



ISO 20022 HARMONIZATION
REQUIREMENTS FOR ENHANCING
CROSS-BORDER PAYMENTS

BIS – CPMI Consultation

Introduction

VE3 welcomes the opportunity to contribute to BIS – CPMI consultation “ISO 20022 harmonization requirements for enhancing cross-border payments”.

Achieving harmonisation in cross-border payments using ISO 20022 requires a concerted effort among all stakeholders, with a focus on standardisation, alignment, and collaboration. By adopting the standard and implementing common business processes, financial institutions and payment service providers can improve the efficiency, speed, and transparency of cross-border payments, benefiting both businesses and consumers alike.

We believe there are four main aspects to achieving harmonisation and our responses will be reflecting these aspects:

1. Adherence to ISO 20022 messaging standards: To ensure interoperability and seamless integration of cross-border payments, financial institutions, and payment service providers (PSPs) must adopt and adhere to ISO 20022 messaging standards. This includes implementing the standard across all payment types, including high-value payments, low-value payments, and instant payments.
2. Alignment of payment systems: To ensure the successful implementation of ISO 20022 standards, payment systems in different countries and regions must align with each other. This includes aligning message formats, payment clearing and settlement systems, and legal and regulatory frameworks.
3. Implementation of common business processes: Harmonisation of cross-border payments using ISO 20022 requires the implementation of common business processes across financial institutions and payment systems. This includes standardising payment initiation, processing, and reconciliation processes, as well as implementing common reference data and data elements.
4. Collaboration among stakeholders: Successful implementation of ISO 20022 requires collaboration among all stakeholders, including financial institutions, PSPs, payment system operators, and regulators. Collaboration is necessary to ensure standardisation, interoperability, and harmonisation across payment systems and regions.

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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?**

Yes, the guiding principles mentioned are being followed for setting the requirements for enhancing cross-border payments.

G20 targets-focused: The efforts are focused on achieving the four targets set by the G20 for enhancing cross-border payments, which are cost, speed, access, and transparency. By being G20 targets-focused, the proposed harmonization requirements are targeted to contribute to achieving the G20's goals and promoting a more efficient and inclusive global payment system. This focus is ensuring that the requirements are aligned with the broader policy objectives of the G20 and helping to drive progress towards achieving the four targets set by the G20 for enhancing cross-border payments.

Platform and network-neutral: The proposed harmonisation requirements are neutral with respect to the solutions used by financial institutions for processing cross-border payments. The requirements aim to cover broad use cases to guarantee a level playing field among service providers.

Being platform and network-neutral allows financial institutions to choose the solutions that best meet their needs and preferences, rather than being forced to use a specific platform or network. This promotes innovation and competition among service providers, leading to better services and solutions for customers.

Furthermore, being platform and network-neutral ensures interoperability among different payment systems, enabling seamless communication and exchange of information between them. This is particularly important in the context of cross-border payments, where different payment systems may use different platforms or networks.

Being platform and network-neutral ensures that the proposed harmonization requirements are inclusive and fair, and promote competition and innovation among service providers, ultimately benefiting customers and the wider financial ecosystem.

Orientation to a presumed future state: The JTF presumes that the need for temporary compromises required for transitioning to ISO 20022 will disappear after the coexistence period ends. This forward-looking approach ensures that the requirements remain relevant beyond the current period of transition and align with the presumed future state. By focusing on the presumed future state, the JTF proposes harmonization requirements which will help stakeholders plan and prepare for the long term, avoiding the need for costly and time-consuming changes to payment systems in the future. By considering the future state, the JTF is considering potential technological advancements and changes in the payments landscape. This approach ensures that the proposed harmonization requirements are future-proof and can adapt to evolving needs and requirements.

Ambitious yet realistic: The JTF recognizes that while it is essential to set high goals, these goals should be achievable within the given timeframe and not impose undue burdens on stakeholders. The proposed requirements look to be based on expert opinions and consider ongoing industry efforts to develop market practice guidelines. This approach aims at maximizing their impact while minimizing costs and ensuring that they are feasible to implement across jurisdictions.

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

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

Yes, inconsistent use of messages can be addressed by using appropriate messages for specific business functions in cross-border payments. Standardized messages ensure that all parties involved in the payment process have a common understanding of the payment instructions and facilitate interoperability between different payment systems. By using the appropriate message format for each payment, organizations can reduce the risk of errors and improve payment efficiency.

It's very necessary to have a common understanding and align all parties/stakeholders in the payment chain on the usage of messages for specific business functions to streamline the payment flow (STP)

- **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.**

The risk of inconsistent use of messages or deviation from the business functions defined by ISO 20022 is mitigated by taking the below measures.

- Standard operating procedures: It has been observed that in the process of resolving issues in payment flows, payment operators may resort to non-standard practices. This can result in the use of incorrect messages, such as Pacs.008 instead of Pacs.004, for returning funds. To address this issue and ensure consistent and efficient payment operations, it is recommended to establish and implement standard operating procedures (SOPs) for payment operators. These SOPs should provide clear guidance on the appropriate use of messages for different payment scenarios, ensuring adherence to the ISO 20022 standard and reducing the risk of errors or delays. By defining and enforcing these SOPs, organizations can improve their payment processing efficiency and also reduce the potential for errors or regulatory compliance issues.
- Education and Training: Providing education and training to all stakeholders involved in the payment process, including banks, payment service providers, and corporate

customers, on the proper use of ISO 20022 messages and business functions. This will help ensure that everyone involved in the payment process has a common understanding of the messages and their use.

- iii. Implementation Guidelines: Develop implementation guidelines that specify the use of ISO 20022 messages for different payment types and business functions. The guidelines should cover message formats, data elements, and usage rules. These guidelines should be regularly updated and communicated to all stakeholders.
- iv. Message Validation: Implementing message validation checks to ensure that ISO 20022 messages are used correctly and consistently. This can be done by implementing automated validation checks in payment processing systems/engines, which can detect and reject messages that do not comply with the defined standards.
- v. Compliance Monitoring: Monitoring compliance with ISO 20022 standards by all stakeholders involved in the payment process. This can be achieved through regular audits and reviews, which can help identify areas of non-compliance and provide recommendations for improvement.
- vi. Collaboration: Promoting collaboration among all stakeholders involved in the payment process, including regulators, industry associations, and payment service providers. This will help ensure that everyone is working towards the same goal of improving payment efficiency and consistency.

- **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?**

Efforts at different levels are required for the adoption of the appropriate message as defined by the ISO 20022 standard.

- i. Educating and Training: It is essential to provide education and training to staff members to use appropriate ISO 20022 message types as per business-specific functions. Staff members should be trained on the standard's syntax, semantics, and use cases. The training should be comprehensive and tailored to the specific roles and responsibilities of the staff member.
- ii. Defining Standard Operating Procedures (SOPs): Organizations should define standard operating procedures (SOPs) that outline how the ISO 20022 message type should be used across the organization. Defining SOPs for ISO 20022 messaging involves reviewing and updating the current SOPs to align them with the appropriate message type, including changes to data fields, message format, and message flows. The new SOPs should be tested and validated to ensure they meet regulatory requirements and service level agreements.

- iii. Implementation at the Channel Side: Financial institutions need to implement the standard usage of ISO 20022 messages across different channels, including APIs, customer-facing applications, portals, and other payment gateways. This requires modifying or replacing existing message processing systems and upgrading the existing infrastructure to support standard usage of message types. Testing and validation of appropriate usage of message type as per business function. The implementation should be done in such a way that it does not disrupt the existing customer experience.
- iv. Implementation in the Payment Engine: The payment engine is the heart of the payment processing infrastructure. Efforts are needed to change the validation of message types, and field mapping to be in line with appropriate usage of message types as per business function. Testing and validation of the new payment engine are essential to ensure that the system is compliant with the ISO 20022 standard.

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

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

Yes, the use of ISO 20022 externalised codes facilitates faster, cheaper, and more transparent cross-border payments. The use of non-standard codewords can lead to non-straight-through processing (STP) of payments, as there is no standard practice for the interpretation of such codewords. This can result in increased costs for financial institutions (FIs) due to the need for human intervention, as well as delays in settlement that can cause friction in the payment process.

To avoid such issues, it is crucial to establish standardized and predefined codewords which provide a common language for financial institutions (FIs) to communicate payment-related information and enables more efficient and streamlined payment processing.

To implement the use of ISO 20022 externalised codes, the following efforts are required:

- i. Mapping local codes to externalised codes: The organization needs to map its local codes to externalised codes. This requires analysing the existing codes and their usage and then identifying the corresponding externalised codes that can be used instead.
- ii. Updating systems and processes: After the mapping is complete, the organization needs to update its systems and processes to use the externalised codes. This involves modifying the data fields in the payment message formats to include the externalised codes.
- iii. Integration with partner systems: The externalised codes used by an organization must also be understood by its partners in the cross-border payment chain. Hence,

the organization needs to work with its partners to integrate the use of externalised codes.

- iv. Training staff: The use of externalised codes requires education and training for staff who will be working with these codes. Staff members need to be trained on the meaning and usage of the externalised codes.
- v. Testing: Once the systems and processes have been updated and staff trained, the organization needs to conduct testing to ensure that the use of externalised codes is functioning correctly. This involves testing the entire end-to-end process with its partners in the cross-border payment chain.

Overall, implementing the use of ISO 20022 externalised codes requires a significant effort, including mapping local codes to externalised codes, updating systems and processes, integrating with partner systems, training staff, and testing the entire process end-to-end. However, the use of externalised codes can facilitate faster, cheaper, and more transparent cross-border payments, making the effort worth it in the long run.

- **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?**

The following are challenges resulting from increased reliance on ISO 20022 codes.

- i. Adoption and implementation challenges: One of the main challenges is the adoption and implementation of ISO 20022. It requires significant changes to existing systems, processes, and workflows. It may also involve significant costs and resources for organizations to upgrade their infrastructure and train staff on new standards and engage in industry-wide coordination and standardization efforts.
- ii. Data quality and consistency: Cross-border payments involve multiple parties, currencies, and regulations, which can make it difficult to maintain data quality and consistency across different systems and jurisdictions. Organizations may need to invest in data validation and cleansing to ensure compliance with ISO 20022 standards.
- iii. Interoperability challenges: ISO 20022 and its codewords are designed to improve interoperability between different systems, but achieving full interoperability requires widespread adoption and consistent implementation across different organizations and sectors requires industry-wide collaboration and coordination.

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

- **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.**

Yes, we agree that identifying a payment as a cross-border payment would enhance the processing efficiency of cross-border payments.

Currently, financial institutions do not have an established method for categorizing a payment as either cross-border or domestic. Typically, this determination is made by the payment operator or payment engine, with reliance placed on the Bank Identifier Code (BIC) as recommended by the Cross Border Payments and Reporting Plus (CBPR+) initiative. Therefore, a more structured approach to classifying payments as cross-border or domestic is needed.

If a payment can be flagged as a cross-border payment, the financial institution can either have a dedicated operations team to handle such payments on priority, with separate standard operating procedures (SOPs) or opt to route cross-border payments to a dedicated payment engine to process and handle such payments. This special handling is needed to improve processing efficiency because cross-border payments are subject to currency conversion, which may lead to delays in processing since it has a dependency on the financial institution's treasury department.

Cross-border payments are subject to various regulatory requirements, such as anti-money laundering (AML) and know-your-customer (KYC) regulations. Therefore, such a flag will enable financial institutions to route such payments to a dedicated compliance engine which can perform more stringent and country-specific validations. It will also help in adopting a risk-based approach to route high-risk transactions and customers for additional scrutiny.

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

Yes, having a Category Purpose ISO tag with a predefined value would be a useful way to identify a payment as a cross-border payment and to invoke appropriate cross-border related flows once it has been identified.

Alternatively, financial institutions could also use supplementary data ISO tags to provide additional information about a payment that could help to identify it as cross-border. For example, supplementary data elements (SDEs) could be used to provide information about the country of origin or destination of the payment, which could help to determine whether it is a cross-border payment.

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

The level of cost and effort required to implement changes to identify cross-border payments within a bank's infrastructure is dependent on the bank's payment architecture. Several possible changes can be made to the payment's infrastructure, which is listed below:

- Implementation at the channel GUI: One possible change is to implement a field at the channel GUI that allows the customer to select or define a value indicating that it is a cross-border payment.
- Implementation at the channel level: Another possible change is to implement compliance checks and controls at the channel level itself. This would require some effort to implement and could involve changes to the channel architecture to support cross-border payments.
- Implementation at the channel or middleware: The routing of payments to the appropriate payment engine or back-office system (BOS) can be decided by the channel or middleware. This would require some effort to implement and could involve changes to the routing logic and configuration of the middleware.
- Implementation at the payment engine or BOS: Another possible change is to implement the appropriate flow and compliance/fraud checks associated with cross-border payments directly in the payment engine or BOS. This would require some effort to implement and could involve changes to the payment engine or BOS architecture to support cross-border payments.

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

- **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?**

We do not agree with the restricted character set for the following reasons:

- Limited language support: The Latin character set only supports a limited number of languages, primarily those that use the Latin script, such as English, French, German, and Spanish. This can be a significant disadvantage in cross-border payments involving non-Latin scripts, such as Chinese, Arabic, or Hindi, where the Latin character set may not be able to represent all the necessary characters.
- Limited symbol support: The Latin character set also has limited support for symbols and special characters, which can be a significant disadvantage in certain countries where symbols are commonly used.

- iii. Ambiguity: The Latin character set can be ambiguous, especially when dealing with languages that use diacritical marks or accents
- iv. Lack of standardization: The Latin character set is not standardized in the same way that Unicode is, which can lead to inconsistencies and errors when exchanging data between systems or countries.

The aforementioned issues represent the primary pain points that create friction in cross-border payments among FIs. Fortunately, UTF-8 character encoding can provide solutions to these problems. This character set enables.

- i. Universal support: UTF-8 can represent all characters in the Unicode standard, which includes characters used in almost all languages in the world. This means that cross-border payments can be made using any language, allowing for greater inclusivity and ease of use.
- ii. Multilingual support: UTF-8 allows for multilingual communication, which is essential for cross-border payments. It enables the use of characters from different scripts, including non-Latin scripts such as Chinese, Japanese, Arabic, and more.
- iii. Accuracy: UTF-8 ensures the accurate representation of text, reducing errors in cross-border payments caused by language barriers
- iv. Improved customer experience: The ability to use native language characters in cross-border payments can improve the customer experience, making the process more familiar and accessible to users.

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

- **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.**

Yes, we agree with UTC or local time with UTC offset will enhance the transparency and efficiency of cross-border payments. Since UTC is a standard time measurement system that is used across the world and is not affected by daylight saving time or time zone variations. It ensures that the time is represented accurately and consistently across different time zones and regions. This is important in cross-border payments because payments can occur across different time zones, and it is critical to ensure that the payment processing time is accurately recorded. Some jurisdictions like the EU's Payment Services Directive 2 (PSD2), Financial Conduct Authority (FCA), and The Australian

Securities and Investments Commission require that payment processing times be accurately recorded and reported.

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

- **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.**

Yes, we agree that the use of UETR for all cross-border payments will have a positive impact on the transparency, speed, and cost of cross-border payments. UETR will help.

- Streamlined payment investigations: Usually banks have their separate investigation systems wherein the generation of cancellation/return messages is taken care of so for such systems UETR can be useful. Also, in the event of payment-related inquiries or investigations, the UETR can help to quickly identify and track the payment transaction in question. This can help to streamline the investigation process, as payment participants can quickly access the necessary payment information using the UETR, resulting in faster resolution of payment issues.
 - Improved matching and reconciliation: Each payment instruction in a cross-border payment can be identified by its unique UETR, which enables easy matching like Direct and Cover and reconciliation of payment data between different payment systems. This can reduce the need for manual intervention and reconciliation, which can lead to faster processing times.
 - Enhanced visibility and transparency: The UETR provide a unique identifier for a payment transaction, which allows for enhanced visibility and transparency of the payment process. Payment participants can track and monitor the progress of a payment transaction using the UETR, which can help to identify any delays or issues that may arise in the payment process. This increased visibility and transparency can enable faster resolution of payment issues, resulting in faster payment processing times. It is very useful especially when there are more parties in the chain.
- **Question 13. How do you assess the effort required to implement this requirement?**

Implementation at the channel: The channel responsible for generating the UETR for a newly created payment must implement the necessary capabilities as per the CBPR+ specification. This will involve developing the necessary software to generate and assign the UETR to each payment transaction.

Implementation at the channel GUI: Graphical User Interface (GUI) must also be modified to support the generation of UETR in accordance with CBPR+ specifications.

Payment engine/ Back-office system (BOS): The Payment Engine or Back Office System (BOS) must be updated to validate UETR (presence as well as formation as per standard specified by CBPR+) for both inward and outward payments. Additionally, the BOS must also be enhanced to consume the UETR and utilize it for automated reconciliation, thereby improving the efficiency of the payment process.

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

- **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?**

Yes, the 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. It will lead to enhancing the user experience as follows.

- Reduction in a float: Due to financial institutions (FIs) internal processing mechanisms, there may be delays in processing payments after debiting the customer, resulting in increased float. In such scenarios, tracking the float with the help of time of debit can enable FIs to reduce the impact of delays on end-users.
- Increased transparency: With access to the time of debit information, end-users can have better visibility into the timing of their payment processing, making the overall payment process more transparent. This can help them better plan and manage their finances, reducing uncertainty and avoiding unnecessary delays.
- Better liquidity management: Knowing the exact time of debit can allow end-users to better manage their liquidity, enabling them to make informed decisions about the timing of their payments and ensuring that they have adequate funds available.
- Faster dispute resolution: When payment disputes arise, the time of debit information can be crucial in resolving these disputes more quickly and efficiently. By providing a clear timeline of the payment process, disputes can be more easily resolved, reducing the burden on both the end-user and financial institutions.
- Reduced costs: With improved transparency and faster dispute resolution, the overall cost of payment processing can be reduced. This can result in lower fees for end-users and a more competitive marketplace for financial institutions.
- Enhanced user trust: When end-users have access to accurate and transparent payment processing information, they are more likely to trust the financial institution

and the payment system. This can lead to increased customer loyalty and a better reputation for the financial institution.

Moreover, if the processing time incurred by each Financial Institution (FI) within the payment chain is added then both the subsequent FI in the payment cycle and the end user can gain visibility into the processing time taken by each FI. Such insights would facilitate the identification of bottlenecks and pave the way for possible areas of improvement.

- **Question 15. How do you assess the difficulty of adopting the 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?**

The bank needs to make the below changes while adopting the usage of the *Acceptance Date Time* data element as a requirement for cross-border payments.

- At the channel side: There could be some transactions which are pre-debited, to address this the channel must implement a modification by introducing a change to include the time of debit after the initial validation process has been completed and the customer has been debited. This change will enable accurate tracking of payment transactions and ensure proper accounting of funds.
- Payment engine: The payment engine needs to introduce a change to add the time of debit after initial validation once the customer is debited. Also, need to check the existence of the tag and validate if received from the channel/other FI as per the specification.
- GUI: For pre-debited transactions, if the transaction is initiated from UI then a placeholder to add the time of debit needs to be added.

Note: Pre-debited payments are those where customer accounts are already debited

The effort required to implement and the impact on the transparency requirements of end-users are independent of the message type used. The addition of an extra field indicating the time of debit in cross-border payments can be incorporated into both payment and enquiry/response messages. In the case of enquiry/response messages, this additional field can provide valuable information on the timestamp of the enquiry raised and the response generated.

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

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

In cases where multiple FIs are involved in a payment chain, such as Debtor >> Bank A >> Bank B >> Bank C >> Bank D >> Creditor, the application of currency conversion and charges by each FI can lead to complications. By the time the payment reaches Bank D, there may be a lack of awareness regarding the original instructed amount by the debtor, the charges levied by each FI, and the currency conversion rates used. This situation is equally true for the creditor. Consequently, including these details by each FI in the payment chain can prove to be advantageous.

Transparency: It will promote transparency and fairness in cross-border payments. Complete information on the amount, conversions, and charges will help prevent hidden fees and surprise costs, which can be particularly beneficial for consumers and small businesses.

Decision-making: It will facilitate better decision-making for all parties involved. For example, having complete information on currency conversions will help parties determine the most cost-effective and efficient way to make the payment.

Streamlining: Since now all parties involved will have complete information, it will reduce the likelihood of errors, delays, and misunderstandings, which can ultimately improve the overall efficiency of the payment process. It will reduce costs and requests for investigation.

- **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?**

There are no technical, legal, or other hurdles that could impede the inclusion of complete information on amount, conversions, and charges in cross-border payments.

But there may be some resistance from financial institutions (FIs) due to concerns over the cost and burden of implementing new data standards. Additionally, there may be a lack of consensus within the industry regarding the need and scope of such inclusion.

Furthermore, the inclusion of rates and charges in cross-border payments could be perceived by some FIs as a competitive data point that they may want to keep private for their business purposes. This could potentially result in resistance to the sharing of such information, as FIs may be hesitant to provide their competitors with a competitive advantage.

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

- **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?**

The CPMI has proactively put forward a set of guidelines on the employment of pre-existing elements in messages, with the mandate of incorporating them wherever

necessary. Furthermore, they have introduced supplementary elements wherever deemed appropriate. It is incumbent upon FIs to comply with these directives and specifications, which will be disseminated by the CPMI for the facilitation of cross-border payments. Therefore, the inclusion of a CPMI service level code would not yield any incremental value to the payment chain or the FI, as the payment will already conform to the CPMI guidelines and specifications (new Cross-Border Payment and Reporting Plus Specification)

Hence the introduction of a CPMI service level code in ISO 20022 is not recommended.

- **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?**

CPMI service level code in ISO 20022 has no impact on the business models/strategies of financial institutions providing cross-border payment services. Refer justification given for question# 18.

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

Adopting a CPMI service level code will be a non-value-added burden to the FI. Refer justification given for question# 18.

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

- **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.**

We disagree that using account identifiers or account proxies, to the extent possible, would have a positive impact on the speed and cost of cross-border payments. Typically, when a payment is received from another bank or channel, the payment engine or operator verifies the account number with the Core Banking Solution (CBS). Therefore, regardless of whether a structured account format (if mandated by the CPMI) is received, the payment engine will verify the CBS, and it will not add any value to the payment chain. The CBS will verify the structured account (if mandated by the CPMI) or legacy account as usual. Only syntactical validation can be achieved with this change, and the risk of misdirection or return of payments due to an incorrect account number remains the same, and it has to be handled on a case-by-case basis.

Changing account identifiers to a structured format has several challenges that outweigh the benefits.

- Lack of universality: Different countries may have different formats and structures for account numbers, making it difficult to establish a universal system for cross-border payments. Since banks usually prefer to maintain accounts as per their lines of business

- ii. Complexity: Structured account numbers can be complex, with different formats and fields required for different countries and financial institutions. This can make it difficult for financial institutions to implement and maintain the necessary systems.
- iii. Cost: Implementing and maintaining a structured account number system can be costly for banks and payment providers, as it requires significant investment in technology and infrastructure. Core banking solutions or back offices need to undergo a lot of change.

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

- **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.**

Yes, we agree that Identifier Code (BIC) is an important element in cross-border payments which would enhance cross-border payments since offers several advantages over other elements like Legal Entity Identifier (LEI), name and address:

- i. Accuracy: The BIC provides an accurate and standardized way to identify financial institutions, reducing the risk of errors and delays in payment processing. Other identification elements like Name and address details can be more prone to errors and inconsistencies, which can lead to delays or failed payments.
- ii. Speed: The BIC can help speed up payment processing, as it allows payment instructions to be automatically routed to the correct financial institution. Using name and address details can require more manual processing, as payment processors may need to manually review and verify the details. This can lead to longer processing times and potential delays. Financial institutions will have the capability to perform pre-validation of BICs (Bank Identifier Codes) by utilizing static data files such as the Bank Directory Plus file, which contains BICs for all financial institutions. This pre-emptive measure helps to prevent the possibility of failures that may arise due to incorrect identification of financial institutions during subsequent processing flows.
- iii. Transparency: The BIC provides transparency in cross-border payments by identifying the financial institution involved in the transaction. This can help payment processors identify potential risks, such as fraud or money laundering. Whereas names and addresses can be ambiguous, especially in cross-border payments where they may be in different languages or formats. This can make it difficult to identify the correct financial institution involved in the payment. Using LEIs alone may not provide sufficient transparency in cross-border payments, as they do not provide detailed information on the financial institution involved in the payment.

- iv. Functionality: BICs provide additional information, such as the location and branch of the financial institution which is important in processing cross-border payments accurately and efficiently whereas other identification elements like LEIs are primarily used for identifying legal entities
 - v. Global reach: The BIC is used globally, making it a universal identifier for financial institutions. This means that payment processors can use the BIC to identify financial institutions regardless of their location or the currency they use. Not all financial institutions have an LEI which can limit the ability to identify and process payments for financial institutions.
 - vi. Maintenance: BIC are relatively easier to maintain since assigned by single source SWIFT unlike LEIs assigned by multiple Local Operating Units (LOUs) which are authorized by the Global Legal Entity Identifier Foundation (GLEIF). This means that there are multiple entities responsible for assigning and maintaining LEIs, which can lead to inconsistencies or discrepancies in the data.
- **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?**

Yes, we agree with the proposed solution of requiring the use of the BIC to identify all financial institutions with reference to points mentioned in question# 22.

- **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?**
- i. Efforts at the below level are required to use only BIC to identify financial institutions in ISO 20022 messages.
 - a. Channel: At the channel level, BICs (Bank Identifier Codes) need to be added for all FIs (Financial Institutions) involved in the payment chain when a payment is initiated from the channel. This will ensure that accurate information is transmitted throughout the payment chain, reducing the likelihood of errors and delays.
 - b. GUI: For the GUI (Graphical User Interface), business rules need to be added to validate the existence of the BIC on the tab out while initiating a payment. This will help end-users ensure that they are entering accurate information.
 - c. Payment engine: At the payment engine level, additional logic needs to be added to validate the existence of the BIC and ensure that it conforms to SWIFT reference data.

- d. Back office: The back office needs to be capable of storing static data by SWIFT reference data, specifically the Bank Directory Plus file. This will provide accurate and up-to-date information on FIs involved in the payment chain.
- ii. Efforts at the below level are required for all financial institutions that currently do not have a BIC.
 - a. Channel: Channel should populate the name and structured address for STP processing across the payment chain
 - b. Payment engine: At the payment engine level, it is important to enrich unstructured address data to structure address data for STP processing. This can be achieved by maintaining both the structured and unstructured name and address data for the FIs involved in the payment chain. By doing so, the payment engine can automatically convert unstructured address data to structured address data, reducing the likelihood of errors and increasing STP processing rates.

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

- **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.**

Yes, we 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.

Using the structured postal address fields of "street name, building number, postcode, town name, and country" instead of only town, country, and postcode (when available) today in cross-border payment processing will offer several advantages.

- i. Increased accuracy: Including street name, building number, and postcode in the structured postal address will provide more detailed and accurate information about the location. This will reduce the risk of errors in payment processing, such as incorrect routing or misdirected payments.
- ii. Faster processing: With accurate and detailed information, payment processing systems will quickly and easily verify recipient information, which will lead to faster processing times.
- iii. Improved compliance: Many regulatory requirements, such as Anti-Money Laundering (AML) and Know Your Customer (KYC) regulations, require the use of detailed address information. Including street name, building number, postcode, town name, and country in the structured postal address will ensure compliance with these regulations and reduce the risk of penalties and fines.

- iv. Enhanced security: Including detailed information in the structured postal address will ensure that payments are delivered to the intended recipient, reducing the risk of fraud and other security concerns.
- v. Better customer experience: Faster and more accurate payment processing will lead to a better customer experience, as payments are delivered more quickly and with fewer errors.
- **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?**

Yes, the use of structured identifiers such as the Legal Entity Identifier (LEI) can be beneficial in identifying legal entities involved in cross-border payments. This is because the LEI provides a standardized and unique identifier for legal entities, which helps to reduce errors and streamline the payment process. LEI can also help to improve transparency and mitigate the risks associated with financial transactions, such as fraud and money laundering.

Business Registration Number (BRN) assigned to a business by the government or regulatory authority in the country where the business is registered, DUNS Number assigned to businesses by Dun & Bradstreet are some of the structured identifiers available but Legal Entity Identifier (LEI) is already integrated into the Bank Directory Plus SWIFT reference upload file, meaning that Financial Institutions (FIs) that use this file have the capability to store and handle LEI information in their office systems for payment processing purposes. As a result, FIs do not have to allocate additional resources to manage LEI data and can rely on the existing infrastructure for the validation and processing of payments.

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

- **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.**

Yes, requiring participants to identify all persons involved in a cross-border payment in a standardized and structured way with the minimum required data such as name and postal address, including structured identifiers like a passport or national ID number, and a complete postal address would enhance the processing efficiency of cross-border payments.

A structured postal address provides a consistent and unambiguous way of identifying the location of a person or entity. In the context of cross-border payments, this is particularly important because the payment may need to pass through several

intermediaries, each of which may have its requirements for identifying the parties involved in the transaction. A structured postal address ensures that all parties can easily identify the location of the intended recipient of the payment, reducing the likelihood of errors or delays in processing.

Having a complete and structured postal address, including street name, building number, postcode, town location name, and country, can also help to eliminate errors and reduce delays in processing cross-border payments. This is because a complete postal address provides more specific and accurate information on the recipient's location, which can help to ensure that the payment is delivered to the intended recipient.

Furthermore, by complementing minimum required data such as name and postal address with additional information such as structured identifiers, it becomes easier to verify the identity of the parties involved in the cross-border payment. This can help to reduce the risk of fraud and improve the security of cross-border payments.

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

- **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.**

Yes, using structured postal address information rather than unstructured postal address information can help to enhance the processing efficiency of cross-border payments.

Benefits of Using Structured Postal Address Information

- i. **Standardization**: Structured postal address information provides a standardized format that can be easily read and understood by payment systems, reducing the risk of errors and inconsistencies.
- ii. **Accuracy**: Using structured postal address information allows payment systems to match payments quickly and accurately to the correct recipient, reducing the risk of payment delays, rejections, or lost funds.
- iii. **Efficiency**: Automated validation and verification of structured postal address information reduces the need for manual intervention, improving the overall efficiency of the payment process

Risks of Using Unstructured Postal Address Information

- a) **Errors and inconsistencies**: Unstructured postal address information may contain abbreviations, misspellings, or different variations of the same address, making it difficult for payment systems to accurately match and process payments.

- b) Delayed payments: Inaccurate or inconsistent postal address information can result in payment delays, rejections, or even lost funds.
- c) Manual intervention: Payment operators may need to manually verify and validate unstructured postal address information, increasing the risk of errors and delays in the payment process.
- **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?**

Yes, agree with the minimum required postal address information consisting of the Country and Town Name fields due to the following reasons.

- i. Simplicity: Including only the town and country in the postal address makes it simpler and easier for the sender to provide accurate information, as they are less likely to make errors or leave out important information.
- ii. Cost-effectiveness: Limiting the required information to only the town and country helps to reduce the costs associated with cross-border payments by minimizing the amount of information that needs to be collected and processed.
- iii. Privacy: Collecting only the minimum required information can help to protect the privacy of the beneficiary by limiting the amount of personal information that is collected and shared.
- iv. Legal compliance: In some cases, including additional fields such as name, building number, and post code may be prohibited by data protection laws in certain jurisdictions. Limiting the required information to only the town and country can help to ensure compliance with these laws.

Minimum Country and Town name fields should suffice since many payment market infrastructures like TARGET2, and CHIPS use Country and Town name fields using the same will lead to standardization since the payment can be routed to multiple Intermediary agents.

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.

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

VE3 response to Consultation for ISO 20022 harmonization requirements for enhancing cross-border payments.

Having either structured or unstructured remittance information will lead to improved processing efficiency of cross-border payments, but having both can create complexity and potential issues if they are not integrated properly.

Structured remittance information provides standardized and easily processable data that can be automatically reconciled with payment instructions, reducing the need for manual intervention, and minimizing errors. Unstructured remittance information provides additional context and information about the payment, which can help with the reconciliation and tracking of payments.

However, when both types of remittance information are used, it can lead to confusion and errors if they are not properly integrated and reconciled. For example, if the structured and unstructured information contains conflicting data, it can lead to delays and additional manual intervention needed to reconcile the payment.

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

Including references to separately sent remittance-related information, such as hyperlinks or other references, will be very helpful in processing cross-border payments. It will streamline the payment process and help ensure that all necessary information is included in a timely and accurate manner.

When making a cross-border payment, it is important to include detailed information about the payment, such as the amount, currency, beneficiary name and account number, and any other relevant information. However, this information can be quite lengthy and complex, especially for large or complicated transactions.

For example, if a business is paying a supplier in another country for goods or services, they may need to include detailed information about the order, including itemized lists of the goods or services provided, pricing information, and shipping and handling details. By including hyperlinks or other references to separately sent remittance-related information, such as invoices or shipping documents, this information will be provided in a more organized and streamlined manner. This will reduce the risk of errors or delays, which can be costly for both the payer and the beneficiary.

Furthermore, including references to separately sent remittance-related information will also help ensure compliance with regulatory requirements, such as anti-money laundering (AML) and know-your-customer (KYC) regulations. These regulations require financial institutions to verify the identities of their customers and ensure that they are not involved in illegal or fraudulent activities. By including references to supporting documents that provide additional information about the payment and the parties involved, financial institutions will more easily verify the legitimacy of the transaction and ensure compliance with regulatory requirements.

Yes, there may be obstacles to including references to separately sent remittance-related information in certain jurisdictions or communities. These obstacles may be legal, regulatory, or supervisory in nature, and can vary depending on the jurisdiction. Some of the obstacles that may arise include:

Data protection and privacy laws: In some jurisdictions, there may be strict rules about how personal information can be collected, stored, and shared. If the remittance-related information includes personal information about the payer or the beneficiary, such as their name, address, or bank account details, there may be restrictions on how this information can be transmitted or shared.

Regulatory or supervisory limits: Financial institutions and payment service providers may be subject to strict regulations and supervisory requirements in some jurisdictions. If the use of hyperlinks or other references to separately sent remittance-related information is not explicitly allowed or is seen as a deviation from standard payment procedures, financial institutions may be reluctant to use this method.

Legal requirements for payment instruction: In some jurisdictions, there may be legal requirements for payment instructions to include certain information, such as the full name and address of the payer and beneficiary. If the use of hyperlinks or other references to separately sent remittance-related information does not meet these requirements, financial institutions may be reluctant to use this method.

For example, Mexico has comprehensive data protection and privacy laws known as the Federal Law on Protection of Personal Data Held by Private Parties (LFPDPPP). The LFPDPPP regulates the collection, use, storage, and transfer of personal data by private entities, and includes strict requirements for obtaining consent from data subjects and for providing notice and transparency around the use of personal data. Therefore, financial institutions and payment service providers operating in Mexico would need to ensure that they comply with the LFPDPPP when collecting, storing, and transmitting remittance-related information that includes personal data.

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?**

Yes, the timing envisaged for the requirements to take effect is in line with industry expectations. The timing is beneficial to both.

- i. FI which is not yet migrated to ISO20022: Such FIs can plan to implement new changes along with full ISO20022 migration. Testing for both ISO20022 migration and new requirements can be done together, resulting in cost-effective implementation.
- ii. FI which is migrated to ISO20022 and having coexistence: Such FIs, which are in coexistence processing both MT and MX messages, will have sufficient time to implement

new changes. The envisaged timing will avoid disruption since the coexistence period will end by that time avoiding disruptions.

Below are challenges that can be foreseen in meeting the envisaged timeframe

Limited or incomplete uptake: The report highlights that limited or incomplete uptake of the requirements could lead to further fragmentation and lack of interoperability. Therefore, ensuring widespread adoption of the requirements could be a challenge, as it would require convincing individual user communities to adopt the new requirements.

Regulatory reporting needs: The report acknowledges that regulatory reporting needs may be specific to individual jurisdictions. Therefore, ensuring that authorities make their requirements publicly accessible in standardized ways while fully leveraging the potential of the ISO 20022 standard could pose a challenge.

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

Indeed, the requirements outlined in section 2.5 offer lucidity on the potential contributions of harmonized implementation of ISO 20022 towards the attainment of G20 targets. Each requirement within this section articulates a clear exposition of the background and rationale, alongside recommendations for modifications at a detailed tag/element level, and the proposed solutions and improvements that would add significant value to financial institutions and the payment chain. As a result, this harmonized implementation will enhance the user experience, leading to greater efficiency and effectiveness thus streamlining the cross-border payment processing.

About VE3

VE3 is a Technology and Payments Consulting company focused on delivering end-to-end technology solutions and products. We are a professional services company having a global presence and strong expertise in banking and payments.

We work with financial institutions to implement ISO 20022 <https://www.ve3.global/payments-consulting/>

We have a deep understanding of the market and competitive landscape along with an insight into payments and financial services regulation. Our expertise lies in Cards, SWIFT, SEPA, PSD2, NPA, ISO 20022, Payments, Open Banking and Crypto/Blockchain.

Banksly (<https://www.thebanksly.com/>) is our subsidiary company and is an active contributing member of industry associations and standards bodies such as The Payment Association, Berlin Group, FDATA, OpenID FAPI, Pay.UK, Vendorcom, W3C and GDF.

With a wealth of experience and specialized skills, we provide a comprehensive range of services, including Technology Optimization, Product Innovation, and Value Proposition. Our team of professionals leverage the unmatched power of technology and human creativity to deliver exceptional value to our clients. We have successfully serviced enterprises across multiple markets, including the public and private sectors. Our services span all aspects of business, providing a holistic approach to managing an organization. We have accredited certifications, which include CMM Level 3, ISO 9001 (Corporate Quality), ISO/IEC 20000-1 (Corporate ITIL Service Delivery), and ISO 27001: (Corporate Security).

See <https://www.ve3.global/> for more information.

Contact Samarth.bhatt@ve3.global for assistance.