging</td><td>Payment system open on legacy messaging in hyper care</td><td>Payment system on legacy messaging closes</td><td>Payment system open on legacy messaging in hyper care</td></tr>
</table>

Source: Bank of England.

Step-by-step overview for migration cutover

It is not practical to establish a detailed, universally applicable framework for executing an ISO 20022 migration, as these migrations involve significant complexity, and the specific circumstances of each market infrastructure and its participants vary widely. Nonetheless, a set of key activities can be outlined for careful consideration when developing a comprehensive migration roadmap. A staffed command centre with defined roles and escalation channels is advisable.

The following sequence of key activities for migration cutover assumes a big bang approach within a complex migration scenario. Based on experience from several jurisdictions, this scenario assumes that the main cutover takes place over a weekend, providing more time for implementation and verification. This scenario involves the simultaneous transition to ISO 20022, the replacement of the RTGS system, the introduction of a new account structure and the deployment of a new set of static data (Table 3).

Cutover day steps and activities — Table 3

Step	Activities focused on ISO 20022 migration	Related activities
Final pre-migration activities	Validations in the production environment can mitigate risks. Such validations include warehoused payment checks, verification of payment formats and validation of settlement procedures for ancillary systems.	If the migration involves RTGS system renewal or replacement, the process begins with the final propagation of data and the delivery of the directory to the new system. This typically occurs in the days leading to migration, allowing time for validation.
Cutover start	The migration begins only after the closure of the old system, following end-of-day activities and the last general ledger transmission.	Incremental implementation significantly may reduce the risk of widespread disruption by addressing issues in controlled stages.
Data migration and reconciliation		Balances and credit lines are migrated to the new system. For migrations involving a new account structure, prior mapping between legacy and new accounts must be in place. Automation tools may be critical for larger communities to accelerate the process and minimise errors. Central banks reconcile balances and credit lines, addressing any discrepancies.
Business day activation (ISO 20022 schema live)	Once balances and credit lines are reconciled, the first business day of the new system can commence. From this point, all messaging operates under the ISO 20022 schema.	
Operator activities (central bank operations)		Central banks modify credit lines, initiate payments and liquidity transfers, and execute other operations, such as freezing funds or reimbursing standing facilities. Standing orders are executed, followed by reconciliation activities.
Participant activation		Participants receive the green light to begin activities. With balances transferred from the legacy system to new accounts, participants reconcile migrated balances.

Step	Activities focused on ISO 20022 migration	Related activities
Liquidity setup		Participants initiate immediate liquidity transfers between accounts after reconciling balances and executing standing orders.
Live operations and monitoring	The real-time settlement phase begins with regular payments and liquidity transfers. An additional validation window for payment testing (eg penny tests) can help identify configuration issues. Channels may temporarily close to address incidents before reopening. Migration is considered complete once operational stability is achieved. Operators monitor reject and exception rates, latency, queue depth, failover success, cross-border throughput and message traceability (eg unique end-to-end transaction reference (UETR) continuity).	
Decision gates and contingencies	Decision-making milestones are outlined for critical points during the migration. Senior leaders decide whether to proceed, revert to the previous system or adopt a "fix forward" approach. Contingency plans and stakeholder communication strategies are predetermined for various outcomes.	
Communi-cations during the window	Based on a prepared external stakeholder communication map, pre-drafted messaging for both success and failure scenarios, along with direct communication with market participants, is utilised in the immediate aftermath of system opening.	
Hyper care and freeze	Post-migration, heightened system monitoring is essential to address potential disruptions due to untested use cases or user unfamiliarity. A post-migration change freeze is recommended until stability criteria are met.	

Sources: BoE (2021a, 2021b); ECB (2022); Swift (2025).

At the destination: unlocking the full potential of ISO 20022

The migration to ISO 20022 is a means to an end rather than the final objective. Following the migration to ISO 20022, several factors are critical for ensuring the long-term sustainability of the system and fully realising the benefits of the new messaging standard. Beyond technical implementation, maintaining system stability, interoperability and adaptability to future needs is essential for maximising the value of ISO 20022-based messaging.

Achieving meaningful progress in STP often requires more than the adoption of ISO 20022 messages. It demands a comprehensive overhaul of operational workflows and the digitalisation of payment channels. While ISO 20022 introduces enhanced data elements that can strengthen anti-money laundering (AML)/countering the financing of terrorism (CFT) measures, many financial institutions continue to rely on traditional screening methods developed for MT messages. This reliance limits their

ability to implement targeted screening approaches, which could reduce false positives and enhance compliance efficiency (BoJ (2026)).[11]

The provision of value-added services is often contingent on participants upgrading their core banking systems to become ISO 20022-native; however, only a limited number of institutions have done this so far (BoJ (2026)).[12] Data quality issues further complicate progress, as many corporates are still in the process of upgrading their ERP systems to conform to ISO 20022 standards. Additionally, the adoption of rich data remains constrained by the prevalence of like-for-like message formats and underdeveloped usage guidelines for structured remittance information in several jurisdictions.

To address these challenges and fully realise the benefits of ISO 20022, it is essential to effectively communicate the advantages of adoption to stakeholders, monitor implementation progress and establish robust usage guidelines for structured information input. Operators and authorities can encourage modernisation of screening processes and upgrading of core banking and ERP systems to ensure the richer data elements of ISO 20022 are effectively utilised.

Alignment with global market practices and harmonisation requirements

Market infrastructures and financial institutions use payment messages based on varying market practices. These market practice frameworks are maintained and updated regularly, typically following annual maintenance cycles. However, the adoption of updates varies: financial institutions often follow global release timelines, while market infrastructures apply updates according to domestic schedules and generally support only a limited set of market practices. This divergence, unlike the more uniform adoption timelines of MT messages, creates friction and reduces interoperability, particularly for cross-border payments. Coordination and alignment are therefore vital to avoid fragmentation. The CPMI's harmonisation requirements highlight focus areas to minimise these frictions and promote greater alignment across market practice guidelines (CPMI (2026)).

Messaging changes freeze to ensure certainty and stability

The evolution of ISO 20022 messages is driven by the need to maintain interoperability, meet regulatory requirements and respond to emerging market needs such as instant payments, data enrichment and enhanced traceability. However, the complexity of migrating to ISO 20022 necessitates a freeze period for messaging changes to ensure certainty and stability. A freeze period is a planned period of time during the post-migration phase in which no changes are made to messaging formats, to enable stakeholders to plan, execute and monitor the transition effectively, minimising risks associated with unexpected changes to messaging standards (Swift (2017)).

A defined freeze period offers predictable horizons for planning purposes, enabling stakeholders to align internal resources, coordinate with external partners and meet implementation milestones without disruption. This predictability fosters confidence and ensures that all parties can focus on achieving their objectives without the uncertainty caused by evolving messaging standards during critical phases of the migration.

Operational stability is another key advantage of a freeze period. Stability in messaging formats reduces the likelihood of errors, system incompatibilities and operational incidents. It allows financial institutions to maintain consistent processing flows, avoiding the additional costs associated with incident

[11] For example, false positive rates for AML/CFT screening had barely changed before and after the implementation of ISO 20022 as of summer 2025 in Japan, mainly due to maintenance of the existing screening method and the data quality issue.

[12] For example, 40% of participants in the FXCYS in Japan had upgraded their core banking systems to become ISO 20022 native as of summer 2025.

management. A stable messaging environment supports interoperability across systems, services and institutions by providing a common framework. This minimises translation issues, data mismatches and integration challenges that could arise from evolving standards, thereby promoting greater alignment and efficiency across the ecosystem.

Performance-based stabilisation and monitoring are crucial during the freeze period to ensure the migration's success. This phase enables effective tracking of performance indicators to identify and address any issues. Key metrics include the validation reject rate due to schema or usage rule violations, the percentage of mapped fields validated through ISO 20022 semantic interoperability test cases and measures of incident response effectiveness, such as mean time to detect (MTTD) and mean time to repair (MTTR). These metrics, along with others, provide valuable insights into the stability and effectiveness of the migration, allowing for targeted improvements where necessary. The freeze period typically begins with the start of extensive testing and ends after a period of stable operations (CPMI (2022)).

Change management cycle to keep up with new developments

The need for evolution in a global and interconnected economy affects not only messaging schemes but also the market infrastructure that relies on them. Two major factors shape change management after migration. First is the conclusion of the stabilisation period, after which system changes or enhancements are informed by performance metrics, such as validation reject rates or incident response times. Second is the messaging unfreezing strategy, which aims to align with Swift releases and market practice guidelines like HVPS+, CBPR+ and IP+. Failure to synchronise with these updates can lead to inconsistencies, operational complexity and higher costs. Finally, it is also important to identify the feasibility and readiness of participants and vendors to adopt such strategy. Another consideration is the end of the coexistence period for MT and ISO 20022 messaging. MT-to-ISO 20022 message converters, while useful as temporary contingency measures for limited volumes, have drawbacks as a permanent solution, as they come with costs and hinder the full benefits of ISO 20022.

Data governance and market practice maintenance

Sustaining the benefits from ISO 20022 migration requires robust governance beyond the cutover phase. Jurisdictions can designate a responsible entity to manage domestic ISO 20022 market practices and data conventions. This entity would oversee several critical functions to ensure alignment and consistency across the ecosystem. Ensuring alignment with annual maintenance updates for global market practices, domestic market practices and harmonised market practice baselines is a critical responsibility. This process can be supported by the use of a published cross-corridor release calendar to provide transparency and predictability. Preventing semantic drift across vendors and intermediaries is equally important and can be achieved through version-controlled mapping libraries and rigorous conformance testing (CPMI (2026)).

The governance framework should monitor field population and accuracy, refine local guidance based on incidents or evolving needs, and coordinate with regional and cross-border partners to ensure consistency and avoid fragmentation. Monitoring data completeness and model performance, such as structured party names or identifiers, is also essential. A formal exceptions register, publicly accessible and including ownership, risk assessments and sunset plans, supports transparency. Published change logs and roadmaps would further support transparency and provide a structured path to address legacy issues.

Adherence to global market practices is critical. Domestic usage changes and incident lessons learned should be shared with regional and global communities. Updates to domestic guidance should be published, and periodic stakeholder sessions organised to disseminate knowledge. Dashboards of message usage and key performance indicators, such as UETR continuity or reject rates, would provide insights for continuous improvement.

Conclusions

The migration to ISO 20022 represents a transformative step in modernising global financial messaging, addressing long-standing inefficiencies and fostering a more harmonised and interoperable payments ecosystem. By enabling the use of richer, structured data and standardised messaging, ISO 20022 facilitates enhanced STP, strengthens compliance measures and supports the development of innovative, data-driven services.

This CPMI Brief has outlined the key stages of the migration process – pre-migration, migration execution and post-migration – with a focus on risk management, stakeholder engagement and governance. The analysis of the two migration approaches – the big bang and phased approach – as well as of lessons from global implementations and harmonisation efforts highlights the importance of tailoring strategies to the specific needs of each market infrastructure and financial community.

While the benefits of ISO 20022 are substantial, fully realising its potential depends on sustained collaboration, robust governance frameworks and continuous alignment with evolving market practices. The insights discussed in this Brief aim to support payment system operators and stakeholders in successfully navigating the complexities of the migration process, ensuring a smooth transition and unlocking the long-term advantages of this global standard.

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Annex 1: Key performance indicators for ISO 20022 migration

Key performance indicators (KPIs) serve as a flexible, non-prescriptive tool to monitor critical signals throughout the pre-migration, migration and post-migration phases. By offering a structured way to track progress and identify issues, KPIs provide valuable insights without dictating a one-size-fits-all approach. They allow each jurisdiction to define their own measures, data sources and targets, tailored to their specific needs and operational context.

Table A.1 includes examples of KPIs that can support decision-making at pivotal moments in the migration process, such as the go/no-go decision, command centre monitoring during cutover, the exit from the freeze period and the post-migration change cycle.

Overview of possible key performance indicators (KPIs) Table A.1

KPI	Description	Migration phase
Structured-field conformance (eg party names, Hybrid Postal Address)	Tracks adherence to structured data requirements for key fields, ensuring semantic standardisation and data quality.	Pre-migration
Version-compatibility test pass rate	Tracks the success rate of testing between different system versions, ensuring compatibility across participants.	Pre-migration
Failover and rollback success rate	Measures the success rate of system failovers and rollbacks, ensuring operational resilience during disruptions.	Pre-migration and testing
Validation failure rate (schema/usage rules)	Measures the percentage of messages rejected due to schema or usage rule violations, ensuring compliance with ISO 20022 standards.	Post-migration
End-to-end transaction reference continuity rate	Monitors the continuity and accuracy of transaction references across the payment chain, ensuring traceability.	Post-migration
Reject/exception rate by reason	Identifies and categorises the reasons for message rejections or exceptions, helping to pinpoint systemic or participant issues.	Post-migration
End-to-end latency percentiles (eg p95/p99)	Measures the time taken to process transactions end-to-end, ensuring performance meets required service levels.	Post-migration
Queue depth and clearance time	Tracks the number of queued transactions and the time required to clear them, ensuring efficient processing.	Post-migration
Incident mean time to detect (MTTD)	Measures the average time taken to detect an issue, reflecting the effectiveness of monitoring systems.	Post-migration
Incident mean time to respond/repair (MTTR)	Measures the average time taken to resolve an issue, reflecting the efficiency of incident response processes.	Post-migration
Screening quality (eg false positive rate, alert disposition timeliness)	Monitors the accuracy and timeliness of screening processes, ensuring compliance with regulatory requirements.	Pre-migration and post-migration

Source: Authors

Annex 2: Table of ISO 20022 migration type by country

Migration approaches among selected payment systems — Table A.2

Jurisdiction	Payment system	Year
Big bang approach		
Canada	Lynx	2023
European Union	T2	2023
	Euro1	2023
Hong Kong SAR	CHATS	2024
Japan	BOJ-NET	2015[13]
Kenya	KEPSS	2024
Nigeria	RTGS	2025
Singapore	MEPS+	2022
South Africa	SAMOS	2023
	SADC-RTGS	2024
Thailand	BAHTNET	2023
The Philippines	PhilpassPlus	2023
United Kingdom	CHAPS	2023
United States	Fedwire Funds Service	2025
Phased approach		
Australia	RITS	Underway
China	CIPS	2023
Malaysia	RENTAS	2024

Source: Authors

[13] The upgrade to version 3 took place in 2015, and the migration to ISO 20022 version 8 was completed in 2025.

Annex 3: List of abbreviations and glossary of key terms used in this report

List of abbreviations

AML/CFT	anti-money laundering / countering the financing of terrorism
API	application programming interface
BdE	Bank of Spain (Banco de España)
BIC	Business Identifier Code
BIS	Bank for International Settlements
BoE	Bank of England
BoJ	Bank of Japan
BoJ-NET	Bank of Japan Financial Network System
BNM	Central Bank of Malaysia (Bank Negara Malaysia)
CBK	Central Bank of Kenya
CBPR+	Cross-Border Payments and Reporting Plus
CHAPS	Clearing House Automated Payment System
CHATS	Clearing House Automated Transfer System (Hong Kong SAR)
CIPS	Cross-Border Interbank Payment System
CoPS	Community of Practice on Payment Systems
CPMI	Committee on Payments and Market Infrastructures
ECB	European Central Bank
ERP	enterprise resource planning
Fedwire	Fedwire Funds Service
FRB	Federal Reserve Board
FSB	Financial Stability Board
G20	Group of Twenty
HVPS+	High-Value Payment Systems Plus
IBAN	International Bank Account Number
IP+	Instant Payment Plus
ISO	International Organization for Standardization
KEPSS	Kenya Electronic Payments and Settlement System
KPI	key performance indicator
LEI	legal entity identifier
Lynx	Canadian high-value payment system Lynx
MAS	Monetary Authority of Singapore
MEPS+	MAS Electronic Payment System Plus
MT	message type
MT199/299	Swift free format message types
MTTD	mean time to detect
MTTR	mean time to repair
PIE task force	Payments Interoperability and Extension task force
PMPG	Payments Market Practice Group
PSP	payment service provider
RBA	Reserve Bank of Australia
RENTAS	Real-Time Electronic Transfer of Funds and Securities System
RITS	Reserve Bank Information and Transfer System (Australia)
RTGS	real-time gross settlement
SADC	Southern African Development Community
SADC RTGS	SADC real-time gross settlement system
SAMOS	South African Multiple Option Settlement System

SARB	South African Reserve Ban
STP	straight through processing
Swift	Society for Worldwide Interbank Financial Telecommunication
T2	European real-time gross settlement (RTGS) system T2
UETR	unique end-to-end transaction reference
XML	eXtensible Markup Language

Glossary of key terms

Back pressure	A resilience mechanism in high-volume messaging systems that slows or pauses upstream senders when downstream capacity is constrained.
Big bang approach	A migration strategy where an entire jurisdiction or system transitions to ISO 20022 at a single, coordinated cutover point, replacing legacy formats entirely.
Coexistence period	A phase during which both legacy Swift MT messages and ISO 20022 messages are supported to manage the transition and ensure operational continuity.
Cross-Border Payments and Reporting Plus (CBPR+)	Market implementation guidelines defining how to use ISO 20022 for cross-border payments on the Swift network.
Cutover	The planned and coordinated transition from the existing messaging standard to the ISO 20022 standard within a live production environment.
Dead letter handling	A mechanism that moves messages that cannot be processed to a dedicated queue for investigation and controlled reprocessing.
End-to-end latency percentiles	Measures the time taken to process transactions end-to-end, ensuring performance meets required service levels.
Failover	The process of switching to a backup system or infrastructure to ensure continuity in case of a failure during migration.
Freeze period	A planned period during which no changes are made to ensure stability and minimise risks.
Go/no-go decision	A critical decision point during the migration process to determine whether to proceed with the cutover or revert to the pre-migration state.
High-Value Payment System Plus (HVPS+)	Market implementation guidelines focusing on harmonising ISO 20022 messages for high-value payment systems.
Hyper care period	A heightened monitoring phase immediately following the go-live of the migration to address potential disruptions and ensure operational stability.
Incident mean time to detect (MTTD)	Measures the average time taken to detect an issue, reflecting the effectiveness of monitoring systems.
Incident mean time to respond/repair (MTTR)	Measures the average time taken to resolve an issue, reflecting the efficiency of incident response processes.
Instant Payment Plus (IP+)	Market implementation guidelines for harmonising the consistent, efficient and interoperable processing of fast payments across borders.

ISO 20022	A global standard for financial messaging that provides a structured and model-driven framework for data exchange across payment systems.
Market practice guidelines	Industry-agreed rules defining how to consistently implement ISO 20022 message standards for specific payment or reporting scenarios.
Message validation	A process ensuring ISO 20022 message correctness, spanning from early formatting checks to compliance with XML schemas and market practice rulebooks.
Penny test	A test involving low-value transactions to validate message configurations and connectivity during the migration process.
Phased approach	A migration strategy where the transition to ISO 20022 occurs incrementally, either by participant groups or by adopting specific solutions progressively.
Queue depth and clearance time	Tracks the number of queued transactions and the time required to clear them, ensuring efficient processing.
Rich data elements	Enhanced data fields in ISO 20022 messages that provide detailed and structured information, improving compliance and reconciliation.
Rollback	The process of reverting systems to their pre-migration state if issues arise during or after the cutover.
Safe retries	A resilience mechanism that reattempts processing after transient failures without duplicating business effects.
Structured-field conformance	Tracks adherence to structured data requirements for key fields, ensuring semantic standardisation and data quality.
Unique end-to-end transaction reference (UETR)	A 36-character unique identifier included in all payment instruction messages carried over Swift, enabling traceability of payments across the chain.
Validation failure rate	Measures the percentage of messages rejected due to schema or usage rule violations, ensuring compliance with ISO 20022 standards.
XML schemas	Templates defining the structure, elements and relationships within ISO 20022 messages, enforcing strict syntax and data typing.

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