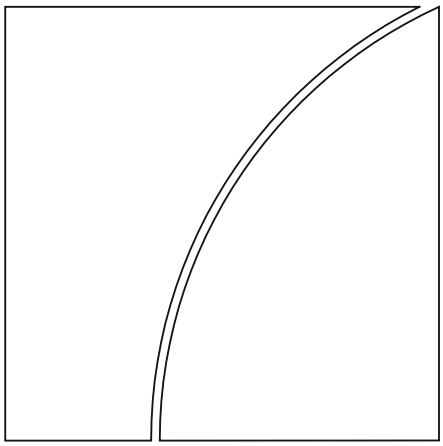
Committee on Payments and Market Infrastructures

Consultative report



ISO 20022 harmonisation requirements for enhancing cross-border payments

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Executive summary

This report by the Bank for International Settlements' Committee on Payments and Market Infrastructures (CPMI) presents, for public consultation, the CPMI's proposed ISO 20022 harmonisation requirements for cross-border payments. For the Indian G20 Presidency the ISO 20022 harmonisation requirements are a key deliverable under the G20 cross-border payments programme. As next steps, this report will be revised in response to the consultation and the final report will be delivered to the Indian G20 Presidency by end-2023.

ISO 20022 is an international standard for exchanging electronic messages between financial institutions that has the potential to allow more consistent and structured data in payment processing. To this end, the proposed harmonisation requirements provide overarching guidance for global and domestic market practices guidelines to ensure that the ISO 20022 messaging standard, where adopted, is consistently used to facilitate faster, cheaper, more accessible and more transparent cross-border payments ("the G20 targets"). They establish specific expectations for the use of ISO 20022 messages in cross-border payments related to specific functions; the transparency and clarity of key data elements; and use of structured and coded data to support automated processing.

At present, the fragmentation and mixed use of payment messaging standards is a major friction in cross-border payments. Payment systems around the world are increasingly adopting ISO 20022 as a common messaging standard. This is an opportunity to promote greater interoperability in cross-border payments and support the G20 targets. However, while this trend may point to the potential for enhanced cross-border payments, variability in the ways in which ISO 20022 is deployed across the globe could undercut some of its benefits. To address this challenge, the CPMI and the global industry Payments Market Practice Group (PMPG) established a joint task force (JTF) to develop harmonised usage requirements for ISO 20022 in cross-border payments.

This work has been guided by several high-level criteria to ensure the effectiveness, equity and practicality of the process and outcomes of this collaborative work between the CPMI and the industry. First, the focus has been on measures deemed most critical to help achieve the G20 targets. Second, the CPMI has sought to be neutral with respect to cross-border payments solutions. Third, because many jurisdictions are currently in the midst of implementing ISO 20022, the work has focused on the future state after the end of the coexistence period between the SWIFT MT and the ISO 20022 messaging standards (end date November 2025). Finally, the identified proposals should be realistic and achievable within the timeframe of the G20 targets.

Realisation of the benefits of the CPMI harmonisation requirements will depend, crucially, on their widespread uptake. Limited or incomplete uptake could lead to further fragmentation and lack of interoperability. The harmonisation requirements would complement existing market practice guidance by providing high-level requirements to be adopted by the various international and local usage guidelines. The proposed 2025 introduction of the requirements would align with SWIFT's decision to remove the ability to send cross-border MT payment messages over its network. Ideally, harmonising usage of ISO 20022 for cross-border payments would be achieved on a wide scale, regardless of specific user community or use cases (ie it will not be tailored to one user community and use case only). As such, it is essential that the proposed requirements are reviewed through an inclusive consultation process to ensure broad buy-in by participants in cross-border payments. This CPMI report is a critical element of this consultation process.

1. Introduction

1.1 Purpose of this report

This public consultation presents the CPMI's proposed requirements for harmonised use of ISO 20022 for cross-border payments. The proposed requirements result from the JTF discussions and were also informed by the CPMI survey of payment system operators' ISO 20022 adoption plans, conducted in late 2021.[1] Following the consultation period and expected finalisation of these requirements in mid-2023, the CPMI proposes that payment system operators and participants begin preparations to align their ISO 20022 usage guidelines with the finalised CPMI requirements to be effective in November 2025.[2]

1.2 Frictions from fragmented messaging standards

The G20 cross-border payments programme identified the fragmentation of payment messaging standards as one of the major frictions contributing to the high cost, slow speed and lack of transparency in cross-border payments. Payment systems around the globe have historically used a wide range of messaging standards for domestic payments. Interoperability across payment systems for the purpose of processing cross-border payments has historically been supported by the SWIFT MT messaging standard. However, translations between the SWIFT MT and domestic proprietary standards sometimes lead to data truncation and fragmentation issues, delaying the processing of cross-border payments and driving up costs. Furthermore, the prevalence of unstructured data in the SWIFT MT standard undermines automated straight through processing, negatively impacting the speed and cost of cross-border payments.

1.3 Benefits of ISO 20022 as a common international standard

Against this backdrop, the growing adoption by payment systems around the world[3] of ISO 20022 as a common messaging standard to replace their domestic proprietary standards has been an opportunity to promote greater interoperability of messaging standards, with benefits for enhanced cross-border payments and a more consistent experience for end users. ISO 20022 is a global and open standard for financial information. It provides a common language that can be used in every kind of financial transaction, including cross-border payments. Moreover, ISO 20022 allows for richer and more structured data to be shared via standardised messages, compared with most proprietary standards including SWIFT MT messages. The structured data enhances the efficiency of transaction screening for compliance (eg anti-money laundering (AML)) and other purposes such as fraud prevention, resulting in faster and cheaper cross-border payments.

1.4 Continued harmonisation challenges

While a common adoption of ISO 20022 presents the potential for enhanced cross-border payments, variability in the ways in which the standard is deployed and used across the globe risks undercutting some of its benefits. For example, many of the inefficiencies with cross-border payments that both the financial industry and its customers currently face are caused by misaligned message flows and

[1] See CPMI, *Harmonisation of ISO 20022: partnering with industry for faster, cheaper, and more transparent cross-border payments*, September 2022.

[2] This coincides with the scheduled end of the coexistence period between the SWIFT MT standard and ISO 20022 messaging standards for cross-border payments.

[3] The CPMI survey (conducted in late 2021) for ISO 20022 harmonisation indicated that 78% of the survey respondents (out of a total of 56 payment system operators) have either implemented or have concrete plans to implement ISO 20022 by 2025.

inconsistent data usage along the end-to-end payment chain. Thus, while ISO 20022 provides a common base for more interoperable exchange of cross-border payment messages, how the standard is used in practice can vary quite considerably, meaning that frictions in the processing of cross-border payments could continue to persist even as ISO 20022 is adopted. The limited adoption of ISO 20022 messages by end customers (ie corporations) also imposes a further challenge for harmonisation. Jurisdictions, payment system operators and participants should play a key role in encouraging adoption by end users.

1.5 CPMI collaboration with industry on ISO 20022 harmonisation for cross-border payments

To address these challenges, the CPMI worked with industry to facilitate a harmonised adoption and use of ISO 20022 for cross-border payments.[4] To this end, a joint task force (JTF) comprising messaging specialists from the CPMI and the Payments Market Practice Group (PMPG) was established in early 2022. The JTF members have extensive experience of participating in PMPG-facilitated standardisation working groups (eg HVPS+, CBPR+). The JTF has defined a minimum required common data model for ISO 20022 messages relevant to cross-border payments that will improve end-to-end payment processes when supported. The JTF believes that the common data model[5] will supplement existing usage guidelines and market practices, thereby further harmonising the use of ISO 20022 and helping the programme achieve its speed, cost and transparency goals.

1.6 Organisation of this report

The report is organised as follows. Section 2 discusses the proposed harmonisation requirements and their objective, the set of guiding principles that have informed the discussions of the JTF to date and the major components of the requirements (the core message set, general requirements and the data model). Section 3 provides a proposed implementation plan for the CPMI harmonisation requirements. Section 4 concludes and section 5 lists all the consultation questions.

2. Proposed CPMI ISO 20022 harmonisation requirements

2.1 Objective

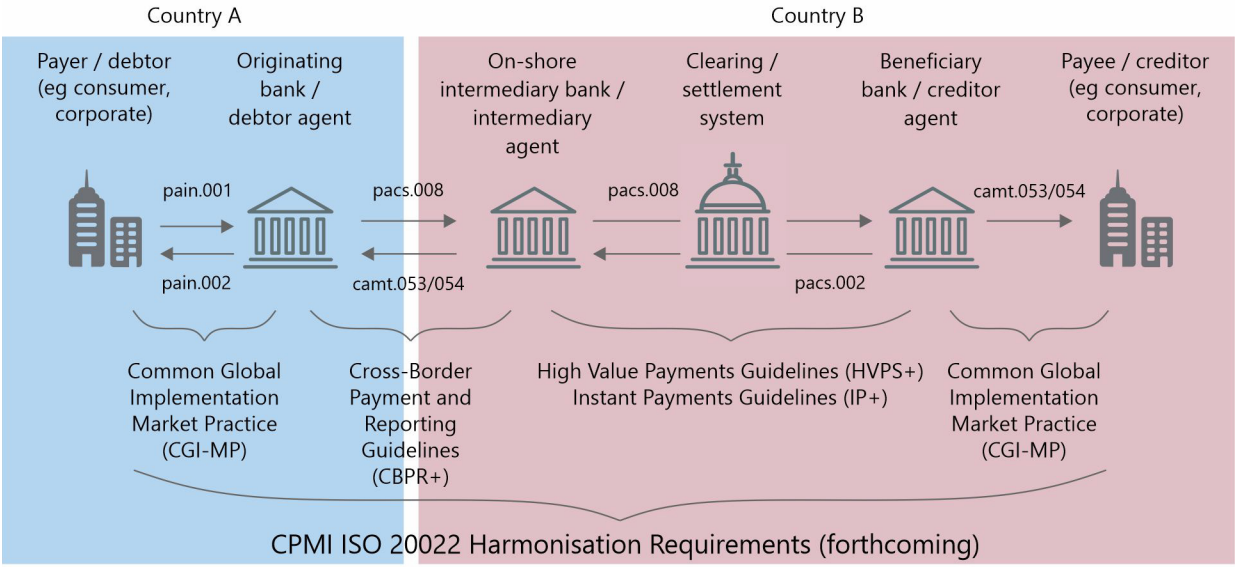
The CPMI's ISO 20022 harmonisation requirements are presented as overarching requirements, complementing existing market usage guidelines, with the aim of ensuring that the benefits of ISO 20022 can be optimally leveraged for cross-border payments. While existing ISO 20022 usage guidelines (eg CBPR+) provide clear and detailed market practice guidance, their level of detail makes it difficult to identify which message elements are critical for the efficient processing of cross-border payments end-to-end to help achieve the targets[6] of the cross-border payments programme. Current implementation guidance also contains compromises during the coexistence period (eg allowing continued use of unstructured data) to facilitate interoperability during a period of phased adoption while markets move at different speeds. This often results in a temporary underutilisation of the potential of ISO 20022 and hence

[4] The CPMI, through building block 14 on ISO 20022, has been tasked by the G20 to work with industry to draft this report. In particular, the G20 roadmap tasked the CPMI to work "with relevant stakeholders including the developers of the HVPS+ and CBPR+ message usage guidelines."

[5] Defined for this purpose to be a set of expectations on how specific data elements of an ISO 20022 message are to be used for a cross-border payment.

[6] See FSB, *Targets for Addressing the Four Challenges of Cross-Border Payments*, October 2021.

End-to-end cross-border payments chain and ISO 20022 usage guidelines Graph 1



the CPMI requirements are set for the period *following* this coexistence period. Finally, the requirements focus on the end-to-end cross-border payment chain to address possible misalignment across usage guidelines set for a specific step in a cross-border payment (ie initiation, interbank clearing and settlement and reporting).[7] See Graph 1 above.

2.2 Guiding principles

The work to develop requirements to foster greater harmonisation in the use of ISO 20022 for cross-border payments has been guided by several high-level principles. These principles recognise the public interest nature of this work and the evolving and differentiated landscape with respect to the global adoption of ISO 20022.

- *G20 targets-focused*. The efforts to develop harmonisation requirements focus on helping to achieve the four targets the G20 has set for enhancing cross-border payments. These targets relate to the cost, speed, access and transparency of cross-border payments. As such, the CPMI has sought only to recommend requirements that relate to at least one of these targets. Given that the targets themselves cover the entirety of the cross-border payments chain, and not just one segment, the JTF has sought to develop end-to-end harmonisation requirements.
- *Platform and network neutral*. In developing proposed harmonisation requirements, the CPMI has aimed to be neutral with respect to solutions used by financial institutions for their processing of cross-border payments. The requirements do not presume the use of any specific cross-border payments platform, messaging networks or service providers, nor are they intended to tilt the playing field towards specific service providers. The requirements aim to cover broad use cases in order to be neutral and guarantee a level playing field among service providers.
- *Orientation to a presumed future state*. The remit of the JTF was to propose harmonisation requirements for a presumed future state beginning at the end of the coexistence period, currently scheduled for November 2025, rather than for the transition period up to that point in

[7] For example, separate guidelines exist for use of ISO 20022 for cross-border correspondent banking (CBPR+), for high-value payment systems (HVPS+), for instant payments (IP+) and for customer-to-bank payments initiation (CGI-MP).

time. For many payment systems and financial institutions around the globe, the coming years will be a period of transition to ISO 20022, requiring temporary compromises, as described above. However, the JTF presumes that the need for these compromises will disappear when the coexistence period between the MT standard and ISO 20022 ends.

- *Ambitious yet realistic*. The JTF focused on identifying proposals that are both impactful in terms of the G20 2027 targets but also realistic in terms of (i) the level of effort needed to align with the CPMI's harmonisation requirements in the timeframe targeted; and (ii) ongoing industry work to develop market practice guidelines for some message type categories. The CPMI recognises that different requirements will entail different levels of effort across jurisdictions. However, it has calibrated its proposals, based on expert opinions canvassed through the JTF, on the basis of the greatest good for the greatest number. In some cases, certain more ambitious proposed requirements were deemed to be either too costly or not mature enough to realistically put forward.

Consultation question(s)

Question 1. Do you agree with the guiding principles followed for setting the requirements, including the platform or network agnostic approach, the level of ambition and the future state orientation?

2.3 Main components: core message set, general requirements and common minimum required data model

The CPMI's harmonisation requirements consist of three main components: a core message set, general requirements and a common minimum required data model. This section of the report discusses the core message set and general requirements applicable to all message types in the core message set. The full technical elaboration of the general requirements for each individual message in the core message set is provided in Annex 3.

2.4 Explanation of the core message set

The JTF has narrowed the scope for harmonisation to a core set of ISO 20022 messages commonly used for cross-border payments which are presented in this consultative report. As such, the core message set covers a range of business functions beyond credit transfers so that harmonisation is not limited to the processing of cross-border payments end-to-end, but also includes exception processes such as payment returns and investigations. While certain messages included in the scope might currently have limited adoption or low usage, the CPMI anticipates that this will evolve over the coming years as the industry migrates to the ISO 20022 messaging standard. Additional information on each of these messages is included in Annex 1.

2.5 General requirements for the use of core messages in cross-border payments

The CPMI believes that steering market practice in the direction of a more harmonised use of ISO 20022 in cross-border payments will be beneficial for all stakeholders. As such, the CPMI proposes to establish general requirements for the use of ISO 20022 in cross-border payments that will apply to all message types in the core message set (ie at the CPMI ISO 20022 data model level as documented in the tables in Annex 3 and 4).

Overview of CPMI core ISO 20022 message set Table 1

Business function	Message	Description
Credit Transfer Messages	pain.001	Customer Credit Transfer (CtB)
	pacs.008	Customer Credit Transfer (Interbank)
	pacs.009	Financial Institution Credit Transfer (Interbank)
Payment Status Messages	pain.002	Payment Status Report (CtB)
	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
Account Reporting Messages[1]	camt.052	Bank to Customer Account Report
	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[2]	camt.110	Investigation Request
	camt.111	Investigation Response

CtB = Customer-to-Bank.

[1] CPMI ISO 20022 harmonisation requirements will only establish the data elements that need to be reported to the Debtor and/or Creditor for cross-border payments. These elements have been highlighted in bold in the credit transfer and payment return data models in Annex 3. No further guidance will be provided.

[2] These messages are being developed at ISO 20022 level. CPMI ISO 20022 harmonisation requirements will be defined once final message specifications are available, expected by Q2 2023.

Source: CPMI-PMPG Joint Task Force and CPMI survey.

In this section the CPMI proposes 15 general requirements. The CPMI believes that implementation of the proposed requirements will contribute to progress towards one or multiple of the targets set for enhancing cross-border payments, ie cost, speed, access and transparency. Several of the proposed requirements will directly impact the speed target (Requirements 1-2, 4, 6, and 10-14) and the transparency target (Requirements 1-3, 5-9, 11-13 and 15). Most of the requirements may also act to lower the cost of cross-border payments, albeit indirectly as a result of improved processing efficiencies. The requirements are believed to have less impact on the target of increased access to cross-border payments services, although here too there may be some indirect effects resulting from heightened transparency and reduced costs in the longer term.

The following details are provided to help explain each proposed requirement: the business rationale for its inclusion; a proposed technical solution that would operationally implement the requirement; the benefits of implementation in terms of the four targets of the G20 cross-border programme; and the overall level of estimated effort that would be required to implement the proposed solution, as assessed by experts on the JTF. Given the potentially wide-ranging implications of some of the solutions proposed through these requirements, the CPMI invites responses to the questions listed for each proposed requirement, as well as more general observations relating to any of the proposed requirements.

CPMI ISO 20022 requirements and links to G20 targets

Table 2

Requirements	Link to G20 targets			
	Cost	Speed	Access	Transparency
Block A – Fundamentals				
#1 – To use the appropriate ISO 20022 message for a specific business function				
#2 – To use ISO externalised codes for payments and payment-related processes				
#3 – To indicate that a payment is a cross-border payment				
#4 – To support/restrict the character set used for ISO 20022 payment messages to current market practice				
#5 – To use a common time convention across all ISO 20022 messages associated with cross-border payments				
Block B – Transparency				
#6 – To include a unique end-to-end reference for all cross-border payments				
#7 – To ensure full transparency on processing times for cross-border payments				
#8 – To ensure full transparency on amounts, currency conversions and charges of cross-border payments				
#9 – To indicate that a cross-border payment is consistent with the CPMI service level agreement guidance (building block 3)				
Block C – Structured and coded data				
#10 – To recommend use of account numbers (or proxies) to the extent possible				
#11 – To uniquely identify all financial institutions (FIs) involved in cross-border payments in an internationally recognised and standardised way				
#12 – To identify all entities involved in a cross-border payment in a standardised and structured way				
#13 – To identify all persons involved in a cross-border payment in a standardised and structured way				
#14 – To provide a common minimum level of postal address information structured to the extent possible				
#15 – To cater for the transport of customer remittance information across the end-to-end cross-border payment chain by enabling the inclusion of a minimum size of structured or unstructured remittance information with the payment, or to reference such information when sent separately				

Dark green indicates that the requirement has a major direct impact on the target. Green indicates that the requirement has a direct impact on the target. Light green indicates that the requirement has an indirect impact on the target. Empty indicates no impact on the target.

Source: CPMI.

Requirements Block A – Fundamentals

2.5.1 Requirement #1 – To use the appropriate message for a particular business function

Background and rationale

While ISO 20022 has defined the scope and business function for each message, there is some risk of inconsistent use of messages or deviation from the actual scope defined for that message. This can undermine processing efficiency. For example, instead of implementing the ISO 20022 message for return payments (ie the pacs.004), certain markets choose to use a regular credit transfer message (eg pacs.008 or pacs.009) with customised, proprietary codes to identify this "new" payment as a return payment. This inconsistent use requires financial institutions participating in different markets and/or across multiple solutions to perform the same business function in different ways. This is done by using customised, rather than standardised, message implementations to identify the actual message function of a message, as opposed to the one expected per the message scope.

Proposed solution

The CPMI proposes to require use of ISO 20022 messages identified as part of the core set for cross-border payments in line with their scope as defined by the ISO 20022 standard.

Link to G20 targets

The consistent use of the messages in line with their intended scope as defined by the ISO 20022 standard is expected to improve the speed of cross-border payments because of increased processing efficiency, and to enhance the transparency of cross-border payments. Indirectly, both of these factors will help to reduce costs. Further, harmonised usage will reduce the need for bespoke mapping and increase access to cross-border payments because of greater flexibility in the choice of service provider.

Potential implementation effort

The ISO 20022 message scopes have been defined in line with the ISO 20022 methodology and processes, and have been endorsed by the standard's governance bodies. As a result, conforming with this requirement should not cause friction, but should be a matter of aligning practices with the globally recognised scope of a message. The effort to implement this requirement should be limited only to those markets that have used proprietary workarounds to deviate from the standard. This recommendation will not impact those markets that already use the correct ISO 20022 message standard.

Consultation question(s)

Question 2. Do you agree that the inconsistent use of messages can be adequately addressed through this requirement?

Question 3. How could the risk of inconsistent use of messages or deviation from the business functions defined by ISO 20022 be mitigated? Would the proposed solution contribute to mitigating such risks and lead to improved efficiency of cross-border payments processing? Please explain.

Question 4. How do you assess the level of effort that will be required to adopt the appropriate message as defined by the ISO 20022 standard?

2.5.2 Requirement #2 – To use ISO 20022 externalised codes for payments and payment-related processes

Background and rationale

The ISO 20022 messages often allow information to be provided either in globally agreed codes or populated in free-formatted text or locally defined codes. Utilising free-formatted information or proprietary codes increases the likelihood of needing human intervention to understand the information and reduces the opportunity for automated processing.

Proposed solution

The CPMI proposes to use registered ISO 20022 externalised codes[8] with standard descriptions as this would facilitate global common understanding. For example, use of the payment purpose code "PENS" unambiguously identifies a payment as a pension payment.

Link to G20 targets

By using ISO 20022 codes from published lists, all those involved in the processing of a cross-border payment can unambiguously understand the information, increasing the end-to-end processing efficiency and transparency of the payment.

Potential implementation effort

ISO 20022 maintains the externalised code lists publicly on its website and provides them in formats that can be easily incorporated in payment systems and solutions. The level of effort required to implement this requirement could vary by market, and for markets where ISO 20022 externalised code lists are not part of current market practices, significant effort could be required. Such markets will need to adjust their practices and participants may need to make system and process changes to accommodate this requirement.

Consultation question(s)

Question 5. Would requiring the use of ISO 20022 externalised codes facilitate faster, cheaper and more transparent cross-border payments? How do you assess the implementation effort?

Question 6. Are there any limitations/challenges resulting from increased reliance on ISO 20022 codes? How difficult would it be to overcome these limitations/challenges?

2.5.3 Requirement #3 – To indicate that a payment is a cross-border payment

Background and rationale

Today there seems to be no harmonised way to identify a payment as a cross-border payment. There is often no option for those initiating a cross-border payment to explicitly flag it as such. This requires

[8] Externalised code lists contain codes that instead of being embedded in the schema are available externally on the iso20022.org website for consultation and downloading. The purpose of externalising codes is to enable more flexible updates to code sets in line with an ever faster evolving (payments) industry landscape, without affecting the message schemas and, hence, without requiring communities to upgrade to a new message version when new codes are needed. Any request to add codes is subject to validation and approval by the ISO 20022 Standard Evaluation Groups (SEGs) composed of industry experts that review lists on a quarterly basis.

payment system operators and participants to identify cross-border payments indirectly, by deduction based on payment message content. The CPMI is recommending that cross-border payments be flagged in a harmonised and structured way. This is especially relevant for jurisdictions where common infrastructures and processes are used for both cross-border and domestic payments.

Proposed solution

The CPMI proposes requiring those involved in sending cross-border payments to identify these payments as such. This would be through the use of a code, likely to be added to the ISO 20022 external code list as a category purpose.[9]

Link to G20 targets

The proposed requirement would enable the unambiguous identification of cross-border payments to facilitate, for example, financial crime screening and reporting processes. This, in turn, would improve the speed and efficiency of cross-border payments and related processes, indirectly lowering their overall cost.

Potential implementation effort

Identification of every cross-border payment through the use of an ISO 20022 external code list would require financial institutions to update their back office processes, which would entail some cost and effort.

Consultation question(s)

Question 7. Do you agree that identifying a payment as a cross-border payment should be required to enhance the processing efficiency of cross-border payments? Would such a flag facilitate compliance procedures including financial crime screening? Please explain.

Question 8. Do you agree that the use of an ISO 20022 external code (eg a Category Purpose) would be the most effective way to flag a payment as cross-border? Are there alternative approaches you would suggest?

Question 9. How do you assess the level of cost and effort required for the implementation effort?

2.5.4 Requirement #4 – To support/restrict the character set used for ISO 20022 payment messages to current market practice

Background and rationale

The efficient processing of cross-border payments depends on the use of a common character set so that all participants in the processing chain will be able to understand and interpret the information. Otherwise, payments risk being delayed or even returned.

Proposed solution

The CPMI proposes to restrict the character set in cross-border payment messages to the currently agreed Latin character set: lower case characters a–z, upper case characters A–Z, numeric characters 0–9,

[9] To avoid impacting current usage of Category Purpose by ISO 20022-based systems and solutions, this may require a change to the ISO 20022 message standards turning Category Purpose into a repetitive element (ie allowing for multiple occurrences), similar to the Service Level element (See Requirement 9).

complemented with the following additional characters for a limited selection of data elements as allowed by the CBPR+ usage guidelines[10]:

(/ - ? : ( ) . , ' +) (! # & % * = ^ _ ` { | } ~ " ; @ [\ ] $ > <)

The CPMI also recommends that jurisdictions add local language mapping where necessary in order to facilitate the efficient processing of inward and outward cross-border payments.

Link to G20 targets

Agreeing to a common character set for cross-border payments will help participants in the transaction understand and interpret the information to process the payment. This will primarily support the speed target, with an indirect impact on reducing costs over the longer term.

Potential implementation effort

The level of effort required to implement this requirement is low since the specified restricted character set is the default convention today, though may be higher in some segments (eg in the customer-to-bank space). Raising the character set as an explicit requirement will reinforce this convention and prevent its undermining as ISO 20022 is increasingly adopted globally.

Consultation question(s)

Question 10. Do you agree with the restricted character set for cross-border payments as described above? If not, which alternative character sets or additional characters should be included?

2.5.5 Requirement #5 – To use a common time convention across all ISO 20022 messages associated with cross-border payments

Background and rationale

The inconsistent use of time indications in ISO 20022 messages causes confusion, and makes it difficult to determine the end-to-end processing times for cross-border payments. The use of a common time convention will increase transparency around the time it takes between cross-border payment initiation (ie debiting the debtor account) and crediting the creditor account.

Proposed solution

The CPMI proposes that all times in messages relating to cross-border payments are to be either in Universal Time Coordinated (UTC) or in local time with UTC offset.

Link to G20 targets

The use of a standardised approach to indicate times will support the G20 target for increased efficiency and transparency in cross-border payments' processing times by providing all times in harmonised and unambiguous ways.

[10] All party (agents and non-agents) Name and Address elements, the Related Remittance Information element, the Remittance Information (structured & unstructured) element, the Email Address (where included as part of the Proxy element), City of Birth and Province of Birth elements nested in Private Identification.

Potential implementation effort

The implementation effort is not expected to be significant. The requirement simply calls for the use of a time convention which is already used by most systems and solutions.

Consultation question(s)

Question 11. Do you agree that requiring times in ISO 20022 messages to be stated either in UTC or in local time with UTC offset will enhance the transparency and efficiency of cross-border payments? If not, please explain.

Requirements Block B – Transparency

2.5.6 Requirement #6 – To include a unique end-to-end reference for all cross-border payments

Background and rationale

To easily track a cross-border payment end-to-end, it must carry a unique and unambiguous reference. The transaction identification commonly used for this purpose is not sufficient to ensure uniqueness across all entities and cross-border payments. While organisations may guarantee the uniqueness within their own organisation, it is a challenge to guarantee uniqueness across different entities.

Proposed solution

The CPMI proposes to require use of the unique end-to-end transaction reference (UETR) as the unique identification for all cross-border payments.[11]

Link to G20 targets

The required use of the UETR in cross-border payments will enable easier tracking and thereby improve transparency in cross-border payments. It will also simplify investigation and exception handling, facilitating automated processing solutions that enhance the speed of cross-border payments overall. This is also expected to indirectly reduce costs.

Potential implementation effort

While use of the UETR has become common for some communities, usage throughout the cross-border payments chain (eg including its generation by corporations and its transmission end-to-end) could entail some cost and effort.

[11] The UETR complies with the technical standard RFC 4122 (v4) created by the Internet Engineering Taskforce (IETF) which is responsible for many important technical standards (eg for the internet protocol (IP) RFC 791). An advantage of the UETR is that no centralised authority is required to administer the creation of unique identifications, but instead the generation of UETRs can be accomplished through the decentralised use of an algorithm. The UETR is only one of many implementation examples of the universally unique identifiers (UUIDs) defined in RFC 4122 (v4). UUIDs are frequently used in application development and are easy to implement from an IT perspective.

Consultation question(s)

Question 12. Do you agree that requiring the use of UETR for all cross-border payments will have a positive impact on the transparency, speed and cost of cross-border payments? If not, please explain.

Question 13. How do you assess the effort required to implement this requirement?

2.5.7 Requirement #7 – To ensure full transparency on processing times for cross-border payments

Background and rationale

Today in many cases there is a lack of transparency on the time it takes between the initiation of a cross-border payment (ie when the debtor is debited) and its completion (ie when the creditor is credited). This makes it difficult to identify where delays occur in the end-to-end processing chain of cross-border payments. To tackle this limitation, a timestamp showing when the debtor is debited needs to be introduced and carried in each message throughout the cross-border payment chain.

Proposed solution

To ensure full transparency on processing times for a cross-border payment, the CPMI proposes that every financial institution initiating a cross-border payment includes the time the debtor has been debited in the Acceptance Date Time element.[12]

Link to G20 targets

The inclusion of a timestamp showing when the debtor was debited will increase transparency on cross-border payments processing times. It will also help to identify lags and enable benchmarking and measurement of progress against the G20 targets. This may lead to greater competitiveness in cross-border payment services due to greater visibility of processing times and an enhanced ability of end users to differentiate between service providers.

Potential implementation effort

This requirement involves an effort by communities as the inclusion and carriage of a timestamp end-to-end is not common practice. The CPMI acknowledges that some processing times may be available using specific service provider solutions (eg SWIFT's gpi). However, these solutions do not necessarily cover the full end-to-end cross-border payment chain.

[12] Requirement 7 applies to cross-border customer (pacs.008), financial institution (pacs.009) and return (pacs.004) payments. If confirmed through the consultation, the Acceptance Date Time element as proposed solution will need to be introduced in ISO 20022 pacs.009 and pacs.004 messages where it is currently not available.

Consultation question(s)

Question 14. Do you believe that the requirement for inclusion of the time of debit of the debtor will increase transparency on the time it takes to complete the processing of cross-border payments? What improvements would the requirement bring to the end user experience?

Question 15. How do you assess the difficulty of adopting usage of the *Acceptance Date Time* data element as a requirement for cross-border payments? Would the implementation effort and impact on the transparency needs of end users differ by message type?

2.5.8 Requirement #8 – To ensure full transparency on amounts, currency conversions and charges of cross-border payments

Background and rationale

Cross-border payments often lack transparency on the total costs of the payment as proprietary messaging standards do not necessarily enable or require inclusion of complete information on the payment amount instructed by the payer, any currency conversions applied and any processing charges levied along the end-to-end cross-border payment chain.

Proposed solution

The CPMI proposes to require that the following elements be provided in a cross-border payment: amount and currency of the payment as instructed by the payer, any currency conversion applied to that amount, the interbank settlement amount, and any charges that either have been added or have been deducted by any financial institution involved in the processing of the payment along the end-to-end payment chain. With the exception of the interbank settlement amount all other information must be carried unchanged along the end-to-end payment chain.

Link to G20 targets

The requirement would enhance the transparency of cross-border payments due to the inclusion of complete and structured information starting with the amount instructed by the payer, currency conversions (if any) applied to that amount and any charges of the financial institutions involved in the end-to-end cross-border payment chain. Increased transparency could also have an indirect impact on costs as end clients gain greater awareness about the costs of using different financial institutions for cross-border payments.

Potential implementation effort

Requiring cross-border payments to include complete information on amount and charges could require financial institutions to update their systems. Moreover, complete transparency on amount and charges could have major implications for business models and competition among financial institutions providing cross-border payment services.

Consultation question(s)

Question 16. What are the implications of requiring all those involved in cross-border payments to provide complete information on amount, conversions and charges?

Question 17. Are there any technical, legal or other hurdles that could impede the inclusion of complete information on amount, conversions and charges in cross-border payments?

2.5.9 Requirement #9 – To indicate that a cross-border payment is consistent with the CPMI service level agreement guidance (building block 3)

Background and rationale

The CPMI, in consultation with the public and private sector stakeholders, is developing guidance for cross-border payment schemes and service level agreements ("CPMI guidance") which will include reference to the ISO 20022 harmonisation requirements, when finalised. The CPMI guidance is intended to help achieve the G20 cross-border payments targets.[13] The CPMI believes that an explicit flag is required in a payment message to indicate that a cross-border payment is expected to be processed in a manner consistent with the CPMI guidance. Such a flag would allow individual stakeholders to validate the CPMI ISO 20022 harmonisation requirements. Finally, it could be seen as a quality label on cross-border payments indicating they would be expected to be processed in line with the CPMI guidance.

Proposed solution

The CPMI proposes to require a CPMI service level code to be provided in the service level element for all cross-border payments sent in line with the CPMI guidance. Use of a uniform indicator will facilitate verification by all involved in the end-to-end processing and reporting to payer and payee that a cross-border payment was sent and processed in line with the CPMI guidance.

Link to G20 targets

The CPMI service level code will enable monitoring of improved efficiency and transparency in cross-border payments. It will support automated validation during processing of cross-border payments and therefore improve straight through processing. This would indirectly increase the overall speed of cross-border payments, reducing related costs.

Potential implementation effort

The proposed solution foresees that the CPMI service level code is to be included in the ISO 20022 externalised code list following the ISO 20022 governance processes. Payment systems and financial institutions would need to update systems to enable use of the new CPMI service level code for cross-border payments.

[13] This work is proceeding under building block 3 of the G20 cross-border payments programme with publication of the guidance expected in 2023.

Consultation question(s)

Question 18. Would the introduction of a CPMI service level code in ISO 20022 to track adherence to the CPMI guidance and harmonisation requirements facilitate improvements to cross-border payments processing?

Question 19. How would the availability of a CPMI service level code in ISO 20022 messages impact the business models/strategies of financial institutions providing cross-border payment services?

Question 20. How do you assess the difficulty of adopting a CPMI service level code?

Requirements Block C – Structured and coded data

2.5.10 Requirement #10 – To recommend the use of unique account numbers (or proxies) to the extent possible

Background and rationale

The lack of unique identifiers for accounts can potentially result in the misdirection or return of payments. Remediation usually involves manual intervention to identify the person or entity to be credited, resulting in slower processing and potentially increased costs. To facilitate straight-through-processing (STP) and prevent errors in payment processing, the CPMI recommends that cross-border payment instructions provide account identifiers to the extent possible.

Proposed solution

The CPMI's proposed solution is to require that a preferably structured account identifier (or proxy for the account) be provided.

Link to G20 targets

The use of correct account information should result in increased processing efficiency and a higher proportion of cross-border payments being processed faster. Correct account information will reduce the number of returns and misapplied payments and will result in fewer exceptions and investigations, potentially leading to reduced cross-border payment costs.

Potential implementation effort

This requirement may impose efforts on jurisdictions that do not use unique account identifiers.

Consultation question(s)

Question 21. Do you agree that the use of account identifiers (or account proxies), to the extent possible, would have a positive impact on the speed and cost of cross-border payments? Please explain.

2.5.11 Requirement #11 – To uniquely identify all financial institutions (FIs) involved in cross-border payments in an internationally recognised and standardised way

Background and rationale

In a cross-border payment at present, the identification of FIs is complicated by the use of various jurisdictional FI identification schemes depending on which route the payment takes. This introduces friction to cross-border payments as parties, starting with the end users, must consult various local databases or make use of name and address information to identify FIs involved in a cross-border payment.

Use of a single directory to uniquely identify all involved FIs in an internationally recognised and standardised way would make message flows between end points much easier.

By reducing the necessity of establishing complex rules to validate and screen FI information, the implementation of this requirement could facilitate pre-validation and thus reduce the risk of costly rejections late in the life cycle of a cross-border payment.

Proposed solution

The CPMI proposes to require identification of all FIs involved in cross-border payments via the business identifier code (BIC) as defined in the ISO 9362 standard.[14]

While there are other internationally recognised and standardised identifiers such as the legal entity identifier (LEI), the BIC is the preferred identifier for FIs for the following reasons:

- the BIC is an official ISO standard (ISO 9362);
- the BIC has obtained broad coverage across FIs globally, and specifically for cross-border payments;
- the BIC distinguishes FI branches, which is especially important for cross-border payments;
- the ISO 9362 directory is accessible publicly across the globe which contributes to cost efficiency; and
- the flexibility provided in the BIC registration procedure (allowing for applications on behalf of third parties) could facilitate its further uptake.

The BIC can be complemented by other codified identifiers on an optional basis, eg the LEI as defined in the ISO 17442 standard.

Link to G20 targets

A common use of the BIC to identify FIs would increase the speed of processing cross-border payments. FI identification with a BIC would facilitate validation and screening processes, and possibly reduce the number of "false positives" by compliance screening filters (eg for sanctions checks and AML screening). The elimination of ambiguity over FI identification also directly improves the transparency of a cross-border payment. Indirectly, the cost of cross-border payments could also decrease as it is expected that manual interventions to identify FIs would become less frequent.

[14] A BIC is eight or 11 characters. To ensure unique and unambiguous identification of the FI, the BIC may need to be 11 characters to explicitly include the branch identification.

[15] However, for payment systems not intending to migrate to ISO 20022, this requirement may impose additional efforts to be able to translate and populate the relevant structured data ISO 20022 message elements.

Potential implementation effort

The CPMI acknowledges that not all FIs have a BIC and there will be a level of effort required globally to implement this requirement. The requirement is assessed to be feasible as, even in jurisdictions with lower BIC registration rates at present, the coverage is still relatively broad. The global benefits of this requirement are assessed to outweigh the costs, including a de minimis fee associated with registration.

Consultation question(s)

Question 22. Do you agree that uniquely identifying all financial institutions involved in cross-border payments in an internationally recognised and standardised way would enhance cross-border payments? Please explain.

Question 23. Do you agree with the proposed solution of requiring the use of the BIC to identify all financial institutions? Why or why not?

Question 24. What would you assess to be the level of effort required by your jurisdiction: (a) to only use the BIC to identify financial institutions in ISO 20022 messages; and (b) for all financial institutions that currently do not have a BIC to register for one?

2.5.12 Requirement #12 – To identify all entities involved in a cross-border payment in a standardised and structured way

Background and rationale

Today's legacy messaging standards make it difficult for financial institutions to assess whether the necessary and correct information on all entities involved in a cross-border payment have been provided. This difficulty partly stems from the use of unstructured and "bulked" information (ie name and address combined in one field) which makes screening of the data more complex. This results in a lot of "false positives" which require manual interventions to remedy, lowering the speed and raising the costs of cross-border payments.

Requiring payment messages to identify all entities involved in a cross-border payment in a standardised and structured way could support more automated straight through processing. The ISO 20022 messaging standard allows for more structured and granular data to be carried compared with legacy messaging standards (eg separate fields for name and the components of an address exist). If correctly used, this would facilitate screening processes and decrease the time needed for the processing of a transaction.

Proposed solution

The CPMI proposes to implement this requirement by imposing a minimum data requirement to identify all entities in a cross-border payment message by providing Name and Postal Address using the relevant structured and standardised message fields (see Annex 2 and 3 for minimum data requirement for postal address information). The minimum required data of Name and Postal Address may be complemented, not substituted, with additional information, such as structured identifiers (eg LEI). For entities specifically, the Name and Postal Address information may be substituted by a BIC as this information may be provided via the BIC directory.

Link to G20 targets

The processing of cross-border payments with the structured and minimum required data for entities would facilitate payment screening processes. This is because leveraging the more granular message fields

of an ISO 20022 message would make the information in cross-border payments more transparent and thus more easily interpretable by screening filters. These factors would reduce the number of "false positives", and thus manual interventions, contributing to a significant increase in the speed of a cross-border payment. The setting of minimum data requirements also facilitates the validation of the existence (though not necessarily quality) of the minimum required data. Taken together, these factors should have an indirect positive impact on cost.

Potential implementation effort

Implementation of this requirement will entail some effort by communities as they become familiar with the more structured and granular data fields offered by ISO 20022, and help improve activities such as compliance screening which are an important motivation for migrating to the ISO 20022 standard. The CPMI does not believe the effort to implement this requirement goes beyond what jurisdictions should already be planning for their participants.[15] The requirement and proposed solution are thus intended to set an early baseline expectation for leveraging the beneficial features of ISO 20022.

Consultation question(s):

Question 25: Do you agree that requiring participants to identify all entities involved in a cross-border payment in a standardised and structured way would enhance the processing efficiency of cross-border payments? Please explain.

Question 26: Do you agree with the proposed use of structured identifiers such as the LEI, if they exist, to complement the recommended minimum data requirements to identify the legal entities involved in cross-border payments? Are there alternative approaches that you would suggest?

2.5.13 Requirement #13 – To identify all persons involved in a cross-border payment in a standardised and structured way

Background and rationale

Today's legacy messaging standards make it difficult for financial institutions involved in cross-border payments to assess whether the necessary and correct information on all persons involved in a cross-border payment has been provided in a payment message. This difficulty partly stems from the use of unstructured and "bulked" information (ie name and address combined in one field) which makes screening of the data less focused and more complex. This causes a lot of "false positives" which require manual interventions to remedy, lowering the speed and raising the costs of cross-border payments.

Requiring payment messages to identify all persons involved in a cross-border payment in a standardised and structured way could support more automated straight through processing. The ISO 20022 messaging standard allows for more structured and granular data than legacy messaging standards (eg separate fields for name and the components of an address). If duly used, this would facilitate screening processes and decrease the time needed for the processing of a transaction.

Proposed solution

The CPMI proposes to implement this requirement by imposing a minimum data requirement to identify all persons in a cross-border payment message by providing Name and Postal Address using the relevant

[15] However, for payment systems not intending to migrate to ISO 20022, this requirement may impose additional efforts to be able to translate and populate the relevant structured data ISO 20022 message elements.

structured and standardised message fields (see Annex 2 and 3 for minimum data requirement for postal address information). The minimum required data of Name and Postal Address may be complemented, not substituted, with additional information, such as structured identifiers (eg passport or national ID number).

Benefits

The processing of cross-border payments with structured and minimum required data for persons would facilitate payment screening processes. This is because leveraging the more granular message fields of an ISO 20022 message would make the information in cross-border payments more transparent and thus more easily interpretable by screening filters. These factors would reduce the number of "false positives", and thus manual interventions, and reduce the need to send a Request for Information (RFI), contributing to a significant increase in the speed of a cross-border payment. The setting of minimum data requirements also facilitates the validation of the existence (though not necessarily quality) of the minimum required data. Taken together, these factors would have an indirect positive impact on cost.

Potential implementation effort

Implementation of this requirement will entail some effort by communities to become familiar with the more structured and granular data fields offered by ISO 20022. As the opportunities afforded by more structured and granular data (eg for compliance screening) are an important motivation for migrating to the ISO 20022 standard, the CPMI does not believe the effort to implement this requirement goes beyond what jurisdictions should already be planning for their participants.[16] The requirement and proposed solution are thus intended to set an early baseline expectation for leveraging this beneficial feature of ISO 20022.

Consultation question(s)

Question 27. Do you agree that requiring participants to identify all persons involved in a cross-border payment in a standardised and structured way would enhance the processing efficiency of cross-border payments? Please explain.

2.5.14 Requirement #14 – To provide a common minimum level of postal address information structured to the extent possible

Background and rationale

The use of unstructured addresses in cross-border payments (eg through a single free-formatted field in which street name, town, postal code and country are combined) can result in delays and additional costs. For example, unstructured addresses can lead to "false positives" due to the absence of contextual information that would be provided by a more structured address. Structured postal address information such as isolated Town Name, Postal Code, Country, would allow for more targeted and accurate screening of those involved across the payment chain. This would reduce the number of "false positives", enhancing speed and lowering costs.

Moreover, specifying a common minimum required level of structured postal address information that intermediaries must pass on across the end-to-end payment chain would enhance payment

[16] However, for payment systems not currently intending to migrate to ISO 20022, this requirement may impose additional efforts to be able to translate and populate the relevant structured data fields in an ISO 20022 message.

processing. The challenge of agreeing to a common minimum required level of postal address information is heightened for cross-border transactions because address formats and conventions vary greatly across jurisdictions. However, minimum guidance for structured addresses would support efforts to join jurisdiction-led attempts to structure addresses consistently.

Proposed solution

The CPMI proposes to require those initiating cross-border payments to avoid using unstructured, free-formatted address options. Moreover, the CPMI proposes that the minimum required structured postal information consist of the Country and Town Name fields and, if possible, Postal Code. This solution should ensure consistency for domestic implementations of structured address.

Link to G20 targets

The use of structured addresses will speed up overall processing of cross-border payments, especially where it will prevent the need for manual interventions (eg for sanctions checks). In turn, this will reduce costs through a greater volume of straight through processing. Furthermore, it will provide increased transparency about the parties involved in the cross-border payment.

Potential implementation effort

Persons, entities and financial institutions involved in cross-border payments – especially initiating financial institutions – will need to update their systems and processes to source and store new address information.

Consultation question(s)

Question 28. Do you agree that a requirement not to use unstructured postal address information and to use only structured postal address information can help enhance the processing efficiency of cross-border payments? Please explain.

Question 29. Do you agree with the minimum required postal address information consisting of the Country and Town Name fields? Should any additional fields be required?

2.5.15 Requirement #15 – To cater for the transport of customer remittance information across the end-to-end cross-border payment chain by enabling the inclusion of a minimum size of structured or unstructured remittance information with the payment, or to reference such information when sent separately

Background and rationale

Today's proprietary standards often either do not cater to the inclusion of structured remittance information, and/or limit the size of the remittance information that can be included and passed along the end-to-end cross-border payment chain. This can create reconciliation issues between end customers.

Proposed solution

The CPMI proposes to establish minimum capabilities to allow the inclusion and transport by all financial institutions involved in the processing of the cross-border payment of either remittance information with a payment, or of references to such information when sent separately. The proposed solution, as indicated in the CPMI data model tables in Annex 2 and 3, is for Remittance Information to take the form of either a single occurrence of a maximum of 140 characters of unstructured (ie free-formatted) remittance

information, or repetitive occurrences of structured Remittance Information of up to 9,000 characters (excluding xml tags).[17]

Link to G20 targets

Automated reconciliation of cross-border payments by the end customers will help to improve the transparency and, indirectly, lower the costs associated with cross-border payments.

Potential implementation effort

Financial institutions involved in cross-border payments will need to update their systems and processes to source and enable the inclusion and carriage of required remittance information across the end-to-end cross-border payments chain.

Consultation question(s)

Question 30. Do you believe that setting minimum end-to-end expectations with respect to the carrying of remittance information can improve the processing efficiency of cross-border payments?

Question 31. To what extent would the ability to include references to separately sent remittance-related information (eg through inclusion of hyperlinks or other references) be helpful to process a cross-border payment? Are there obstacles (eg legal, regulatory, supervisory limits) to including reference to separately sent remittance information in your jurisdiction/community?

3. Implementation

3.1 Alignment of market practice guidelines effective 2025

The CPMI believes that implementation of the requirements presented in this report will significantly increase the efficiency of cross-border payments. However, given the potential wide reach and significant impact of any new market practice requirements, extensive market consultation and lead times for implementation need to be provided. The CPMI believes that the final harmonisation requirements, when published in 2023 after the review of the consultation feedback is completed, should take effect when the MT/ISO 20022 coexistence period ends, currently scheduled for November 2025.[18] It is expected that various market practice guidance (eg CBPR+, HVPS+ and local payment systems guidance) will also align with the CPMI's harmonisation requirements at this time.

[17] Usage of reference information through hyperlinks to provide minimum remittance information could necessitate feasibility checks in individual user communities. Although such practice is currently uncommon in correspondent banking arrangements, an option to use hyperlinks to provide remittance information could fulfill specific needs to include additional data (eg trade data) as part of a payment message. In practice, the possibility to use hyperlinks may require specific approval from relevant authorities or market-wide establishment of common standards in order to mitigate potential implications for security.

[18] SWIFT has enabled ISO 20022 messages for cross-border payments since August 2022, on an opt-in basis, and will provide general availability from March 2023. SWIFT will facilitate interoperability during a three-year period of coexistence for MT and MX until November 2025, allowing early adopters to benefit from ISO 20022's richer and more structured data, and other institutions to adopt the standards at their own pace. 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.

3.2 Global community effort

The adoption of the CPMI ISO 20022 harmonisation requirements asks for a global community effort with end users, service providers, industry organisations, payment practitioners and individual jurisdictions collaborating on implementing the minimum required data model across the broad cross-border payments ecosystem. Only widespread adoption will support continued progress towards the G20 roadmap targets.

Specifically, end users, financial institutions and their industry organisations will be asked to identify further opportunities to align and structure information, thereby further enabling end-to-end automation and reconciliation of payments. Organisations that provide payment-related services, such as reference data solutions, will be requested to align the structures and formats of their data repositories with the requirements. While recognising that regulatory reporting needs may be specific to individual jurisdictions, it is recommended that authorities make their requirements publicly accessible in standardised ways, while fully leveraging the potential of the ISO 20022 standard.

3.3 Benefits and consequences of global uptake of the CPMI ISO 20022 harmonisation requirements

Fragmentation of data standards and formats across jurisdictions is a fundamental friction that underlies the challenges of slow speed and high cost of cross-border payments. The global trend in recent years to adopt ISO 20022 as the messaging standard for payment systems presents stakeholders with a chance to collaborate on harmonised adoption, which could result in widespread benefits. The requirements presented in this report aim to realise such benefits by contributing to improving the quality of data included in cross-border payment messages as well as by ensuring smooth transmission of such data across the payment chain.

However, the realisation of the benefits depends crucially on the widespread uptake of the requirements. Limited or incomplete uptake could lead to further fragmentation and lack of interoperability. As such, it is essential that the proposed requirements are reviewed through this inclusive consultation process to ensure buy-in. This should encourage widespread adoption once the requirements have been finalised. While the ultimate adoption of any standard depends on decisions by individual user communities, the CPMI requirements aim to materially improve the speed and cost of cross-border payments for end users.

3.4 Maintenance

The CPMI believes its ISO 20022 harmonisation requirements and associated data model will be generally stable but that the payments industry and ISO 20022 standards will continue to evolve. Changes to the cross-border payments landscape and updates to the standard might create a need for updates to the overarching CPMI requirements, the core message set and/or the minimum required data models. The JTF is discussing the approach to maintaining the CPMI requirements – in line with the annual ISO 20022 message maintenance cycle – to coordinate future updates and enable adequate planning by the payments industry.

Consultation question(s)

Question 32. Is the timing envisaged for the requirements to take effect in line with industry expectations?

Question 33. Do the requirements provide clarity on how harmonised implementation of ISO 20022 can contribute to achieving the G20 targets?

4. Conclusion

The growing adoption by payment systems around the world of ISO 20022 as a common messaging standard is an opportunity to promote greater interoperability, positively impacting cross-border payments. However, while this trend may point to the potential for enhanced cross-border payments, variability in the ways in which ISO 20022 is deployed across the globe could undercut some of its benefits. This CPMI report presents, for public consultation, the CPMI's proposed ISO 20022 harmonisation requirements for cross-border payments developed in collaboration with industry. Realisation of the benefits of the harmonisation, however, will depend crucially on their widespread uptake. As such, it is essential that the proposed requirements are reviewed through an inclusive consultation process to ensure broad buy-in by participants in cross-border payments. This CPMI report is a critical step in the consultation process.

5. Summary of the consultation questions

Consultation questions

The CPMI invites the public to send their comments on these consultation questions to the CPMI secretariat (cpmi@bis.org) with "ISO 20022 harmonisation" in the subject line by 10 May 2023. All responses will be shared with the JTF and will inform the publication of the finalised harmonisation requirements by the CPMI. Responses will also be published on the website of the CPMI. Commercial or other sensitive information should not be included in the submissions, or may be included, with redactions for publication clearly noted.

Guiding principles (Section 2.2)

Question 1. Do you agree with the guiding principles followed for setting the requirements, including the platform or network agnostic approach, the level of ambition and the future state orientation?

Requirement #1 – To use the appropriate message for a particular business function (Section 2.5.1)

Question 2. Do you agree that the inconsistent use of messages can be adequately addressed through this requirement?

Question 3. How could the risk of inconsistent use of messages or deviation from the business functions defined by ISO 20022 be mitigated? Would the proposed solution contribute to mitigating such risks and lead to improved efficiency of cross-border payments processing? Please explain.

Question 4. How do you assess the level of effort that will be required to adopt the appropriate message as defined by the ISO 20022 standard?

Requirement #2 – To use ISO 20022 externalised codes for payments and payment-related processes (Section 2.5.2)

Question 5. Would requiring the use of ISO 20022 externalised codes facilitate faster, cheaper and more transparent cross-border payments? How do you assess the implementation effort?

Question 6. Are there any limitations/challenges resulting from increased reliance on ISO 20022 codes? How difficult would it be to overcome these limitations/challenges?

Requirement #3 – To indicate that a payment is a cross-border payment (Section 2.5.3)

Question 7. Do you agree that identifying a payment as a cross-border payment should be required to enhance the processing efficiency of cross-border payments? Would such a flag facilitate compliance procedures including financial crime screening? Please explain.

Question 8. Do you agree that the use of an ISO 20022 external code (eg a Category Purpose) would be the most effective way to flag a payment as cross-border? Are there alternative approaches you would suggest?

Question 9. How do you assess the level of cost and effort required for the implementation effort?

Consultation questions (continued)

Requirement #4 – To support/restrict the character set used for ISO 20022 payment messages to current market practice (Section 2.5.4)

Question 10. Do you agree with the restricted character set for cross-border payments as described above? If not, which alternative character sets or additional characters should be included?

Requirement #5 – To use a common time convention across all ISO 20022 messages associated with cross-border payments (Section 2.5.5)

Question 11. Do you agree that requiring times in ISO 20022 messages to be stated either in UTC or in local time with UTC offset will enhance the transparency and efficiency of cross-border payments? If not, please explain.

Requirement #6 – To include a unique end-to-end reference for all cross-border payments (Section 2.5.6)

Question 12. Do you agree that requiring the use of UETR for all cross-border payments will have a positive impact on the transparency, speed and cost of cross-border payments? If not, please explain.

Question 13. How do you assess the effort required to implement this requirement?

Requirement #7 – To ensure full transparency on processing times for cross-border payments (Section 2.5.7)

Question 14. Do you believe that the requirement for inclusion of the time of debit of the debtor will increase transparency on the time it takes to complete the processing of cross-border payments? What improvements would the requirement bring to the end user experience?

Question 15. How do you assess the difficulty of adopting usage of the acceptance date time data element as a requirement for cross-border payments? Would the implementation effort and impact on the transparency needs of end users differ by message type?

Requirement #8 – To ensure full transparency on amounts, currency conversions and charges of cross-border payments (Section 2.5.8)

Question 16. What are the implications of requiring all those involved in cross-border payments to provide complete information on amount, conversions and charges?

Question 17. Are there any technical, legal or other hurdles that could impede the inclusion of complete information on amount, conversions and charges in cross-border payments that they process?

Consultation questions (continued)

Requirement #9 – To indicate that a cross-border payment is consistent with the CPMI service level agreement guidance (building block 3) (Section 2.5.9)

Question 18. Would the introduction of a CPMI service level code in ISO 20022 to track adherence to the CPMI guidance and harmonisation requirements facilitate improvements to cross-border payments processing?

Question 19. How would the availability of a CPMI service level code in ISO 20022 messages impact the business models/strategies of financial institutions providing cross-border payment services?

Question 20. How do you assess the difficulty of adopting a CPMI service level code?

Requirement #10 – To recommend the use of unique account numbers (or proxies) to the extent possible (Section 2.5.10)

Question 21. Do you agree that the use of account identifiers (or account proxies), to the extent possible, would have a positive impact on the speed and cost of cross-border payments? Please explain.

Requirement #11 – To uniquely identify all financial institutions (FIs) involved in cross-border payments in an internationally recognised and standardised way (Section 2.5.11)

Question 22. Do you agree that uniquely identifying all financial institutions involved in cross-border payments in an internationally recognised and standardised way would enhance cross-border payments? Please explain.

Question 23. Do you agree with the proposed solution of requiring the use of the BIC to identify all financial institutions? Why or why not?

Question 24. What would you assess to be the level of effort required by your jurisdiction: (a) to only use the BIC to identify financial institutions in ISO 20022 messages; and (b) for all financial institutions that currently do not have a BIC to register for one?

Requirement #12 – To identify all entities involved in a cross-border payment in a standardised and structured way (Section 2.5.12)

Question 25. Do you agree that requiring participants to identify all entities involved in a cross-border payment in a standardised and structured way would enhance the processing efficiency of cross-border payments? Please explain.

Question 26. Do you agree with the proposed use of structured identifiers such as the LEI, if they exist, to complement the recommended minimum data requirements to identify the legal entities involved in cross-border payments? Should they be required instead?

Consultation questions (continued)

Requirement #13 – To identify all persons involved in a cross-border payment in a standardised and structured way (Section 2.5.13)

Question 27. Do you agree that requiring participants to identify all persons involved in a cross-border payment in a standardised and structured way would enhance the processing efficiency of cross-border payments? Please explain.

Requirement #14 – To provide a common minimum level of postal address information structured to the extent possible (Section 2.5.14)

Question 28. Do you agree that a requirement not to use unstructured postal address information and to use only structured postal address information can help enhance the processing efficiency of cross-border payments? Please explain.

Question 29. Do you agree with the minimum required postal address information consisting of the Country and Town Name fields? Should any additional fields be required?

Requirement #15 – To cater for the transport of customer remittance information across the end-to-end cross-border payment chain by enabling the inclusion of a minimum size of structured or unstructured remittance information with the payment, or to reference such information when sent separately (Section 2.5.15)

Question 30. Do you believe that setting minimum end-to-end expectations with respect to the carrying of remittance information can improve the processing efficiency of cross-border payments?

Question 31. To what extent would the ability to include references to separately sent remittance-related information (eg through inclusion of hyperlinks or other references) be helpful to process a cross-border payment? Are there obstacles (eg legal, regulatory, supervisory limits) to including reference to separately sent remittance information in your jurisdiction/community?

Implementation (Section 3)

Question 32. Is the timing envisaged for the requirements in section 2.5 to take effect in line with industry expectations? What would be the challenges in meeting the envisaged timeframe?

Question 33. Do the requirements in section 2.5 provide clarity on how harmonised implementation of ISO 20022 can contribute to achieving the G20 targets?

Annex 1: CPMI core ISO 20022 message set for cross-border payments

Credit transfer messages (pain.001, pacs.008 and pacs.009)

The customer-to-bank payment initiation (pain.001), customer interbank credit transfer (pacs.008) and financial institution credit transfer (pacs.009) are important parts of the end-to-end cross-border payments chain. Harmonised and agreed implementation guidance, including a minimum-required data model, will inform the quality of interbank cross-border customer credit transfers. For that reason, these messages are included in the core message set.

Payment status messages (pain.002, pacs.002 and pacs.028)

Bank-to-customer payment status report (pain.002)

Consistent with the inclusion of the customer-to-bank payment initiation message (pain.001), the bank-to-customer payment status report message is also included in the core message set. To ensure consistency in the data elements reported back to a customer initiating a cross-border payment, the CPMI believes it is important to include the pain.002 message type in order increase the overall transparency of cross-border payments.[19]

Interbank payment status report (pacs.002)

While financial institutions or payment platforms may have different mechanisms to provide updates on the processing status of cross-border payments, the payment status report (pacs.002) is the standard ISO 20022 message type to fulfil that purpose through messaging. The message type has therefore been included in the core message set for the purposes of defining an accompanying data model to harmonise the implementation of the message for a variety of use cases and statuses.

Interbank payment status request (pacs.028)

The payment status request allows financial institutions to follow up and obtain the (latest available) payment status of cross-border payments. While financial institutions or payment platforms may have different mechanisms to provide updates on the processing status of cross-border payments, the payment status request (pacs.028) is the ISO 20022 standard to fulfil that purpose through messaging.[20] The message type has therefore been included in the core message set for the purposes of defining an accompanying data model to harmonise the implementation of the message for a variety of use cases and statuses.

[19] An account servicer might have access to all necessary data to report the status of a payment initiation back to the customer, either as a result of the payment initiation itself or as a result of information received through the interbank payment status report message (pacs.002). However, inclusion of the pain.002 in the core message set would ensure a common minimum level of key data elements to be reported back to the customer for the purposes of enhancing transparency. Also, there may be situations in which entities other than the account servicer and the customer are involved in the initiation of cross-border payments (eg relay scenarios).

[20] However, this functionality in the pacs.028 might be incorporated as part of an ongoing redevelopment of a portfolio of exceptions and investigations messages. While it is not expected that the data model will significantly differ, the actual ISO 20022 message incorporated in the core set could change as more information on the new message becomes available.

Payment cancellation (camt.055, camt.029 and camt.029) and payment return (pacs.004) messages

In line with the decision to include the customer-to-bank payment initiation message (pain.001) in the core message set, the customer-to-bank payment cancellation request and response messages (camt.055 and camt.029, respectively), and the interbank payment cancellation request and response messages (camt.056 and camt.029, respectively) are also included.[21] Timely cancellation of cross-border payments will depend on the use of a harmonised implementation of the appropriate messaging standards and the provision of the minimum data to be included by customers as they attempt to cancel payments. This will enable seamless processing of return requests in the interbank space.

Account reporting messages (camt.052, camt.053 and camt.054)[22]

The bank-to-customer account report (camt.052), bank-to-customer statement (camt.053) and bank-to-customer debit/credit notification (camt.054) are standard ISO 20022 account reporting messages that play an important role in cross-border payment reporting. However, as these messages contain data elements beyond those related to cross-border payment activity, the CPMI has decided to establish harmonisation requirements only for data elements related to cross-border payment activity.

Request for payment messages (pain.013, pain.014, camt.055 and camt.029)

The request for payment (pain.013) is used by a creditor to request movement of funds from the debtor account to a creditor. Industry workgroups are currently actively discussing use cases for this message, which is likely to gain significant traction in the coming years. As such, this message is included in the core message set so that it carries the data elements necessary to enable a seamless cross-border customer credit transfer. In line with this decision, the related request for payment response message (pain.014) is also included, in addition to the request for payment cancellation (camt.055) and request for payment cancellation request response (camt.029) messages.

Exceptions & investigations messages (camt.110 and camt.111)

The CPMI has agreed to incorporate exception and investigation messages in the core message set. However, considering the redevelopment of the ongoing E&I messages at ISO 20022 level, implementation guidance at this stage will be defined on a best effort basis. It is expected that the minimum required data model for the new message set should be available in time for incorporation in the final data model.

[21] The interbank payment cancellation request response message (camt.029) currently covers more functionality than responding to a return request. Moreover, the message standard is likely to change in the future as a result of the ongoing exception and investigation message redevelopment (resulting in the likely removal of functionalities not related to payment cancellations). However, it is assumed that the elements responding to a payment cancellation request will not be impacted.

[22] The camt.052 provides intraday information. The camt.053 provides a previous/prior day bank statement which gives the customer detailed and structured information on all entries booked to their account for the previous day. The camt.054 provides the customer with specific account debit and account credit information. These ISO 20022 messages replace the MT942, MT940/MT950 and MT900/MT910 messages, respectively.

Annex 2: CPMI data models for common data elements

Explanatory note

The CPMI 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.

The data models found in Annexes 2 and 3 can be interpreted using the following legend:

- *Required ("R"):* the information must be provided across an end-to-end cross-border payment;
- *Recommended ("RC"):* while not required, if included the information may positively impact the data quality of the payment and further improve the processing efficiency;
- *Conditional ("C"):* 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 ("N"):* the data element is to be excluded as the information might negatively impact the data quality and processing efficiency of the cross-border payment.

Furthermore, any data element that is optional at global ISO 20022 and has not been restricted as part of the definition of the CPMI minimum required data model, 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;

Table A2.1: CPMI data model for person/entity (ISO 20022 'Party')

Core Data Elements – Person/Entity Identification

Table A2.1

ISO 20022 Data Type Format	ISO 20022 Data Model	CPMI Data Model	CPMI Requirement
Name	[0..1]	C [1]	12
Postal Address	[0..1]	C [1]	12, 13, 14
Address Type	[0..1]	N	
Department	[0..1]		
Sub Department	[0..1]		
Street Name	[0..1]	RC	
Building Number	[0..1]	RC	
Building Name	[0..1]		
Floor	[0..1]		
Post Box	[0..1]		
Room	[0..1]		
Post Code	[0..1]	RC	
Town Name	[0..1]	R	
Town Location Name	[0..1]		
District Name	[0..1]		
Country Sub Division	[0..1]		2 [2]
Country	[0..1]	R	
Address Line	[0..7]	N	
Identification	[0..1]		
Organisation Identification	[1..1]		
Any BIC	[0..1]	RC [1]	12
LEI	[0..1]	RC [1]	12
Other	[0..*]		
Identification	[1..1]		
Scheme Name	[0..1]	R	2
Issuer	[0..1]	R	
Private Identification	[1..1]		
Date And Place Of Birth	[0..1]		
Other	[0..*]		
Identification	[1..1]		
Scheme Name	[0..1]	R	2
Issuer	[0..1]	R	
Country Of Residence	[0..1]		
Contact Details	[0..1]	N [3]	

[1] While *Name* and *Postal Address* are required for natural persons, for entities, eg corporations, they may be substituted or complemented by globally recognized identifiers such as a Business Identification Code (BIC) or Legal Entity Identifier (LEI). The use of structured identifiers is recommended to the extent possible. More specifically: a BIC (in ISO 20022 element *Any BIC*) may substitute *Name* and *Postal Address*, while an LEI may substitute the *Postal Address* (but still requires use of *Name*).

[2] Use of codes should be in line with the ISO 3166-2 standard (eg "NY" for the state of New York)

[3] Contact Details are not required nor desired from an end-to-end cross-border payments efficiency point of view. This does not apply to a person/entity identified as *Invoicer* or *Invoicee* in a *Structured* remittance information of a cross-border customer credit transfer (pacs.008) where it may be used.

Table A2.2: CPMI data model for financial institution (ISO 20022 'Agent')

Core Data Elements – Financial Institution Identification

Table A2.2

ISO 20022 Data Type Format	ISO 20022 Data Model	CPMI Data Model	CPMI Requirement
Financial Institution Identification	[1..1]		
BICFI	[0..1]	R	11
Clearing System Member Identification	[0..1]		
Clearing System Identification	[1..1]		2
Member Identification	[1..1]		
LEI	[0..1]		
Name	[0..1]	N	
Postal Address	[0..1]	N	
Other	[0..1]	N	
Branch Identification	[0..1]	N	

Table A2.3: CPMI data model for an account (ISO 20022 'Account')

Core Data Elements – Account Identification

Table A2.3

ISO 20022 Data Type Format	ISO 20022 Data Model	CPMI Data Model	CPMI Requirement
Identification	[0..1]	C [1]	10
IBAN	[1..1]		
Other	[1..1]		
Identification	[1..1]		
Scheme Name	[0..1]		2
Issuer	[0..1]		
Type	[0..1]		2
Currency	[0..1]		
Name	[0..1]		
Proxy	[0..1]	C [1]	
Type	[0..1]	R	2
Identification	[1..1]		

[1] Either an account *Identification* or *Proxy*, eg email or mobile phone number, must be provided. Both may be provided.

Annex 3: CPMI data models for specific message types

Table A3.1: pacs.008

FI To FI Customer Credit Transfer

pacs.008.001.10 Table A3.1

ISO 20022 Message Elements *	ISO 20022 Data Model	CPMI Data Model	CPMI Requirement
Group Header	[1..1]		
Message Identification	[1..1]		
Creation Date Time	[1..1]		5
Batch Booking	[0..1]		
Number Of Transactions	[1..1]		
Control Sum	[0..1]		
Total Interbank Settlement Amount	[0..1]		
Interbank Settlement Date [1]	[0..1]		
Settlement Information [2]	[1..1]		10, 11
Settlement Method	[1..1]		
Settlement Account	[0..1]		10
Clearing System	[0..1]		2
Instructing Reimbursement Agent	[0..1]		11
Instructing Reimbursement Agent Account	[0..1]		10
Instructed Reimbursement Agent	[0..1]		11
Instructed Reimbursement Agent Account	[0..1]		10
Third Reimbursement Agent	[0..1]		11
Third Reimbursement Agent Account	[0..1]		10
Payment Type Information [1]	[0..1]		
Instructing Agent [1]	[0..1]		
Instructed Agent [1]	[0..1]		
Credit Transfer Transaction Information [3]	[1..*]		
Payment Identification	[1..1]		
Instruction Identification	[0..1]		
End To End Identification	[1..1]		
Transaction Identification	[0..1]		
UETR	[0..1]	R	6
Clearing System Reference	[0..1]		
Payment Type Information	[0..1]		
Instruction Priority	[0..1]		
Clearing Channel	[0..1]		

[1] Available at multiple levels of the ISO 20022 message, but mutually exclusive. Refer to Credit Transfer Transaction Information below.

[2] Usage of elements within *Settlement Information* is ruled by the chosen *Settlement Method*. If present underlying elements must align with the relevant minimum data requirements, eg Settlement Account with requirement 10 for accounts, Reimbursement Agents with requirement 11 for FIs.

[3] The CPMI minimum required data model for cross-border payments applies to the ISO 20022 message irrespective of whether it is used to send single or multiple credit transfers.

Service Level	[0..*]	C	2, 9
Local Instrument	[0..1]		
Category Purpose [4]	[0..1]	R	2, 3
Interbank Settlement Amount	[1..1]		
Interbank Settlement Date	[0..1]	R	7
Settlement Priority	[0..1]		
Settlement Time Indication	[0..1]		5
Settlement Time Request	[0..1]		5
Acceptance Date Time	[0..1]	R	5, 7
Pooling Adjustment Date	[0..1]	N	
Instructed Amount	[0..1]	R	8
Exchange Rate [5]	[0..1]		8
Charge Bearer	[1..1]		8
Charges Information [6]	[0..*]		8
Amount	[1..1]		8
Agent	[1..1]		11
Mandate Related Information	[0..1]	N	
Previous Instructing Agent 1 [7]	[0..1]		11
Previous Instructing Agent 1 Account [7]	[0..1]		10
Previous Instructing Agent 2 [7]	[0..1]		11
Previous Instructing Agent 2 Account [7]	[0..1]		10
Previous Instructing Agent 3 [7]	[0..1]		11
Previous Instructing Agent 3 Account [7]	[0..1]		10
Instructing Agent	[0..1]	R	
Instructed Agent	[0..1]	R	
Intermediary Agent 1	[0..1]		11
Intermediary Agent 1 Account	[0..1]		10
Intermediary Agent 2	[0..1]		11
Intermediary Agent 2 Account	[0..1]		10
Intermediary Agent 3	[0..1]		11
Intermediary Agent 3 Account	[0..1]		10
Ultimate Debtor [8]	[0..1]		12, 13
Initiating Party [8]	[0..1]		12, 13

[4] If requirement 3 to indicate that a payment is a cross-border payment is confirmed, and the solution is use of the Category Purpose element, then a change request to the ISO 20022 governance bodies will be issued to make Category Purpose a repetitive element. This would allow to reserve one occurrence for CPMI data model purposes, while avoid impacting any community/solution specific practices already using the element for other purposes.

[5] Use of *Exchange Rate* is ruled by the ISO 20022 message standard depending on the *Instructed Amount* and *Interbank Settlement Amount* currencies and is therefore use case dependent.

[6] Usage of *Charges Information* is ruled by the ISO 20022 message standard depending on the chosen *Charge Bearer* and therefore use case dependent. If used, then *Amount* must be specified in the currency of the payment and *Agent* must align with the CPMI requirements to identify FIs.

[7] Use of *Previous Instructing Agent 1, 2, 3* and *Previous Instructing Agent Account 1, 2, 3* is payment use case dependent, but once added these elements must be carried across the end-to-end cross-border payment chain unchanged.

[8] Use of *Ultimate Debtor*, *Initiating Party* and *Ultimate Creditor* is payment use case dependent, but once added these elements must be carried across the end-to-end cross-border payment chain unchanged.

Debtor	[1..1]		12, 13
Debtor Account	[0..1]	RC	10
Debtor Agent	[1..1]		11
Debtor Agent Account	[0..1]		10
Creditor Agent	[1..1]		11
Creditor Agent Account	[0..1]		10
Creditor	[1..1]		12, 13
Creditor Account	[0..1]	RC	10
Ultimate Creditor [8]	[0..1]		
Instruction For Next Agent	[0..*]	N	2
Instruction For Creditor Agent [9]	[0..*]	[0..2]	2
Purpose [10]	[0..1]		2
Regulatory Reporting [10]	[0..10]		2
Tax [10] [11]	[0..1]	N	2
Related Remittance Information	[0..10]	[0..1]	15
Remittance Information [12]	[0..1]		
Unstructured	[0..*]	[0..1]	15
Structured	[0..*]	Max 9000 characters	15
Supplementary Data	[0..*]	N	
Supplementary Data	[0..*]	N	

** Items in **bold** may have to be reported to the Debtor and/or Creditor to provide complete transparency on the cross-border payment and to enable seamless customer reconciliation, eg via ISO 20022 reporting messages camt.052, camt.053, camt.054.*

[9] Instruction For Creditor Agent is repetitive and may occur up to 2 times.

[10] Cross-border customer payments may carry a payment *Purpose*, *Regulatory Reporting* and/or *Tax* information to meet local jurisdictional requirements that once added must be carried across the end-to-end payment chain unchanged. To further improve the efficiency the CPMI recommends for jurisdictions to publicly share any local regulatory or tax requirements related to cross-border customer payments.

[11] The *Tax* component is available in the *Structured* remittance information component.

[12] *Remittance Information* may take the form of either a single occurrence of maximum 140 characters of *Unstructured* (free-formatted) remittance information or repetitive occurrences of *Structured* remittance Information up to 9,000 characters excluding xml tags.

Table A3.2: pacs.009

Financial Institution Credit Transfer

pacs.009.001.10 Table A3.2

ISO 20022 Message Elements *	ISO 20022 Data Model	CPMI Data Model	CPMI Requirement
Group Header	[1..1]		
Message Identification	[1..1]		
Creation Date Time	[1..1]		5
Batch Booking	[0..1]		
Number Of Transactions	[1..1]		
Control Sum	[0..1]		
Total Interbank Settlement Amount	[0..1]		
Interbank Settlement Date [1]	[0..1]		
Settlement Information [2]	[1..1]		
Settlement Method	[1..1]		
Settlement Account	[0..1]		10
Clearing System	[0..1]		2
Instructing Reimbursement Agent	[0..1]		11
Instructing Reimbursement Agent Account	[0..1]		10
Instructed Reimbursement Agent	[0..1]		11
Instructed Reimbursement Agent Account	[0..1]		10
Third Reimbursement Agent	[0..1]		11
Third Reimbursement Agent Account	[0..1]		10
Payment Type Information [1]	[0..1]		
Instructing Agent [1]	[0..1]		
Instructed Agent [1]	[0..1]		
Credit Transfer Transaction Information [3]	[1..*]		
Payment Identification	[1..1]		
Instruction Identification	[0..1]		
End To End Identification	[1..1]		
Transaction Identification	[0..1]		
UETR	[0..1]	R	6
Clearing System Reference	[0..1]		
Payment Type Information	[0..1]		
Instruction Priority	[0..1]		
Clearing Channel	[0..1]		
Service Level	[0..*]	C	2, 9
Local Instrument	[0..1]		

[1] Available at multiple levels of the ISO 20022 message, but mutually exclusive. Refer to Credit Transfer Transaction Information below.

[2] Usage of elements within *Settlement Information* is ruled by the chosen *Settlement Method*. If present underlying elements must align with the relevant minimum data requirements, eg, Settlement Account with requirement 10 for accounts, Reimbursement Agents with requirement 11 for FIs.

[3] The CPMI minimum required data model for cross-border payments applies to the ISO 20022 message irrespective of whether it is used to send single or multiple credit transfers.

Category Purpose [4]	[0..1]	R	2, 3
Interbank Settlement Amount	[1..1]		
Interbank Settlement Date	[0..1]	R	7
Settlement Priority	[0..1]		
Settlement Time Indication	[0..1]		5
Settlement Time Request	[0..1]		5
[***Acceptance Date Time*** [5]]	NA	R	5, 7
Previous Instructing Agent 1 [6]	[0..1]		11
Previous Instructing Agent 1 Account [6]	[0..1]		10
Previous Instructing Agent 2 [6]	[0..1]		11
Previous Instructing Agent 2 Account [6]	[0..1]		10
Previous Instructing Agent 3 [6]	[0..1]		11
Previous Instructing Agent 3 Account [6]	[0..1]		10
Instructing Agent	[0..1]	R	
Instructed Agent	[0..1]	R	
Intermediary Agent 1	[0..1]		11
Intermediary Agent 1 Account	[0..1]		10
Intermediary Agent 2	[0..1]		11
Intermediary Agent 2 Account	[0..1]		10
Intermediary Agent 3	[0..1]		11
Intermediary Agent 3 Account	[0..1]		10
Ultimate Debtor [7]	[0..1]	N	
Debtor	[1..1]		11
Debtor Account	[0..1]		10
Debtor Agent	[1..1]		11
Debtor Agent Account	[0..1]		10
Creditor Agent	[1..1]		11
Creditor Agent Account	[0..1]		10
Creditor	[1..1]		11
Creditor Account	[0..1]		10
Ultimate Creditor [7]	[0..1]	N	
Instruction For Creditor Agent [8]	[0..*]	[0..2]	2
Instruction For Next Agent	[0..*]	N	2

[4] If requirement 3 to indicate that a payment is a cross-border payment is confirmed, and the solution is use of the Category Purpose element, then a change request to the ISO 20022 governance bodies will be issued to make Category Purpose a repetitive element. This would allow to reserve one occurrence for CPMI data model purposes, while avoid impacting any community/solution specific practices already using the element for other purposes.

[5] Acceptance Date Time is currently not available in the pacs.009. If requirement 7 to ensure full transparency on cross-border payment processing times is confirmed, and the solution is use of the Acceptance Date Time element, then a change request to the ISO 20022 governance bodies will be issued to add the element to the pacs.009 message.

[6] Use of *Previous Instructing Agent 1, 2, 3* and *Previous Instructing Agent Account 1, 2, 3* is payment use case dependent, but once added these elements must be carried across the end-to-end cross-border payment chain unchanged.

[7] The use case for Ultimate Debtor and Ultimate Creditor in cross-border financial institution payments is unclear. Either there is an account relationship between the Ultimate Debtor and the Debtor, and then the Ultimate Debtor and Debtor should really be the Debtor and Debtor Agent respectively, or the Ultimate Debtor is not really part to the transaction and may be information more suited to be included in the remittance information. An industry effort to create a structured remittance information component for financial institution payments versus today's unstructured remittance information is ongoing. Pending availability of that component, unstructured remittance information should be used in the meantime.

[8] Instruction For Creditor Agent is repetitive and may occur up to 2 times.

Purpose [9]	[0..1]		
Remittance Information	[0..1]		
Unstructured	[0..*]	[0..1]	15
Underlying Customer Credit Transfer [10] [11]	[0..1]		
Ultimate Debtor	[0..1]		12, 13
Initiating Party	[0..1]		12, 13
Debtor	[1..1]		12, 13
Debtor Account	[0..1]		10
Debtor Agent	[1..1]		11
Debtor Agent Account	[0..1]		10
Previous Instructing Agent 1	[0..1]		11
Previous Instructing Agent 1 Account	[0..1]		10
Previous Instructing Agent 2	[0..1]		11
Previous Instructing Agent 2 Account	[0..1]		10
Previous Instructing Agent 3	[0..1]		11
Previous Instructing Agent 3 Account	[0..1]		10
Intermediary Agent 1	[0..1]		11
Intermediary Agent 1 Account	[0..1]		10
Intermediary Agent 2	[0..1]		11
Intermediary Agent 2 Account	[0..1]		10
Intermediary Agent 3	[0..1]		11
Intermediary Agent 3 Account	[0..1]		10
Creditor Agent	[1..1]		11
Creditor Agent Account	[0..1]		10
Creditor	[1..1]		12, 13
Creditor Account	[0..1]		10
Ultimate Creditor	[0..1]		12, 13
Instruction For Creditor Agent	[0..*]	[0..2]	
Instruction For Next Agent	[0..*]	N	
Tax [12]	[0..1]	N	
Remittance Information [13]	[0..1]		15
Unstructured	[0..*]	[0..1]	
Structured	[0..*]	Max 9000 characters	
Instructed Amount	[0..1]	R	
Supplementary Data	[0..*]	N	
Supplementary Data	[0..*]	N	

** Items in **bold** may have to be reported to the Debtor and/or Creditor to provide complete transparency on the cross-border payment and to enable seamless customer reconciliation, eg via ISO 20022 reporting messages camt.052, camt.053, camt.054.*

[9] Cross-border payments may carry a payment Purpose to meet local jurisdictional requirements that once added must be carried across the end-to-end payment chain unchanged. To further improve the efficiency the CPMI recommends for jurisdictions to publicly share any local regulatory requirements related to cross-border payments.

[10] This component is only used for financial institution payments sent in cover of a separately sent customer credit transfer.

[11] All cross-border financial institution payments sent as cover of an underlying cross-border customer payment must carry the information of that underlying customer payment in line with the CPMI data model requirements set for those elements as they appear in the customer credit transfer.

[12] In line with pacs.008 data model, the *Tax* component is available in the *Structured* remittance information component.

[13] Remittance Information may take the form of either a single occurrence of maximum 140 characters of Unstructured (free-formatted) remittance information or repetitive occurrences of *Structured* remittance Information up to 9,000 characters excluding xml tags.

Table A3.3: pacs.004

Payment Return

pacs.004.001.11 Table A3.3

ISO 20022 Message Elements *	ISO 20022 Data Model	CPMI Data Model	CPMI Requirement
Group Header	[1..1]		
Message Identification	[1..1]		
Creation Date Time	[1..1]		5
Authorisation	[0..2]		
Batch Booking	[0..1]		
Number Of Transactions	[1..1]		
Control Sum	[0..1]		
Group Return	[0..1]		
Total Returned Interbank Settlement Amount	[0..1]		
Interbank Settlement Date [1]	[0..1]		
Settlement Information [2]	[1..1]		10, 11
Settlement Method	[1..1]		
Settlement Account	[0..1]		10
Clearing System	[0..1]		2
Instructing Reimbursement Agent	[0..1]		11
Instructing Reimbursement Agent Account	[0..1]		10
Instructed Reimbursement Agent	[0..1]		11
Instructed Reimbursement Agent Account	[0..1]		10
Third Reimbursement Agent	[0..1]		11
Third Reimbursement Agent Account	[0..1]		10
Payment Type Information [1]	[0..1]		
Instructing Agent [1]	[0..1]		
Instructed Agent [1]	[0..1]		
Original Group Information [1]	[0..1]		
Transaction Information [3]	[0..*]	R	
Return Identification	[0..1]		
Original Group Information	[0..1]		
Original Message Identification	[1..1]		
Original Message Name Identification	[1..1]		
Original Creation Date Time	[0..1]		5
Original Instruction Identification	[0..1]		
Original End To End Identification	[0..1]	R	
Original Transaction Identification	[0..1]		
Original UETR	[0..1]	R	6
Original Clearing System Reference	[0..1]		

[1] Available at multiple levels of the ISO 20022 message, but mutually exclusive. Refer to Transaction Information below.
[2] Usage of elements within *Settlement Information* is ruled by the chosen *Settlement Method*. If present underlying elements must align with the relevant minimum data requirements, eg, Settlement Account with requirement 10 for accounts, Reimbursement Agents with requirement 11 for FIs.
[3] The CPMI minimum required data model for cross-border payments applies to the ISO 20022 message irrespective of whether it is used to send single or multiple return payments.

Original Interbank Settlement Amount [4]	[0..1]	RC	
Original Interbank Settlement Date [4]	[0..1]	RC	
Payment Type Information	[0..1]		
Instruction Priority	[0..1]		
Clearing Channel	[0..1]		
Service Level	[0..*]	C	2, 9
Local Instrument	[0..1]		
Category Purpose [5]	[0..1]	R	2, 3
Returned Interbank Settlement Amount	[1..1]		
Returned Interbank Settlement Date	[0..1]	R	
Settlement Priority	[0..1]		
Settlement Time Indication	[0..1]		5
Settlement Time Request	[0..1]		5
[**Acceptance Date Time** [6]]	NA	R	5, 7
Returned Instructed Amount	[0..1]	R	
Exchange Rate [7]	[0..1]		8
Compensation Amount [8]	[0..1]	N	
Charge Bearer [9]	[0..1]		8
Charges Information [10]	[0..*]		8
Amount	[1..1]		8
Agent	[1..1]		11
Clearing System Reference	[0..1]		
Instructing Agent	[0..1]	R	
Instructed Agent	[0..1]	R	

[4] If the return payment follows the same path as the original payment, then it is recommended to include the *Original Interbank Settlement Amount* and *Original Interbank Settlement Date*. Otherwise, the elements are optional.

[5] If requirement 3 to indicate that a payment is a cross-border payment is confirmed, and the solution is use of the Category Purpose element, then a change request to the ISO 20022 governance bodies will be issued to make Category Purpose a repetitive element. This would allow to reserve one occurrence for CPMI data model purposes, while avoid impacting any community/solution specific practices already using the element for other purposes.

[6] Acceptance Date Time is currently not available in the pacs.004. If requirement 7 to ensure full transparency on cross-border payment processing times is confirmed, and the solution is use of the Acceptance Date Time element, then a change request to the ISO 20022 governance bodies will be issued to add the element to the pacs.004 message.

[7] Use of *Exchange Rate* is ruled by the ISO 20022 message standard depending on the *Returned Instructed Amount* and *Returned Interbank Settlement Amount* currencies and is therefore use case dependent.

[8] If a compensation is claimed for returning a payment, then it is recommended to handle this separately through the appropriate ISO 20022 messages.

[9] If charges are claimed for the processing of the return payment, then *Charge Bearer* and *Charges Information* must be used in the interest of end-to-end transparency.

[10] Usage of *Charges Information* is ruled by the ISO 20022 message standard depending on the chosen *Charge Bearer* and therefore use case dependent. If used, then *Amount* must be specified in the currency of the payment and *Agent* must align with the CPMI requirements to identify FIs.

Return Chain	[0..1]	R	
Ultimate Debtor [11]	[0..1]		12, 13
Debtor [12]	[1..1]		11, 12, 13
Debtor Account	[0..1]		10
Initiating Party [12]	[0..1]		11, 12, 13
Debtor Agent [13]	[0..1]		11
Debtor Agent Account [13]	[0..1]		10
Previous Instructing Agent 1 [13]	[0..1]		11
Previous Instructing Agent 1 Account [13]	[0..1]		10
Previous Instructing Agent 2 [13]	[0..1]		11
Previous Instructing Agent 2 Account [13]	[0..1]		10
Previous Instructing Agent 3 [13]	[0..1]		11
Previous Instructing Agent 3 Account [13]	[0..1]		10
Intermediary Agent 1	[0..1]		11
Intermediary Agent 1 Account	[0..1]		10
Intermediary Agent 2	[0..1]		11
Intermediary Agent 2 Account	[0..1]		10
Intermediary Agent 3	[0..1]		11
Intermediary Agent 3 Account	[0..1]		10
Creditor Agent [13]	[0..1]		11
Creditor Agent Account [13]	[0..1]		10
Creditor [12]	[1..1]		11
Creditor Account	[0..1]		10
Ultimate Creditor [11]	[0..1]		12, 13
Return Reason Information	[0..*]	R	
Originator	[0..1]		12, 13
Reason [14]	[0..1]	R	2
Additional Information [15]	[0..*]	[0..2]	
Original Transaction Reference	[0..1]	N	
Supplementary Data	[0..*]	N	
Supplementary Data	[0..*]	N	

** Items in **bold** may have to be reported to the Debtor and/or Creditor to provide complete transparency on the cross-border payment and to enable seamless customer reconciliation, eg via ISO 20022 reporting messages camt.052, camt.053, camt.054*

[11] *Ultimate Debtor* and *Ultimate Creditor* may be used when returning a cross-border customer payment, but are not allowed when returning a cross-border financial institution payment.

[12] Depending on the payment return use case the *Debtor*, *Initiating Party*, and *Creditor* can either be a person, entity, or financial institution. For that reason, the referenced CMPI requirements include both *person*/entity and FI requirements.

[13] Use of *Debtor Agent*, Debtor *Agent Account*, *Previous Instructing Agent* 1, 2, 3 and *Previous Instructing Agent Account* 1, 2, 3, *Creditor Agent*, *Creditor Agent Account* is return payment use case dependent, but once added these elements must be carried across the end-to-end cross-border return payment chain unchanged.

[14] A code from the ISO 20022 externalized *ReturnReason1Code* list must be used. If no appropriate code is available, then it is recommended to submit a request to ISO 20022 for inclusion of the code and use the code '*NARR*' in combination with use of *Additional Information* in the meantime.

[15] Additional Information is repetitive and may occur up to 2 times.

Table A3.4: pacs.002

FI To FI Payment Status Report

pacs.002.001.12 Table A3.4

ISO 20022 Message Elements	ISO 20022 Data Model	CPMI Data Model	CPMI Requirement
Group Header	[1..1]		
Message Identification	[1..1]		
Creation Date Time	[1..1]		5
Instructing Agent [1]	[0..1]	N	
Instructed Agent [1]	[0..1]	N	
Original Business Query	[0..1]	N	
Original Group Information And Status [2]	[0..*]	N	
Transaction Information And Status [3]	[0..*]	R	
Status Identification	[0..1]		
Original Group Information	[0..1]		
Original Message Identification	[1..1]		
Original Message Name Identification	[1..1]		
Original Creation Date Time	[0..1]		5
Original Instruction Identification	[0..1]		
Original End To End Identification	[0..1]		
Original Transaction Identification	[0..1]		
Original UETR	[0..1]	R	6
Transaction Status [4]	[0..1]	R	2
Status Reason Information	[0..*]	C [5]	
Originator	[0..1]		12, 13
Reason [6]	[0..1]	R	2
Additional Information [7]	[0..*]	[0..2]	
Charges Information	[0..1]	N	
Acceptance Date Time	[0..1]	C [8]	5, 7
Effective Interbank Settlement Date	[0..1]		7
Account Servicer Reference	[0..1]		
Clearing System Reference	[0..1]		
Instructing Agent	[0..1]	R	
Instructed Agent	[0..1]	R	
Original Transaction Reference	[0..1]	N	

[1] Available at multiple levels of the ISO 20022 message, but mutually exclusive. Refer to Transaction Information And Status below.

[2] Refer to Transaction Information And Status below

[3] The CPMI minimum required data model for cross-border payment status reports applies to the ISO 20022 message irrespective of whether it is used to send single or multiple payment status reports.

[4] A code from the ISO 20022 externalized *ExternalPaymentTransactionStatus1Code* list must be used. If no appropriate code is available, then it is recommended to submit a request to ISO 20022 for inclusion of the code.

[5] Must be provided in case of rejection of the cross-border payment.

[6] A code from the ISO 20022 externalized *ExternalStatusReason1Code* list must be used. If no appropriate code is available, then it is recommended to submit a request to ISO 20022 for inclusion of the code and use the code '*NARR*' in combination with use of *Additional Information* in the meantime.

[7] Additional Information is repetitive and may occur up to 2 times.

[8] Must not be used when reporting on a cross-border customer payment (pacs.008). Optional when reporting on a cross-border financial institution payment (pacs.009). Must not be used in case of reporting a rejection.

Supplementary Data	[0..*]	N
Supplementary Data	[0..*]	N

Table A3.5: pacs.028

FI To FI Payment Status Request

pacs.028.001.05 Table A3.5

ISO 20022 Message Elements	ISO 20022 Data Model	CPMI Data Model	CPMI Requirement
Group Header	[1..1]		
Message Identification	[1..1]		
Creation Date Time	[1..1]		5
Instructing Agent [1]	[0..1]	N	
Instructed Agent [1]	[0..1]	N	
Original Group Information [1]	[0..*]	N	
Transaction Information [2]	[0..*]	R	
Status Request Identification	[0..1]		
Original Group Information	[0..1]		
Original Message Identification	[1..1]		
Original Message Name Identification	[1..1]		
Original Creation Date Time	[0..1]		
Original Instruction Identification	[0..1]		
Original End To End Identification	[0..1]		
Original Transaction Identification	[0..1]		
Original UETR	[0..1]	R	6
Acceptance Date Time	[0..1]		5, 7
Clearing System Reference	[0..1]		
Instructing Agent	[0..1]	R	
Instructed Agent	[0..1]	R	
Original Transaction Reference	[0..1]	N	
Supplementary Data	[0..*]	N	
Supplementary Data	[0..*]	N	

[1] Available at multiple levels of the ISO 20022 message, but mutually exclusive. Refer to Transaction Information below.
[2] The CPMI minimum required data model for cross-border payment status reports applies to the ISO 20022 message irrespective of whether it is used to send single or multiple payment status reports.

Table A3.6: camt.056

FI To FI Payment Cancellation Request

camt.056.001.10 Table A3.6

ISO 20022 Message Elements	ISO 20022 Data Model	CPMI Data Model	CPMI Requirement
Assignment	[1..1]		
Identification	[1..1]		
Assigner	[1..1]		11
Assignee	[1..1]		11
Creation Date Time	[1..1]		5
Case [1]	[0..1]	N	
Control Data	[0..1]	N	
Underlying [2]	[1..*]		
Original Group Information And Cancellation[3]	[0..1]	N	
Transaction Information	[0..*]	R	
Cancellation Identification	[0..1]		
Case	[0..1]	R	
Identification	[1..1]		
Creator	[1..1]		11, 12, 13
Reopen Case Indicator	[0..1]	N	
Original Group Information	[0..1]		
Original Message Identification	[1..1]		
Original Message Name Identification	[1..1]		
Original Creation Date Time	[0..1]		5
Original Instruction Identification	[0..1]		
Original End To End Identification	[0..1]		
Original Transaction Identification	[0..1]		
Original UETR	[0..1]	R	6
Original Clearing System Reference	[0..1]		
Original Interbank Settlement Amount	[0..1]	R	
Original Interbank Settlement Date	[0..1]	R	
Assigner [4]	[0..1]	N	
Assignee [4]	[0..1]	N	
Cancellation Reason Information	[0..*]	R	
Originator	[0..1]		12, 13
Reason [5]	[0..1]	R	2
Additional Information [6]	[0..*]	[0..2]	

[1] Available at multiple levels of the ISO 20022 message, but mutually exclusive. Refer to Case below.
[2] The CPMI minimum required data model for cross-border payment cancellation requests applies to the ISO 20022 message irrespective of whether it is used to send single or multiple payment cancellation requests.
[3] Refer to Transaction Information below.
[4] Available at multiple levels of the ISO 20022 message, but mutually exclusive. Refer to Assignment above.
[5] A code from the ISO 20022 externalized *ExternalCancellationReason1Code* list must be used. If no appropriate code is available, then it is recommended to submit a request to ISO 20022 for inclusion of the code and use the code '*NARR*' in combination with use of *Additional Information* in the meantime.
[6] Additional Information is repetitive and may occur up to 2 times.

Original Transaction Reference	[0..1]	N
Supplementary Data	[0..*]	N
Supplementary Data	[0..*]	N

Table A3.7: camt.055

Customer Payment Cancellation Request

camt.055.001.11 Table A3.7

ISO 20022 Message Elements	ISO 20022 Data Model	CPMI Data Model	CPMI Requirement
Assignment	[1..1]		
Identification	[1..1]		
Assigner	[1..1]		12, 13
Assignee	[1..1]		11
Creation Date Time	[1..1]		5
Case [1]	[0..1]	N	
Control Data	[0..1]	N	
Underlying [2]	[1..*]		
Original Group Information And Cancellation[3]	[0..1]	N	
Original Payment Information And Cancellation[1]	[0..*]	R	
Payment Cancellation Identification	[0..1]		
Case [4]	[0..1]	R	
Identification	[1..1]		
Creator	[1..1]		12, 13
Reopen Case Indicator	[0..1]	N	
Original Payment Information Identification	[1..1]		
Original Group Information	[0..1]		
Original Message Identification	[1..1]		
Original Message Name Identification	[1..1]		
Original Creation Date Time	[0..1]		5
Number Of Transactions	[0..1]	N	
Control Sum	[0..1]	N	
Payment Information Cancellation	[0..1]	N	
Cancellation Reason Information [2]	[0..*]	N	
Transaction Information	[0..*]	R	
Cancellation Identification	[0..1]		
Case [4]	[0..1]	N	
Original Instruction Identification	[0..1]		
Original End To End Identification	[0..1]	R	
Original UETR	[0..1]	RC	6
Original Instructed Amount	[0..1]	R	
Original Requested Execution Date	[0..1]	R	
Original Requested Collection Date	[0..1]	N	
Cancellation Reason Information	[0..*]	R	
Originator	[0..1]		12, 13

[1] Available at multiple levels of the ISO 20022 message, but mutually exclusive. Refer to Case above.
[2] The CPMI minimum required data model for cross-border payment cancellation requests applies to the ISO 20022 message irrespective of whether it is used to send single or multiple payment cancellation requests.
[3] Refer to Transaction Information below.
[4] Available at multiple levels of the ISO 20022 message, but mutually exclusive. Refer to Case above.

Reason [5]	[0..1]	R	2
Additional Information [6]	[0..*]	[0..2]	
Original Transaction Reference	[0..1]	N	
Supplementary Data	[0..*]	N	
Supplementary Data	[0..*]	N	

[5] A code from the ISO 20022 externalized *ExternalCancellationReason1Code* list must be used. If no appropriate code is available, then it is recommended to submit a request to ISO 20022 for inclusion of the code and use the code '*NARR*' in combination with use of *Additional Information* in the meantime.
[6] Additional Information is repetitive and may occur up to 2 times.

Table A3.8: camt.029

Resolution of Investigation (aka Payment Cancellation Response)

camt.029.001.11 Table A3.8

ISO 20022 Message Elements	ISO 20022 Data Model	CPMI Data Model	CPMI Requirement
Assignment	[1..1]		
Identification	[1..1]		
Assigner	[1..1]		11
Assignee	[1..1]		11, 12, 13
Creation Date Time	[1..1]		5
Resolved Case [1]	[0..1]	N	
Status	[0..1]	R	
Confirmation [2]	[1..1]	R	
Rejected Modification	[1..*]	N	
Duplicate Of	[1..1]	N	
Assignment Cancellation Confirmation	[1..1]	N	
Cancellation Details [3]	[0..*]	R	
Original Group Information And Status [4]	[0..1]	N	
Original Payment Information And Status	[0..1]	C [5]	
Original Payment Information Cancellation Identification	[0..1]		
Resolved Case [1]	[0..1]	N	
Original Payment Information Identification	[1..1]		
Original Group Information	[0..1]		
Original Message Identification	[1..1]		
Original Message Name Identification	[1..1]		
Original Creation Date Time	[0..1]		5
Original Number Of Transactions	[0..1]	N	
Original Control Sum	[0..1]	N	
Payment Information Cancellation Status [4]	[0..1]	N	
Cancellation Status Reason Information [4]	[0..1]	N	
Number Of Transactions Per Cancellation Status	[0..*]	N	
Transaction Information And Status	[0..*]	R	
Cancellation Status Identification	[0..1]		
Resolved Case	[0..1]	R	
Identification	[1..1]		

[1] Available at multiple levels of the ISO 20022 message, but mutually exclusive. Refer to Resolved Case components below.

[2] A code from the ISO 20022 externalized *ExternalInvestigationExecutionConfirmation1Code* list must be used. If no appropriate code is available, then it is recommended to submit a request to ISO 20022 for inclusion of the code.

[3] The CPMI minimum required data model for cross-border payment cancellation request responses applies to the ISO 20022 message irrespective of whether it is used to send single or multiple payment cancellation request responses.

[4] Refer to Transaction Information And Status below.

[5] To be used in response to a customer payment cancellation request (camt.055) only.

Creator	[1..1]		12, 13
Reopen Case Indicator	[0..1]	N	
Original Instruction Identification	[0..1]		
Original End To End Identification	[0..1]	R	
Original UETR	[0..1]	RC	6
Transaction Cancellation Status [6]	[0..1]	N	
Cancellation Status Reason Information	[0..*]	C [7]	
Originator	[0..1]		11, 12, 13
Reason [8]	[0..1]		2
Additional Information	[0..*]		
Original Instructed Amount	[0..1]	N	
Original Requested Execution Date	[0..1]	N	
Original Requested Collection Date	[0..1]	N	
Original Transaction Reference	[0..1]	N	
Transaction Information And Status	[0..*]	C [9]	
Cancellation Status Identification	[0..1]		
Resolved Case	[0..1]	R	
Identification	[1..1]		
Creator	[1..1]		11, 12, 13
Reopen Case Indicator	[0..1]	N	
Original Group Information	[0..1]		
Original Message Identification	[1..1]		
Original Message Name Identification	[1..1]		
Original Creation Date Time	[0..1]		5
Original Instruction Identification	[0..1]		
Original End To End Identification	[0..1]		
Original Transaction Identification	[0..1]		
Original Clearing System Reference	[0..1]		
Original UETR	[0..1]	R	6
Transaction Cancellation Status [10]	[0..1]	N	
Cancellation Status Reason Information	[0..*]	C [11]	
Originator	[0..1]		11, 12, 13
Reason [12]	[0..1]		2
Additional Information	[0..*]	[0..2]	
Resolution Related Information	[0..1]	N	
Original Interbank Settlement Amount	[0..1]	N	
Original Interbank Settlement Date	[0..1]	N	
Assigner [13]	[0..1]	N	
Assignee [13]	[0..1]	N	
Original Transaction Reference	[0..1]	N	

[6] Refer to Status above. Only a single transaction cancellation status must be provided and is required at Status level.
[7] Must be provided in case of rejection.

Modification Details	[0..1]	N
Claim Non Receipt Details	[0..1]	N
Statement Details	[0..1]	N
Correction Transaction	[0..1]	N
Resolution Related Information	[0..1]	N
Supplementary Data	[0..*]	N

[8] A code from the ISO 20022 externalized *ExternalPaymentCancellationRejection1Code* list must be used. If no appropriate code is available, then it is recommended to submit a request to ISO 20022 for inclusion of the code and use the code '*NARR*' in combination with use of *Additional Information* in the meantime.

[9] To be used in response to an interbank payment cancellation request (camt.056) only.

[10] Refer to Status above. Only a single transaction cancellation status must be provided and is required at Status level.

[11] Must be provided in case of rejection.

[12] A code from the ISO 20022 externalized *ExternalPaymentCancellationRejection1Code* list must be used. If no appropriate code is available, then it is recommended to submit a request to ISO 20022 for inclusion of the code and use the code '*NARR*' in combination with use of *Additional Information* in the meantime.

[13] Available at multiple levels of the ISO 20022 message, but mutually exclusive. Refer to Assignment above.

Table A3.9: pain.001

Customer Credit Transfer Initiation

pain.001.001.11 Table A3.9

ISO 20022 Message Elements	ISO 20022 Data Model	CPMI Data Model	CPMI Requirement
Group Header	[1..1]		
Message Identification	[1..1]		
Creation Date Time	[1..1]		5
Authorisation	[0..2]		
Number Of Transactions	[1..1]		
Control Sum	[0..1]		
Initiating Party	[1..1]		12, 13
Forwarding Agent	[0..1]		11
Initiation Source	[0..1]		
Payment Information [1]	[1..*]		
Payment Information Identification	[1..1]		
Payment Method	[1..1]	'TRF'	
Requested Advice Type	[0..1]		
Batch Booking	[0..1]		
Number Of Transactions	[0..1]		
Control Sum	[0..1]		
Payment Type Information [2]	[0..1]	N	
Requested Execution Date	[1..1]		
Pooling Adjustment Date	[0..1]		
Debtor	[1..1]		12, 13
Debtor Account	[1..1]		10
Debtor Agent	[1..1]		11
Debtor Agent Account	[0..1]		10
Instruction For Debtor Agent [2]	[0..1]	N	
Ultimate Debtor [2]	[0..1]	N	
Charge Bearer [2]	[0..1]	N	
Charges Account	[0..1]		10
Charges Account Agent	[0..1]		11
Credit Transfer Transaction Information [1]	[1..*]		
Payment Identification	[1..1]		
Instruction Identification	[0..1]		
End To End Identification	[1..1]		
UETR [3]	[0..1]	R	6
Payment Type Information	[0..1]		
Instruction Priority	[0..1]		

[1] The CPMI minimum required data model for cross-border customer payment initiation applies to the ISO 20022 message irrespective of whether it is used to send single or multiple payment initiations.

[2] Available at multiple levels of the ISO 20022 message, but mutually exclusive. Refer to Credit Transfer Transaction Information below.

[3] Customer payment application and corporate ERP systems will be expected to generate a UETR at initiation of the payment. However, during the transition period, if not provided by the customer initiating the payment, the account servicing FI is expected to generate the UETR on their behalf.

Service Level	[0..*]	RC [4]	2, 9
Local Instrument	[0..1]		
Category Purpose	[0..1]	R	2, 3
Amount	[1..1]		
Exchange Rate Information	[0..1]		
Charge Bearer [5]	[0..1]	RC	8
Mandate Related Information	[0..1]	N	
Cheque Instruction	[0..1]	N	
Ultimate Debtor [6]	[0..1]		12, 13
Intermediary Agent 1	[0..1]		11
Intermediary Agent 1 Account	[0..1]		10
Intermediary Agent 2	[0..1]		11
Intermediary Agent 2 Account	[0..1]		10
Intermediary Agent 3	[0..1]		11
Intermediary Agent 3 Account	[0..1]		10
Creditor Agent	[0..1]	R	11
Creditor Agent Account	[0..1]		10
Creditor	[0..1]	R	12, 13
Creditor Account	[0..1]	RC	10
Ultimate Creditor [6]	[0..1]		
Instruction For Creditor Agent [7]	[0..*]	[0..2]	2
Instruction For Debtor Agent	[0..1]		
Purpose [8]	[0..1]		
Regulatory Reporting [8]	[0..10]		
Tax [8] [9]	[0..1]	N	
Related Remittance Information	[0..10]	[0..1]	15
Remittance Information [10]	[0..1]		
Unstructured	[0..*]	[0..1]	15
Structured	[0..*]	Max 9000 characters	15
Supplementary Data	[0..*]	N	
Supplementary Data	[0..*]	N	

[4] It is recommended that customer indicates they are initiating of a cross-border customer credit transfer and are supplying the minimum required data as per the CPMI defined data model. If customers do not provide this indicator, then it is up to the account servicing FI to assess whether sufficient data is provided to comply.

[5] It is highly recommended for the customer to provide the charge bearer option, but not required to allow account servicers to operate in line with regulatory restrictions.

[6] Use of *Ultimate Debtor* and *Ultimate Creditor* is payment use case dependent, but once added these elements must be carried across the end-to-end cross-border payment chain unchanged.

[7] Instruction For Creditor Agent is repetitive and may occur up to 2 times.

[8] Cross-border customer payments may carry a payment *Purpose*, *Regulatory Reporting* and/or *Tax* information to meet local jurisdictional requirements that once added must be carried across the end-to-end payment chain unchanged. To further improve the efficiency the CPMI recommends for jurisdictions to publicly share any local regulatory or tax requirements related to cross-border customer payments.

[9] The *Tax* component is available in the *Structured* remittance information component.

[10] *Remittance Information* may take the form of either a single occurrence of maximum 140 characters of *Unstructured* (free-formatted) remittance information or repetitive occurrences of *Structured* remittance Information up to 9,000 characters excluding xml tags.

Table A3.10: pain.013

Creditor Payment Activation Request (aka Request For Payment)

pain.013.001.09 Table A3.10

ISO 20022 Message Elements	ISO 20022 Data Model	CPMI Data Model	CPMI Requirement
Group Header	[1..1]		
Message Identification	[1..1]		
Creation Date Time	[1..1]		5
Number Of Transactions	[1..1]		
Control Sum	[0..1]		
Initiating Party	[1..1]		12, 13
Payment Information [1]	[1..*]		
Payment Information Identification	[1..1]		
Payment Method	[1..1]	'TRF'	
Requested Advice Type	[0..1]		
Payment Type Information [2]	[0..1]	N	
Requested Execution Date	[1..1]		
Expiry Date	[0..1]	R	5
Payment Condition [2]	[0..1]	N	
Debtor	[1..1]		12, 13
Debtor Account	[0..1]	RC	10
Debtor Agent	[1..1]		11
Ultimate Debtor [2]	[0..1]	N	
Charge Bearer [2]	[0..1]	N	
Credit Transfer Transaction [1]	[1..*]		
Payment Identification	[1..1]		
Instruction Identification	[0..1]		
End To End Identification	[1..1]		
UETR [3]	[0..1]	R	6
Payment Type Information	[0..1]		
Instruction Priority	[0..1]		
Service Level	[0..*]	RC [4]	2, 9
Local Instrument	[0..1]		
Category Purpose [5]	[0..1]	R	2, 3
Payment Condition	[0..1]		

[1] The CPMI minimum required data model for cross-border payments applies to the ISO 20022 message irrespective of whether it is used to send single or multiple requests for payment.

[2] Available at multiple levels of the ISO 20022 message, but mutually exclusive. Refer to Credit Transfer Transaction below.

[3] Customer payment application and corporate ERP systems will be expected to generate a UETR at initiation of the payment. However, during the transition period, if not provided by the customer initiating the payment, the account servicing FI is expected to generate the UETR on their behalf.

[4] It is recommended that customer indicates they are requesting initiation of a cross-border customer credit transfer and are supplying the minimum required data as per the CPMI defined data model. If customers do not provide this indicator, then it is up to the account servicing FI to assess whether sufficient data is provided to comply.

[5] If requirement 3 to indicate that a payment is a cross-border payment is confirmed, and the solution is use of the Category Purpose element, then a change request to the ISO 20022 governance bodies will be issued to make Category Purpose a repetitive element. This would allow to reserve one occurrence for CPMI data model purposes, while avoid impacting any community/solution specific practices already using the element for other purposes.

Amount	[1..1]		
Mandate Related Information	[0..1]		
Cheque Instruction	[0..1]	N	
Ultimate Debtor [6]	[0..1]		12, 13
Intermediary Agent 1	[0..1]		11
Intermediary Agent 2	[0..1]		11
Intermediary Agent 3	[0..1]		11
Creditor Agent	[1..1]		11
Creditor	[1..1]		12, 13
Creditor Account	[0..1]	RC	10
Ultimate Creditor [6]	[0..1]		
Instruction For Creditor Agent [7]	[0..*]	[0..2]	
Purpose [8]	[0..1]		
Regulatory Reporting [8]	[0..10]		
Tax [8] [9]	[0..1]	N	
Related Remittance Information	[0..10]	[0..1]	15
Remittance Information [10]	[0..1]		
Unstructured	[0..*]	[0..1]	15
Structured	[0..*]	Max 9000 characters	15
Enclosed File	[0..1]	N	
Supplementary Data	[0..*]	N	
Supplementary Data	[0..*]	N	

[6] Use of *Ultimate Debtor*, *Initiating Party* and *Ultimate Creditor* is payment use case dependent, but once added these elements must be carried across the end-to-end cross-border payment chain unchanged.

[7] Instruction For Creditor Agent is repetitive and may occur up to 2 times.

[8] Cross-border customer payments may carry a payment *Purpose*, *Regulatory Reporting* and/or *Tax* information to meet local jurisdictional requirements that once added must be carried across the end-to-end payment chain unchanged. To further improve the efficiency the CPMI recommends for jurisdictions to publicly share any local regulatory or tax requirements related to cross-border customer payments.

[9] The *Tax* component is available in the *Structured* remittance information component.

[10] *Remittance Information* may take the form of either a single occurrence of maximum 140 characters of *Unstructured* (free-formatted) remittance information or repetitive occurrences of *Structured* remittance Information up to 9,000 characters excluding xml tags.

Table A3.11: pain.014

Creditor Payment Activation Request Status (aka Request For Payment Status)

pain.014.001.09 Table A3.11

ISO 20022 Message Elements	ISO 20022 Data Model	CPMI Data Model	CPMI Requirement
Group Header	[1..1]		
Message Identification	[1..1]		
Creation Date Time	[1..1]		5
Initiating Party	[1..1]		12, 13
Debtor Agent	[0..1]	R	11
Creditor Agent	[0..1]	R	11
Original Group Information And Status [1]	[1..1]		
Original Message Identification	[1..1]		
Original Message Name Identification	[1..1]		
Original Creation Date Time	[0..1]		5
Original Number Of Transactions	[0..1]	N	
Original Control Sum	[0..1]	N	
Group Status [2]	[0..1]	N	
Status Reason Information	[0..*]	N	
Number Of Transactions Per Status	[0..*]	N	
Original Payment Information And Status [1]	[0..*]	R [1..1]	
Original Payment Information Identification	[1..1]		
Original Number Of Transactions	[0..1]	N	
Original Control Sum	[0..1]	N	
Payment Information Status [2]	[0..1]	N	
Status Reason Information	[0..*]	N	
Number Of Transactions Per Status	[0..*]	N	
Transaction Information And Status [1]	[0..*]	R [1..1]	
Status Identification	[0..1]		
Original Instruction Identification	[0..1]		
Original End To End Identification	[0..1]	R	
Original UETR	[0..1]	R	6
Transaction Status [3]	[0..1]	R	2
Status Reason Information	[0..*]	C [4]	
Originator	[0..1]		12, 13
Reason [5]	[0..1]	R	2

[1] The CPMI minimum required data model for a cross-border request for payment status applies to the ISO 20022 message irrespective of whether it is used to send single or multiple request for payment statuses.

[2] Available at multiple levels of the ISO 20022 message, but mutually exclusive. Refer to Transaction Information And Status below.

[3] A code from the ISO 20022 externalized *ExternalPaymentTransactionStatus1Code* list must be used. If no appropriate code is available, then it is recommended to submit a request to ISO 20022 for inclusion of the code.

[4] Must be provided in case of rejection of the cross-border payment.

[5] A code from the ISO 20022 externalized *ExternalStatusReason1Code* list must be used. If no appropriate code is available, then it is recommended to submit a request to ISO 20022 for inclusion of the code and use the code '*NARR*' in combination with use of *Additional Information* in the meantime.

Additional Information [6]	[0..*]	[0..2]
Payment Condition Status	[0..1]	
Charges Information	[0..*]	N
Debtor Decision Date Time	[0..1]	N [7]
Acceptance Date Time	[0..1]	N [8]
Account Servicer Reference	[0..1]	
Clearing System Reference	[0..1]	
Original Transaction Reference	[0..1]	N
Enclosed File	[0..*]	N
Supplementary Data	[0..*]	N
Supplementary Data	[0..*]	N

[6] Additional Information is repetitive and may occur up to 2 times.

[7] This time is not related to the cross-border RFP or eventual cross-border payment processing time.

[8] The time of debit of the Debtor Account will appear in the cross-border payment message (pacs.008) to enhance transparency end-to-end processing times.

Annex 4: Composition of CPMI Messaging Workstream and CPMI-PMPG Joint Task Force (JTF)

CPMI Messaging Workstream

Co-Chairs

Michele Bullock (building block 14 on ISO 20022, Reserve Bank of Australia)

P Vasudevan (building block 15 on APIs, Reserve Bank of India)

Members

Reserve Bank of Australia	Warren Wise*
National Bank of Belgium	Denis Gui* (until June 2021)
Bank of Canada	Banquo Yuen* Tongsheng Zheng
The People's Bank of China	Jing Huang* Zeyang Yu* Xiaochen Zhang*
Deutsche Bundesbank	Steffen Faehrmann* Dirk Beiermann*
Bank of England	James Southgate* (until January 2022) Tom Dunbar* (until August 2022) Mark Streather* (from August 2022)
European Central Bank	Marek Kozok* Jean Clement
Hong Kong Monetary Authority	Kitty Lai* George Chou
Reserve Bank of India	Rohit Lohi Das
Bank Indonesia	Jultarda Hutagalung Novyanto Elyana K Widyasari Franz Hansa
Bank of Italy	Riccardo Mancini* Giancarlo Goretti
Bank of Japan	Masami Inoue* Hikaru Kinefuchi*
Bank of Korea	Jisoon Park* Seungmin Lee* Minji Go*

Bank of Mexico	Garrido Delgadillo Daniel*
Central Bank of the Russian Federation**	Peter Mironov (until February 2022)
South African Reserve Bank	Magedi-Titus Thokwane* Hein Timoti*
Central Bank of the Republic of Türkiye	Burçin Bostan Körpeoğlu* Serkan Tekbacak*
Federal Reserve Bank of New York	Frank Van Driessche* Chabi Deochand

Observer

Basel Committee on Banking Supervision	Stefan Hohl
Financial Stability Board	Kieran Murphy (until June 2022) Jefferson Alvares (from June 2022)
Financial Action Task Force	Ken Menz
International Monetary Fund	Tommaso Mancini Griffoli
World Bank Group	Fredesvinda Fatima Montes

Secretariat

CPMI Secretariat	Mark Choi (Secretary from August 2021) Boniswa Khohliso (Secretary until August 2021)

* Member of building block 14 (ISO 20022).

** The access of the Central Bank of the Russian Federation to all BIS services, meetings and other BIS activities has been suspended.

CPMI-Payments Market Practice Group (PMPG) Joint Task Force (JTF) on ISO 20022 Harmonisation

Co-Chairs

Michele Bullock (building block 14 chair, Reserve Bank of Australia)

Michael Knorr (PMPG co-chair, Wells Fargo)

Lead

Frank Van Driessche (Federal Reserve Bank of New York)

Members from CPMI

Warren Wise (Reserve Bank of Australia)

Denis Gui (National Bank of Belgium, until August 2021)

Banquo Yuen (Bank of Canada)

Marek Kozok (European Central Bank)

Masami Inoue and Hikaru Kinefuchi (Bank of Japan)

Daniel Garrido (Bank of Mexico)

Magedi-Titus Thokwane (South African Reserve Bank)

Tom Dunbar and Mark Streather (Bank of England)

Members from PMPG

Paula Roels (Deutsche Bank)

Laurent Lafeuillade (Société Générale)

Atle Kåre Fjereide (DNB Bank Asa)

Russell Saunders (SWIFT & PMPG co-chair, until June 2021)

Michael Knorr (Wells Fargo & PMPG co-chair)

Mauro Pernigo (Intesa Sanpaolo)

Celia Ardyasa (Commonwealth Bank of Australia)

Secretariat

Mark Choi (CPMI Secretariat)

Neil Buchan (PMPG Secretariat)

The JTF has also benefited from the support provided by Ana Margarida Carvalho (European Central Bank).

Annex 5: Acronyms and abbreviations

AML	anti-money laundering
BIC	business identifier code
camt	cash management message
CBPR+	cross-border payments and reporting plus
CGI	common global implementation
CtB	customer-to-bank
E&I	exceptions and investigations
FI	financial institution
HVPS+	high-value payment system plus
IP+	instant payments plus
ISO	International Organization for Standardization
LEI	legal entity identifier
MT	message type (SWIFT)
pacs	payments clearing and settlement message
pain	payment initiation message
PMPG	Payments Market Practice Group
SLA	service level agreement
UETR	unique end-to-end transaction reference
UTC	Universal Time Coordinated