

## Harmonisation of ISO 20022: partnering with industry for faster, cheaper, and more transparent cross-border payments<sup>1</sup>

- *With most of the world's payment systems adopting the ISO 20022 messaging standard by 2025, the coming years will be a crucial period for converging on a harmonised use of ISO 20022 to fully leverage its potential for making cross-border payments faster, cheaper, and more transparent.*
- *This article provides an update on a workstream of the G20 cross-border payments programme focused on the harmonisation of ISO 20022 for enhancing cross-border payments. The work is being driven by the Bank for International Settlements' Committee on Payments and Market Infrastructures (CPMI). The article includes highlights from a stocktake survey of global ISO 20022 adoption by payment system operators.*
- *Also provided is an update on the CPMI's work, through a joint task force with industry specialists from the Payments Market Practice Group (PMPG), on developing requirements for a harmonised use of ISO 20022 for cross-border payments. These requirements would come into effect in 2025 when SWIFT will discontinue its support of the current MT standard for cross-border payments.*

### Part A – Background: An opportunity for greater interoperability

**In October 2020, the G20 endorsed a roadmap to enhance cross-border payments**, developed by the Financial Stability Board (FSB) in coordination with the CPMI and other relevant international organisations and standard-setting bodies. The G20 cross-border payments programme aims to address long-standing challenges in the cross-border payments market, including high costs, low speed, limited access, and insufficient transparency. This programme comprises the necessary elements of a globally coordinated response in the form of a set of 19 building blocks (BBs), based on a CPMI report to the G20.

**The fragmentation of payment messaging standards across the globe has been a major factor for high cost, slow speed, and a lack of transparency in cross-border payments.** As payment systems employed a wide range of proprietary messaging standards for domestic payments, the SWIFT MT messaging standard has historically supported interoperability of payment instructions globally for purposes of cross-border payments.<sup>2</sup> However, a cross-border payment would need to be translated between these proprietary formats and the SWIFT MT messaging standard. Such translations could sometimes lead to data truncation and fragmentation, which can lead to delays in the processing of cross-

<sup>1</sup> This article reflects the contributions of a workstream ("BB 14") convened by the CPMI under the G20 cross-border payments programme and chaired by Michele Bullock of the Reserve Bank of Australia. A joint CPMI-SWIFT Payments Market Practice Group (PMPG) task force developed the preliminary recommendations on the standardised message and data model described in this article. The joint task force is led by Frank Van Driessche of the Federal Reserve Bank of New York.

<sup>2</sup> Interoperability is the technical, semantic or business system compatibility that enables a system or mechanism to be used in conjunction with other systems or mechanisms. Interoperability allows participants in different systems to clear and settle payments or financial transactions across systems without participating in multiple systems. See CPMI Glossary and C Boar, S Claessens, A Kosse, R Leckow, T Rice (2021): Interoperability between payment systems across borders, BIS Bulletin No 49, December.

border payments. Furthermore, the MT messaging standard is less structured than ISO 20022 and more open to proprietary bilateral agreements which can result in more manual processing.

**The adoption of the ISO 20022 message standard by many payment systems is an opportunity to promote greater interoperability of messaging standards to enhance cross-border payments.** ISO 20022 is an open messaging standard with enhanced capacity for information exchange in contrast to proprietary formats. It offers richer, more detailed, and more structured data to be carried in payment messages end-to-end. This will enhance straight-through-processing (STP), and help to make cross-border payments cheaper, faster, and more transparent. In light of its potential, many newer payment systems (such as most fast payment systems, FPS) already process ISO 20022 messages. Moreover, many others will be migrating from their proprietary standards to ISO 20022 by 2025, when SWIFT has indicated it will stop supporting the MT messaging standard for cross-border payment messages. This will mark the end of a co-existence period (2022-25) between the MT standard and ISO 20022 for cross-border payments.

**However, variability in the ways in which the ISO 20022 messaging standard is deployed across the globe may undercut some of the potential benefits of ISO 20022 for cross-border payments.** Many of the inefficiencies with cross-border payments that the financial industry and customers face are caused by misaligned message flows and inconsistent data usage along the end-to-end payment chain. This can stem from differences in message versions, market practice rules and business or payment models adopted by each jurisdiction and reflected in local ISO 20022 implementation guidelines. For example, requirements for the population of certain fields such as name and address and the use of identifiers can vary quite considerably between jurisdictions. Industry agreement on a set of ISO 20022 messages that are core to cross-border payments, in combination with a well-defined data model (ie a set of expectations on how specific data elements of a financial message are to be used for a cross-border payment), can therefore lead to improvements in the efficiency, cost, speed, and transparency of cross-border payments.

**The G20 programme includes a building block (BB 14) that has tasked the CPMI to work with industry to facilitate a harmonised adoption of ISO 20022 for cross-border payments.** In particular, the Roadmap tasks the CPMI to work with relevant stakeholders including the developers of the HVPS+ and CBPR+ message usage guidelines. A joint task force, comprised of messaging specialists from the CPMI and industry specialists from the Payments Market Practice Group (PMPG), has been working on developing harmonisation requirements since early 2022.

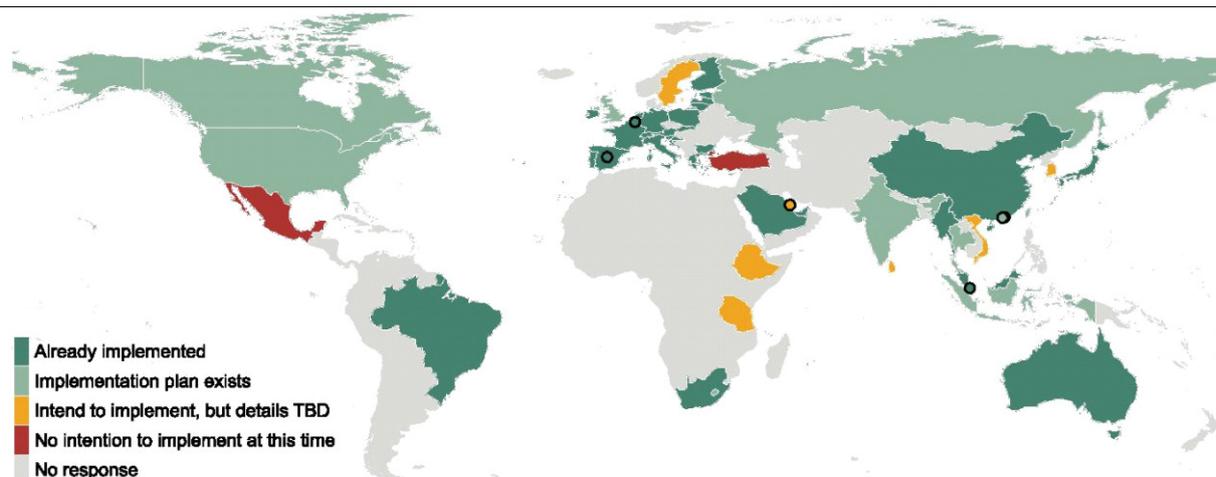
## Part B – Payment systems' adoption of ISO 20022 for cross-border payments: survey results

### Background and adoption patterns: a large-scale migration to ISO 20022

**In late 2021, the CPMI conducted a survey of payment system operators around the world to better understand their current and future plans regarding ISO 20022 implementation.** The survey responses are an important input into the development of the adoption strategy for harmonized ISO 20022 requirements. The responses received were based on current plans and do not take into account any enhancements proposed by the international work that is currently underway (including the G20 Roadmap). The survey sample consisted of 57 respondents, representing a diverse range of payment system types, jurisdictions (including several non-CPMI jurisdictions), and level of economic development. The main findings of the survey are presented in the following section.

**A strong majority of survey respondents (74%) have either implemented or have concrete plans to implement ISO 20022 by 2025, underscoring the near-term opportunity for standardisation.**

This includes all large-value payment systems of reserve currency jurisdictions. Moreover, nearly three-quarters of the remaining respondents stated they will potentially implement ISO 20022 after 2025. Only 7% of all respondents stated they have no plans at this stage to implement ISO 20022 for the



The large circles represent payment systems in Bahrain, Belgium, Hong Kong SAR, Macao SAR, Singapore and Spain.

The use of this map does not constitute, and should not be construed as constituting, an expression of a position by the BIS regarding the legal status of, or sovereignty of any territory or its authorities, to the delimitation of international frontiers and boundaries and/or to the name and designation of any territory, city or area.

Note: For jurisdictions that report more than one payment system, the country is coloured according to the payment system at the most advanced stage. For illustration purposes the status "Implementation plan exists" and "Intend to implement without plan" have been shortened. The original survey answer choices were "Plan to implement, with a target date already announced" and "Intend to implement, but no firm plans or target date announced".

Source: CPMI survey.

foreseeable future. The main reasons cited for not migrating to ISO 20022 messaging included technical considerations, insufficient resources to complete the work, lack of support from system participants and interoperability concerns.

**The most commonly cited reasons for ISO 20022 migration** included adoption in the context of new payment systems (eg fast payment systems) or payment system renewal programs, the need to ensure alignment with global industry standardisation efforts, and the timing of SWIFT's cross-border payments messaging migration. The latter was the most frequently cited by large value payment systems. Other drivers included keeping pace with the migrations taking place in other foreign and domestic infrastructures, and to comply with regulatory requirements.

**All responses from fast payment systems currently in operation have adopted ISO 20022 as their messaging format.** The majority of large value payment systems will also have adopted ISO 20022 by 2025. Some responses stated that a translator facility would be used to assist with the ISO 20022 migration, but this capability will be phased out as soon as practicable.

### Harmonisation findings: fragmented but potentially fertile soil for more efficient cross-border payments

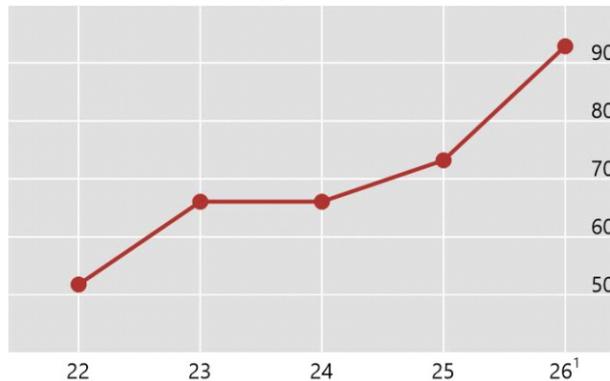
**There is currently a wide range of versions of ISO 20022 being used, highlighting the fragmentation of existing ISO 20022 implementations, though with some encouraging signs of convergence.** In particular, a large share of payment systems plan to implement the 2019 or a later version of the ISO 20022 messaging standard. The 2019 and later versions of ISO 20022 are important because they include a number of new features such as the unique end-to-end transaction reference (UETR) that will be helpful for enhancing the processing of cross-border payments (see Part C for more details on the UETR). Moreover, many domestic payment systems that have introduced ISO 20022 (or intend to) already will be

## ISO 20022 implementation timeline and adoption reasons

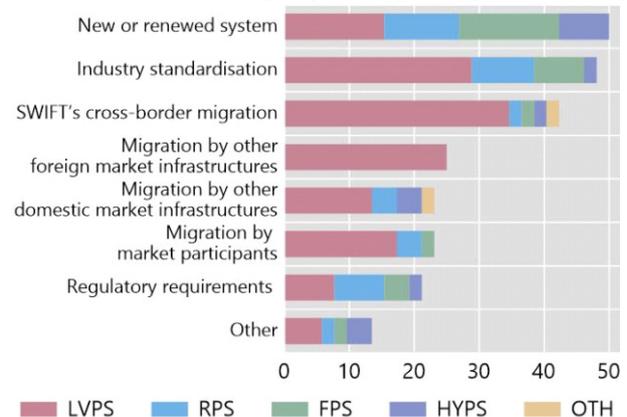
Share of reported payment systems

Graph 2

Implementation share by year



Reasons for adoption (by payment system type)<sup>2</sup>



FPS = Fast payment systems; HYPS = Hybrid payment systems; LVPS = Large-value payment systems; OTH = Other payment systems; RPS = Retail payment systems.

<sup>1</sup> 2026 includes payment systems that intend to implement ISO 20022 but do not have concrete plans yet. <sup>2</sup> More than one option could be selected.

Source: CPMI survey.

able to process the ISO 20022 message types that are used for cross-border payments messaging (as shown in Graph 3). These developments bode well for the CPMI harmonisation efforts which will be discussed in Part C.

**While most payment systems that have adopted, or intend to adopt, ISO 20022 have developed message implementation guidelines for their participants (84%), these guidelines have been developed for local use only.** The majority of these guidelines also cover the processing of cross-border payments and a large number of these guidelines have been developed taking into account the CBPR+ and HVPS+ industry implementation guidelines. This demonstrates some level of consistency in the messaging guidelines used by various domestic payment systems. However, the results highlighted that changes to these guidelines may be required to incorporate new harmonised message requirements for cross-border payments. This in turn may require changes to be made by participants of the systems.

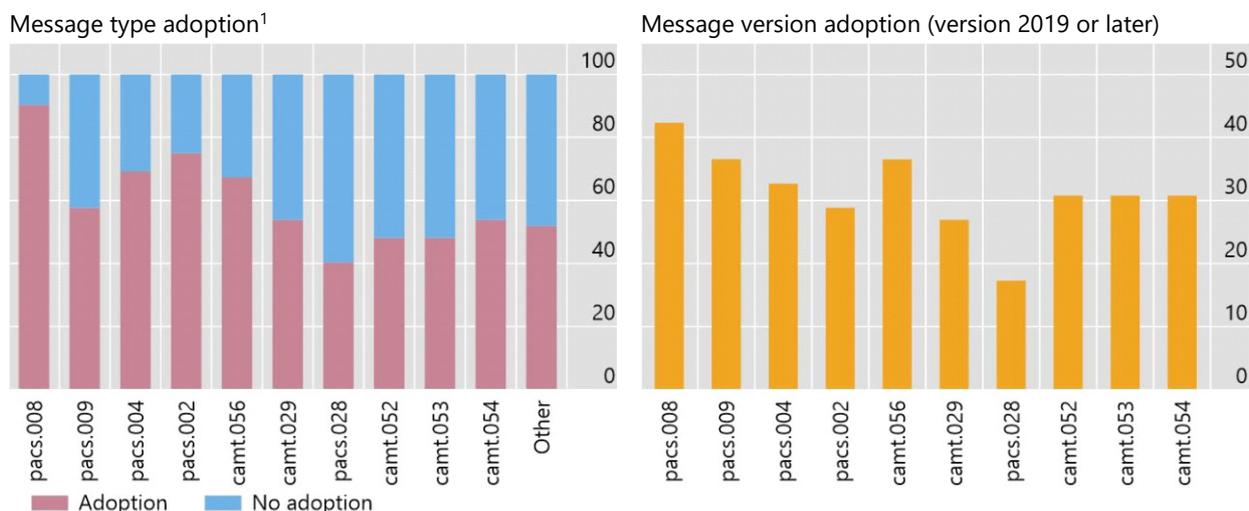
**Encouragingly, the majority of payment systems already have (or have plans to introduce) rules or requirements regarding the use of structured data for their domestic and cross-border payments (63%).** Greater use of structured data can be a significant factor in reducing some of the frictions that can arise with the processing of cross-border payments. Indeed, the majority of respondents (75%) were supportive of moving to the use of structured data for the identification of parties (eg debtors and creditors) in ISO 20022 messaging, though there was less support for the adoption of payment purpose codes and legal entity identifiers (LEIs). However, respondents identified several barriers/challenges to the adoption of structured data, including lack of readiness by participants (both direct and indirect) and back office system interoperability issues. The lack of a clear timeline for the removal of relevant unstructured data fields was also cited as a barrier. Such a timeline could help encourage payment system operators (and participants) to move to the use of structured field alternatives more quickly.

**The majority of payment systems indicated they did not support alternative addressing for payments (eg using proxy identifiers such as an email address).** This largely reflected the fact that most responses came from LVPS operators. Most responses from FPS operators indicated that simpler

## ISO20022 message type and version adoption

Share of reported payment systems

Graph 3



### Credit Transfer Messages

pac008 = Customer Credit Transfer (Interbank); pac009 = Financial Institution Credit Transfer.

### Payment Return Messages

pac004 = Payment Return (Interbank)

### Payment Cancellation Messages

cam056 = Payment Cancellation Request (Interbank); cam029 = Payment Cancellation Response.

### Payment Status Messages

pac002 = Payment Status Report; pac028 = Payment Status Request (Interbank).

### Account Reporting Messages

cam052 = Bank to Customer Account Report; cam053 = Bank to Customer Statement; cam054 = Bank to Customer Debit/Credit Notification.

<sup>1</sup> Answers of respondents that do not intend to implement the ISO20022 standard are excluded. Respondents without any answer to the question were deleted. Furthermore, missing values of respondents that have indicated support for at least one other message type are considered non-support for that message type.

Source: CPMI survey.

addressing was supported (67%), and that their system rules did not differentiate between domestic and cross-border payments in this regard. This result implies that the use of simpler addressing to identify payees is more likely to occur when FPS can be used to deliver the final leg of a cross-border payment.

**Responses were very supportive of developing an annual global maintenance cycle for ISO 20022 messaging changes.**<sup>3</sup> It was noted that the annual global maintenance cycle for SWIFT MT messages had been effective for many years with the timeline and the process of change well known to the SWIFT community. However, some respondents highlighted the challenges of implementing a globally synchronised ISO 20022 update cycle, given the multiplicity of guidelines and a preference for flexibility to change guidelines at the time of their choosing in order to incorporate domestic needs. The CPMI will explore options for an inclusive and timely maintenance process, which enables adequate planning by relevant stakeholders.

**Responses also noted the importance of developing mapping and guidelines to and from the ISO 20022 XML format and JSON format, typically used for application programming interfaces (APIs).** This reflects a growing recognition of the role of APIs in payments as an alternative solution for

<sup>3</sup> While ISO releases new annual versions of the ISO 20022 messaging standard, currently there is no coordinated adoption.

the exchange of financial messages. It also reflects the current lack of standardisation in the API technical specifications that have been implemented by some payment system operators.<sup>4</sup>

**The survey also indicated a potential “first/last mile” problem, as there has been very limited development and use of ISO 20022 messages by end customers, such as corporates.** Greater usage of ISO 20022 from the payment initiation stage all the way through to the payment reporting stage will help realise the full benefits of the ISO 20022 messaging standard for the speed, cost, and transparency of cross-border payments. However, this result also highlights that further work is required by jurisdictions, payment system operators and participants to encourage the adoption of ISO 20022 by end users, including by outlining the benefits of ISO 20022 and potentially developing standardised customer message implementation guidelines.

## Continued mapping and harmonisation challenges

**For respondents that indicated they have no intention to move to ISO 20022, significant work remains to be done to ensure interoperability with ISO 20022.** These respondents generally noted they do not have mapping standards in place to help with translation between ISO 20022 and their domestic standard (70%). In a small number of examples, respondents noted that they had identified significant issues when attempting to map local formats, to and from, ISO 20022 message formats. These issues are mainly related to field type restrictions, such as an insufficient number of fields being present in the domestic format, and the truncation of data.

**Respondents indicated a number of challenges and issues for consideration in adopting harmonised requirements for ISO 20022 in cross-border payments.** Highlighted issues included: the complexity of aligning domestic requirements with global requirements (especially if domestic requirements already exist and are embedded in participants’ systems); the timeline to make the required changes; and the associated resources and cost implications of undertaking this work at both the industry and participant level.

**The CPMI is taking these survey learnings into account when developing harmonisation requirements and an overall strategy for jurisdictions and payment system operators to adopt the requirements.** The developed data model and recommendations from other BBs will be other important elements of an adoption strategy.

## Part C – Toward a more harmonised use of ISO 20022 for cross-border payments

### CPMI collaboration with industry on developing harmonisation requirements

**While adoption of ISO 20022 is proliferating, variability in its implementation and requirements with respect to cross-border payments potentially undermines its benefits.** Indeed, many of the inefficiencies that the financial industry and its end users face with cross-border payments are caused by interoperability issues that arise because of misaligned message flows and incompatible data models along the end-to-end payment chain. An agreed set of core ISO 20022 messages supported by participants in cross-border payments, in combination with a well-defined data model, is seen to be a fundamental part of the overall programme to improve the efficiency, cost, speed, and transparency of cross-border payments.

<sup>4</sup> Harmonisation of APIs for cross-border payments is the focus of building block 15 of the G20 cross-border payments programme.

**A joint CPMI-PMPG task force comprised of messaging specialists from the CPMI and the SWIFT Payment Market Practice Group (PMPG) is currently working on defining harmonised requirements for the use of ISO 20022 in cross-border payments (“CPMI ISO 20022 harmonisation requirements”).** The joint task force is focused on defining clear implementation guidelines and setting minimum requirements for the core data components of ISO 20022 messages to improve end-to-end payment processes. The joint task force intends to strongly promote the use of structured data to the extent possible.

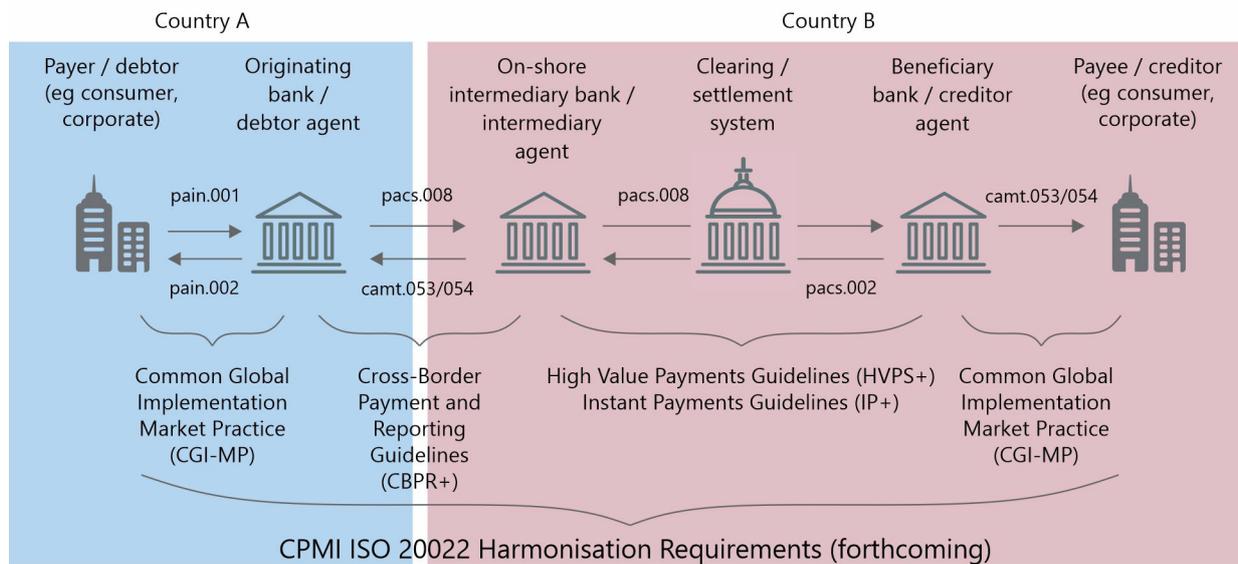
**The joint task force believes that the CPMI ISO 20022 harmonisation requirements for cross-border payments should take effect after the MT/ISO 20022 co-existence period ends in 2025.** Implementation during the co-existence period is not practical as many jurisdictions are in the process of migrating to the standard. Instead, the joint task force anticipates defining a data model that will allow those markets that have already adopted ISO 20022, or will adopt it in the next release, enough time to comply with the requirements beginning in 2025. In addition, sufficient time for those at earlier stages of implementation will be provided to align their plans with the desired data model for the future.

### Upcoming work by CPMI on ISO 20022 harmonisation requirements relative to existing message usage guidelines

**Existing ISO 20022 usage guidelines, like work conducted by CBPR+, provide a strong foundation for transitioning from legacy standards to ISO 20022.** The existing usage guidelines are very detailed and updated frequently by the respective user communities (eg the community of correspondent banks in the case of CBPR+). Thus, they provide clear guidelines to users and an established process for responding to the needs of specific user communities as they arise. During the co-existence period, the existing guidelines will also be flexible in some respects to ease the transition from legacy formats to ISO 20022. For example, the existing guidelines will allow the continued use of unstructured data in some cases and will limit the length of certain fields in order to ensure interoperability with legacy formats.

**However, overarching harmonisation requirements would contribute to ensuring that the benefits of ISO 20022 can be optimally leveraged for cross-border payments starting in 2025.** First, the level of detail within existing usage guidelines makes it difficult to identify which message elements are critical to achieve the targets of the cross-border payments initiative (ie lower cost, higher speed, and more transparency). Second, the compromises to facilitate migration (eg allowing the continued use of unstructured data) may result in underutilisation of the potential of ISO 20022. Finally, multiple usage guidelines exist in parallel. Each of them focuses on a particular use case tailored to certain user communities (eg separate guidelines exist for cross-border correspondent banking (CBPR+), high-value payment systems (HVPS+), cross-border instant payments (IP+) and for payments initiation (CGI-MP)).

**The CPMI ISO 20022 harmonisation requirements plan to address some of these shortcomings.** The CPMI is planning for the ISO 20022 harmonisation requirements to identify a core message set and define the minimum requirements for a data model. The harmonisation requirements would complement the existing usage guidelines by providing high-level requirements to be adopted by all usage guidelines. The proposed 2025 introduction of the requirements would align with the removal by SWIFT, of the ability to send cross-border MT payment messages over its network. From this time, many of the compromises required to be able to cater to both MT and ISO 20022 message formats for cross-border payments can be removed. Ideally, harmonising usage of ISO 20022 for cross-border payments would be achieved on a wide scale, regardless of specific usercommunity or use cases (ie it will not be tailored to one user community and use case only). The joint task force believes that providing minimum requirements for



<sup>1</sup> This is a stylised customer flow for a cross-border credit transfer in ISO2022 using a simplified traditional correspondent model. Some reporting/advice messages may differ or are not shown.

Source: CPMI.

message elements that need to either travel end-to-end or need to be omitted can help eliminate frictions in processing along the cross-border payment chain.<sup>5</sup>

**The joint task force is working to define and harmonise the data fields being transmitted along the payment chain and reported back to the end users to allow seamless end-to-end processing.** For example, the inclusion of payment related messages beyond normal payment processing (eg returns and investigations) would allow for more harmonised handling of exceptions in cross-border payments. Moreover, while certain messages included in the scope might currently have limited adoption or low usage, we anticipate this would evolve over the coming years as markets migrate to the ISO 2022 messaging standard or start preparing message version updates for future releases.

**Over 50 payment systems responded to a CPMI survey, which has helped inform what should and should not be included in the core message set.** For example, messages regarding customer direct debits have very limited use in the cross-border space, and are often restricted to a regional or local implementation. Similarly, cheque-related messages were also excluded from the scope given their declining trend in use.

### High-level, post-2025 requirements under consideration by the joint task force

**The joint task force is currently considering the scope and content of the high-level requirements. The following are under discussion:**

- **To achieve the overall objective of end-to-end payment process harmonisation, the joint task force is considering requiring use of structured data options and code information only.** As highlighted by the survey, the greater use of rich and structured data is seen to be a significant factor

<sup>5</sup> For example, including both the UETR and a transaction reference (ie a non-unique transaction reference) would be duplicative and potentially confusing, leading to frictions in the processing of cross-border payments (eg resulting in message investigations that impede STP).

in reducing frictions that can arise with the processing of cross-border payments. Not only will structured data help facilitate STP, it can also allow for automated and potentially real time compliance screening of payments in flight.

- **The joint task force is considering requiring use of a common single structured way to identify persons, entities, and financial institutions involved in cross-border payments.** Defining minimum data requirements and at the same time restricting options to structured data (eg using ISO identifiers such as the Business Identification Code (BIC), in combination with recommending use of the Legal Entity Identifier (LEI)), can positively impact the processing and screening of cross-border payments along the end-to-end payment chain. This would enhance efficiency by reducing the likelihood of errors due to misinterpretation of data. Clear requirements on providing processing costs and charges can further improve overall transparency.
- **The joint task force is considering requiring use of a single, standardised reference, the Unique End-To-End Reference (UETR) to allow for end-to-end tracking of cross-border payments.** Mandatory usage of the UETR can enable the linking and reconciling of all individual steps along an entire cross-border transaction chain (including possible exception processes such as payment returns), as well as to make end-to-end payments tracking by all involved entities a reality.
- **The joint task force is considering requiring minimum capabilities to enable both the inclusion of structured remittance information with payments and to support mechanisms to reference remittance information when sent separately.** The resulting improvement in reconciliation and treasury management processes can provide further benefits to end users.

Additional information on the framework that the joint task force is using in order to classify common data elements in an end-to-end cross-border payments chain can be found in Annex 3.

## Part D – Next steps

**In order to be successful, the adoption of the CPMI ISO 20022 harmonisation requirements will need a global community effort.** The joint task force intends to issue a call to end users, service providers, industry organisations, payments practitioners, and individual jurisdictions to collaborate on implementing the minimum required data model for a broad cross-border payments ecosystem. Wide-scale implementation will support continued progress in achieving the G20 Roadmap targets. End users, financial institutions, and their industry organizations will be asked to identify further alignment and structuring opportunities (eg through the use of codes) to enable end-to-end automation of payments processing and reconciliation. Organisations that provide payment-related services, such as reference data solutions, will be asked to align structures and formats of their data repositories with the requirements. While recognising that regulatory reporting needs may be specific to individual jurisdictions, authorities could consider documenting their requirements in standardised ways that seize the opportunities offered by the ISO 20022 standard and make their requirements easily accessible for consumption by those active in their jurisdiction.

**The joint task force is evaluating options for both the maintenance and governance of the core message set and a common data model for cross-border payments.** The joint task force expects the requirements and associated data model to be stable, but the ISO 20022 standard will continue to evolve and updates to the standard will need to be coordinated. As noted in Part B, the survey results indicated very strong support globally for developing an annual global maintenance cycle for ISO 20022 messaging changes, following the model for SWIFT MT messages which has been effective for many years. Timely maintenance, including the need for relevant release cycles to enable adequate planning for future updates and coordinated versioning, among other long-term maintenance questions, will be discussed with stakeholders.

## Part E - Conclusion and request for initial feedback

**A more interoperable future in cross-border payments messaging is within grasp as payment systems globally implement the ISO 20022 messaging standard.** The coming years will be a crucial period for agreeing to and adopting a more harmonised usage of the ISO 20022 messaging standard in order to fully leverage the potential of the standard to enhance cross-border payments. A joint task force between the CPMI and PMPG is working to identify both the core message set to be supported by all those active in cross-border payments, and an underpinning minimum required structured data model for implementation post-2025 to which all message usage guidelines will be expected to comply.

**However, securing a more interoperable future will require the concerted efforts of the entire community.** Going forward, public and private stakeholders will need to play a role in facilitating adoption of the CPMI ISO 20022 harmonisation requirements.

**Given the potential wide reach and significant impact of any new market practice requirements, extensive market consultation and lead times for implementation will be planned.** The joint task force believes that the ideal outcome would be for final requirements to take effect in 2025 once the MT/ISO 20022 co-existence period ends. The joint task force thus would be interested in receiving feedback on the preliminary high-level harmonisation requirements outlined in Part C. The CPMI will issue a formal consultation paper at the end of 2022 to solicit public comment on the full details of the proposed harmonisation requirements. Payment system operators and industry participants may share initial feedback on the topics discussed in this article by sending them to [cpmi@bis.org](mailto:cpmi@bis.org) by 21 October 2022, with "ISO 20022 harmonisation" in the subject line. All responses will be shared with the joint task force to inform the development of the consultative report.

## Annex 1

Status of ISO 20022 implementation by payment systems

Table 1

	Total		Already implemented		Implementation plan exists <sup>1</sup>		Intend to implement, but details TBD <sup>1</sup>		No intention to implement at this time	
	Total	%	Total	%	Total	%	Total	%	Total	%
<b>Geographical area</b>										
Africa	5	8.8%	1	1.8%	2	3.5%	2	3.5%	0	0.0%
Americas	7	12.3%	1	1.8%	4	7.0%	0	0.0%	2	3.5%
Asia	26	45.6%	10	17.5%	8	14.0%	6	10.5%	2	3.5%
Europe	17	29.8%	9	15.8%	5	8.8%	3	5.3%	0	0.0%
Oceania	2	3.5%	1	1.8%	1	1.8%	0	0.0%	0	0.0%
<b>Total</b>	<b>57</b>	<b>100.0%</b>	<b>22</b>	<b>38.6%</b>	<b>20</b>	<b>35.1%</b>	<b>11</b>	<b>19.3%</b>	<b>4</b>	<b>7.0%</b>
<b>Payment system type</b>										
Fast payment system	10	17.5%	8	14.0%	2	3.5%	0	0.0%	0	0.0%
Hybrid payment system	7	12.3%	4	7.0%	0	0.0%	2	3.5%	1	1.8%
Large-value payment system	27	47.4%	3	5.3%	17	29.8%	6	10.5%	1	1.8%
Retail payment system	12	21.1%	7	12.3%	0	0.0%	3	5.3%	2	3.5%
Other	1	1.8%	0	0.0%	1	1.8%	0	0.0%	0	0.0%
<b>Total</b>	<b>57</b>	<b>100.0%</b>	<b>22</b>	<b>38.6%</b>	<b>20</b>	<b>35.1%</b>	<b>11</b>	<b>19.3%</b>	<b>4</b>	<b>7.0%</b>

<sup>1</sup> For illustration purposes the status "Implementation plan exists" and "Intend to implement, but details to be determined (TBD)" have been shortened. The original survey answer choices were "Plan to implement, with a target date already announced" and "Intend to implement, but no firm plans or target date announced".

Source: CPMI Survey.

## Annex 2

Core set of ISO 20022 messages currently under consideration by joint task force

Table 2

Business Function	Message type	Description	CPMI	CBPR+	HVPS+	IP+	CGI
Business Header <sup>1</sup>	head.001	Business Application Header	✓	✓	✓	✓	
	pain.001	Customer Credit Transfer (CtB)	✓	✓			✓
Credit Transfer Messages	pacs.008	Customer Credit Transfer (Interbank)	✓	✓	✓	✓	
	pacs.009	Financial Institution Credit Transfer	✓	✓	✓	✓	
	pain.002	Payment Status Report (CtB)	✓	✓			✓
Payment Status Messages	pacs.002	Payment Status Report (Interbank)	✓	✓	✓	✓	
	pacs.028	Payment Status Request	✓				✓
Payment Cancellation Messages	camt.055	Payment Cancellation Request (CtB)	✓	✓			
	camt.056	Payment Cancellation Request (Interbank)	✓	✓	✓		
	camt.029	Payment Cancellation Response	✓	✓	✓		
Payment Return Messages	pacs.004	Payment Return	✓	✓	✓	✓	
	camt.052	Bank to Customer Account Report	✓	✓	✓		✓
Account Reporting Messages <sup>2</sup>	camt.053	Bank to Customer Statement	✓	✓	✓		✓
	camt.054	Bank to Customer Debit/Credit Notification	✓	✓	✓		✓
Request for Payment Messages	pain.013	Request for Payment	✓				
	pain.014	Request for Payment Response	✓				
Exceptions & Investigations Messages <sup>3</sup>	camt.026	Information Request	✓				
	camt.029	Information Request Response	✓				
	camt.028	Additional Payment Information	✓				

CtB = Customer-To-Bank.

<sup>2</sup> Generally out of scope, since the business application header is a point-to-point message, but the joint task force is still consulting whether it may be in scope for particular use cases (eg interlinking of payment systems)

<sup>2</sup> CPMI ISO 20022 harmonisation requirements will only establish what data elements need to be reported back for purposes of cross-border payments and no further guidance will be set as such

<sup>3</sup> CPMI ISO 20022 harmonisation requirements will be based on the (ongoing) redeveloped equivalent messages

Source: CPMI Survey.

### Annex 3: Toward standardised usage of common data elements in an end-to-end cross-border payment chain

The joint task force is considering common data elements for the CPMI ISO 20022 harmonisation requirements which will be released for consultation at the end of 2022. The data elements are either common to the ISO messages in scope of the CPMI requirements (see Annex 2) or specific to certain messages. For each of the data elements, discussions are ongoing with regard to how their use in cross-border payment messages could be designated as:

- *Required*: the information must be provided across an end-to-end cross-border payment;
- *Recommended*: while not required, if included the information may positively impact the data quality of the payment and further improve the processing efficiency;
- *Optional*: the information may or may not, be provided depending on the payment use case, but if provided, all FIs involved in the processing of the payment must be able to receive and pass on the information unchanged along the end-to-end payment chain;
- *Conditional*: the need for the information to be shared depends on the presence of other element(s) (with conditions to be documented); or
- *Not to be included*: the data element is to be excluded as the information might negatively impact the data quality and processing efficiency of the cross-border payment.

Data element categories under consideration that are common to the messages being reviewed by the joint task force for these designations include: those for persons/entities (ultimate debtor, ultimate creditor, initiating party, etc); financial institutions (eg debtor agent, creditor agent, instructing agent, instructed agent, etc); postal address; and account information. The joint task force believes that establishing a standardised treatment for common ISO 20022 data elements will reduce misalignments in data models used across an end-to-end cross-border payment chain. This will lead to enhancements in the speed, cost and transparency of cross-border payments.