Waiting for the "Big Bang" in the Euro Area — Future Talk with Ruth Wandhöfer — The Digital Donation Boom — Swiss National Bank Closes Data Gaps — ISO 20022 Ante Portas

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Waiting for the Bang!

TEXT GERO SONNTAG SECB SWISS EURO CLEARING BANK GMBH

> n the 1950s, British astronomer Fred Hoyle coined the term "Big Bang" to illustrate the theory of how the universe originated to his audience. The

Big Bang theory has been on everyone's lips ever since, even though

it can evoke false associations. The expression "Big Bang" creates the impression that an explosion scattered matter into space that was already in existence. But, in fact, there was no space at all into which something could have exploded roughly 13.7 billion years ago.

The TARGET2/T2S consolidation, which is also referred to as a Big Bang, will take place, in contrast, in a very familiar space – in an environment with international standards, infrastructures, interfaces, and processes. So, it won't really be a Big Bang for the payment transactions system, but will definitely mark a changeover with a certain bombshell effect.

Initial Spark on 20 March 2023

For 15 years now, the European Union has had the TARGET2 single shared platform at its command for real-time gross settlement of payments in euro. In addition to that, the European Central Bank operates the TARGET2 Securities (T2S) system for the settlement of securities transactions and the TARGET Instant Payment Settlement (TIPS) system. Those two systems heretofore have had only interface connections to TARGET2, but otherwise are largely autonomous. Harmonized use of the platforms has also been hampered by the fact that they currently employ different messaging standards. But on bank business day 20 March 2023, the big moment will finally arrive: From then on, all messaging between and within the three platforms will be based exclusively on the ISO 20022 standard. This marks the most important change for the approximately 1,500 participating financial institutions. One of them is SECB Swiss Euro Clearing Bank GmbH, whose responsibilities on behalf of the Swiss financial industry include facilitating cross-border payment transactions in euro between Swiss financial institutions and TARGET2. For SECB as well, the reality from the start of spring 2023 onward will be that TARGET2 has been switched off and the migration to T2 has taken place without a transition period of them

TARGET2 Becomes TARGET Services

running side by side simultaneously.

The TARGET2/T2S consolidation brings additional major changes alongside the introduction of ISO 20022. All three TAR-GET Services (RTGS, T2S, TIPS) have shared components such as a master data directory and centralized liquidity management, for example. This allows a financial institution to steer all of its service-related operations through a single central bank money account, enabling the automation of a wide range of liquidity management processes and message processing. Two network service providers provide access to these services from other payment systems (e.g., EURO1/ STEP1, RT1, STEP2) through a central access point.

Financial institutions will now also be able to settle payments during nighttime hours. A uniform graphical user interface is another advantage of the migration for direct and indirect participants and their affiliated financial institutions.

Alongside optimizations of functionalities and procedures, the European Central Bank has pledged to optimize IT security to counter the increased threat of cyberattacks.

SECB's Experiences

The Big Bang migration was actually supposed to take place back in November 2021, but the go-live was at first postponed to this year. The COVID-19 pandemic and the resulting hampering of migration readiness, but primarily also the delay by SWIFT in introducing ISO 20022 in correspondent bank transactions, made a postponement of the migration date unavoidable. After all, ensuring interoperability between their foreign and RTGS payment traffic was one of the main challenges for most participants.

The project is being managed by national central banks following a uniform roadmap, and migration readiness has "The toughest challenge is and remains ensuring interoperability."



been regularly monitored through pan-European surveys. Particularly toward the end of the project, surveys yielded the finding that the official trial period for fulfilling mandatory test cases needed to be extended by three weeks to allow all participants to successfully complete their tests.

SECB started its impact analysis in early 2019 to identify and gauge the effects that the TARGET2/T2S consolidation would have on its payment settlement business processes, on liquidity management, and on its payment system, as well as to determine what adjustments needed to be made to the network connection through SWIFT.

Although specifications and requirements were basically known from the outset of the project, iterative public communication of changes by the European Central Bank regarding the project timeline, the messaging standard, and the functionalities of TARGET Services didn't allow SECB to carry out adjustments to its system until 2021.

Last but not least, the official project deferral initially caused more aggravation than relief. But in the end, the postponement turned out well for SECB because it enabled SECB to proceed step by step. First, the migration of SWIFT applications in IT operations at SIX was carried out at the end of 2020. Then the remaining application landscape was migrated in the second quarter of 2022. Those two steps laid the foundation for the network connection to TARGET Services and for the stable operation of SECB's own payment system.

Ever since the SWIFT service bureau at SIX set up a connection to the TARGET Services test environment for SECB at the start of this year, SECB gradually completed sequential internal and external testing successfully without using the additional three-week extension granted. The ongoing last stage of the project focuses on final migration testing, getting staff up to speed, and conducting user acceptance testing for the conversion to the ISO 20022 standard introduced on 21 November 2022, in euroSIC release 4.9. Because even though SECB will no longer process SWIFT FIN messages in payment transactions once TARGET Services have switched to the ISO 20022 standard, this in no way means that all messages can simply be passed on through the system.

In fact, the toughest challenge is and remains ensuring interoperability between the different "flavors" of the ISO 20022 standard and ensuring interoperability between ISO 20022 and SWIFT FIN during the transition phase until 20 March 2023.

The standard's differing peculiarities in TARGET Services and in the current euroSIC release create manifold challenges.

This is well illustrated by the example of a customer payment that gets transmitted to a euroSIC participant through TARGET. The information in the field "Instruction for Next Agent" for the attention of the payment recipient's financial institution cannot be transferred to the corresponding field in euroSIC because it is already occupied by other content.

Laying out the solution to this problem would go beyond the scope of this article. Suffice it to say, the SECB has a recipe for it.

Another essential, albeit less well known, service furnished by SECB is providing liquidity for the settlement of securities transactions in T2S for the Swiss central custodian SIX SIS. A separate facility was created a long time ago in collaboration with the Deutsche Bundesbank to enable SECB to provide this service. The TARGET2/T2S consolidation rendered parts of the facility untransferable, so new functionalities had to be set up. All in all, SECB, as a pass-through financial institution for euro-denominated payments by euroSIC participants, would have already achieved certain efficiency gains today, particularly through the centralized management of liquidity, if the European Central Bank hadn't once more postponed the start from 21 November 2022 to 20 March 2023, due to testing delays at some market participants.

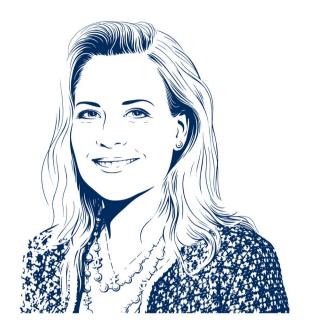
But postponed doesn't mean canceled. In due time, the uniform standard for SEPA, SWIFT, and now also TARGET payments will certainly simplify the ongoing adaptation of SECB's back-end payment system.

Expansion

SECB is excitedly looking forward to the Big Bang on the morning of 20 March 2023, and to the subsequent further expansion of the payments universe. The SECB will also be ready for the planned introduction of instant payments and for the full migration to ISO 20022 in correspondent bank business by 2025. ISO 20022 holds further potential in store here as well: More extensive and more structured information on parties to transactions enables SECB to stay in step with the mounting challenges involved in combating money laundering and sanction violations.

The TARGET2/T2S consolidation, in turn, may perhaps lend momentum to innovations and may even help get a digital euro and other visions harbored by the European Central Bank off the ground. (;) euroSIC Release 4.9 With the current software release, the Swiss interbank payment system euroSIC has been solely using the latest ISO 20022 standard version 2019 since 18 November 2022. The institutions participating in the system will continue to offer the older 2009 version at their customer interface for two years.





"Change is part of the program."

DR. RUTH WANDHÖFER, MEMBER OF THE EXECUTIVE BOARD OF THE BRITISH FINTECH GRESHAM AND PROFESSOR AT THE LONDON INSTITUTE OF BANKING & FINANCE

TEXT GABRIEL JURI With the TARGET2/T2S consolidation, ISO 20022 will be the undisputed benchmark in European payment traffic. How does the standard perform in a global context? It is becoming more and more widespread and is being implemented worldwide. It is now hard to imagine international payment traffic without ISO 20022.

What are the actual advantages of the ISO standard? More enriched data in payment messages has the nice side effect of enabling compliance and risk management at banks and companies to work more effectively and economically to combat fraud. The keyword here is, among others, ultimate creditor. However, the main advantage of this standardized data exchange is undoubtedly the interoperability between different systems. SWIFT, for instance, allows cross-border transactions in real time with its gpi services. Thanks to ISO 20022, payments can be marked and consistently identified all the way from the bank to the corporate customer's accounting software.

In general, it is said that market infrastructures will change radically in the coming years. What do banks need to be prepared for? Market infrastructures must move with the times. Cyber risk, for example, is a challenge that operators must face continuously. Likewise, the nature of money and the way people make payments is changing. Cryptocurrencies, stablecoins, and CBDCs are innovations that will ultimately also be handled through regulated market infrastructures. So, change is part of the program — also for banks and other regulated institutions that have access to these infrastructures. They must be prepared for the fact that the number of authorized market participants will continue to grow, market shares will shrink, and, as a result, competition among payment transaction providers will become tougher.

What happens to traditional payment platforms, such as TARGET Services. when central bank digital currencies (CBDCs) become mainstream? The question is whether the new CBDC payment instrument has to be processed through TARGET at all. If smart contracts are implemented on the basis of distributed ledger technology, then the payment settlement will technically take place in the ledger. The EU would then have to revise and harmonize relevant regulations, such as the Settlement Payment Services Directive or the Finality Directive, in order to create legal certainty. CBDCs could also cause competition problems for non-banks. In addition, it is currently unclear how individuals and commerce can be motivated to use such CBDCs.

What role will fintechs play in this?

Fintechs play an essential role in the value chain. They may even be of substantial systemic importance. Regulators have already gone so far as to consider placing these institutions under their supervision as well. Therefore, the next reform step will surely come.

The Swiss National Bank's revised survey closes data gaps on customer payments and reveals previously unknown facts.

The survey on customer payments was thoroughly revised with effect from January 2022. With expanded breakdowns, increased survey frequency and new topics, the revision provides new insights into the structure of customer payments in Switzerland. The August 2022 figures presented here are taken from the Swiss National Bank's data portal, where further data from the revised survey will be posted in the future.



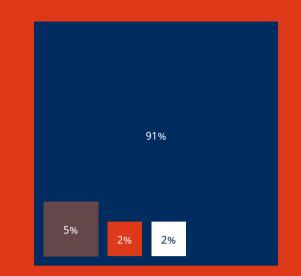
CHF 333,704 (e.g., IS/ISR/QR-bill payment section) CHF 364,539 **Direct channels** (e.g., via EBICS, bLink, SWIFT) E-banking CHF 19,948 (including m-banking; e.g., IS/ISR/Swiss QR Code, eBill, TWINT) Standing orders CHF 1,437 (including those originally submitted in paper form or via e-banking) CHF 6,629 Other transfer types

Average Amounts Per Transfer Type

Previously, only transfers in Swiss francs were broken down in a detailed manner. Transfer types are now also indicated in foreign currencies. The figures illustrate that the average amounts of transfers in foreign currencies are in most cases significantly higher than those in francs. However, the volume of payments in foreign currencies is only a fraction of the volume in francs.

CHF

 Foreign currencies (converted in CHF)

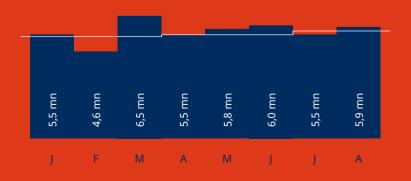


Accounts by Currency

Around 91% of customer accounts at Swiss banks are denominated in francs. They comprise accounts which end customers can use for payments without significant delay, restriction or penalty.



22 million private accounts 14 million private clients 2 million business accounts 1 million business clients



Accounts and Client Types

The requirement to report for the statistics applies to 24 Swiss banks. Currently, they hold almost 24 million customer accounts, of which around 2 million are business customer accounts. Customers have one and a half accounts on average.

Direct Debit Payments

The survey frequency, which was increased from quarterly to monthly, allows new patterns to be identified on a monthly basis. For example, it is noticeable that more direct debits were processed in March than in the previous month.



Professionalizing Fundraising

A VISIT WITH ROGER TINNER, CEO OF SWISSFUNDRAISING TEXT SIMON BRUNNER

imes are good for organizations that rely on donations: More than 2 billion Swiss francs were donated last year, twice as much as in 2003. An incredible 81% of households in Switzerland report that they make donations every year, compared to just 40% in Germany.

Swissfundraising bears coresponsibility for this boom. Roger Tinner, the CEO of the association, cheerfully opens

the door to his charming office in an old building near the St. Gallen train station and starts right off with a number, which won't be the last one this afternoon: "We had less than 400 members when I took over the directorship here in 2007 – today we have 1,000."

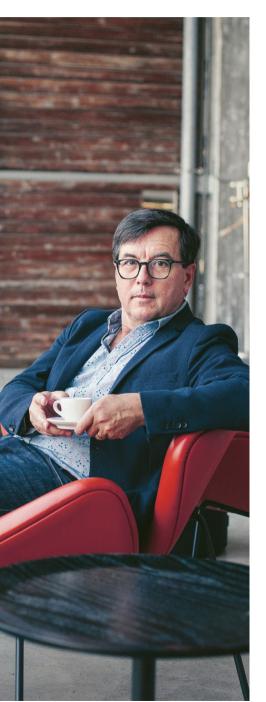
The association is on a mission to professionalize fundraising. To do that, it provides educational programs and advanced training courses and organizes events. Members of Swissfundraising have recently shown increased interest in the new payment possibilities with QR-bills and for eBill Donations. "Both offer advantages for aid organizations," Tinner says, "and both entail a few challenges."

Donating with QR-bills and eBill Is Very Easy

The simplification of the payment procedure is an extremely positive development, Tinner says. "Scanning a QR-bill or clicking to approve an eBill Donations request is very easy to do; donations can thus be elicited much more directly than before." Moreover, donations by eBill offer the added advantage of allowing organizations to send their requests for donations directly to donors' e-banking portals. This way, "people are made aware of a donation opportunity at the right moment, when they're in the process of paying their bills," Tinner explains.

A look into who donates the most in Switzerland quickly ends up at the baby boomer generation, i.e., people in the 55-plus age bracket: 85% of them donate money every year, and no one makes bigger donations than baby boomers. But members of the older stratum of this generation still like to do their invoicepaying at the post office counter. That, of course, can still be done with a QR-bill, "but you can't specify the purpose of the donation at the post office counter," Tinner says. A second issue, he adds, is memorial donations. You used to be able to use a blank payment slip for them, but that's no longer possible with QR-bills. Tinner is confident, however, that even the elderly generation will grow accustomed to the new means of payment and will come to appreciate its advantages: "We have made enormous investments in training, and many member organizations have conducted tests. The very important Christmas season is just around the corner,





Roger Tinner likes to go for a coffee to the nearby Lokremise cultural center.

so we want to be sure that everything runs smoothly."

Declared Dead Twenty Years Ago: The Fundraising Letter

Baby boomers are a pet subject of Tinner's. At 61, he's a boomer himself, though he cuts a younger figure in his ON sneakers, green slacks, and blue shirt – and with hardly a gray hair on his head. Talking about his own generation, he says that "we should cash in on it as much as possible over the next 20 years because no generation in history has ever earned as much and inherited as much as baby boomers have."

And what's the best way to reach boomers? "Half of donors report that their donations began with a fundraising letter," Tinner says. Fundraising letters were declared dead 20 years ago, he adds, but printed material has actually tended to gain significance amid advancing digitalization, he explains, because "it makes a more serious and dignified impression than an e-mail does." Outside Switzerland, by the way, fundraising letters play a much smaller role than they do in this country, presumably due in part to stricter data protection laws in many places abroad, Tinner says.

Setting Up an NPO in a Single Day

But despite his praise for traditional fundraising letters, Tinner has rolled with the times. "With all of the digital tools available these days, you can found an NPO start-up in an afternoon and start fundraising that same evening," he says. The overall share of digital donations to Swiss non-profit organizations is only in the single-digit percent range at present, but has been growing at a fast pace over the past two years.

So, a modern NPO would be well advised, he says, to set up digital channels to address and inspire younger donors. But "there's a risk of spreading yourself too thin," Tinner cautions, because "setting up and maintaining social media channels is very costly and time-consuming, and you're competing with the world's biggest brands for attention." Tinner therefore recommends enlisting influencers who have a lot of reach and credibility with the target audience, and he would advise commercial enterprises to do the same.

"The difference between a non-profit organization and a commercial enterprise has narrowed in any case," Tinner says. Fundraising organizations are being run ever more professionally, and forprofit enterprises are increasingly resorting to fundraising, he explains. During the COVID-19 pandemic, many theaters, restaurants, and soccer clubs sought information from Swissfundraising on how a fundraising drive works, Tinner recounts.

Fees are a big issue for organizations – fundraisers want to ensure that as many francs as possible reach their intended destination. "TWINT, eBill, and QR-bills score relatively well here," Tinner says, but certain credit cards and PayPal are more expensive, he adds. He recommends that "an NPO nevertheless would be well advised to offer multiple payment options and to make the payment process as simple as possible, since there's nothing worse than someone aborting a payment because the procedure is too complicated."

The Most Pins Sold

Tinner was long the head of communications at the University of St. Gallen and afterwards ran a number of communications agencies. He did not come directly from a fundraising background, but "back when I was a schoolboy, I was a very enthusiastic seller of pins for the Swiss Sports Aid Foundation," he says. His position at Swissfundraising came about through happenstance: During the 2000s, Tinner's previous employer had acquired an agency that ran Swissfundraising. "When the person doing that job left the position," Tinner recounts, "it was an open-and-shut case: I had to take over."

And how does he go about donating himself? "When I give a homeless person at the train station 20 francs," Tinner says self-critically, "I get a feeling like I just saved the world." He otherwise makes donations when he knows someone personally and is convinced of the good cause, he says. But he confesses that, like in most marriages, his wife is in charge of the bulk of donations and donates "much more systematically than I do."



Global CBDC Network

For eight months, SWIFT has interlinked various digital currencies from central banks (CBDCs). The tests show that a global CBDC network works and can be connected to existing payment systems. The German and French central banks as well as HSBC, Standard Chartered, and UBS took part in the experiment.

Further information

ECB Explores the Digital Euro – with Amazon

The European Central Bank (ECB) is currently testing central bank digital currency in euro. Amazon, CaixaBank, Nexi, Worldline, and the European Payments Initiative are participating in the prototype. Initial results are expected in the first quarter of 2023.



Further information EBA CLEARING, US-based The Clearing House, and SWIFT are testing real-time cross-border USD-EUR payments. The service is scheduled to go live in 2023.



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In 1879, a 10 rappen coin wouldn't even have bought a quart of milk. It might have been enough for a shoeshine on the market square in Einsiedeln or a copy of the local Sarganserländer newspaper from a street seller. Nevertheless, the three-gram lightweight has made it into "Guinness World Records". First minted more than 140 years ago, it is the world's oldest coin still in circulation. Today, it will buy you a stamp to supplement the postage on first-class mail. EXPERTS ONLY

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Automated Refunds Now Possible – Despite Banking Secrecy

Required knowledge

- Basics of the Swiss Payment Standards
- In-depth knowledge of ISO 20022 message types

Refunds due to return of purchased products and erroneous credits occur frequently. Previously, an automated reversal was not possible. A certain amount of investigation and manual work on the part of the bank or the beneficiary and therefore follow-up costs were unavoidable. This is no longer necessary.

Use Case

If the account has already been credited and the beneficiary wishes to repay the money in whole or in part, the beneficiary can only achieve this with a new payment instruction. Under banking secrecy, the beneficiary's bank is not able to disclose the originator's banking relationship when crediting the beneficiary. As every IBAN contains, among others, the identity of the bank where the account is held (IID), it is legally prohibited from informing the beneficiary of the IBAN for the purpose of refunding - either by telephone, with a credit note, or in the account statement. Until now, therefore, the beneficiary had no choice but to ask the originator directly for their IBAN in order to create a manual payment instruction for the reversal using this IBAN.

Automation Thanks to Optional Service

From 18 November 2022, Swiss financial institutions find at their disposal a standardized solution for automated refunds that complies with Swiss Banking Secrecy. This is made possible by the new Swiss Payment Standards (SPS) (Figure 1). The standardization in SPS follows the

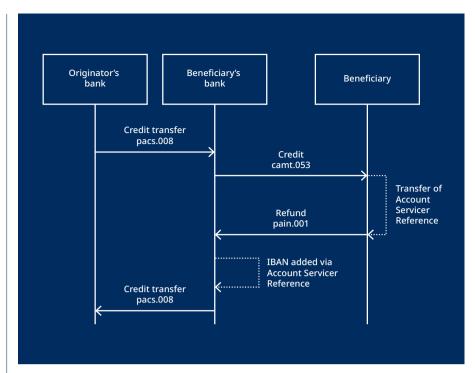


Figure 1: Standardized refunding process

SEPA Implementation Guidelines of the European Payments Council. It is generally aimed at customers who obtain account information with a camt message and make payments as a pain.001 message. Instead of the IBAN, the Account Servicer Reference is stated in the payment instruction, which along with the purpose code "RRCT" instructs the bank to use the IBAN of the referenced, original incoming payment as the credit account for the refund payment instruction. In order to maintain banking secrecy consistently, this IBAN may not appear either on debit advice or on account statements of the initiating party after the refund payment instruction has been executed.

Depending on the bank offering, the amount can be refunded regardless of the original credit. In addition, the debited account can differ from the account stated in the original credit. The bank is also free to decide on which channels and in which formats to offer this service.

Account Servicer Reference As a Link

The Account Servicer Reference in the camt messages of the credit (Figure 2) is used as a substitute for the IBAN upon the refund of the credit. It is always unique at the "Entry Details" level (D-Level) and includes a unique booking reference allocated by the financial institution. This element allows the booking to be linked in various notification messages (e.g., camt.054, camt.053, MT940) and to be checked for duplicates at the booking level, and can now also be used instead of the IBAN in the event of a refund, if supported by the financial institution.

Figure 2: Account Servicer Reference in camt messages

Message Item	XML Tag	General Definition
Transaction Details +References ++Account Servicer Reference	AcctSvcrRef	If references other than to C-Level are available in the same element, these could be given here (e.g., C-Level = col- lective reference and/or D-Level = breakdown for each transaction in the batch). In the case of separate trans- actions (one C- and one D- Level), the reference can be the same.

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Message Item	XML Tag	General Definition	The
Payment Information +Payment Type Information ++Category Purpose +++Code	Cd	Codes according "Payments External Code Lists" [8]. The forwarding of the code to the receiving institution is sub- ject to the offer of the customer's fi- nancial institution. If required, the code SALA or PENS must always be sent at B-Level. The code SALA in combination with Batch Booking Option "true" and notification instruction CND/NOA results in a confiden- tial payment. If supported by the financial institution, the RRCT code is used to mandate a refund based on prior receipt of an in- coming payment.	Required I - Knowled - Knowled - Prior kr and for As we all kn This is also ards, whic Usually, th the standa years whe

Figure 3: Category Purpose in a pain.001 message

Filling of pain.001 for a Refund

Pursuant to SPS, the "Category Purpose Code" element (Figure 3) is filled with the code "RRCT" in the event of a refund.

Instead of the IBAN, which is typically unknown in the event of a refund, the "Creditor Account/Identification/Other/ Identification" element (Figure 4) is filled with the Account Servicer Reference from the camt message of the original credit (Figure 2).

Preparation for Automated Instant Payment Processes

Following the introduction of instant payments, the SPS standardization will make it possible from August 2024 to reimburse money seamlessly and automatically on the refund of purchased

Figure 4: Creditor Account/Identification in a pain.001 message

products and services, without manual intervention and without contravening banking secrecy.

PETER RUOSS PRODUCT OWNER PAYMENT SOFTWARE PARTNERSHIPS, UBS SWITZERLAND AG

FURTHER INFORMATION:



SWISS PAYMENT **STANDARDS 2022**

Message Item	XML Tag	General Definition	
Credit Transfer Trans- action Information +Creditor Account ++Identification +++Other ++++Identification	Id	Must be used if "Other" is used. For refunds (Category Purpose Code: RRCT), the Account Servicer Refer- ence of the credit must be specified here.	

e Upcoming vision of ISO 22

knowledge

- edge of the ISO 20022 standard
- nowledge of data structures rmats

know, the only constant is change. o true of the 20.000 ISO standch must be reviewed regularly. he committees responsible for ard in question decide every five ether it should be revised, i.e., amended or expanded. When the systematic review of ISO 20022 came round in 2018, the standards community felt that no revision was needed. Now, after the global triumph of ISO 20022, it is clear that many questions about current and future challenges still remain unanswered. A study group investigated this and suggested some areas that merit closer examination in the near future.

Changes Essential

It is already clear that an expansion of the application in the current version is possible and that it requires some technical adjustments. This is being addressed by the Technical Support Group (TSG), which is headed by the author of this article. How the "standards envelope" should bring together the "Business Application Header" and the ISO 20022 messages such as pacs.008 is one of these areas. Another issue is whether and how the use of ISON as a data format should be regulated. JSON is ubiquitous in application development today and features in particular in the API world. Since this year, it has been possible to register API resources under ISO 20022, automatically raising the question of whether it is not also necessary to establish principles for efficient use of JSON. This is an important addition for the application of the standard. The TSG has until the end of 2023 to discuss and, where appropriate, implement these and other technical issues. The ISO 20022 Registration

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Authority (RA), which is responsible for the standard, will make the decision. It will publish the results of discussions on an ongoing basis on iso20022.org, as well as those for the API resources submission process.

API, JSON, and Other Challenges

A working group headed by a representative of the ISO member country China is responsible for the actual review process, i.e., editing the eight-part standard, which consists of several hundred pages. The group was created specifically for this and is handling the process from the first step to the final publication. The potential new version is expected in 2025. This working group expects an extremely demanding program, with questions on expanding the modeling of messages and API resources. The issue of how the standard will deal with markup languages (e.g., XML and JSON) is also on the agenda. XML and ASN.1 and their application are currently included in the standard. If ISON is to be integrated, this will likely involve a lengthy process, especially as this data format is far less established in practice than XML. Accordingly, other options should be considered. Better integration of other ISO standards in the ISO 20022 meta model is also a topic to be discussed. One other challenge is developing a concept that makes it possible to make changes to messages or parts thereof more quickly without the entire user community having to implement a new version of the standard. Concepts from the card world could be used as blueprints. Last but not least, it must be considered how the RA will continue the considerable work associated with the increasingly widespread use of ISO 20022 as efficiently and effectively as possible. The revision should also provide answers to this.

The Swiss standards community figures prominently in all committees relating to ISO 20022. This is primarily because it is a pioneer in this area and the use of ISO 20022 messages has been firmly established in Switzerland for many years, especially in payments. Sooner or later, all version changes thus have a significant impact on the Swiss Payment Standards, local market practices, and ultimately on what is offered, applied, and implemented by all market participants.

MARTIN WALDER, HEAD BILLING & PAYMENTS STANDARDS, SIX

Required knowledge

 Application of the QR-bill Implementation Guidelines

The "QR-Bill

Light" in SEPA

The European Payments Council (EPC) has established guidelines on how to simplify data collection in Europe for initiating a SEPA credit transfer with a standardized QR code. Over fewer than five pages, the document describes a payment instruction with which the transferring party can easily initiate the payment process by scanning the QR code.

Similar Use Cases

Compared to the QR-bill, where a full 150 pages are dedicated to the technical and functional specifications, the EPC's QR code is a lightweight, a kind of "QR-bill light." Although it is directly comparable to the Swiss QR-bill in terms of its use cases, beyond this it is restricted to the absolute minimum. For example, the EPC standard does not include any requirements for the visual design and so does not require any information or functions that are not essential for a transfer. There are no characteristics equivalent to the QR-IBAN, the QR reference, the ultimate debtor, or alternative procedures anywhere to be found (table 1).

Like the QR-bill, the EPC QR code is suitable for use cases where the transfer information stored in the QR code also appears in the plain text. This allows the paying party to check that the data recorded in the QR code is correct.

For use cases where the beneficiary provides a QR code to the paying party at the point of interaction (e.g., at a payment terminal in a store or in the shopping basket for an online retailer), EPC recommends a different QR code, which is described in the EPC standard "Standardisation of QR-codes for Mobile Initiated SEPA (Instant) Credit Transfers."

Just as for the QR-bill, under EPC the process begins with the beneficiary indicating the QR code on an invoice. After receiving the invoice, the paying party scans the QR code using their smartphone

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EPC QR code

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or another device through the appropriate function in their payment/banking app. This way, the payment details in the QR code are automatically copied to the right fields in the payment app. Before the paying party approves this, it verifies the transaction data in the payment app to release the payment transaction.

Light Years Ahead

The EPC document is purely informative. This means that invoice issuers and payment service providers are under no obligation to implement the standard. Thanks to the nationwide introduction of the QR-bill in fall 2022 and extensive standardization, Switzerland is light years ahead of the other SEPA countries. Time will tell whether the QR-bill is visionary. This also depends on whether the EPC will add similar functions to its QR code in the future.

Table1: Comparing the QR-bill and EPC QR code

Field	Example value
Service tag	BCD
Version	001
Character Set	1
Identification	SCT
BIC	BHBLDEHHXXX
Name	Franz Mustermänn
IBAN	DE71110220330123456789
Amount	EUR12.3
Purpose	GDDS
Remittance (Reference)	RF18539007547034
Remittance (Text)	
Information (Beneficiary to Originator)	



Table2: The EPC QR code

PETER RUOSS

PRODUCT OWNER PAYMENT SOFTWARE PARTNERSHIPS, UBS SWITZERLAND AG

FURTHER INFORMATION:



QUICK RESPONSE CODE: GUIDELINES TO ENABLE DATA CAPTURE FOR THE INITIATION OF A SEPA CREDIT TRANSFER



STANDARDISATION OF QR CODES FOR MOBILE-INITIATED SEPA (INSTANT) CREDIT TRANSFERS

Characteristic	QR-bill	SEPA QR code
Documentation of the standard	78 pages	5 pages
Style guide	32 pages	None
Technical information on QR-IID and QR-IBAN	15 pages	None
Processing rules for QR-bills	26 pages	None
Variant: IBAN without reference	Yes	Yes
Variant: IBAN with creditor reference	Yes	Yes
Variant: QR-IBAN and QR reference	Yes	None
Unstructured message	Yes	Yes
Name of creditor	Yes	Yes
Structured address of creditor	Yes	None
Unstructured address of creditor	Yes	None
Name of ultimate debtor	Yes	None
Structured address of ultimate debtor	Yes	None
Unstructured address of ultimate debtor	Yes	None
Name of ultimate creditor (planned but not approved for use)	Yes	None
Structured address of ultimate creditor	Yes	None
Unstructured address of ultimate creditor	Yes	None
Invoice information	Yes	None
Alternative procedures	Yes	None

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The Design of Cross-Border CBDCs

Despite the digitalization and innovation in payment transactions over the past few years, cross-border payments remain expensive, slow, and non-transparent. The G20 has therefore launched a multiyear program with 19 building blocks to enhance cross-border payments. Building block 19 deals with central bank digital currencies (CBDCs) as a possible solution. A recent report (BIS 2022) points to two key CBDC design choices for their crossborder capability: the definition of access to CBDCs and the interoperability of CBDC systems.

With regard to the definition of access, the report distinguishes between CBDCs for financial institutions (wholesale CBDCs, or wCBDCs) and for the general public (retail CBDCs or rCBDCs). There are three models of wCBDC access for foreign institutions: no access to CBDCs, access through domestic intermediaries, or direct access. In the case of rCBDCs, access for non-residents (tourists, refugees, etc.) could be direct or through financial intermediaries.

The report distinguishes between three models to ensure the interoperability of CBDC systems: (i) the use of common standards (e.g., ISO) in order to guarantee compatibility, (ii) interlinking the systems through technical and contractual agreements, which could facilitate data exchange, for example, and (iii) the creation of a multi-CBDC platform with common technical infrastructure and shared rules.

Fundamentally, the more open the access and the more interoperable the system, the better the "cross-border capabilities" of the CBDCs. However, the access and interoperability models described above entail cost/benefit considerations. Compromise solutions could, for example, be restricted access to CBDCs but a high degree of system interoperability. This might limit negative spillovers from capital outflows into the CBDCs or currency substitution. In light of this, there is unlikely to be a one-sizefits-all solution for all central banks. should central banks implement CBDCs on a large scale.

LORIANA CRASNIC, SHAJINTHAVY THAMBIAH AND BENJAMIN MÜLLER SWISS NATIONAL BANK

FURTHER INFORMATION:



BIS (2022), OPTIONS FOR ACCESS TO AND INTEROPERABILITY OF CBDCS FOR CROSS-BORDER PAYMENTS



Request to Pay: A Key to Innovative Real-Time Solutions

What is the best way to unleash the potential of instant payments for innovative payment solutions? How do you create a seamless customer experience that delivers added value both for consumers and for companies? While financial institutions throughout Europe are still wrestling with these questions, multinational corporations in particular believe that request to pay is the answer.

Request to pay enables invoice issuers and customers to exchange structured data electronically through a payment request before the money changes hands. Thanks to this data, the payer can identify the invoice issuer and the subsequent payment is easy to identify and reconcile in the invoice issuer's accounting.

Given the potential to use real-time functions, to facilitate automated endto-end processes, and to support cost savings, request to pay enables the optimization of a wide range of payment situations. In a Euro Banking Association survey of companies all over Europe, the vast majority of respondents saw request to pay as relevant for e-invoicing, recurring payments, point of sale and e-commerce transactions – with e-commerce taking the top spot with a small lead.

This is confirmed by Stefan Hölscher. Lead Expert Payment at the global commerce and services company Otto Group: "E-commerce could serve as a launch pad for request to pay, considering that this new tool could significantly simplify the payment of an invoice." Like many other payment experts at major companies, he believes that the clock is ticking for payment service providers (PSPs). As a seamless customer experience is crucial in his view. Hölscher expects payment service providers to integrate the service into their banking applications: "PSPs also need to commit to ensuring high market penetration, meaning that all customers should become reachable." If they do not push the development of request-to-pay solutions, warns Hölscher, other players will."

Although the European Payments Council has already established a SEPA scheme for request to pay, and EBA CLEARING provides pan-European infrastructure, a lot of concerted efforts are still needed to roll out services that meet end-users' expectations. What the supply side needs next is firm resolve to make request to pay the top priority and to write a shared success story. This requires pan-European, cross-sector dialog, which the Euro Banking Association is currently preparing to support.

THOMAS EGNER SECRETARY GENERAL OF THE EURO BANKING ASSOCIATION

FURTHER INFORMATION:



REPORT ON THE FINDINGS OF THE EBA REQUEST TO PAY SURVEY



Stablecoins as New Financial Market Infrastructures?

With the emergence of stablecoin arrangements and given the impact these could have on the stability of the financial system, leading economies (G7, G20) and the Financial Stability Board have called on standard-setting bodies to amend the existing standards accordingly. The Committee on Payments and Market Infrastructures (CPMI) and the International Organization of Securities Commissions (IOSCO), which together are responsible for appropriate standards for the payment function of stablecoins, published a joint report at the start of October 2022.

In it, CPMI and IOSCO propose guidelines for applying the Principles for Financial Market Infrastructures (FMIs) to stablecoin arrangements that are considered systemically important FMIs. Firstly, the report clarifies that stablecoin arrangements must comply with the principles for systemically important FMIs, just like conventional FMIs such as payment systems (same risk, same regulation). Secondly, it discusses notable and new stablecoin features in light of these principles. The following features stand out here:

- The potential use of a new payment means as an alternative to central bank or commercial bank money
- Potential interactions between multiple functions of a stablecoin arrangement (in addition to the payment function, these primarily include the issuing and value stabilization functions)
- 3. The potential degree of decentralization of operations and the organizational structure
- The potential extensive use of new technologies such as distributed ledger technology (DLT)

These features are discussed with regard to the principles on governance, risk management, finality, and payment means. Regarding the payment means, the specific application of the principles for FMIs will depend on the regulatory conditions for other core functions of the stablecoin arrangements. These regulatory conditions are still to be developed at the international level by various standard-setting bodies. At present, CPMI and IOSCO are also still working on stablecoin arrangements where the stabilization function is based on collateral denominated in several national currencies. Thus, the overall shape of the stablecoin arrangements regulation is still a work in progress.

THOMAS NELLEN FINANCIAL STABILITY – OVERSIGHT SWISS NATIONAL BANK

FURTHER INFORMATION:



REPORT OF CPMI AND IOSCO: APPLICATION OF THE PRINCIPLES FOR FINANCIAL MARKET INFRASTRUCTURES TO STABLECOIN ARRANGEMENTS Heinrich Heine (1797–1856)

What is money? Money is round and rolls away, but education remains.

