



# ISO 20022 Harmonisation Best Practice

*April 2016*



# Background

## Emergence of ISO 20022

ISO 20022 is emerging as the default messaging standard for financial market infrastructures<sup>1</sup> (FMI) around the world, for both securities and payments businesses, and for domestic and cross-border transactions (for instance, SEPA transactions).

FMI's adoption of ISO 20022 messaging stands in contrast with bank-to-bank and correspondent banking businesses, which predominantly use the SWIFT MT/FIN standard.

## Annual Message Maintenance

The SWIFT MT/FIN-based business involves many players exchanging messages with many others, and for this to work it is necessary that all stakeholders use the same version of each message and upgrade message versions at the same time. From the outset, the evolution of SWIFT MT/FIN standard has been tightly controlled, with a rigid annual maintenance process culminating in a "cutover" every November to a new version, reinforced by automatic validation of the messages to the new message standard, as they are carried over the network.

ISO 20022 messages are also subject to annual maintenance<sup>2</sup> but unlike SWIFT MT/FIN there is currently no enforced cutover to the latest version. This is largely a consequence of the many-to-one nature of the FMI business, where each FMI has been free to choose, with its community, which version, or versions, of a message to deploy, and when to switch over to a newer version.

In addition, FMIs are free to impose whatever market practice rules work for their business or local needs on their chosen message versions.

Differences in the implementation of message versions or market practice between FMIs in the same business domain may be necessitated by their individual circumstances, for example local regulatory or tax regimes, but in many cases they are simply accidental - a result of independent groups specifying different ways of using the standard to achieve the same result. For SWIFT MT/FIN messages there are mechanisms that counteract the emergence of accidental differences, both formal, such as the work of the Securities Market Practice Group (SMPG), and informal - the natural tendency to converge on common practice for messages used in many-to-many business, as seen in the payments space.

## Threat of Fragmentation

As ISO 20022 implementations proliferate, the variability in the ways in which the standard is deployed, in terms of message versions, market practice rules and release cycles, threatens to undermine its value as a means to reduce industry cost and operational risk and enable interoperability.

SWIFT Standards has received a strong call from the community to address this problem at an industry level.

The paper describes the initiative that SWIFT has undertaken with the industry, which brings consistency to the rollout of ISO 20022 in a way that benefits the user community without sacrificing necessary flexibility for FMIs. The end-goal is to create a common framework that helps FMIs and their communities adopt and use the standard in a cost-effective, timely and consistent way.

<sup>1</sup> Such as RTGS systems or Central Securities Depositories (CSDs)

<sup>2</sup> See [www.iso20022.org/maintenance.page](http://www.iso20022.org/maintenance.page)

# ISO 20022 Harmonisation Framework Overview

## Need for Coordinated Action

By its nature, the challenge posed by potential fragmentation cannot be addressed piecemeal: a co-ordinated action at an industry-level is required. This involves several different stakeholders, all of which play a different and important role, see table below.

## SWIFT's Role in Harmonisation

Within the wider context, SWIFT already supports ISO 20022 across a number of areas. SWIFT:

- is the formal Registration Authority for ISO 20022, and oversees the financial repository and safeguards the quality of the standard;
- advises communities on global and local market practice;
- has submitted or co-submitted more than half of all ISO 20022 messages;
- supports FMIs and their communities through its rich expertise and knowledge.

To help support ISO 20022 harmonisation, SWIFT acts as coordinator across all of the players. It brings FMIs and other stakeholders together in dialogue, provides a common framework and also provides a common, centralised technology platform<sup>3</sup> to facilitate harmonisation for the benefit of the wider community.

In 2015, in close cooperation with several FMIs in the process of deploying ISO 20022 in their communities, SWIFT launched the “**ISO 20022 Harmonisation Charter**”, a formal document that sets out key harmonisation best practice principles.

The Charter has been publically endorsed by numerous major FMIs<sup>4</sup>.

Stakeholder involved in the Harmonisation framework discussion	Role
Regulatory Authority	Define the use of ISO 20022 in the provision of key services, e.g. SEPA legislation, which mandates ISO 20022.
Financial Market Infrastructure (FMI), e.g. RTGS, CSD	Define the specifications of each ISO 20022 service that they implement, typically in collaboration with global and/or local market practice groups. Determine the details of the implementation of ISO 20022 for themselves and their participants. Participate in global market practice initiatives, to ensure it is as complete and representative as possible.
Financial Institution, e.g. bank or other commercial player	Implement ISO 20022 according to the specifications of each FMI service in which they participate.
Global Market Practice Group	Define global market practice for a particular business domain, such as high-value payments.
Local Market Practice Group	Define market practice at the level of a specific market, region or country.
Registration Authority (RA)	Publish and maintain ISO 20022 message definitions and registered variants, and ensure quality criteria are met.
Registration Management Group (RMG) and Standards Evaluation Groups (SEGs)	Ensure that developed ISO 20022 messages and variants meet a true business need in the market, and are fit for purpose.

<sup>3</sup> MyStandards, see [www.mystandards.swift.com](http://www.mystandards.swift.com)

<sup>4</sup> See [www.swift.com/standards/iso-20022-harmonisation-programme-0](http://www.swift.com/standards/iso-20022-harmonisation-programme-0)

## ISO 20022 Harmonisation Best Practices

The ISO 20022 Harmonisation Charter sets out three harmonisation best practice principles.

### ISO 20022 Harmonisation Best Practice Principles

- 1. Share information** between FMIs about ISO 20022 usage. FMIs publish information concerning their ISO 20022 implementation on the central MyStandards tool. At a minimum this includes the message versions used by the service.
- 2. Adhere to global market practice** where it exists, and contribute to new global market practice initiatives. SWIFT Standards works with market practice groups that include participants from FMIs and their communities to define global market practice and publish it on MyStandards. FMIs declare any global market practice to which they adhere, with additional market- or feature-specific guidance as required by their communities.
- 3. Introduce stricter message version control and release management** process and timing. FMIs are encouraged to publish a timetable for message standard upgrades that aligns where possible with the MT maintenance process timeline, and to stay up-to-date with message versions.

The following sections examine each of the three best practice principles more closely, and consider the implications and benefits for stakeholders.

“As ISO 20022 implementations proliferate globally, variability in the ways in which ISO 20022 is deployed, threatens to undermine its value as a means to reduce cost and risk and enable interoperability. The challenge posed by this fragmentation cannot be addressed piecemeal; only co-ordinated action at an industry level can provide a solution.”

Patrik Neutjens, ISO 20022 Programme Director, SWIFT



## Best Practice #1 – Share Information

Currently, all SWIFT-connected institutions adhere to a rigid process for maintaining or upgrading the SWIFT MT/FIN message standard, which operates to a fixed, and universally adopted, timetable.

The steps highlighted in grey are those where information is made available to the community to facilitate any necessary development - from the July release of high level information which firms can use for setting necessary budgets, to the December and February release of detailed specifications which firms use to drive software development and testing.

This SWIFT MT/FIN maintenance process ensures that all stakeholders know when the information will be available. In addition, the information is always presented in a consistent format, including English documentation for analysts and machine-readable components for developers.

For ISO20022, with the ultimate aim of adopting the same timetable as SWIFT MT/FIN, the first harmonisation principle is to **share information**, and provide a similar level of predictable, consistent, accurate and timely information and specifications for developers and implementers of the standard.

To enable this information sharing, SWIFT's MyStandards platform is a centralised, collaborative web platform that enables firms to manage standards specifications and understand market practice. It provides a dedicated page that allows the FMI to define the steps and timeline for publication of specification information, which may include: base ISO20022 message specifications; global market practice usage guidelines and/or FMI-specific usage guidelines; availability of testing facilities and timing of live operation for each service. See page 8 for a MyStandards screenshot of an MI portal page. In all cases the information is published in a consistent, high-quality format, including online and downloadable views suitable for analysts and developers.

Year	Month	Activity
Year prior to 20xx	June	Submission deadline for submitting Change Requests for 20xx
	July	High-level information published
	August	Maintenance Working Group meetings
	September	Ratification by the SWIFT Board
	October	SWIFT community undertakes country vote
	November	Updated high-level information published
	December	Preliminary Standards Release Guide (SRG) for 20xx published on <a href="http://www.swift.com">www.swift.com</a> and MyStandards
20xx	February	Final SRG 20xx published on <a href="http://www.swift.com">www.swift.com</a> and MyStandards
	July	Standards Release (SR) 20xx MT/FIN messages available for testing
	November	Standards Release (SR) 20xx MT/FIN messages live on SWIFT

In addition, to ensure that all data is collected and is visible in one place, MyStandards provides a detailed overview of ISO20022 usage, globally. This lists the business usage by the FMI, the dominant versions and the market practice implemented.

For firms, the common timetable, platform and consistent format would reduce the learning curve, allows easy consumption and allows straightforward comparison between FMIs, thereby enabling a more efficient impact analysis and better effort estimation for internal IT system changes required.

## Best Practice #2 – Adhere to Market Practice

Global market practice formally defines the way ISO 20022 messages should be used in a particular business context.

As ISO 20022 was designed from the outset to be flexible, without global market practice, this flexibility can result in fragmentation and complexity, see example.

### Example of Usage Fragmentation / Complexity - Corporate Action Notifications

The Corporate Action Notification 'seev.031' message is currently used by many markets, with varying versions<sup>5</sup>:

- EVK Estonia **seev.031.001.01**
- MKK Turkey **seev.031.001.01**
- KDPW Poland **seev.031.001.03**
- NBB Belgium **seev.031.001.03**
- TSE Japan **seev.031.001.04**
- SGX Singapore **seev.031.001.05**
- ASX Australia **seev.031.002.04**
- DTCC US **seev.031.002.05**
- IDX Indonesia **seev.031.002.05**

The implementation complexity of ISO 20022 can be substantially reduced by formally defining the subset and specific fields of the message that are required to support each business use-case or business function. Overall complexity can be still further reduced if all global instances of the same business use the same subset. This is the aim of **global market practice**.

### Aim of Global Market Practice

The aim of Global Market Practice is to define a common baseline for each business use-case. This can be extended to accommodate local requirements as necessary, but requires that, wherever possible, when FMIs implement the same functionality, they do it the same way



### Market Practice Evaluation

Size of 'Bubble' = Indicative Number of Systems

Degree of Similarity Between FMIs

Creating global market practice is a major effort. It requires active participation and cooperation from FMIs and their respective communities, and active facilitation from standards organisations.

Given the scale of this effort, it is important to focus on the business areas where investment in global market practice will provide the best return. Global market practice is most effective where there is a large number of FMIs implementing the same business use-case and where the global participation is high.

Where these two conditions are met and there are many global institutions exposed to multiple implementations of the same business use-case, for example RTGS High Value Payments, then the 'value' of harmonised market practice is high. Under these conditions, the effort that would be undertaken by participating firms to connect and integrate similar services from different FMIs is more manageable, as each FMI adheres to the same market practice.

The graphic above illustrates the ISO 20022 harmonisation initiative's criteria for 'valuing' global market practice, which plots the degree of similarity between FMIs for the same business use-case against the degree of international participation, and overlays the population size.

Note that 'FX / Foreign Exchange' is a special case, as CLS is, broadly, the only FMI present, and already represents the *de facto* market practice.

The Charter calls on FMIs to actively participate in global market practice initiatives, to ensure that global market practice is as complete and representative as possible.

For its part, SWIFT is focusing its efforts in the top right hand segment of the graphic. In collaboration with the Payments Market Practice Group (PMPG), SMPG (Securities Market Practice Group), RTPG (Real Time Payments Group), as well as other market practice organisations, SWIFT is sponsoring and/or contributing to market practice initiatives on RTGS, securities settlement and real-time payments.

<sup>5</sup> Source: <http://www.iso20022.org/adoption.page>

Accordingly, SWIFT publishes both the formal market practice specifications and documentation, and also publishes the FMI's market practice 'adherence declaration', on MyStandards.

The graphic below shows a MyStandards screenshot of an MI portal page. On this page, the ISO 20022 demo MI clearly declares its adherence to the 'PMPG High Value Payments' global market practice and the ISO 20022 messages they are using. By clicking on the link "PMPG High Value Payments", the user can access to the list of all Usage Guidelines defined by the PMPG for the High Value Payments market practice.

**MyStandards**  
Standards made simple

Search the platform

Standards Releases Business Domains Groups

**High Value Payments**  
Publisher: ISO 20022 Demo MI  
Description: ISO 20022 messages for high value payments

**Releases**

Version: **Release 2**  
Published: 14-04-2016  
Live: 19-11-2016

Version: **Release 1** Live  
Published: 30-04-2015  
Live: 21-11-2015

Summary Usage Guidelines **Base Standards**

Adherence to Market Practice

- PMPG High Value Payments

This release uses messages based on the following standards.

Identifier	Name	Comment
camt.054.001.04	Bank To Customer Debit Credit Notification V04	
pacs.008.001.04	FI To FI Customer Credit Transfer V04	
pacs.009.001.04	Financial Institution Credit Transfer V04	
pacs.010.001.01	Financial Institution Direct Debit V01	

Search messages

**Business Area**

- camt
- pacs

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# Best Practice #3 – Introduce Release Management

As described earlier, SWIFT facilitates the annual maintenance process for the SWIFT MT/FIN standard, which ensures that all users operate on the same release of the standard at the same time. This consistency brings great interoperability benefits.

The aim of the ISO 20022 harmonisation initiative on release management is to bring an equivalent discipline to ISO 20022, without sacrificing the desirable flexibility of ISO 20022, and recognising that not all ISO 20022 implementations are deployed on the SWIFT network.

For the ISO 20022 message standard, the Harmonisation Charter sets out an equivalent release management discipline, by:

- Synchronising the timeline, and;
- Minimising the number of versions.

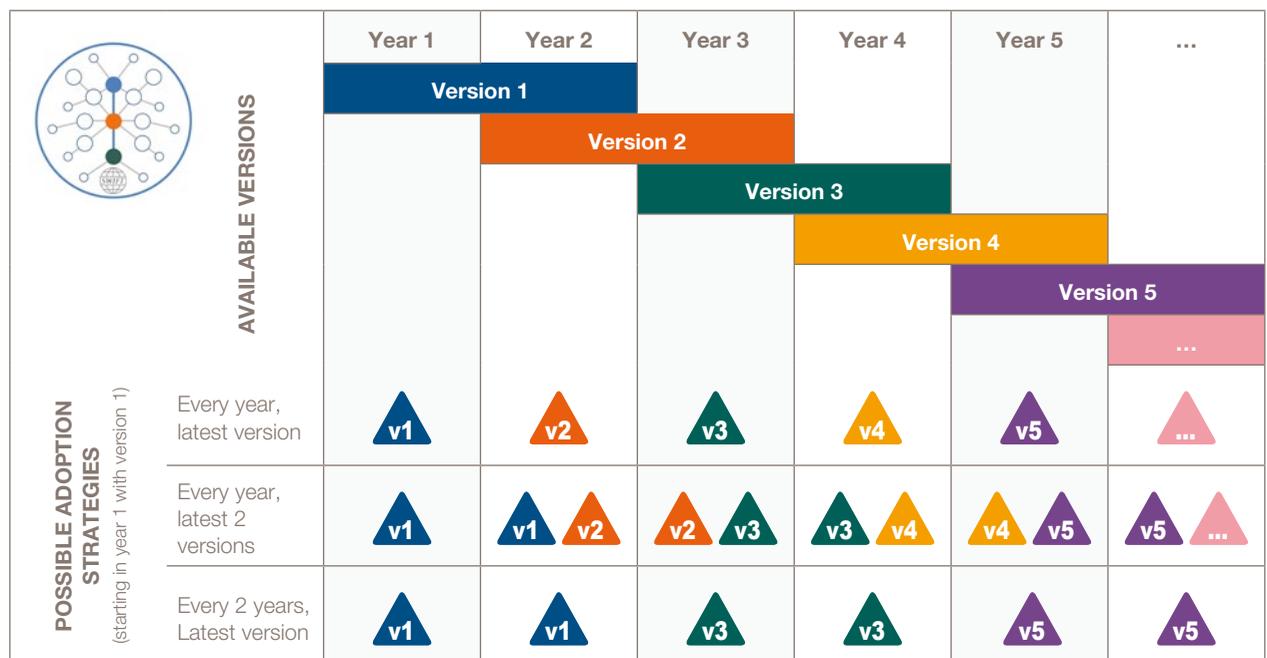
## Synchronising the Timeline

As noted, the timetable for the SWIFT MT/FIN maintenance process starts with budgeting in July, implementation in the first half of the following year, followed by testing and live operation in the second half. If the maintenance process for ISO 20022 synchronises with the same cycle, this optimises resource allocation and planning for participating organisations. See page 6.

## Minimising the Number of Versions

A reduction in the number of versions of a particular message that are in simultaneous use for a particular service, across several FMIs, reduces the variability for participating organisations. Accordingly, less version variability limits the system implementation burden and reduces operational risk.

The graphic below shows how version management can be simplified and adapted to different FMI adoption strategies.



# Industry Benefits

A harmonised global framework for adoption and usage of ISO 20022 messaging brings substantial benefits and cost-savings to the financial industry, to FIMs, their communities and individual financial institutions.

The sharing of information on ISO 20022 services provided by FIMs, the setting of a common global market practice for each business area, and the establishment of release management discipline ensure a consistent, aligned and efficient approach for FIMs when implementing the standard.

Accordingly, a synchronised maintenance process is predictable and manageable, reducing the time and effort of ISO 20022 adoption - both for the initial implementation and for the subsequent ongoing maintenance.

In addition, when an FIM offers its ISO 20022 service on the SWIFT network and aligns with the recommendations, the FIM and the community both enjoy the additional benefit that SWIFT undertakes all of the provisioning and cutover of the messages for the service.

As a result, predictability and repeatability of the tools, application development processes, infrastructure and interfaces and expertise drives efficiency and scale, and also drives the reduction of costs and the reduction of operational risks.

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**“From the global banking perspective, this is a great collaborative initiative that will benefit all Financial Institutions and Market Infrastructures longer term. By taking a standardised global approach to ISO 20022 implementation, the industry as a whole will be in a much better place to manage and lower costs, ensure efficient implementation, and most importantly, keep the focus where it should be – serving our customers.”**

Marcus Sehr, Global Head Institutional Cash - Deutsche Bank

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## Conclusion

Harmonisation is essential if ISO 20022 is to fulfil its potential to foster interoperability and reduce cost and risk for the financial industry.

Providing FIMs and their communities with a structured and disciplined environment, where best practice can be implemented and ISO 20022 can be adopted in a timely and cost-effective fashion, is a necessary condition for reducing the overall operational risk, saving costs and enabling scale.

SWIFT is committed to its coordinating role and to building the coalition of FIMs and their participants that will be necessary to ensure the initiative's success.

*If you would like more information, please visit the ISO 20022*

*Harmonisation home page:*

[www.swift.com/standards/iso-20022-harmonisation-programme-0](http://www.swift.com/standards/iso-20022-harmonisation-programme-0)

*or contact the co-ordinator at SWIFT:*

[patrik.neutjens@swift.com](mailto:patrik.neutjens@swift.com)



## Legal notices

### About SWIFT

SWIFT is a global member-owned cooperative and the world's leading provider of secure financial messaging services.

We provide our community with a platform for messaging, standards for communicating and we offer products and services to facilitate access and integration; identification, analysis and financial crime compliance.

Our messaging platform, products and services connect more than 11,000 banking and securities organisations, market infrastructures and corporate customers in more than 200 countries and territories, enabling them to communicate securely and exchange standardised financial messages in a reliable way.

As their trusted provider, we facilitate global and local financial flows, support trade and commerce all around the world; we relentlessly pursue operational excellence and continually seek ways to lower costs, reduce risks and eliminate operational inefficiencies.

Headquartered in Belgium, SWIFT's international governance and oversight reinforces the neutral, global character of its cooperative structure. SWIFT's global office network ensures an active presence in all the major financial centres.

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