



**Consultation paper**

**SWIFT ISO 20022  
Migration Study**

Consultation

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# 1 Foreword

Standards are a cornerstone of the financial industry. For over 40 years the SWIFT MT standard has enabled industry automation, reducing the cost and risk of cross-border business, and enabling the development of the correspondent banking system on which world trade depends. Today, around 28 million MT messages are exchanged on the SWIFT network every day. But after forty years, MT is beginning to show its age. MT was designed at a time when storage and bandwidth cost more than they do today, so emphasizes brevity over completeness or readability of data. It predates the emergence of anti-terrorist financing regulation, which requires payments to be screened against sanctions lists, and the development of 'big data' technology, which can extract important business intelligence from transaction data. It limits text to a Latin-only character set, which is no longer ideal now that many of the world's fastest growing economies are in Asia.

While MT continues to be maintained in line with the needs of its users, in recent years SWIFT, in collaboration with the industry, has worked to develop and promote [ISO 20022](#), which addresses many of the shortcomings of MT. It provides rich and well-defined structures for important data, it supports non-Latin character sets, and it is easy to integrate in modern computing environments. The most common format for ISO 20022 is XML, but other message formats are possible (see Annexe 2). ISO 20022 is also designed to adapt to new technologies as they emerge, and can be applied to APIs and other technologies to ensure end-to-end consistency of business processes.

ISO 20022 is a global success. It has been adopted by market infrastructures in more than 70 countries, for payments and securities business, replacing domestic or legacy formats. In the next 5 years, if currently announced deadlines are met, ISO 20022 will dominate high-value payments, supporting 79% of the volume and 87% of the value of transactions worldwide. ISO 20022 is also the principal standard in the instant payments market, implemented in Europe, Australia, US, Canada, Sweden, Denmark, Singapore and elsewhere.

ISO 20022 is present in the securities and FX markets too. The investment funds industry has adopted ISO 20022 for funds distribution and other processes. TARGET2-Securities, the Eurosystem's securities settlement system, processes over 1 million instructions per day using ISO 20022, and other securities MIs also use the standard, including DTCC (for Corporate Actions), and the Singapore Exchange. CLS specifies ISO 20022 for its FX settlement business.

In a world in which ISO 20022 is the dominant standard for payments systems and other MIs, the interoperability benefits of using the same standard cross-border, combined with the inherent functional and technical advantages of ISO 20022, add up to a compelling case for migration of cross-border business from MT to ISO 20022. But any migration will demand

significant industry investment, so in September 2017 SWIFT initiated a study, supported by a Board taskforce, to explore the benefits and practicalities. This consultation is the first part of the study. It proposes some solutions to the many challenges posed by migration and seeks the community's input on the key questions of what, how and when to migrate.

## 2 Management Summary

The present consultation aims to capture key facts about the community's readiness and appetite for migration to ISO 2022 and identify any obstacles to be overcome. It also seeks community validation of migration drivers, a proposed migration strategy, and a proposed maintenance and release policy. The consultation material is supported by detailed information provided in annexes.

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### 2.1 Migration Drivers

The success of ISO 2022 amongst market infrastructures has led to increasing community demand for ISO 2022 for cross-border business. There are several reasons for this, particularly for international payments:

- **Consistent experience for customers.** Complete data needs to be transported end-to-end through a business process that involves an ISO 2022 MI, or a transaction originated by an ISO 2022-enabled customer.
- **New customer services.** ISO 2022 enables new capabilities that can be used to deliver new services.
- **Compliance concerns.** ISO 2022 is better adapted to carry the full party information (payer and payee) that regulation demands, plus the enhanced data definitions of ISO 2022 promise more efficient AML and sanctions screening.

Some drivers and benefits of ISO 2022 migration extend to securities and other markets as well:

- **New generation technology.** ISO 2022 was designed to be 'future proof' and adapt to new technologies.
- **Rethink business processes.** Migration to ISO 2022 presents an opportunity to rethink or redesign suboptimal business processes, including the possibility to introduce value added services at the centre.
- **Streamlining of data models and reporting:** The ISO 2022 data model supports all securities processing related flows, which can help organisations comply with reporting obligations.

Community interest in migration for cross-border securities business is not as strong as it is for payments, but demand may increase depending on what happens in the payments space. Securities players are major users of payments, and if required to invest in ISO 2022 implementation may see a case for migrating other cross-border flows. The same applies to other business domains such as FX/Treasury and Trade Finance.

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## 2.2 Proposed Migration Strategy

We propose a three phase migration, where the first phase is an optional Closed User Group, for early adopters. This is followed by a 'coexistence' phase, during which MT and ISO 20022 users interoperate. In the final 'full' phase, the migration is complete and MT is no longer maintained or supported on the SWIFT network. The dates for entering each phase vary by business domain, according to community readiness and demand, and each phase will have its own entry and exit criteria

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### 2.2.1 CUG Phase

Only users that opt to join the Closed User Group are affected, and are required to maintain both MT and ISO 20022 standards. To ensure MI interoperability, and set the stage for the later coexistence phase, strict, formal market practice guidelines will be required. *SWIFT Standards will engage with the community to develop guidelines that build on existing common MI specifications such as [HVPS+](#).* Conformance to the guidelines will be validated by the network to enforce a consistent approach.

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### 2.2.2 Coexistence Phase

In the Coexistence phase, use of ISO 20022 will be extended to the entire community. During the coexistence period, MT users may continue to exchange MT with one another, and ISO 20022 users continue to exchange ISO 20022, as in the CUG phase (see diagram in section 4.3)

Mediation between MT and ISO 20022 users is enabled by a centralised translation service, facilitated by enforced market practice guidelines that foster consistency on the ISO 20022 side. Because ISO 20022 provides additional and more granular data than MT, some data may be dropped or truncated in translation. The ISO 20022 message signed and sent by the sender will represent the definitive instruction, and be made available to the receiver unmodified. A translation will be provided *in addition*, as a convenience for back-office processing. SWIFT may offer network-based screening solutions to allow MT users to screen ISO 20022 messages before conversion.

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### 2.2.3 Full ISO 20022 Phase

In the final Full ISO 20022 phase, all users will receive and send ISO 20022 messages; all network traffic for the business domain will be ISO 20022. Users may continue to translate to ISO 20022 to/from MT locally, but the MT standard will no longer be maintained.

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## 2.3 Proposed Maintenance and Release Policy

The ISO 20022 maintenance process is governed by ISO, not by SWIFT. We propose a new SWIFT maintenance policy that aims to ensure the SWIFT community's needs are effectively represented. SWIFT governed working groups formulate and agree the community's position on changes and feed this into the ISO process.

At the same time, the proposed release policy aims to decouple maintenance of messages from decisions about what is deployed on the SWIFT network, to ensure that the SWIFT community is only required to implement changes that are judged to bring value.

# 3 Drivers, demand and readiness

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## 3.1 Overview

The purpose of this chapter is to review the drivers to adopt ISO 20022 by business domain (payments, securities, trade finance and FX/treasury), and to request feedback from the community on whether these drivers add up to a compelling case for migration.

When the SWIFT community was consulted about ISO 20022 migration in 2016, the feedback acknowledged the growing adoption of ISO 20022 by financial market infrastructures (MIs), but indicated little immediate appetite for migration of cross-border business. Since then, however, there has been growing interest, particularly for correspondent banking business, to consider a switch to ISO 20022. There are several reasons for this:

First, a number of MIs have announced firm dates and plans regarding migration to ISO 20022, particularly in the area of payments<sup>1</sup>. Large banks in major markets will need to develop ISO 20022 infrastructure and may look to offset the costs by extracting more value from the investment.

Second, the ISO 20022 message definitions specified by payment MIs include more data, and more precisely structured data, than the corresponding MTs used in cross-border business. If an ISO 20022 instruction is converted to MT for a cross-border leg, there is a risk of data being dropped or truncated. This creates compliance concerns because dropping data in end-to-end payment processing is unacceptable in many jurisdictions.

Finally, ISO 20022 has become the *de-facto* messaging standard for the domestic instant payment systems that are being deployed in many parts of the world, which is driving upgrades of core payment systems to ISO 20022.

The drivers for business domains other than payments are less immediate, but institutions active in these domains are also users of payments, so a migration of payments strengthens the case for migration in these domains too.

The sections that follow set out more details of MI adoption and other drivers identified by SWIFT, as well as the impact we foresee on community demand and readiness for cross-border migration in the different business domains. The accompanying questions seek feedback on the views and information presented, and the impact on your country or organisation.

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<sup>1</sup> See Annex 3 for more information

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## 3.2 Payments and Cash Management

This section details the drivers for migration of payments and cash management messages in the interbank space, that is, MT Category 1, 2, and 9 messages, to their ISO 20022 equivalents.

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### 3.2.1 ISO 20022 Adoption by Payments Market Infrastructures

*See also - Annex 3: ISO 20022 adoption by Payments Market Infrastructures*

In the US, the Federal Reserve and The Clearing House (CHIPS) have both begun migration projects from legacy domestic formats and will switch to ISO 20022 starting in 2022. In the Eurozone and UK the story is similar, although the format being replaced for high-value payments is SWIFT MT. The Eurozone's replacement for TARGET2 will go live in 2021 in native ISO 20022, and the Bank of England is looking at a similar timeframe for its new RTGS system. In Japan, Switzerland and China, high-value payments systems are already live with ISO 20022.

Adoption of ISO 20022 by payments market infrastructures (MIs) is a key driver for adoption in a cross-border context, because many cross-border payments either originate or terminate in MI transactions, and cross-border ISO 20022 allows banks to implement a seamless end-to-end process. MI adoption also influences the case for cross-border ISO 20022 because banks that participate in ISO 20022 MIs are required to invest in ISO 20022 capabilities.

The table below summarises current and projected use of ISO 20022 by payment volume and value amongst payments MIs. More detailed information can be found in Annexe 3.

	Present Volume <sup>2</sup> (%)	Present Value (%)	2023 <sup>3</sup> Volume (%)	2023 Value (%)
High Value / RTGS	52	25	79	87
Low Value / ACH	48	23	65	53

*Note: volume/value analysis is not applicable for instant payment systems as most of those went live recently with early ramp up and also because external instant volume reporting remains limited at this stage.*

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<sup>2</sup> Volume/value corresponds to the total # of/value of payments settled (for RTGS) or cleared (for LVP) published by the respective systems in the [BIS Red Book](#), [ECB payments statistics report](#) or on the MI's website and/or latest annual report

<sup>3</sup> Here it is assumed that MIs who committed to adopt ISO 20022 to their community will be all migrated by 2023, independently whether they already committed or did not commit on a clear migration date

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### 3.2.2 Compliance

ISO 20022 messages include more data, and richer data structures, than those of MT. For payments, ISO 20022 includes data elements to capture additional information regarding the parties involved in the transaction. Furthermore, each party's name and address is defined in a granular structure that distinguishes 'Name' and the various components of address – 'Building Number', 'Street', 'Town/City', 'Country' (code), etc. In MT a name and address is represented by four lines each of 35 characters, either in an unstructured format or with a structure that distinguishes only name, country code, city and other details.

Many of the compliance processes that affect payments focus on party information. Regulation requires party details to be complete – user-provided information should not be dropped or truncated when populating a message. It is also required to screen message details against lists of sanctioned individuals and organisations, and stop those payments where a match is discovered. Screening is a difficult process because party information in a message is rarely an exact match to the details on sanctions lists, meaning automated solutions rely on identifying approximate matches in unstructured data. This results in high rates of false positive 'hits', each of which needs to be verified manually, causing additional expense, processing delays and customer dissatisfaction.

ISO 20022 brings three clear benefits for payments compliance. First, the rich party information ensures all party data can be included in the message, whereas in MT, long names (or multiple names for joint accounts) and complex addresses cannot be accommodated because of space limitations. Second, some payment scenarios (e.g. Payment on Behalf Of/POBO) require the specification of a debtor and/or ultimate debtor, and creditor and/or ultimate creditor. While ISO 20022 messages include specific data elements for this purpose, MT does not have a field designated for ultimate parties meaning that information can be either excluded, or truncated and added to another field, where it might be overlooked in screening. Third, the structure of ISO 20022 party information can make automated screening more efficient and reliable, reducing false positives.

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### 3.2.3 ISO 20022 and Real-time (Instant) Payments

The bulk or real-time/instant payment systems deployed globally specify ISO 20022, and the number is growing:

	Present Live ISO 2002	2023 Live ISO 20022
Real-time / Instant	14 out of 28 (50%)	23 out of 35 (66%)

The adoption of ISO 20022 in domestic markets for real-time (instant) payments has implications for participating banks that are not limited simply

to adopting a different syntax. Real-time requires highly available, high-performance ISO 20022 payments processing capabilities, which for many banks is the trigger for a major re-engineering of internal payment systems; technology that may also be deployed for cross-border payments.

Instant payment systems are often coupled with a set of 'overlay services' that plug onto the instant payment system to provide value-added services for customers. ISO 20022 definitions can be re-used in the specification of overlay services to ensure consistency between data captured by the service and the underlying instant payment transaction.

It is expected that a market will develop for real-time cross-border payments, realised by the interlinking of these systems. Banks wishing to play a role in this market may require a cross-border ISO 20022 capability.

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#### 3.2.4 Improved Business Processes

A change of standard provides a rare opportunity to rethink suboptimal business processes, and replace them with an improved process or value-added network solution. *Annex 6* details a number of candidate processes for your feedback.

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#### 3.2.5 ISO 20022 and Corporates

ISO 20022 is already in widespread use in the corporate-to-bank space, particularly for payment initiation, driven in part by the Common Global Implementation (CGI) initiative. It is increasingly important, for compliance reasons, to respect service levels, and to offer new services, that banks ensure all data submitted in corporate payment initiation is transported end-to-end through the value chain.

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#### 3.2.6 ISO 20022 and global payments innovation (gpi)

SWIFT's gpi enables banks to offer the cross-border payments experience their customers demand: same day use of funds, transparency of charges and real-time access to status information, and is set to become the 'new normal' for correspondent banking. ISO 20022 promises to enable further service improvements based on the enhanced data that it supports. SWIFT is working with the gpi community to identify additional gpi transaction management services enabled by ISO 20022. More information on gpi can be found [here](#).

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### 3.2.7 When to migrate?

For any migration the timing is critical. For cross-border payments, a key driver is the migration timetable of major high value payments system market infrastructures. If all currently published dates are met, the major switch to ISO 20022 will begin at the end of 2021. Any delays may push the start to 2022. To allow full interoperability from the outset, cross-border ISO 20022 should therefore be available from **2021** at the earliest, or **2022** depending on progress in the MI space.

The coexistence period needs to be long enough to allow all users to migrate, but not indefinite, which would perpetuate dual maintenance on MT and ISO 20022. In discussion with MIs and other stakeholders the emerging consensus is that four years from the start date would be the optimum coexistence period.

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### 3.2.8 Payments and Cash Management - Summary

- **ISO 20022 is established in the payment market infrastructure space and continues to grow. By the end of 2022, high-value payment systems for the top 5 traded currencies will require ISO 20022.**
- **Participation in real-time (instant) payments schemes requires banks to upgrade their core payments processing capabilities across multiple dimensions, including support for ISO 20022**
- **Banks that participate directly in high-value payments or other payment systems will be required to develop ISO 20022 capabilities.**
- **ISO 20022 in the cross-border space will be required to transport data from ISO 20022 payment MI related transactions without the risk of data loss or truncation.**
- **ISO 20022 offers significant benefits for payments compliance; it also supports extended remittance information**
- **Interoperability between cross-border payments and real-time domestic schemes would be facilitated by the use of ISO 20022 end-to-end payment processing.**
- **For payments, proposed migration would start in 2021 or 2022, depending on progress in the MI space ending after 4 years.**

## Questions on Payments

1. Which of the drivers for adoption of ISO 20022 *for cross-border payments* apply to your country or organisation?
- Financial market infrastructure(s) adoption of ISO 20022 and the need to maintain transparent interoperability with cross-border payments
  - Compliance concerns regarding completeness and structure of data
  - Interest in offering new corporate payment services enabled by ISO 20022
  - Impact of new requirements for real-time (instant) payments
  - End-to-end processing of ISO 20022 transactions received from corporates.
  - Please specify if there are any other important drivers that are not covered in this list

2. Does the combination of drivers justify a migration of cross-border payments to ISO 20022?

- Yes
- No

Please explain your answer

3. SWIFT proposes a migration of cross-border payments from MT to ISO 20022 starting in 2021 or 2022 and ending in 2025 or 2026, depending on progress in the MI space. Do you support the proposed dates?

- Yes. Please explain your answer.

- No. Please indicate why (too late/ too soon) and suggest the migration date(s) you would prefer.

4. A change of standards provides a rare opportunity to rethink suboptimal business processes, and replace them with an improved process or value-added network solution. A list of candidate processes for your feedback can be found in Annex 6. Regarding the processes to rethink

Please indicate if you agree with the analysis?

- Yes
- No

Please explain your answer

Are there any processes not listed here that should be redesigned?

- Yes. Please specify
- No.

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## 3.3 Securities

The case for cross-border adoption of ISO 20022 in securities is less compelling than it is for cross-border payments because the business is highly fragmented, with a large number of players performing different roles along the value chain. Today, the securities market already uses multiple standards, including FpML, FIX, ISO 7775 and ISO 15022, and a variety of proprietary syntaxes.

The securities community completed a migration of post-trade processing to ISO 15022 (the MT-based forerunner of ISO 20022) in 2002. This migration has already resulted in significant improvement in straight-through processing rates. Generally ISO 15022 for securities provides similar business functionality to ISO 20022, so the business benefits of migration are not dramatic.

Nevertheless, use of ISO 20022 for securities is growing steadily, driven by MIs but also regulatory reporting. These trends, combined with the movement of payments business to ISO 20022, may justify migration to facilitate consolidation of messaging infrastructures.

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### 3.3.1 ISO 20022 Adoption by Securities Market Infrastructures

*See also - Annex 4: ISO 20022 adoption by Securities Market Infrastructures*

Adoption of ISO 20022 in securities markets is usually driven by securities market infrastructures renewing legacy systems and seeking to build new systems across business lines using the latest standard. The first formal decision to adopt ISO 20022 for settlement and reconciliation was made by the ECB for TARGET2-Securities in 2008. At that time, the rationale for adoption was to build a 'future-proof' solution using the latest technology and most modern standards. Since then adoption of ISO 20022 by domestic securities MIs has grown.

Most of the largest securities MIs (central securities depositories and securities settlement systems together accounting for about 70% of worldwide volume) offer ISO 20022 messaging to their communities for some or all of their business flows. Consequently, some of today's largest securities players are already partially or fully ISO 20022-enabled. Moreover, the majority of players in the funds industry on the SWIFT network have also moved from ISO 15022 to ISO 20022.

When it launches, the Eurosystem Collateral Management System (ECMS) will broaden the population of European operations directly exposed to ISO 20022.

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### 3.3.2 Additional drivers for Securities Business Domain

1. If payments traffic does migrate to ISO 20022, securities processing flows would then need to be adapted in order to generate ISO 20022 rather than FIN MT payment messages. This could potentially lead to a consolidation of business applications.
2. There is currently a clear regulatory trend in the adoption of ISO 20022 standards for reporting obligations<sup>4</sup>, yet for this to work effectively, interoperability needs to occur between transactional data and regulatory reporting. ISO 20022 can assist organisations with the streamlining of their data models to help comply with reporting obligations.
3. Some ISO 20022 messages contain functionality that does not exist in ISO 15022, meaning adoption of the new standard could help reduce processing risk or errors. This is particularly true for certain areas of the securities business, such as asset servicing especially proxy-voting, collateral or liquidity management, in which either relatively low STP rates still exist or only a portion of processes have been fully standardised.
4. ISO 20022 supports some business processes not fully catered for by ISO 15022. Examples include account management, already used in the funds industry, which supports securities account opening. ISO 20022 also contains a full suite of messages for voting, clearing, and bilateral collateral management.

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### 3.3.3 When to migrate?

For securities, there may be benefit in timing migration to coincide with payments, to facilitate consolidation of customer messaging infrastructures. On the other hand the continued suitability of ISO 15022 for securities business, combined with the cost and risk of a parallel migration, argues for securities migration to commence sometime after payments. The questions that follow seek community feedback on this point.

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### 3.3.4 Securities – Summary

- **ISO 20022 is established in the securities market infrastructure space and continues to grow. By the end of 2022, the largest securities MIs will specify ISO 20022 for part or all of their business processes. Securities players, connecting directly with those securities MIs are or will be ISO 20022-enabled.**

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<sup>4</sup> Within the EU in particular, numerous regulations either mention or require adoption of ISO 20022, including CSDR, MiFID II, EMIR2, MMSR/SSMD, SFTR, ..

- **Securities players that need to generate payments will be required to develop ISO 20022 capabilities if cross-border payments traffic migrates to ISO 20022**
- **There are securities processes that would benefit from the functionality offered by ISO 20022, particularly in the areas of asset servicing and collateral/liquidity Management**
- **The majority of new or upcoming regulations, especially in the European Union, require ISO 20022 for reporting**

## Questions on Securities

1. *If you are responding on behalf of a country:* Do the securities MIs in your community support or mandate the use of ISO 20022?

- No
- Yes – ISO 20022 is mandated
- Yes – ISO 20022 is offered

2. *If you are responding on behalf of an individual institution:* Does your organisation have the capability to support ISO 20022 messaging today?

- No
- Yes. Please indicate which message types/ business areas used:
  - Account Management (acmt)
  - Administration (admi)
  - Corporate Actions (seev)
  - Collateral Management (colr)
  - Investment Funds (setr, semt, sese)
  - Proxy Voting (seev)
  - Reference Data and/or Standing Settlement Instructions (reda)
  - Regulatory reporting (auth)
  - Securities Clearing (secl)
  - Settlement & Reconciliation (semt, sese)
  - Other, please specify.

3. *If you are responding on behalf of an individual institution:* Does your organisation participate in a securities market infrastructure that already offers, or has clear plans to offer ISO 20022?

- Yes
- No

4. Do the drivers described in this section justify migration to ISO 20022?

- Yes
- No

Please explain your answer

5. For users that are required to manage ISO 15022 and ISO 20022 simultaneously, does the ongoing cost of coexistence justify a full migration to ISO 20022?

- Yes
- No

Please explain your answer

6. Do you believe migration to ISO 20022 could be leveraged to transition currently sub-optimal message based processes in securities to other technological solutions such as API, cloud-based utility?

- Yes
- No

Please explain your answer

7. We propose to start the migration of cross-border securities traffic to ISO 20022 at a later point in time than the migration of correspondent banking MT traffic

Option 1: Migration of cross-border securities traffic should start only once the coexistence period for payments has started. Do you agree?

- Yes. Please explain your answer.

- No. Please indicate why (too late/ soon) and suggest the migration date(s) you would prefer.

Option 2: Migration of cross-border securities traffic should start once the coexistence period for payments is completed. Do you agree?

- Yes. Please explain your answer.

- No. Please indicate why (too late/ soon) and suggest the migration date(s) you would prefer.

8. Which of the following approaches to migrate to ISO 20022 would you prefer

- All business areas at the same time
- Different timelines per business domain. Please provide details.

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## 3.4 Trade Finance

In 2013, the SWIFT Trade Finance Maintenance Working Group (TFMWG) recognised that a significant overhaul of the Category 7 interbank MTs (letters of credit, guarantees and standbys) was required due to the postponement of a number of change requests over subsequent years. Alongside this requirement remains the need to upgrade messages to accelerate automation and reduce operational risk. This maintenance is scheduled for implementation in MT Standards Release (SR) 2018 and SR 2019. Because this maintenance represents a significant investment into the improvement of existing MT standards, **we believe that there is currently no appetite to envisage a migration of Category 7 messages to ISO 20022 in a similar timeframe to the one being proposed in other business domains.**

### Questions on Trade Finance

1. We believe that there is currently no appetite to envisage a migration of Category 7 messages to ISO 20022 standards in a similar timeframe to the one being proposed in other business domains. Do you agree?

Yes. Please explain your answer.

No. Please indicate why and suggest potential migration date(s) [...]

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## 3.5 FX/Treasury

While ISO 20022 message sets have been developed, implemented and used by members of two major FX Market Infrastructures (CLS Bank International (CLS) and China Foreign Exchange Trade System (CFETS)), the use of Category 3 and 6 messages remains widespread with approximately 8,000 destination addresses (BIC8s) still using the MT standard.

There appears to be no demand in the industry to move away from current operational processes. Furthermore, the recent FX Global Code of Conduct issued by the Bank of International Settlement made no reference to ISO standards, limiting its guidance to the following statement: “standardised message types and industry-agreed templates should be used to confirm”. Implementation of the FX Global code will be the focus of the industry for the coming years as central banks and regulators look to statements of alignment from all industry players.

### Questions on FX/ Treasury

1. We believe there is no industry driver requiring the Category 3 and 6 messages to move to ISO 20022 standards in a similar timeframe to the one being proposed in other business domains. Do you agree?

Yes. Please explain your answer.

No. Please indicate why and suggest potential migration date(s).

# 4 Migration strategy

## 4.1 Overview

Migration of an entire user community in a particular business domain is a process that needs to be managed carefully. It will be important to balance the need for some members to move quickly and take advantage of ISO 20022 features, with the equally important need to maintain interoperability and reachability for all members during the transition. We therefore propose that migration per business domain should proceed through a three phase process, in which the first phase is optional, for early adopters only, and the following phases gradually extend the migration to the full community. The phases are summarised in the table below:

Phase	Details
<b>CUG</b> Closed User Group	Opt-in basis Senders can only send to other CUG members CUG members must be able to receive ISO 20022 and may opt to send CUG members must be able to receive MT if interacting with non-CUG members
<b>COEX</b> Coexistence	ISO 20022 available to all to send and receive Coexistence measures to ensure interoperability
<b>FULL</b> Only ISO 20022 on the SWIFT network	All traffic is ISO 20022 Requires all users to be able to receive <i>and send</i> ISO 20022

The dates for entering each phase would vary by business domain, according to community readiness and demand:

Domain	20nn	20nn+1	20nn+2	20nn+3	20nn+4	20nn+5	20nn++
Domain 1	CUG	COEX	COEX	COEX	FULL	FULL	...
Domain 2	-	-	CUG	CUG	COEX	COEX	...
Domain 3	-	CUG	COEX	COEX	COEX	FULL	...
etc.	...	...	...	...	...	...	...

The trigger to move from one phase to another could be determined by a migration timetable defined up-front in consultation with the community, or by observed behaviour (e.g. if > 50% of domain traffic is exchanged in the CUG, move to COEX). Different approaches may apply in different business domains. A key aim of this consultation is to seek the community's input on the timing and key criteria for entering each phase.

This section describes the phases in more detail and sets out the necessary preconditions for each phase to be activated. The section that follows

(*Migration Support*) provides more detail of the services SWIFT could provide to support migration.

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## 4.2 CUG phase

Closed User Group (CUG) is a SWIFT feature that allows use of certain messages to be limited to a specific subset of SWIFT users. CUG rules can be set up to restrict traffic flows to just the CUG's members. This way, new message standards can be introduced for users that have the capabilities required to exploit them with no impact on the wider community.

In the ISO 20022 migration CUG phase, only users that opt to join the Closed User Group will be affected. These early adopters will be required to retain an MT capability for any counterparts not in the CUG. SWIFT will develop, with the community, formal market practice guidelines and Service Level Agreements (SLAs) for common use-cases (for example, correspondent banking) to ensure that ISO 20022 messages are used consistently from the outset. Market practice guidelines will also seek to ensure easy interoperability with ISO 20022 Market Infrastructures such as RTGS and instant payments systems. Existing guidelines in these areas (e.g. [HVPS+](#)) will facilitate this effort. Larger players can encourage banks in their networks to join the CUG, to benefit from ISO 20022 features (e.g. better party data structures). A directory will be provided to allow CUG users to determine which standard to use for which business.

---

### 4.2.1 Common Preconditions

#### **Community**

- Clear business justification for migration of the business domain;
- Identified group of committed early adopters with sufficient business amongst themselves to trigger a significant shift of traffic in a 12 month timeframe;
- Evidence of broad-based community willingness to migrate and clear criteria (dates or otherwise) to transition to Coexistence phase.

#### **SWIFT**

- Directory available (see *Migration Support*);
- Full set of ISO 20022 messages covering all MT use-cases for the domain or availability of a value added service that achieves the same business goal and that early adopters agree to implement;
- Detailed formal market practice documentation on MyStandards (see *Migration Support*);

- Availability of ISO 20022 compatible SWIFT shared services, where the MT versions of these services are used by the prospective CUG members for the flows that will migrate.

---

#### 4.2.2 Business domain specific preconditions

##### **Cross-border Payments**

- gpi tracker and other value-added services able to extract data from ISO 20022 messages
- gpi SLAs (all ISO 20022 payments will be gpi)

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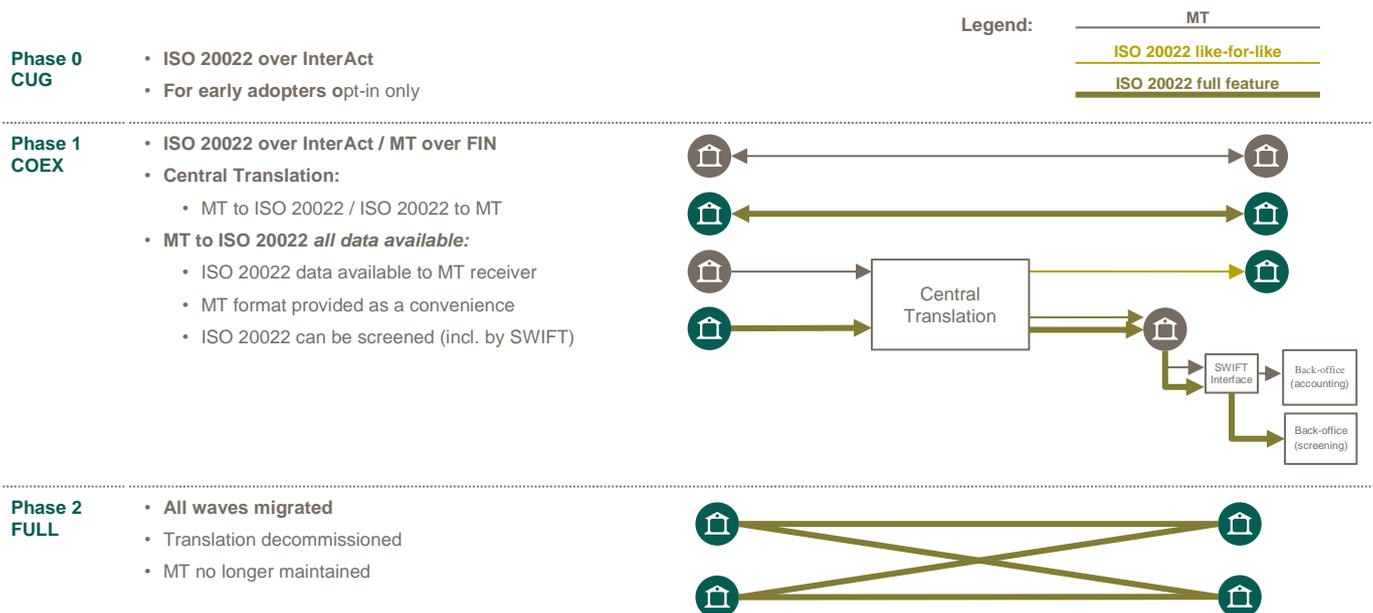
### 4.3 Coexistence Phase

In the coexistence phase, use of ISO 20022 will be extended to the entire community, with support services in place to ease the transition for users that did not adopt ISO 20022 in the previous CUG phase.

Entry to this phase is not a 'big bang' in the sense that users will not immediately be required to receive ISO 20022 for all transactions. Bilaterally, users may agree with their counterparts to continue to exchange MT. However, this is unlikely to remain a stable arrangement as MT senders seek to transition fully to ISO 20022 to reduce their coexistence costs and to benefit from ISO 20022 features, e.g. for compliance purposes.

In formulating the proposed approach SWIFT has reviewed the coexistence measures deployed by a number of MI migration initiatives, taking into account their advantages and disadvantages, as well as the resulting requirements for SWIFT and the community. The description that follows should not be interpreted as a commitment to implement this particular approach, but rather as an opportunity to explore through this consultation the viability and practicality from a community perspective. The feedback we receive will inform the more detailed work required to refine the proposal into an actionable plan, considering technology, legal, risk and compliance dimensions.

## Proposed Approach



In this proposal, during coexistence for a given business domain, MT users may continue to exchange MT with one another, and ISO 20022 users continue to exchange full-featured but market-practice-constrained ISO 20022 as in the CUG phase. Network validation of ISO 20022 ensures that market-practice guidelines are adhered to.

The key difference between this and the CUG phase is that ISO 20022 users are free to send ISO 20022 to all users, including the ones that have not yet migrated and are still using MT, because translation services are foreseen to convert between the two standards. This also applies to receiving ISO 20022, as messages sent by an MT user will be converted into ISO 20022 for banks that have already migrated. In general, ISO 20022 messages provide more, and more granular, data structures than their MT equivalents, and there is therefore a risk that some data will be dropped or truncated in translation from ISO 20022 to MT. To help manage this risk, SWIFT will publish standardized translation rules to clarify for all players how translation operates and highlight ISO 20022 data elements that cannot be translated. SWIFT will also provide an implementation of the translation rules that will be straightforward for MT users to access. Given the inherently imperfect nature of translation, the SWIFT service and framework will insist that the ISO 20022 message sent by the sender represents the definitive instruction, which will be made available to the receiver unmodified.

MT receivers will have access to both ISO 20022 and MT versions of the message. The MT version can be delivered to an MT-only back-office for processing, but the full ISO 20022 version will also be available to be viewed on screen, printed, archived or delivered to an ancillary system such as a sanctions screening solution.

There are several ways in which SWIFT could provide translation services to the community. The aim is to ensure the highest standards of reliability, security and availability while making the service as much as possible transparent to end users. Work on this problem is ongoing and more technical proposals will be provided in future community communications.

There are advantages to this approach, and some consequences. We seek your feedback on both.

#### **Advantages for ISO 20022 users:**

- Immediate access to value-added features of the standard;
- Send ISO 20022 to all counterparts whatever their preferred standard;
- Only receive ISO 20022;
- Send the same ISO 20022 to all counterparts; no need to format messages differently depending on the counterparty's capabilities.

#### **Consequences:**

- For MT users, data may be dropped between the ISO 20022 message received and the MT back-office. This risk is mitigated by the existence of clearly defined community translation rules, which will highlight any data elements that cannot be copied to the MT format, and by the delivery of the full message, which can be processed manually, by ancillary systems or by cloud-based services;
- In the payments domain, this could cause difficulties for MT users that act as intermediaries. In many jurisdictions, intermediaries are required to pass on all the payment details they receive.

---

#### 4.3.1 Common Preconditions

##### **Community**

- Agreed transition date reached;
- Other community-specified criteria (e.g. agreed volume of domain traffic already migrated) reached or surpassed;
- Positive assessment of community readiness;
- Successful completion of 'dry-run' readiness testing;
- Coexistence measures in place for all users not fully migrated to ISO 20022.

##### **SWIFT**

- Detailed formal translation rules for MT to/from ISO 20022 published on MyStandards based on market practice rules already established in CUG;
- Community coexistence measures implemented, tested and rolled out to affected users;

- Ensured continuity of SWIFT shared services, where the MT versions are used by any member of the community in the relevant business domain.

---

## 4.4 Full ISO 20022 phase

In the final Full ISO 20022 phase, all users will receive and send ISO 20022; all network traffic for the business domain will be ISO 20022. Users may continue to translate to ISO 20022 to/from MT.

---

### 4.4.1 Common Preconditions

#### Community

- Agreed transition date reached
- Agreed major proportion of traffic (e.g. 90%) already migrated ISO 20022
- All SWIFT-based market infrastructures in the business domain compatible with ISO 20022 (possibly using local coexistence measures)
- Positive assessment of community readiness
- Clearly communicated

---

## 4.5 Migration Strategy - Summary

**Any migration will be phased, by business domain, to ensure that early adopters are able to take advantage of the features of ISO 20022, while ensuring that the entire community remains interoperable. We foresee the following phases, each with well-defined preconditions:**

- **Closed User Group – opt-in only; non-members not affected**
- **Coexistence – all users may send ISO 20022; coexistence measures ensure interoperability**
- **Full – all messaging uses ISO 20022**

---

## 4.6 Questions for Migration Strategy

### Questions on Migration Strategy

#### Overview

---

1. Do you support the phased approach: CUG-Coexistence-Full?

- Yes
- No

Please explain your answer

#### CUG phase

---

2. Do you agree with the entry criteria outlined?

- Yes
- No
- Other criteria to be considered. Please specify.

3. Do you foresee any practical obstacle to the implementation of a CUG as described?

- Yes
- No

Please explain your answer

#### Coexistence phase

---

4. Do you agree with the entry criteria outlined?

- Yes
- No
- Other criteria to be considered. Please specify.

5. Does the proposed coexistence approach meet the migration objective, which is to allow ISO 20022 adopters to benefit from the standard, and also maintain coexistence with users yet to implement ISO 20022?

- Yes
- No

Please explain your answer

6. Our proposed approach foresees that a translated message will be provided based on the sent message, i.e. MT user continues to receive MT as a convenience for back-office processing. Please indicate which of the two options below is more acceptable to your country/ organisation and why.

Option1: Sender is responsible, i.e. the sender must have in place a translation capability before starting to send ISO 20022. (SWIFT will make a translation service available together with needed testing capability)

- Agree
- Disagree

Please explain your answer

Option 2: Receiver is responsible, i.e. it will be the responsibility of the receiver to comply with any obligations arising from receipt of the original.

- Agree
- Disagree

Please explain your answer

7. The text highlights a possible risk for payments intermediaries. How significant is this risk?

- Low
- Medium
- High

8. How could the intermediary risk be mitigated?

9. In the scenario where both the ISO 20022 and MT message are made available to the receiver, do you see any obligations, such as additional sanctions screening, arise?

Yes. Please specify.

.

No. Please indicate why not

.

### **Full phase**

---

10. Do you agree with the entry criteria outlined?

Yes

No. Please indicate why not.

.

Other criteria to be considered. Please specify.

.

# 5 Migration support

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## 5.1 Directory Services

As outlined in the previous section, migration of a particular business domain would proceed through three phases – CUG, Coexistence and Full. In the initial CUG phase, use of ISO 20022 will be on an opt-in basis for both senders and receivers. Senders will therefore be required to identify the capabilities of their counterparts by business domains and send messages in the appropriate format. To facilitate this processing, SWIFT will provide a directory service that will identify for each destination BIC the standard to be used for a given business domain or message category. The information in the directory will be provided by each user on a self-service basis. Our current understanding is that the details in the directory would allow determination of the standard to be used based on destination address (BIC8), message category and currency, but we seek feedback on this view.

---

## 5.2 Market Practice and Usage Guidelines

ISO 20022 message definitions are often complex, to adapt to a variety of use cases. For example, the ISO 20022 pacs.008 Customer Credit Transfer may be used for domestic batch payments, instant payments, high value payments and international payments. For each scenario it is necessary to define a set of *market practice* rules that define how the message is to be used and interpreted. Without such rules to constrain and define the use of the standard, efficient interoperability between market participants cannot be achieved.

*Usage guidelines* are a key component of a market practice definition. These are formal specifications that define which elements of a message are mandatory, which are optional, and which should never appear. Usage guidelines also refine the definition of data elements and express conditional business rules, for example '*If Currency A does not equal Currency B, exchange rate is mandatory*'.

Variations of usage guidelines may be required in certain markets. For example, ISO 20022 supports the Unicode character set. For text elements this allows non-Latin characters such as Chinese or Cyrillic to be used. This represents a major benefit for a large number of users. However, many actors globally will be unable to read or process non-Latin data, so use of these capabilities will need to be on a restricted, opt-in basis.

Market practice rules are typically agreed and defined by the user community through market practice groups including the PMPG (Payments Market Practice Group) and SMPG (Securities Market Practice Group). They can also be formulated as part of an industry initiative such as global payments innovation (gpi). SWIFT Standards supports these groups with expertise, facilitation, tools, governance and secretarial services. Existence of appropriate market practice will be an important prerequisite for beginning migration of a business process to ISO 20022. SWIFT Standards will work with the market practice community to ensure that the required rules are available in time, building on the substantial body of market practice documentation that already exists.

Market practice guidance already exists for important ISO 20022 processes. For example, the PMPG has worked with several operators of high value payment systems and commercial banks to formulate the *HVPS+* guidelines. Cross-border payment flows may originate or terminate in high value payment systems, so to guarantee end-to-end data consistency SWIFT will ensure that cross-border/international market practice is compatible with *HVPS+*.

The SWIFT messaging platform for ISO 20022 provides validation services that can check adherence to the base standard, and to usage guidelines. Different guidelines can be provisioned for a given message in different business contexts, so it is possible to ensure, for example, that all messages used for cross-border/international payments conform to agreed market practice for that use-case, and that messages that include Chinese characters are only sent to receivers with the declared ability to process them.

A further benefit of formal market practice in scenarios where coexistence between MT and ISO 20022 is required is that restricting usage to a well-defined subset of the ISO 20022 standard facilitates the creation of standard translation logic between the two formats. The ability to define standardised translation is important for two key reasons:

- Standardised logic makes the effects of translation predictable. All stakeholders share a common understanding of how translation works and its limitations. Any risks become easier to identify and to mitigate;
- Standardised logic enables provision of translation services that require little or no local customization. This is important to ensure that services can be provided economically, particularly to the 'long-tail' of smaller users.

---

## 5.3 Translation principles

To facilitate migration, SWIFT aims to provide a translation capability for MT to ISO 20022 and ISO 20022 to MT. In general, ISO 20022 messages when used in a full implementation provide more, and more granular, data

structures than their MT equivalents, and there is therefore a risk that some data will be dropped or truncated in translation from ISO 20022 to MT. There are two ways to mitigate this risk. The first is to constrain ISO 20022 to a like-for-like MT-compatible implementation where data elements that cannot be found in the equivalent MT are excluded. This guarantees 'translatability' of the ISO 20022 message, but brings the serious disadvantage that during any coexistence period none of the added value of ISO 20022 can be exploited. The second is to accept that translation from ISO 20022 to MT is inherently imperfect, and ensure therefore that the ISO 20022 message is delivered alongside the MT and represents the definitive record of the instruction. In either case SWIFT would ensure that the translation logic is standardized and documented to provide a common understanding for all players. The right approach will depend on the business domain. For securities settlement & reconciliation, for example, where ISO 20022 is functionally similar to ISO 15022/MT, like-for-like (lossless) translation might be appropriate. For Payments & Cash Management, translation would involve some truncation of data in the ISO 20022 to MT direction.

Note also:

- For some use-cases, it may be necessary to 'clean-up' the way the MT standard is used before reliable translation rules can be formulated;
- Extended character set data in ISO 20022 cannot be translated to MT, which only supports the Latin character set. Communities that wish to adopt extended character sets should consider this limitation in any planned implementation of ISO 20022.

---

## 5.4 Migration support - Summary

**SWIFT aims to provide a number of resources to facilitate migration:**

- **Directory services;**
- **Formal market practice definitions, created in collaboration with the community;**
- **Network validation to enforce consistent usage and guarantee interoperability;**
- **A central translation service that implements the standardized and published rules for MT –ISO 20022**
- **A community implementation of the translation rules that conforms to the published specification, and that ensures that all sent data is made available to the receiver, even if it doesn't fit in the target message format.**

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## 5.5 Questions for migration support

### Questions on Migration Support

#### Directory services:

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1. What level of data granularity is required in the directory for users to make accurate routing decisions; e.g. is a determination based on BIC8, message category and currency sufficient?

- Yes  
 No. Please indicate why not.

#### Market practice:

---

2. Do you agree that market practice validation is necessary to guarantee interoperability for many-to-many processes?

- Yes  
 No

Please explain your answer

3. Do you agree that formal market practice is required to facilitate translation, and therefore coexistence?

- Yes  
 No

Please explain your answer

#### Translation services:

---

4. Do you agree that it is important to make all sent data available to the receiver

- Yes  
 No

Please explain your answer

5. Do you have any views about how a translation service should be delivered?

- Yes
- No

Please explain your answer

6. Do you accept that some 'clean-up' of the way MT is used may be necessary to facilitate effective translation

- Yes. Please describe any limits.

- No. Please indicate why not.

# 6 Maintenance and Release Management

This section briefly describes the ISO 2022 maintenance process and proposes how the SWIFT community might organise itself to constructively engage for this purpose. It goes on to propose a release management process for ISO 2022 for use in 'many-to-many' business scenarios where there is no central market infrastructure (MI), such as correspondent banking. Finally, it proposes criteria for limiting MT maintenance as a full migration to ISO 2022 progresses.

---

## 6.1 Overview of SWIFT's Maintenance and Release Management

The ISO 2022 annual [maintenance process](#) is different from that for [MT](#), and is governed by ISO rather than SWIFT, although there is alignment between the processes in terms of timeline ([Standards MT maintenance release timeline](#) and [Standards MX maintenance release timeline](#) ) There is also alignment on message function for securities Settlement & Reconciliation and Corporate Actions messages. One key difference, however, is that MT standards releases are enforced on the SWIFT FIN service by strict validation. Only one release of a given message type is supported at one time. New versions are implemented in an annual cut-over, normally on the third weekend in November. This discipline has never been enforced for ISO 2022 on SWIFTNet as ISO 2022 has historically been implemented for closed user groups of Market Infrastructures (MI) and their communities, meaning decisions about message versions and upgrade cycles have been taken by individual MIs. SWIFT Standards' [harmonisation programme](#) has encouraged MIs to operate a FIN-like annual release cycle and this has succeeded in bringing more consistency to the deployment of ISO 2022 on SWIFT, yet some variation still exists.

The proposal below relates to messages deployed in SWIFT-managed many-to-many services such as for correspondent banking. Market infrastructures on SWIFT would continue to control the messages and versions deployed for their communities.

---

## 6.2 ISO 2022 maintenance processes

The ISO 2022 maintenance process proceeds as follows: Change Requests (CRs) are submitted to the Registration Authority (RA), which is operated by SWIFT under contract to ISO. CRs are reviewed by the RA and

if they conform to the requirements of the standard are distributed to domain-specific Standards Evaluation Groups (SEGs) composed of industry experts. The SEG (or a specialised SEG Evaluation Team (ET)) meets to evaluate each CR, deciding whether to approve for implementation or to reject. Approved CRs are handed over to the submitters of the original messages for implementation, resulting in the creation of a new draft version of the message. The draft messages are then circulated to the appropriate ET/SEG, who may request changes to the implementation of the CR. Once approved, the draft definitions are submitted to the RA for publication with a new official version number.

---

### 6.3 Proposed approach for ISO 20022 maintenance

Unlike the MT maintenance process, there is no formal role for the SWIFT Board or SWIFT-managed Maintenance Working Groups (MWGs) in the ISO process. We propose, therefore, a new SWIFT structure to engage with ISO 20022:

- SWIFT mirror groups are created for each SEG and ET, based on existing MT maintenance working groups (e.g. – Payments MWG, Corporate Actions MWG, etc.). Each member is also a member of the ISO SEG;
- The SWIFT mirror groups' composition is determined on the same basis as today's MWGs, i.e. 10 members, one nominated by each of the top 10 countries by total message volume (MT and ISO 20022) in the business domain;
- ISO 20022 CRs from SWIFT users may be submitted to ISO on behalf of the SWIFT community. Such CRs are sent to SWIFT Standards before 1st May by the User Group Chair of the country of the submitter. The Standards team organises for these to be reviewed by the appropriate mirror group, which will decide whether or not to endorse the CR by submitting on behalf of the SWIFT community;
- Mirror group members receive all CRs, including those submitted by the SWIFT community, which they syndicate in their country organisations to reach a country decision on whether to accept or reject each CR;
- Mirror groups meet ahead of SEG/ET evaluation meetings to agree a SWIFT community position on each CR, based on the input from the countries.
- In the SEG/ET evaluation, mirror group members champion the SWIFT community position.

Once the SEG decisions are finalised, each mirror group reconvenes to consider the outcome for the SWIFT community and next steps for deployment. The group first considers whether the resulting new version of a message should be deployed in the relevant SWIFT-managed service. Where the new version is accepted, the group further considers what

changes to formal market practice usage guidelines might be required to define proper usage of new features by the SWIFT community. The SWIFT Standards team works with each mirror group to formalise the usage guidelines for provisioning on the network validation service.

---

## 6.4 Release Management on SWIFTNet

For SWIFT-managed ‘many-to-many’ business services on the SWIFT network, we propose to implement an annual standards release process for ISO 20022, similar to the familiar MT process:

### Annual standards release process for ISO 20022 on SWIFTNet

June to December YYYY-1	ISO 20022 and SWIFT community maintenance process as described in the previous section
December YYYY-1	Content of Standards Release published
February YYYY	Final Standards Release content published
	Web-based testing available on MyStandards
June YYYY	Test and Training on SWIFTNet
	User Handbook published
3rd weekend in November YYYY	Standards Release YYYY: Agreed new messages and usage guidelines live; Superseded messages and usage guidelines decommissioned.

*Note that there are two key differences between the ISO 20022 and MT processes: 1) in some cases validation will impose conformance to a usage guideline that constrains use of the message to a community-agreed market practice, for example, correspondent banking; and; 2) SWIFT will not automatically implement every version of a message, but will only upgrade if the new version is accepted by the community as described above).*

---

## 6.5 Fast-track

ISO 200022 includes an exceptional [fast-track maintenance process](#) that is equivalent to the SWIFT MT fast-track process described in the SWIFT User Handbook. If necessary, this process may be invoked on behalf of the SWIFT Community to expedite an urgent change<sup>5</sup>.

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<sup>5</sup> Requires approvals similar to those set out in ER 1170

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## 6.6 Proposed approach for and impact on MT maintenance

The SWIFT MT maintenance process is executed for each business domain until the end of the coexistence phase. Once ISO 20002 is in **use** in a given domain, we propose to limit CR maintenance according to the following scheme set out below:

### MT Maintenance Proposed Approach

Phase	MT maintenance approach
CUG	Maintenance only for urgent changes mandated by regulation and important SWIFT community initiatives such as gpi
Coexistence	Maintenance only for urgent changes mandated by regulation
Full	No further maintenance

To enable safe and seamless translation during the CUG and coexistence phases, it will be important to ensure clear alignment of MT and ISO 20022 for key data elements, such as party fields. Some changes to MT may be required, that would be implemented through the MT maintenance process. MT users may also be required to rationalise the use of informal or bilaterally agreed market practice, which standardised translation rules would be unable to convert meaningfully.

---

## 6.7 Maintenance and Release Management - Summary

- **The ISO 20022 maintenance process is governed by ISO, not by SWIFT**
- **The SWIFT community will be organised to feed its views into ISO 20022 via a SWIFT process modelled on the existing MT maintenance process**
- **New versions of a message will be implemented in SWIFT-managed many-to-many services only if approved by the SWIFT community; MIs on SWIFT retain full control of message versions deployed for their communities**
- **Agreed, formal, validated usage guidelines will ensure consistent usage of messages in many-to-many scenarios, such as correspondent banking**
- **An annual release cycle equivalent to the existing MT Standards Release process will be implemented on SWIFTNet for SWIFT-managed services**
- **A fast-track process will remain an option for agreed urgent changes**

- **MT changes will be limited to the essentials once migration is underway**

### Questions on Maintenance and Release Management

1. Do you believe that the proposed combination of formal usage guidelines/ SWIFT community engagement with the ISO 20022 process/ the provision that a new message version will only be implemented if agreed by the community provides appropriate control over the evolution of ISO 20022 for the 'many-to-many' business on SWIFT?

- Yes
- No

Please explain your answer

2. Do you agree with the proposed limitations to MT maintenance as migration progresses?

- Yes
- No

Please explain your answer

# 7 ANNEXES

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## 7.1 Annex 1: SWIFT Messaging for ISO 20022

SWIFT provides secure, reliable and resilient messaging, connectivity and standards, allowing organisations to carry out day-to-day business operations with speed, certainty and confidence while maintaining high levels of risk management.

The platform used to transmit ISO 20022 messages is already used by a significant part of the community and is at par with the platform already in use for MT messaging<sup>6</sup>. In 2017, ISO 20022 messages made up approximately 20% of nine billion messages sent and received by 25% of the SWIFT community users.

Next to the key features of the platform, such as **Safe storage (Store-and-Forward)**, **delivery notifications**, and non-repudiation, the following features are worth highlighting in the context of the present proposal:

- **Closed User Groups:** Closed User Groups define a subset of customers that can use specific SWIFT services and products within a defined context, enabling access control to particular services, applications, market infrastructures and solutions. Either SWIFT or a member service administrator defines the eligibility criteria and participation rules within a Closed User Group.
- **Relationship Management Application:** The Relationship Management Application (RMA) enables message recipients to filter or restrict the messages they receive from particular counterparties. RMA helps users to better manage business relationships and protects against risks related to unwanted traffic and audit and compliance-related risks.
- **Validation:** The platform provides central verification that message content is correctly structured and formatted in the same way across all the parties involved in the process. Before the message is accepted, the SWIFT platform validates information within specific fields. Upon receiving an ISO 20022 message, the user knows instantly what type of information the message contains and how it is be structured. This facilitates straight-through processing and automation, reducing operational risk and cost. Incorrectly formatted messages are not accepted for transmission and the sender is notified. [please refer to the section on coexistence for further details]

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<sup>6</sup> All SWIFT interfaces are ISO 20022 compatible for the core messaging functionalities.

Some of SWIFT's Compliance and Shared Services solutions are currently not fully ISO 20022 compatible. SWIFT will adapt those to ensure they have the same capabilities available for FIN MT at the time of the migration.

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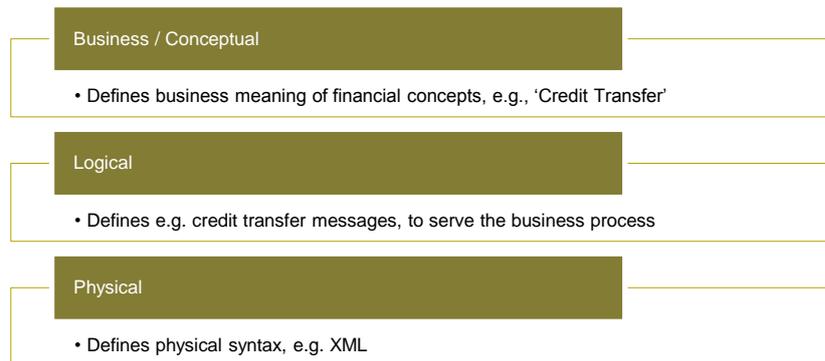
## 7.2 Annex 2: About ISO 20022

There are two key aspects to ISO 20022. It is a methodology, a 'recipe' to be followed to create financial messaging standards, and a body of content - the message definitions themselves and other content required by the methodology to define the meaning of message data.

---

### 7.2.1 Methodology

The ISO 20022 methodology separates content into three layers:



#### 3 layers of ISO 20022

The business (conceptual) layer contains definitions for common business data and relationships (e.g. *a cash account is a kind of account; accounts have servicers and owners; or a bond is a kind of security; a bond has an issuer and holders*). This content is not messaging-specific.

The logical layer defines messages that can be used by one party in a business process to instruct or inform another. The data elements specified in the messages refer to definitions of their meanings in the business layer

The physical layer defines the technical format of the message. The default format (or syntax) is XML, but others syntaxes are also possible, including JSON.

---

### 7.2.2 Content

ISO 20022 published content consists of business definitions and message definitions that are defined according to the ISO 20022 methodology and maintained through an open and maintenance process.

---

### 7.2.3 Governance

ISO 20022 message definitions are published by the ISO 20022 Registration Authority (RA), which is currently operated by SWIFT under contract to ISO. The RA is effectively the 'back office' for the standard, managing submission, publication and maintenance processes and operating the [www.iso20022.org](http://www.iso20022.org) website

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## 7.3 Annex 3: ISO 20022 adoption by Payments Market Infrastructures

*The information in this chapter and annex 7.4 represents SWIFT findings based on its best knowledge. No warranty, expressed or implied, is made regarding the accuracy of the information, either isolated or in aggregate. SWIFT advises to contact the respective organisation in order to get the most accurate, comprehensive and up-to-date status. You can also visit [ISO 20022.org](http://ISO20022.org) which offers a more detailed source maintained by the ISO 20022 Registration Authority and vetted with the adopting organisations.*

### **High Value Payment (Real-time Gross Settlement) Systems**

Figures 7.3.1 and 7.3.2 show that out of 148 systems, 10 RTGS are using ISO 20022 live today representing 52% of the volume (25% of the value) of the sub-segment total, and 12 have official plans to migrate before 2025, representing 27% of the volume (62% of the value) of the sub-segment total. Combined, the 22 ISO 20022 systems represent 79% of the total volume and 87% of the total value of high-value payments worldwide.

Therefore, by 2023, the bulk of market infrastructure high value payments will be using ISO 20022 as shown in Figure 7.3.3.

ISO 20022 adoption over time for HVP systems (# of payments settled)

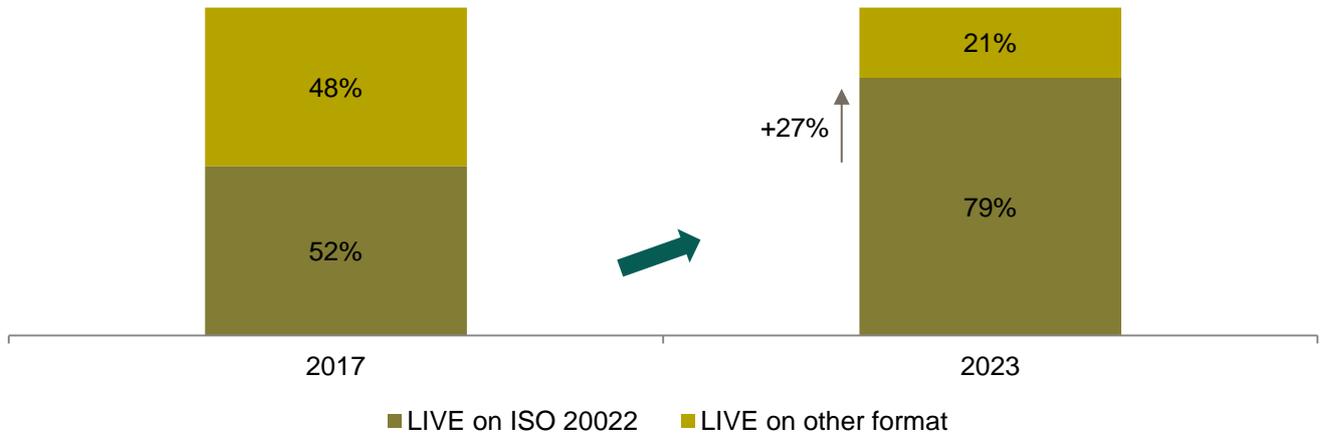


Figure 7.3.1

ISO 20022 adoption over time for HVP systems (value of payments settled)

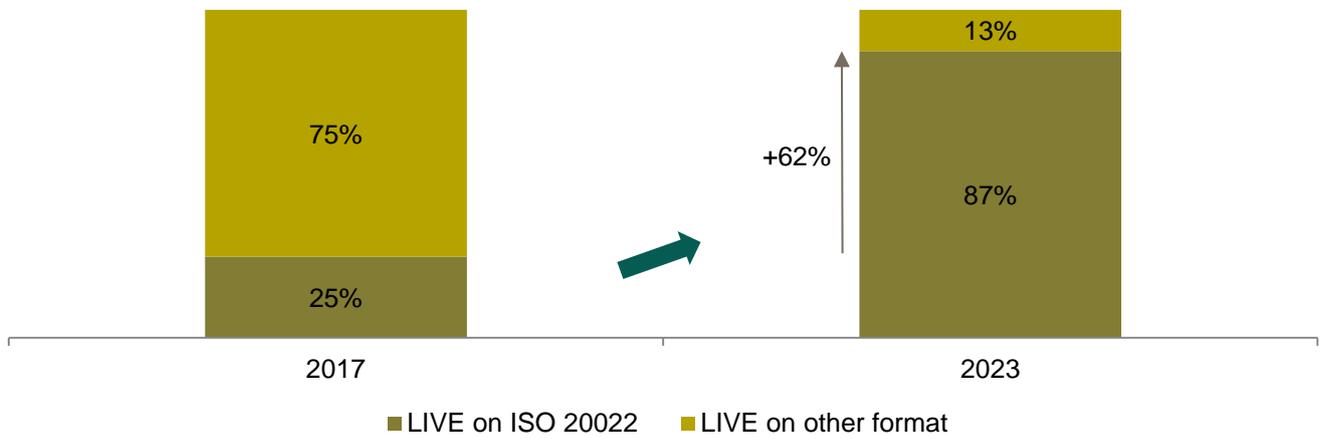
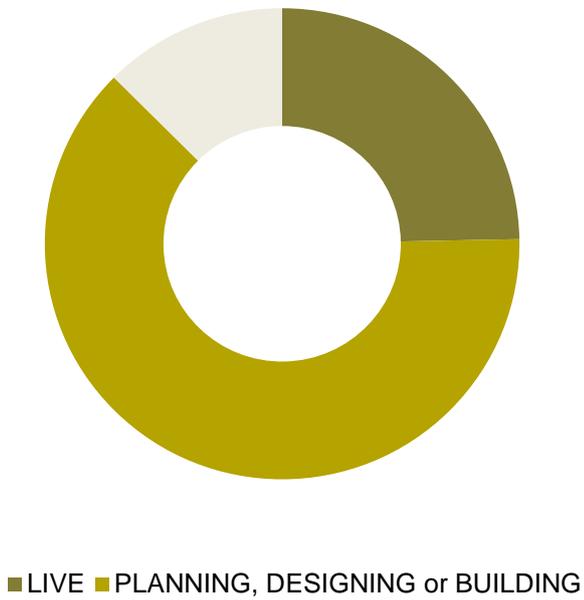


Figure 7.3.2

**Share of total value of payments settled by HVP systems today:**



**Live countries**

**25% LIVE**

- Bangladesh
- Brunei Darussalam
- China\*
- Colombia
- India
- Japan
- Jordan
- Kosovo
- Switzerland

\* CIPS and CNAPS

**Planning countries**

**62% PLANNING, DESIGNING or BUILDING**

- Belarus
- Canada
- Eurozone countries\*
- Hong Kong
- Malaysia
- Russia
- Singapore
- South Africa
- Thailand
- United Kingdom
- United States

\* Countries covered by TARGET2 and EBA EURO1/STEP1 systems

**Figure 7.3.3**

## Low Value Payments Systems

The Retail Payment Systems (RPS) community started to switch to ISO 20022 towards the end of the 2000s, mainly driven by the Single Euro Payments Area (SEPA) initiative to integrate payments across the European Union.

By 2023 we expect over 65% of the volume of low value payments to be exchanged using ISO 20022.

Figure 7.3.4 and 7.3.5 show that out of 126 systems, 32 RPS are using ISO 20022 live today representing 48% of the volume (23% of the value) of the sub-segment total, and a further 5 RPS have official plans to migrate before 2025 representing 17% of the volume (30% of the value) of the sub-segment total. Combined, the 37 ISO 20022 RPS represent 65% of the total volume and 53% of the total value of retail payments cleared worldwide.

Therefore, by 2023, a critical mass of RPS will be using ISO 20022 as shown in Figure 7.3.6.

### ISO 20022 adoption over time for LVP systems (# of cleared payments)

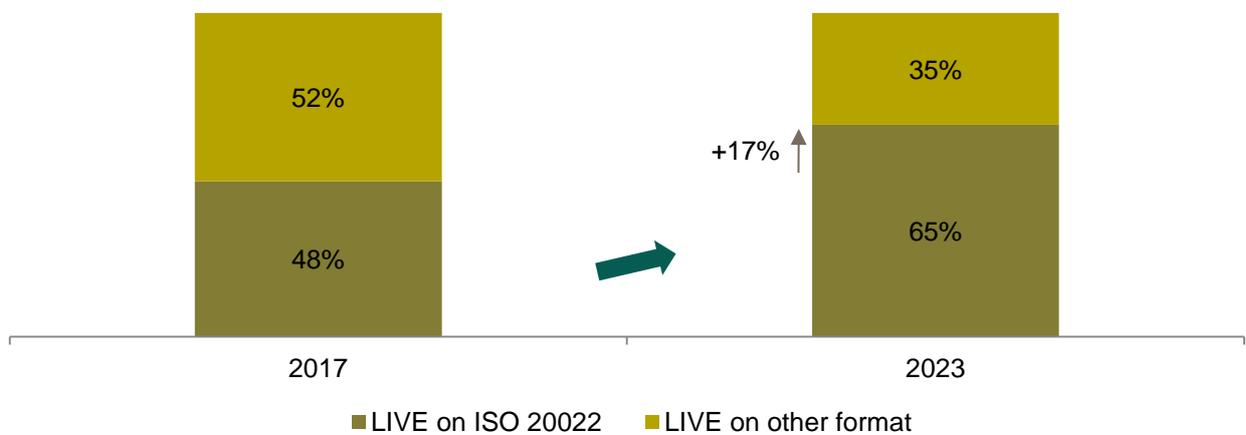
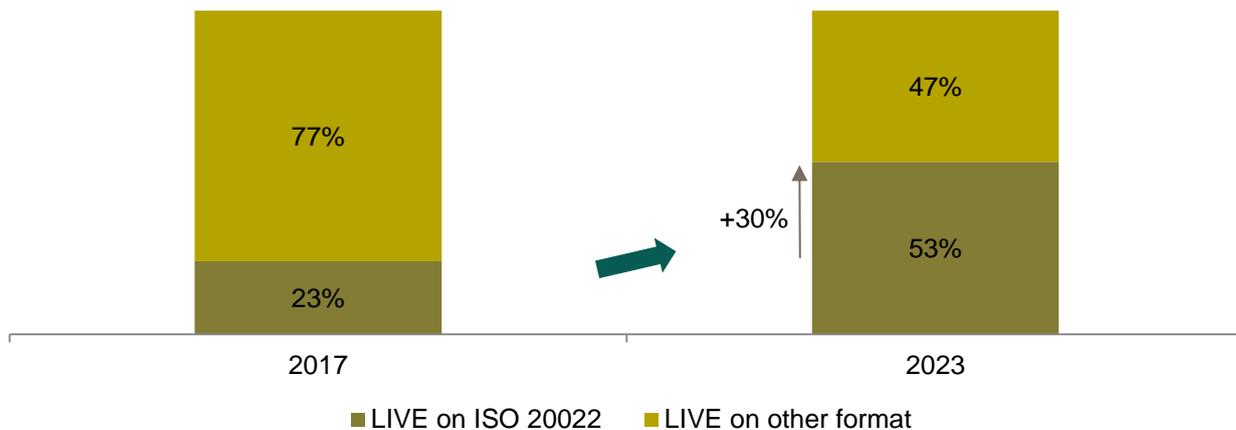


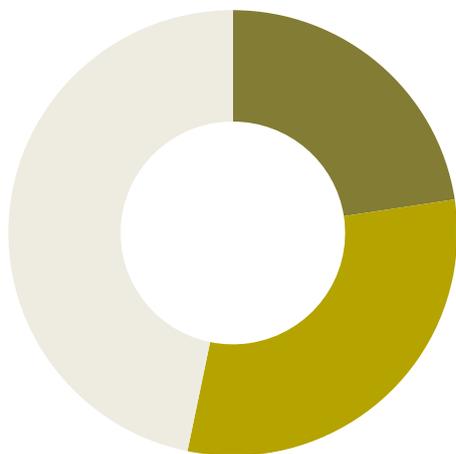
Figure 7.3.4

**ISO 2022 adoption over time for LVP systems (value of cleared payments)**



**Figure 7.3.5**

**Share of total value of payments cleared by LVP systems:**



**Live countries**

**23% LIVE**

- Austria
- Belgium
- Brunei Darussalam
- Bulgaria
- Canada
- China
- Denmark
- Finland
- France
- Germany
- Greece
- Ireland
- Italy
- Jordan
- Kosovo

- Latvia
- Netherlands
- Other EU countries covered by EBA STEP2\*
- Poland
- Portugal
- Romania
- Singapore
- South Africa
- Spain
- Sweden
- Switzerland

\* Countries covered by TARGET2 and EBA EURO1/STEP1 systems

**Planning countries**

**30% PLANNING, DESIGNING or BUILDING**

- USA
- SADC Countries
- Saudi Arabia
- Sweden

**Figure 7.3.6**

## Real-Time (Instant) Payment Systems

The majority of existing and proposed real-time retail payment systems specify ISO 20022.

### # of RTP systems adopting ISO 20022 worldwide



#### Live countries

**40% LIVE**

Brazil  
Australia  
China  
Denmark  
Eurozone  
Finland  
Japan  
Poland  
Singapore  
Spain  
Sweden  
Switzerland  
Thailand  
USA

#### Planning countries

**26% PLANNING, DESIGNING or BUILDING**

African Countries<sup>1</sup>  
Cambodia  
Canada  
Eurozone countries<sup>2</sup>  
Hong Kong  
Israel  
Netherlands  
Philippines  
South Africa

<sup>1</sup> Countries covered by the Pan-African RTP initiative led by Afreximbank

<sup>2</sup> Countries covered by TIPS and EBA RT1 regional systems

Figure 7.3.7

### # of RTP systems adopting ISO 20022 worldwide

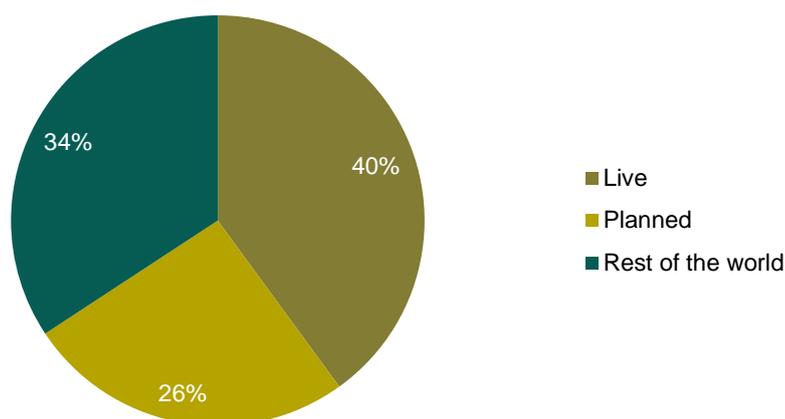


Figure 7.3.8

## Adoption table

“HVP” stands for “High Value Payment” and refers to Real-Time Gross Settlement (RTGS) or Deferred Net Settlement (DNS) systems

“LVP” stands for “Low Value Payment” and refers to Automated Clearing House (ACH) batch processing systems

“RTP” stands for “Real-Time Payment” and refers to Real-Time Retail (also called Instant) Payment Systems

	Country	Segment	System owner and/or operator	System/service name	Status	Start year	SEPA-compliant
Americas	Canada	HVP	Payments Canada	LVTS	Planned	TBD	N
		LVP		AFT	Live	2017	N
		RTP		RT [not yet live]	Planned	2019-2021	N
	Colombia	HVP	Banco de la Republica	CUD	Live	2007	N
	United States	HVP	Federal Reserve Bank of N.Y	FEDWire	Planned	2020	N
		LVP		FedACH	Planned	TBD	N
		HVP	The Clearing House (TCH)	CHIPS	Planned	2020	N
		LVP		EPN	Planned	TBD	N
		RTP		RTP	Live	2017	N
	Asia Pacific	Australia	RTP	NPP Australia Limited (Utility Co)	NPP	Live	2018
Bangladesh		HVP	Bangladesh Central Bank	RTGS	Live	2015	N
Brunei Darussalam		HVP	Autoriti Monetari Brunei Darussalam (AMBD)	BN-RTGS	Live	2014	N
		LVP		BN-ACH	Live	2016	N
China		HVP	China International Payments Services Corporation (CIPS Co.)	CIPS	Live	2015	N
		HVP	China National Clearing Center (CNCC)	CNAPS-HVPS	Live	2012	N
		LVP		CNAPS-BEPS	Live	2012	N
		RTP		CNAPS-IBPS	Live	2012	N
Hong Kong		HVP	Hong Kong Interbank Clearing (HKICL)	CHATS	Planned	2019-2020	N
		RTP		FPS [not yet live]	Planned	2018	N
India		HVP	Reserve Bank of India	NG-RTGS	Live	2013	N
Japan		HVP	Bank of Japan	BOJ-NET	Live	2015	N
		RTP	Zengin-Net	Zengin-Net	Live	2011	N
Malaysia		HVP	Payments Network Malaysia Sdn Bhd (PayNet)	RENTAS	Planned	TBD	N
New Zealand		LVP	Payments NZ	SBI	Partially live <sup>7</sup>	2005	N
Philippines		RTP	Bangko Sentral Ng Pilipinas	NRPS (National Retail Payment System) [not yet live]	Planned	TBD	N

<sup>7</sup> System notification messages and payment status reports only

Country	Segment	System owner and/or operator	System/service name	Status	Start year	SEPA-compliant	
Singapore	HVP	Monetary Authority of Singapore (MAS)	MEPS+	Planned	TBD	N	
	LVP	Network for Electronic Transfers (Singapore) Pte Ltd (NETS)	GIRO	Live	2015	N	
	RTP		FAST	Live	2014	N	
Thailand	RTP	National ITMX Company Limited (NITMX)	PromptPay	Live	2017	N	
Europe, Middle East & Africa	African Countries	Afreximbank	PASP (Pan African Payment and Settlement Platform) [not yet live]	Planned	TBD	N	
	Austria	LVP	GSA G.m.b.H. (under OeNB)	CS.I	Live	2008	Y
		LVP		CS.A	Live	2012	Y
	Belgium	LVP	STET S.A.S	CEC	Live	2008	Y
	Belarus	HVP	National Bank of Republic Belarus	BISS	Planned	TBD	N
	Bulgaria	LVP	BORICA-Bankservice AD	BISERA7-EUR	Live	2010	Y
	Denmark	LVP	Nets	Sumclearing	Live	2008	Y
		LVP		Intradag Clearing	Live	2013	Y
		RTP		Straksclearing	Live	2014	Y
	Eurozone	HVP	European Central Bank (ECB)	TARGET2	Planned	2021	N
		RTP		TIPS (TARGET Instant Payment Settlement)	Planned	2018	Y
		HVP	EBA Clearing S.A.S.	EURO1/STEP1	Planned	TBD	N
		LVP		STEP2	Live	2008	Y
		RTP		RT1	Live	2017	Y
	Finland	LVP	ACH Finland Ltd.	ACH	Live	2008	Y
		RTP	Tieto Ojy	Siirto	Live	2017	?
	France	LVP	STET S.A.S.	CORE	Live	2008	Y
	Germany	LVP	Deutsche Bundesbank	RPS	Live	2008	Y
	Greece	LVP	Interbanking Systems S.A.	DIAS	Live	2014	Y
	Ireland	LVP	Irish Paper Clearing Company Limited (IPCC)	Bilateral Clearing STEP2 Irish service	Live	2011	Y
	Italy	LVP	Banca d'Italia	BI-COMP	Live	2008	Y
		LVP	Istituto Centrale Delle Banche Popolari Italiane (ICBPI)	ICBPI-BICOMP (ex Seceti)	Live	2008	Y
		LVP	SIA S.P.A.	SIASSB-BICOMP	Live	2008	Y
Israel	RTP	Bank of Israel	tbc ([not yet live])	Planned	TBD	N	
Jordan	HVP	Central Bank of Jordan	RTGS-JO	Live	2015	N	
	LVP		ACH	Live	2015	N	
Kosovo	HVP, LVP	Central Bank of Kosovo	KIPS	Live	2016	N	
Latvia	LVP	Bank of Latvia	EKS	Live	2010	Y	
Netherlands	LVP	Equens	Interpay Iconnect	Live	2005	Y	
Poland	LVP	Krajowa Izba Rozliczeniowa S.A. (KIR)	EuroELIXIR	Live	2008	Y	
	RTP		Express ELIXIR	Live	2012	Y	
Portugal	LVP	Sociedade Interbancária de Serviços, S.A. (SIBS)	SICOI	Live	2016	Y	
Romania	LVP	Transfond	SENT & EUROSENT	Live	2012	Y	
Russia	HVP	Central Bank of the Russian Federation	BRPS-BESP	Planned	TBD	N	

Country	Segment	System owner and/or operator	System/service name	Status	Start year	SEPA-compliant	
SADC Countries	LVP, RTP	SADC Banking Association	RCH	Planned	TBD	N	
Saudi Arabia	LVP	Saudi Arabian Monetary Agency	SPAN	Planned	TBD	N	
Slovenia	LVP	Bankart	SEPA IKP	Live	2009	Y	
	LVP		SIMP-PS IDD-B	Live	2009	Y	
	LVP		SIMP-PS IDD-C	Live	2009	Y	
South Africa	HVP	South African Reserve Bank	SAMOS	Planned	TBD	N	
	LVP	BankservAfrica	EFT	Live	2015	N	
	RTP		RTC	Planned	2019	N	
Spain	LVP	Sociedad Espanola de Sistemas de Pago, S.A.	Iberpay	Live	2008	Y	
	RTP	Sociedad de Procedimientos de Pago S.L.y	Bizum	Live	2017	Y	
Sweden	LVP	Bankgirot or other <sup>8</sup>	Bankgiro system	Planned	TBD	Y	
	RTP	Bankgirot	BIR	Live	2012	Y	
Switzerland	HVP, LVP	SIX Interbank Clearing Ltd	euroSIC	Live	2015	Y	
			SIC	Live	2016	N	
United Kingdom	HVP	Bank of England	CHAPS	Planned	2020	N	
	LVP (ancillary)	Bacs Payment Schemes Ltd	Current Account Switching Service (CASS)	Live	2013	N	
	LVP (ancillary)	Vocalink	Cash ISA Transfer (UK)	Live	2010	N	
<b>Cross-continents</b>	International	International Payments Framework Association (IPFA)	IPFA	Live	2010	N	
			LVP	Eurogiro A/S	Live	2008	Y
			FX	CLS Services Ltd	Live	2014	N
			FX		CLSNet	Planned	2018

<sup>8</sup> Sweden Banking Association aims to rebuild the national ACH infrastructure, without firm decision yet on who is going to be the operator and supplier

## 7.4 Annex 4: ISO 20022 adoption in Securities Market Infrastructures

“CSD” stands for “Central Securities Depository”

“ICSD” stands for “International Central Securities Depository”

“SE” stands for “Stock Exchange”

“SSS” stands for “Securities Settlement System”

“CCP” stands for “Central Counter-Party”

“CA” stands for “Corporate Actions”

“S&R” stands for “Settlement & Reconciliation”

“Coll. Mgt” stands for “Collateral Management”

Region	Country	Segment	System owner and/or operator	System/service name	Business area	Status	Start year		
Americas	Brazil	Other	ANBIMA - Galgo S.A.	Sistema Galgo	Funds	Live	2011		
					S&R	Live	2011		
	Mexico	CSD	S.D. Indeval, S.A. de C.V.	DALI	S&R	Planned	2019		
	United States	CSD	The Depository Trust Company (DTC)	DTCC Corporate Actions	CA	Live	2011		
		Funds platform	Benefit Trust Company	Fundplicity	Funds	Live	2012		
Asia Pacific	Australia	CSD	ASX	Austraclear	CA	Live	2014		
		CSD	ASX	CHESS	S&R, Funds, Coll. Mgt	Planned	TBD		
	Brunei	CSD	Autoriti Monetari Brunei Darussalam (AMBD)		S&R	Live	2017		
	China	CSD	China Central Securities Depository and Clearing Co. (CCDC)		CA, S&R	Planned	TBD		
	Hong Kong	CSD	Hong Kong Monetary Authority	CMU Funds Hub	Funds	Live	2010		
				CMU	CA	Live	2015		
		CSD	Hong Kong Exchanges and Clearing Limited (HKEx)	CCASS	CA	Planned	2018		
	Indonesia	CSD	PT Kustodian Sentral Efek Indonesia (KSEI)		CA, S&R	Planned	TBD		
		SE	PT Kliring Penjaminan Efek Indonesia (KPEI)	IDX Corporate Actions	CA, Proxy Voting	Live	2015		
	India	CSD	National Securities Depository Limited (NSDL)		CA, S&R	Planned	TBD		
	Japan	CSD	Japan Securities Depository Center, Inc		S&R	Live	2014		
				SE, CSD	TSE (Tokyo Stock Exchange) and JASDEC (Japan Tokyo Market Information Securities Depository Center, Inc.)	Corporate Action Data Service	CA	Live	2014
				CSD	Bank of Japan	JGB Book-entry System and BOJ-NET JGB Services	S&R	Live	2015
	Korea	CSD	Korea Securities Depository (KSDC)		Funds	Live	2012		
	Malaysia	CSD	Bursa Malaysia Central Depository Sdn Bhd (BMDSB)		CA	Planned	2018		
					S&R	Planned	TBD		
	Singapore	SE	The Central Depository Pte Ltd (under SGX)		CA	Live	2014		
		CSD			S&R	Live	2015		
	Taiwan	CSD	Taiwan Depository & Clearing Corporation (TDCC)		Funds	Live	2012		

Region	Country	Segment	System owner and/or operator	System/service name	Business area	Status	Start year	
Europe, Middle East & Africa	Austria	CSD	OeKB CSD GmbH		S&R	Planned	2018	
	Belgium	ICSD	Euroclear Bank S.A./N.V.	FundSettle	Funds	Live	2009	
						S&R	Live	2016
		CSD	National Bank of Belgium	NBB-SSS (RAMSES)	CA, S&R	Live	2015	
	Belgium, France, Netherlands	CSD	Euroclear ESES			Funds	Live	2011
						S&R	Live	2016
	Denmark	CSD	VP Securities A/S			Funds	Live	2013
						S&R	Planned	2018
						CA	Live	2015
	Estonia	CSD	Eastonian Central Register of Securities (ECSD) <sup>9</sup>	ECSD	S&R, CA, Funds	Live	2011	
	Estonia, Latvia, Lithuania	CSD	Nasdaq CSD Societas Europaea		S&R, CA, Funds	Live	2017	
	Eurozone	SSS	European Central Bank	TARGET2-Securities (T2S)	S&R, Coll. Mgt, Acct Mgt, Admin, Ref data	Live	2015	
	Finland	CSD	Euroclear Finland	Infinity	S&R, CA	Live	2015	
	Luxembourg	CSD	Clearstream Banking S.A.	Vestima	Funds	Live	2006	
		CSD	VP LUX S.á r.l.		S&R, CA, Funds	Live	2015	
	Norway	CSD	Verdipapirsentralen ASA (VPS)	VPO		Acct Mgt, Funds, Reporting	Live	2011
						CA, S&R	Planned	TBD
	Poland	CSD	KDPW S.A.			CA	Live	2013
		CCP	KDPW_CCP S.A.			Clearing	Live	2013
	Russia	CSD	National Settlement Depository (NSD)			Funds	Live	2017
Proxy Voting							2015	
CA							2015	
S&R, Acct Mgt						Planned	TBD	
Sweden	CSD	Euroclear Sweden Ab	VPC		Funds	Live	2013	
					CA, S&R	Planned	TBD	
Turkey	CSD	MKK (Merkezi Kayit Kurulusu A.S.)	Central Dematerialized System		CA, S&R	Live	2012	
					Proxy voting		2016	
United Kingdom	CSD	Euroclear UK and Ireland	Funds Hub		Funds	Live	2009	
	CCP	LCH.Clearnet Limited			Coll. Mgt	Live	2013	

<sup>9</sup> Merged into Nasdaq CSD Societas Europaea since 2017

## 7.5 Annex 5: Full migration table - Payments

Process	MT	ISO 20022	Key migration drivers	Proposal	Market practice requirements
Credit Transfer	103, 103+, 103 Remit	pac.008	<ul style="list-style-type: none"> <li>- End-to-end interoperability between a correspondent banking standard for international payments and domestic instant schemes</li> <li>- More structured and granular data from pac.008 to enable banks to better fulfil regulatory requirements on debtors/ creditors information; enable enhanced payment screening</li> <li>- Reduce operational cost and the number of exceptions and investigations.</li> <li>- Corporate to Bank messaging relies heavily on ISO20022. Migration of MT 103 to PACS.008 improves value proposition (supporting customers' reconciliation with extended remittance data, streamlining end-to-end the "Request for payment" domestic services based on the pain.013 and pain.014. ensuring no loss of information in the clearing &amp; settlement process)</li> </ul>	Migrate to pac.008	Need for market practices message validation 1) MP 1 - corresponding to HVPS + Market practice 2) MP 2 - STP version according to the gpi rule book for end-to-end flow including HVPS (including extended remittance information)
	101 relay	pain.001	<p><b><u>Migrate of relay functionality for MT 101 to PAIN.001</u></b></p> <p>(banks serving as concentrator by relaying the corporate customer payments instructions (MT101) and related Cat 9 messages to/from the account holders of these customers)            Same as for the MT 103 apply to the MT 101</p>	Migrate to pain.001	Market practice for Relay functionality should be consistent with the market practice for the PAIN.001 in the Corporate to Bank market
	NA	acmt.024 acmt.022	<p><b><u>Account Management</u></b></p> <p>Message is in use in specific communities to validate account's details or advice on account's details changes related to direct debits</p>	Implement (a) new message(s) on an optional basis	Potential future market practice in case opportunity is validated/ implemented
	NA	remt.001 remt.002	<p><b><u>Support extended remittance information</u></b></p> <p><b>1) By default extended information supported in pac.008 by all banks for all correspondent banking payments legs:</b>            There will not be any "remit" version of the pac.008 in the interbank space.</p> <p><b>2) remt. messages supported for the payment legs through HVPS only supporting 140 char.</b>            Need to support standalone remittance information exchange when length of remittance information is limited by the domestic practice to avoid data loss and support automated reconciliation for Beneficiary.            Proposal: when a correspondent banking payment reaches MI that only supports 140 char., the extended remittance information is exchanged between MI participants using remittance messages.</p>	Implement (a) remt.001 & 002 message(s) on an optional basis for this purpose.	Local Market Practices dependant on HVPS would be implemented following HVPS+ market practice recommendations.

Process	MT	ISO 20022	Key migration drivers	Proposal	Market practice requirements
	NA	pain.013 pain.014	<b><u>Request for Payment</u></b> - Support of "Request for Payment" between two corporates for International Payments would be best supported through the adoption of PACS.008 for correspondent banking	Related to C2B	NA
	102, 102 STP	pacs.008	<b><u>Customer Credit transfer (Bulk)</u></b> - No driver for such functionality and no current usage in correspondent banking	No support of functionality in ISO 20022 message	Include in Correspondent Banking market practice: proposal to limit usage to 1 occurrence/payment to best enable for translation, tracking. See separate question on bulk/ remittances question in gpi opportunities
	202 COV	pacs.009	<b><u>Migration for COVER payment - MT 202 COV</u></b> - The COVER is directly related to the underlying MT 103. and is used mainly to - achieve same day value of the payment and to ensure that the full amount is paid to the Beneficiary. Globally 8% of Credit Transfers on average (sent in the correspondent banking space) settle through the Cover method but this percentage is much higher for some currencies ( USD= 11%, JPY= 17%, HKD= 15%, CHF= 13%),	Migrate the COVER to pacs.009 together with MT103 to pacs.008 (according to the same timeline on a mandatory basis).	there is a need for a tight market practice and usage guidelines with MVAL messaging validation following the same approach as for the MT 103 (BP1 and BP2)
Direct Debit	104, 107	pacs.003	<b><u>Direct Debit</u></b> - There is a very limited usage in correspondent banking . - MT 104 is not fit for purpose for the traditional use cases, for example it cannot handle multiple creditors. These payments type are also mostly processed through ACHs through domestic/ proprietary formats	Do not migrate this functionality	
Financial Institution Credit Transfer	202	pacs.009	<b><u>Migration for Financial Institutions Credit Transfers - MT 202, MT 200</u></b> - Improved support of references related to the underlying transaction. - Enhance the value proposition of gpi gFIT service (to be developed) for support real-time liquidity and reconciliation through tracking and business rules.	Migrate these messages to pacs.009 together with MT 103 and MT 202 COV	There is a need for market practice and usage guidelines with MVAL messaging validation for correspondent banking (including specifications to support FX and securities transactions settlement).  We also propose to limit usage to 1 occurrence/payment for these standard version to best enable for translation and tracking.
Financial Institution Transfer for its Own Account	200	pacs.009	<b><u>Financial Institution Transfer for its own account</u></b> No driver for a dedicated message and no usage - functionality is part of MT 202		NA - same as MT 202
Multiple Financial Institution Transfer for its Own Account	201	pacs.009	<b><u>Multiple Financial Institution Transfer for its own account</u></b> No driver for such functionality and no usage in correspondent banking. No support of this functionality for CB in PACS.009 since no usage by community of users.	No support of this functionality for this ISO message	Include in CB gFIT market practice: proposal to limit usage to 1 occurrence/payment to best enable for translation, tracking.

Process	MT	ISO 20022	Key migration drivers	Proposal	Market practice requirements
Multiple General Financial Institution Transfer	203	pacs.009	<b>Multiple General Financial Institution Transfer</b> No driver since for such functionality and no usage in correspondent banking. No support of this functionality for CB in PACS.009 since no usage by community of users.	No support of this functionality for this ISO message	
Direct Debit	204	pacs.010	<b>Direct debit</b> Most of existing traffic in the interbank space is related to margin calls for which purpose they are fit. Volumes are small but these are critical transactions.	Migrate to pacs.008	NA
FIToFIPaymentStatusRequest	NA	pacs.028	No driver for such message in the correspondent banking	No support of this functionality	NA
FIToFIPaymentStatusReport	NA	pacs.002	<b>Payment status - Migration from MT199/ 299 to standard API based on ISO.20022 for gpi Tracker confirmations and updates</b> Current messages used in support of the end-to-end tracking (MT199 & 299) are not fit for purpose. In addition 20% of gpi implementations are already done with API's relying on PACS.002 structure and status codes.	Migrate to pacs..002 for the status report and to pacs.028 for the status request	There is a need for a tight market practice based on current implementation in correspondent banking for the Tracker.
FIToFICancellationRequest	192, 292, 993, 992	camt.056	<b>Migration of Payment cancellation from MT 192/ 292/ 199/ 299 &amp; response 196/ 296/ 199/ 299</b>	Migrate to camt.056 for the request and to camt.029 for the response	There is a need for a Market Practice for correspondent Banking and to align with the Market Practice established for gpi Stop and Recall service for gpi banks. This means that there is a need to align the camt.056 practice for the cancellation request with current practice established for MT192 and MT 199 for Stop & Recall and align the practice for camt.029 for the cancellation response with the market practice established for MT 196 and MT 199.
Cancellation Response	196, 296, 199, 299	camt.029	- New gpi "Stop & Recall" service with tracker delivery to the payment holder and response to the requestor already solve the issues related to the lack of market practice for cancellation and of low "success rate" due to the need to relay such request through the whole payment chain. Since this solution will reduce the related operational costs and risk it is assumed that it will become the new normal for correspondent banking. - Need to move to an ISO 20022 structure for the cancellation process to align with the underlying payments messages (independent from the cancellation method used: through Stop & recall service or through usual serial mechanism).		
Payment Reject/ Return	103, 202, 202COV...with RJCT code	pacs.004	<b>Migration of payment Reject/ Return from MT 103/ 202/ 202 COV (field 72) or n99</b> Solve the issue related to the lack of business practice leading to non STP reconciliation on both bank's and customer's sides especially for the return of payments. With a dedicated reject/return message gpi Tracker will be able to extend end-to-end tracking and full transparency to these flows.	Migrate to pacs.004	There is a need for a tight market practice for gpi with a short list of standard reason codes complementing the Stop & Recall service.
Payment Reversal	NA	pacs.007	<b>Payment Reversal</b> No driver for such functionality for correspondent banking.	No support of this ISO 20022message	NA
Advice of Charges	190, 290, 990	camt.054	<b>Charges process</b> - Need to change/ rationalise process to decrease cost of	Migrate to camt.086 changing its scope to cover interbank charges	There is a need for a Market practice for correspondent banking

Process	MT	ISO 20022	Key migration drivers	Proposal	Market practice requirements
Advice of Charges + other items	190, 290, 990	camt.076	International payment by supporting claims process automation. - One message type can be used across payments types which combined with a tight market practice should already help improve operational efficiency.		
Advice of Charges + other items		camt.077			
Advice of Charges+ other items	190, 290, 990	camt.086			
Request for Payment of Charges	191,291,991	None available		No support of this ISO 20022message	NA
Queries	195, 295,995 - slash codes	camt.026 to camt.039, camt.087	<u>Exceptions and Investigations</u> Need to change/rationalise process to decrease cost, support shorter turnaround time for enquiries related to payments. Dedicated messages used for the three to four main types of enquiries instead of either proprietary messages or numerous slash codes (as provided in n95 and n96 messages) combined with a tight market practice should already help improve operational efficiency.	Migrate to dedicated camt messages (list to be defined for correspondent banking)	There is a need for a Market practice to be defined for correspondent banking across payments types.
Responses	196, 296, 996- slash codes				
Confirmation of debit	900	camt.054	<u>Cash/ liquidity &amp; reconciliation reporting</u> - Support compliance with new regulatory framework / enhanced real-time liquidity management: enhanced quality of data (more structured, granular) related to underlying transaction reference, granular date/time information, bank transaction code, balance types - Support implementation of new technology	Migrate	There is a need to define a tight market practice for correspondent banking with MVAL messaging validation in line with the Intraday Liquidity Reporting (IDL) practice developed with the Liquidity Implementation Task Force (LITF) and endorsed by the PMPG.
Confirmation of credit	910	camt.054			
Customer Statement/ Statement Message	940, 950	camt.053			
Balance Report	941	camt.052			
Interim Transaction report	942	camt.052			
Request Message	920	camt.060	<u>Request message</u> No support for such functionality for correspondent banking since "pull" mode would be heavy to support for Account Servicers. Proposal to support only push mode.	No support of this ISO 20022 message	NA

Process	MT	ISO 20022	Key migration drivers	Proposal	Market practice requirements
Notice to Receive (Notification from account owner to account servicer)	210	camt.057	<b><u>Notice to receive</u></b> No large usage in correspondent banking. However this is important to support liquidity forecasting process.	To validate whether there is a need to migrate (and implement new messages) or to support this function differently	If support of the message there is a need for business practice
NotificationToReceiveCancellationAdvice	No equivalent	camt.058	The question is therefore whether the message as such provides the required functionality or not and in that case, is there a need to enhance or do something different.		
NotificationToReceiveStatusReport	No Equivalent	camt.059			
Free format messages	199, 299		<b><u>Free format messages - MT 199/ MT 299</u></b> In most of the cases these messages are used in relation to enquiries instead of the dedicated message types . Issues related to the current FIN enquiries messages (MT195, 196, MT 295, 296) will be solved with the adoption of the dedicated ISO 20022 messages.	No support of this functionality in ISO 20022	

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## 7.6 Annex 6: Potential processes to rethink

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### ISO 20022 Messages Issues or gaps in the existing payments and/ or reporting processes

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pacs.008	<b>Bulk, low value retail payments (remittances, pension payments, salaries, e-commerce payments)</b> <p>Current direct bulk payments services to ACH provide a very cost effective communication for banks. They do however raise a number of issues increasing the related operational costs and leading to a poor customer experience. This puts additional competitive pressure on banks.</p> <p>Key issues are as follows:</p> <ol style="list-style-type: none"><li>1) Current services do not provide central message validation including on the beneficiary routing codes which leads to a high rate of repairs and exceptions.</li><li>2) Beneficiary's bank has no transparency on ordering parties details thereby preventing due diligence on compliance checks</li><li>3) Many ACHs have restricted the length of remittance information which is leads to data loss and reconciliation issues on the receiving side.</li></ol>
pacs. 008 remt. 001 - remt.002	<b>Payment remittance information</b> <ul style="list-style-type: none"><li>- FIN MT 103 limits ability to convey remittance information to 140 characters and even the 9000 characters in the MT 103 REMIT might not be sufficient. In addition, since it is only implemented on a subscription basis it increases the complexity of the process.</li><li>- Data loss resulting from the truncation of payments remittance information prevents clients from automatically reconciling payments with related invoices- Loss of remittance data also prevents banks along the payment chain from meeting their regulatory requirements (banks need to check data along the payment chain).</li><li>- Most banks prefer to be able to transport remittance information in the payment instruction since it is easier to screen it. SWIFT's market practice for pacs.008 message for correspondent banking will support the exchange of rich remittance information. However in some countries RTGS systems have limited the remittance information length which could lead to a loss of the remittance data end-to-end and to the above mentioned issues. Also, key MIs with plans to move to ISO 20022 do not plan to implement support for more than 140 characters (c.f. HVPS+ group specifications) thus breaking the end- to- end delivery chain for extended remittance information.</li></ul>
pacs.008	<b>Straight-through-processing for payments</b> <ul style="list-style-type: none"><li>- Missing or incorrect payment data leads to expensive repair/ investigation processes that are resource intensive for the banks in the payment flow. Operational cost per transaction for international payments continues to average well above \$20. Back-offices costs for international payments will therefore need to drop by 90% to 95% to enable for banks to remain competitive<sup>10</sup></li><li>- 58% of consulted corporates spend too much time on manual research to correct data errors. Although 86% of corporates select "efficient payment processes &amp; effective customer support" as key aspect to select a bank for cross-border payments, 69% of banks struggle to reduce the cost of gathering and maintaining accurate counterparty information. Beyond an improved business practice for payments implemented with gpi there is also a need to improve payment STP at the initiation of the payment. Finally some errors such as wrong beneficiary account details can only be prevented through an enquiry which may be very lengthy and expensive process if done through existing E&amp;I processes.</li></ul>
pacs.008	<b>Instant payments</b> <p>There is an overall demand for a faster way to reach cross-border beneficiaries in near real time, leveraging the user experience brought by instant payments domestically in some countries (targeting ubiquity, simplicity, transparency, instantaneity and data rich experience).</p> <p>There is therefore a risk for banks of losing market share versus incumbents in the retail (low value) payments market but also in the B2B segment where more and more corporate treasurers expect the same experience for international B2B payments as for retail domestic payments.</p>

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<sup>10</sup> Source: Mc Kinsey: Global Payments, 2016

camt.086 **Interbank charge back process**

- The current claims process (generation, processing, settlement, reconciliation) to settle correspondent banking charges is cumbersome and inefficient and thus contributes to the high cost of cross-border payments. This process would represent 27% of the total cost of an International payment<sup>11</sup>
  - Pre-payment of transaction charges is not a systematic market practice : e.g. for cases where the charges may not be known in advance (cover payment case or when settling through a payments market infrastructure such as TARGET2)
  - Multiple bilateral fee arrangements may be in place and require complex management.
- New regulatory frameworks such as PSD2 are aiming for more transparency and supporting the adoption of the "shared" fees forbidding Benededuct. However it is still early days since it only applies to payments within the EEA zone in an EEA currency and it may be interpreted or implemented differently by the impacted banks. As an example PSD2 does not explain the behavior to be put in place by the Beneficiary's bank, when received payments are not compliant with the regulation.

gpi consultation done in 2016 indicates that there is a strong will to standardise and streamline the interbank claims process. Further consultation with SWIFT's user community seems to indicate an interest to leverage the gpi Tracker to support management of the charge back process.

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camt.026 to camt.039, camt.087 **Exception and investigation management**

On average between 1 and 4% of payments lead to an enquiry. It is a highly manual and cumbersome process since free format messages are being used and enquiries have to be relayed to the enquired bank by all intermediary banks in the payment chain which increases the resolution time and adds no value. Exceptions and investigations are a multiplier of the overall international payment cost. In addition there is also a "blackhole" issue for the customer or the initiating bank (the sender of a query has no idea of the status of its request) since no interim status is provided and long turnaround times lead to low customer satisfaction, high compensation costs and potential reputational risk.

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pain.013 & pain. 014 - corporate to bank **Request for payment**

- Late generation of payments leads to customer's investigations such as claims of non-receipt hereby increasing operational costs.
- " Request for payment" generated by creditor with submission of details can streamline and expedite payments process on debtor side. Such requests are being used but are often received by email and other unsecured channels that are not integrated with payables flows and are subject to fraud (phishing).
- This payment method has been implemented domestically in several countries providing customers with more control and visibility over timings of some payments and eliminating the burden of chasing late payments. It is also often proposed or implemented as an overlay service to instant payment systems
- These benefits could be extended to cross-border business by the implementation of a global service and market practice.

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<sup>11</sup> Source: Mc Kinsey, Global Payments, 2016

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