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Edition 79

QR-bill:
Information
Squared
with Efficiency

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The Swiss professional journal for payments



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Dear reader,

I like to travel. For example, I was recently in Dresden, where there is a wonderfully renovated old city. The taxi drivers, however, only take cash. Cards? Way too expensive – and the driver would have to do his rounds with at least three payment terminals. OK, then please stop at an ATM. Cost for the withdrawal: 4 euro, plus the driver's detour and waiting time.

Afterwards, Berlin. Actually, I wanted to invite my cousin to eat, but I had already used up my cash. She was born in the year 2000, is thus a millennial. 'What does she actually use for person-to-person payments?' 'What kind of payment?' I showed her TWINT and she thought it was super.

A week later: Meran in South Tyrol. Unfortunately, this also included a visit to the doctor. No, we do not accept cards, but he could send me an invoice. And he then added: He used to live in Switzerland. Payments were so easy to book there with the reference number! At least he had his own parking lot. There is also public parking, but you needed to insert euro coins to use it. Unfortunately, there is no functioning change machine anywhere nearby.

This much is certain: Travel broadens the mind! For example, I again realized how convenient it is to live in Switzerland when it comes to spending money. I can go for weeks without needing cash. Cards are accepted everywhere – and the whole family uses TWINT. Starting in 2020, I will be able to even use the new debit cards for online shopping.

That is not something to be taken for granted. The success of payment procedures depends on how many people take part. This is called the network effect. I, myself, am experiencing at SIX just how difficult it is to muster up a majority for a procedure and then to actually transpose it into everyday use.

The electronic invoice eBill is such a procedure, which we want to place in everyday use throughout Switzerland over the next few years. We have the platform to do so, and now we have to make it easy-peasy for invoice issuers and receivers. It's a real struggle to come up with ideas and improvements in order to reach as many people as possible.

The QR-bill has already been decided upon. It will be introduced throughout Switzerland in mid-2020 and will take digitization a giant leap forward. It will even replace the payment slips one day. No, no worries, the QR-bill can still be paid at post office counters. However, now you can also simply take a picture of the Swiss QR Code with a smartphone and directly trigger the payment. A QR-bill, by the way, can also very easily become an eBill invoice; the introduction of the QR-bill, so to speak, paves the way to eBill. You can imagine what I will be using.

But what I use, however, is not important. What is important is that as many Swiss people as possible participate in the QR-bill and come along on the way to eBill. After all, who would like to embrace payment methods that are complicated and, above all, expensive and fulfilling a niche role like it is the case in other countries.

In this clearit edition you can learn everything you need to know about the QR-bill. Switzerland is thus receiving an easy and inexpensive procedure. We are wary about the existing procedures if they have proven themselves. But we are also determined to move forward with modernization.

Dieter Goerdten
Head Product & Solutions, SIX



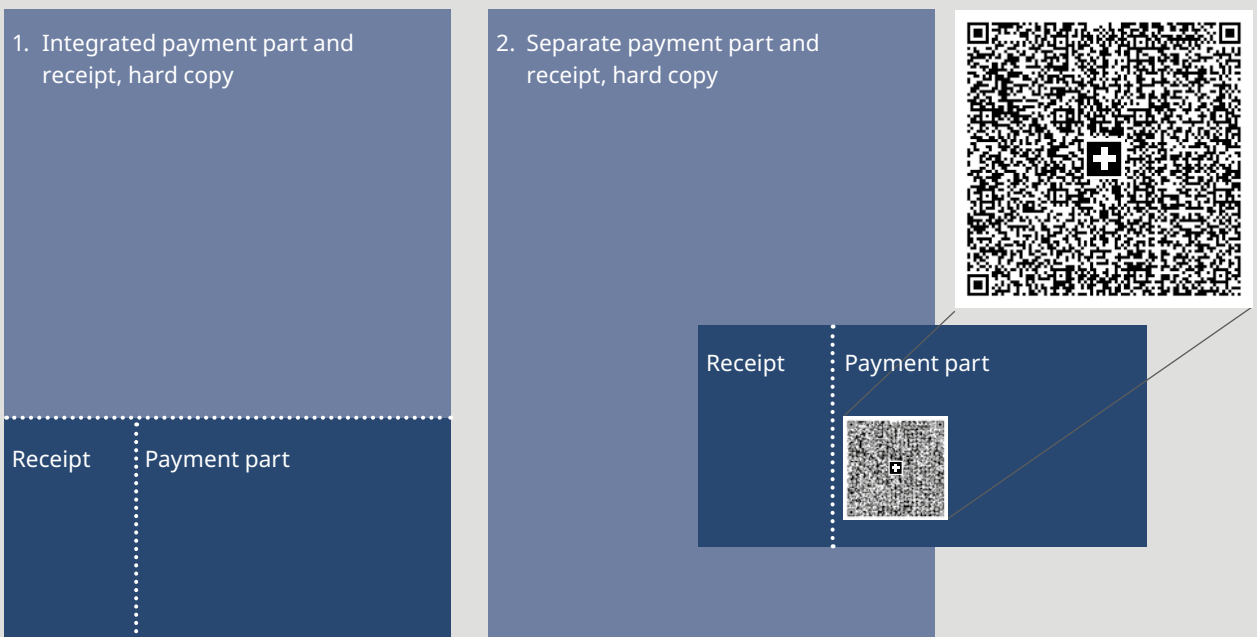
QR-bill for Dummies

Harmonization and digitization are two buzzwords which stand for the comprehensive transformation of Swiss payment traffic. Together, they form the basis for automated, error-reduced and thereby efficient payment processing, also thanks to the QR-bill. What is behind the QR-bill and what advantages does it offer? Why, when and how does it work?

When people talk about harmonization, it primarily relates to the standardization of account numbers through the IBAN and the structuring of payment messages on the basis of ISO 20022. Harmonization paves the way to the QR-bill, which in turn will bridge the gap to eBill as of mid-2020, and thus to digital invoice processing without media disruptions. The QR-bill is designed to promote the digitization of payment traffic and, at the same time, enable the use of traditional channels such as counter payments and payment orders via the postal service.

What Distinguishes the QR-bill?

With its database, the QR-bill meets the requirements in scope, function and format (ISO 20022) for digital processing that is free of media disruptions. Nevertheless, those who prefer to continue receiving paper invoices profit by saving work caused by media disruptions in the process between invoicing, dispatching and payment instruction: the invoice recipient simply scans the Swiss QR Code on the payment part with their smartphone, handscanner or PC camera and then only needs to release the payment without making further entries. They no longer need to make the bothersome effort to type



Schematic depiction of a QR-bill with payment part and Swiss QR Code



account and reference numbers. What is crucial is that a QR code containing payment information is imprinted on the payment part. This Swiss QR Code enables the triggering of payments at financial institutions across all order channels, including counter payments.

The payment part of the QR-bill with receipt contains information needed to execute payments that are both digitally readable in the Swiss QR Code and contained in printed text. This enables the invoice recipient to check the accuracy of payment data after the invoice has been scanned and before its payment is approved and, if needed, also to manually enter payments.

Three Versions of the QR-bill

Data fields can be used, omitted or combined according to what both the invoice issuer and recipient require. Therefore, we need to differentiate between three basic versions. Two of them take into account the accustomed practice of currently used red and orange payment slips (IS and ISR) and thereby ease the transition process. The third option primarily supports the increasingly important payment traffic in euro using the Structured Creditor Reference (SCOR), an international standard based on ISO 11649, which can be used both in Switzerland and in the SEPA zone.

Receipt	Payment part
Account / Payable to CH44 3199 9123 0008 8901 2 Robert Schneider AG Rue du Lac 1268 2501 Biel	Account / Payable to CH44 3199 9123 0008 8901 2 Robert Schneider AG Rue du Lac 1268 2501 Biel
Reference 21 00000 00003 13947 14300 09017	Reference 21 00000 00003 13947 14300 09017
Payable by Pia-Maria Rutschmann-Schnyder Grosse Marktgasse 28 9400 Rorschach	Payable by Pia-Maria Rutschmann-Schnyder Grosse Marktgasse 28 9400 Rorschach
Currency Amount CHF 2 500.25	Currency Amount CHF 2 500.25
Acceptance point	Name AV1: UV:UltraPay005;12345 Name AV2: XY:XYService;54321

QR-bill with QR reference (replaces the ISR)

Receipt	Payment part
Account / Payable to CH52 0483 5012 3456 7100 0 Better World Trust P.O. Box 3001 Bern	Account / Payable to CH52 0483 5012 3456 7100 0 Better World Trust P.O. Box 3001 Bern
Payable by (name/address) []	Payable by (name/address) []
Currency Amount CHF []	Currency Amount CHF []
Acceptance point	[]

QR-bill without QR reference (replaces the IS)

Receipt	Payment part
Account / Payable to CH58 0079 1123 0008 8901 2 Robert Schneider AG Rue du Lac 1268 2501 Biel	Account / Payable to CH58 0079 1123 0008 8901 2 Robert Schneider AG Rue du Lac 1268 2501 Biel
Reference RF18 5390 0754 7034	Reference RF18 5390 0754 7034
Payable by Pia-Maria Rutschmann-Schnyder Grosse Marktgasse 28 9400 Rorschach	Payable by Pia-Maria Rutschmann-Schnyder Grosse Marktgasse 28 9400 Rorschach
Currency Amount CHF 2 500.25	Currency Amount CHF 2 500.25
Acceptance point	Name AV1: UV:UltraPay005;12345 Name AV2: XY:XYService;54321

QR-bill with Creditor Reference (new usage option)



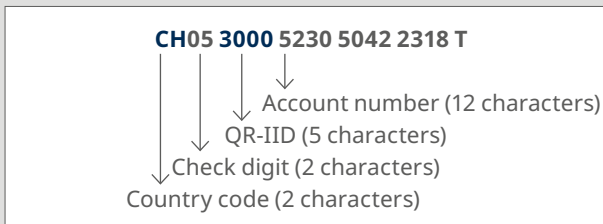
What Is a QR Reference?

The QR reference corresponds to the current ISR reference (26 numeric characters followed by a check sum) and, as previously, is intended for a simple comparison of invoices with payments for the invoice issuer. Existing ISR reference numbers can continue to be used unchanged, whereby the seamless transition from the ISR to the QR-bill is possible.



Sample of an ISR reference, which can be further used as a QR reference

The QR reference may only be used in combination with the so-called QR-IBAN. The latter is formatted to the same way as the familiar IBAN. The QR-IBAN must be issued to customers by their bank – provided that the bank offers the QR-bill procedure. The QR-IBAN can be recognized on the basis of specific financial institution identification (QR-IID), which is filled in with an exclusive value range between 30000 and 31999. Financial institutions participating in Swiss payment traffic and processing customer payments have already been issued their QR-IIDs. They are published in the so-called test bank master data list on the PaymentStandards.CH website.



Fictitious example of a QR-IBAN

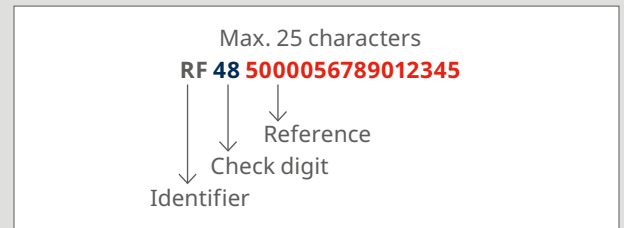
TIP FOR PROS

The customer identification in the first six positions in the reference as the key to the creditor's account will be eliminated, in principle. To avoid erroneous bookings, it is recommended that the existing six-digit customer identification number be reused.

What Is a Creditor Reference?

The structured Creditor Reference (ref. type SCOR) has the same function as a QR reference; it simplifies the allocation of a payment in the accounts receivable thanks to a unique identification number for each transaction. The difference to the QR reference is solely that the calculation thereof follows a different logic, which is defined in the ISO 11649 standard. Furthermore, it can be used in international payment traffic, while the QR reference is limited to the Swiss franc payment area (Switzerland and Liechtenstein).

A prerequisite for use of the SCOR reference is the concurrent use of the IBAN.



Example of a Creditor Reference

TIP FOR PROS

21 positions in the 25-character creditor reference can be filled in freely by the invoice issuer (red characters in the example).

Optional Functions for Increasing Automation

Various optional functions have been integrated as supplementary services in the QR-bill. They optimize the processing of greater volumes both for invoice issuers and recipients. The two most important ones are 'Alternative procedures' and 'Billing information':

Alternative procedures

In principle, the data space of the QR code is so broadly defined that all information relevant for the processing of a payment is present. To be able to provide its bridging function to other payment procedures, the QR-bill offers the 'Alternative procedures' field. Information that is needed for the usage of such can be entered there in a standardized form. For eBill, for example, this field can be filled in with the invoice recipient's e-mail address. This makes it possible for a QR-bill to be automatically converted into an eBill invoice by a service provider, for instance. Read more on page 25.

Billing information

This field offers the option to provide encoded information for the automated booking of a payment to the invoice recipient, independent of the processing of payment-relevant data. Swico, the ICT and online industry business association, has developed a syntax definition for this purpose and published it on their website. Read more on page 26.

How Can a QR-bill Be Created?

QR-bills can be created and printed in just a few simple steps by a regular person on their PC. Several design characteristics must be adhered to in the process, which are published at PaymentStandards.CH. It is even easier if an application offered by one of the many software vendors is used. They have already started programming appropriate online offers and upgrading their business software solutions to ensure that the QR-bill may be created and paid with as of 30 June 2020.

Both invoice issuers and recipients that use an ERP solution should contact their software partner to find out about the time plan and to plan their IT and process adaptations correspondingly. A list of software partners that support the QR-bill is available at [PaymentStandards.CH](https://www.paymentstandards.ch/en/digital) under the 'Readiness' tab.

The QR-bill offers great flexibility in regard to the use of different payment procedures and channels. Due to this, the needs of all user groups can be met. The most important advantages are as follows:

- Invoices can be printed easily on white, perforated paper, i.e. no more need to order preprinted payment slips
- ISR reference numbers can be reused (QR reference)
- ISO SCOR reference numbers can be used (e.g. for payments in the SEPA zone)
- The combination of reference number and messages is possible (free text or use of Swico syntax for billing information)
- The fields for the amount or debtor can be left blank
- Alternative procedures (e.g. eBill) can be used

- Billing information can be obtained for automatic bookkeeping reconciliation
- QR code scanning replaces manual entering of payment data
- Data accuracy can be reviewed by comparing it with text details in the payment part
- Payment channel can be freely selected: e-banking, m-banking or counter

The introduction of the QR-bill is rather complex because all stakeholders in Swiss payment traffic are affected. As of 30 June 2020, all 600,000 companies will theoretically be in a position to send QR-bills to their customers – companies or private individuals. The Swiss and smaller companies without an own payment or accounting software will be able to pay incoming QR-bills through their e-banking or m-banking applications offered by their bank. Especially companies with their own accounts receivable and payment processes must update their existing software solutions or have them updated by their ERP software partners by mid-2020, at the latest.

Ernst Roth, ZKB, and

2018			2019												2020							
Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	
Publications: • IG QR-bill • Processing rules (Business Rules) • Technical information QR-IID/QR-IBAN SB/II			Publications: • IG interbank (pacs) • IG customer-bank (pain, camt) SB/II									Adaptation of the IBAN inquiry tool II									QR-bill launch 30.6	
Update of the Swiss QR Code validation portal SB/II			Publication of the Style Guide SB/II			Specification of fees information entering in interbank messages SB/RS			Publication of test concept/script SB/II/IR						Online tool for creating QR-bills II			Publication of bank master SB				
Start monitoring of software partners' readiness SB						Start monitoring of companies' readiness SB/II			Start monitoring of banks' readiness SB													

Legend:

Legend:
SB: Relevant for software partners and/or banks
II: Relevant for invoice issuers
RE: Relevant für invoice receipients

- Important milestone and release dates specifications
- Instructions and aids
- Monitoring the Swiss financial center's readiness



Thomas Lüthi, Product Manager Accounts & Payment Solutions and Product Owner of Zak, Basler Kantonalbank

Banks in Readiness Mode

Basler Kantonalbank and Bank Cler are part of the same group. The advisory bank with its digital offer and the digital bank with a physical presence complement each other and benefit from the advantages of the cooperation – which also applies for the changeover to the QR-bill. In the following interview, Thomas Lüthi, Product Manager Accounts & Payment Solutions and Product Owner of Zak, talks about planning and communication activities in the run-up to the introduction of the QR-bill and new marketing opportunities.



Mr. Lüthi, the Zak App from Bank Cler was launched around a year ago. You are committed to smart-phone banking and digitization. When will classic bank accounts and customer counters become obsolete?

Basler Kantonalbank and Bank Cler are not only investing in digital offers. At Bank Cler, we're in the process of refurbishing and modernizing all branch offices, a project that's already complete at Basler Kantonalbank. Physical customer contact remains an integral part of our omni-channel offer. Customers can decide for themselves whether they prefer to visit their advisor in the bank branch, to carry out banking activities at home on the sofa with a laptop or make payments while on the go.

With Zak, we've developed the first offer for those customers who prefer to conduct all their banking activities with a smartphone. Bank Cler's branch network remains important. However, it's clear that we're attempting to bring the digital and physical worlds closer together.

Is there a difference between Basler Kantonalbank and Bank Cler when we talk about the physical and digital worlds?

Yes, that's obvious, if only by virtue of the regional provision of services to the population. Bank Cler is operating at national level without a comprehensive network, while BKB is limited to Canton Basel-Town with a dense web of branches across the districts. In terms of atmosphere, the BKB branches add a touch of living room-office ambience. In contrast, at first glance, Bank Cler is no longer recognizable as a traditional bank; it looks more like a telecom shop. This means, on the one hand, that at Bank Cler the focus is on a 'digital bank with a physical presence in urban areas' and, on the other, that at BKB the focus is on an 'advisor bank in the Basel region with a digital offer'.

Is the difference only in terms of image, or are the underlying IT, technology and processes behind the digitization different?

Synergies are used between the two banks whenever possible, while systems and processes are managed centrally. However, where it makes sense, the different needs of the two banks are taken into account and individual solutions implemented.

How does the new QR-bill fit within your product range?

Our digital channel is predestined for the QR code. The customer scans the Swiss QR Code with his mobile device and the invoice is paid in moments. This reduces entry errors and the time required by the customers to enter the payment. The QR-bill complements our offers very well throughout the entire omni-channel. Regardless of whether customers prefer to submit payment instructions physically or digitally. What matters is that they have the choice and can control their payment behavior.

“The customer scans the Swiss QR Code with his mobile device and the invoice is paid in moments.”

Are you also considering launching new services for invoice issuers and recipients over time?

Of course we're considering this. New services must always generate added value for our customers. The QR-bill offers a variety of possible services. It's conceivable that the advantages of the QR code could also be used in other media. For example, with a partner from the non-profit world, we could call for donations on advertising posters. In contrast to payment slips, it's technically possible to print a Swiss QR Code on any carrier medium, to scan it from there and thus settle an invoice in this way. The marketing potential is therefore vast.

How are you ensuring that your customers will be able to pay QR-bills through the Zak App starting 30 June 2020?

It's already possible today to scan orange payment slips in through Zak. We'll, of course, adapt the corresponding scanning infrastructure to the QR-bill. We still need to make several technical modifications in the background. There are new standards and new fields that must be provided. In addition, there are various adaptations to be made in the area of structured addresses. We've already depicted these, knowing that they will become the standard in Swiss payments sooner or later. Till now, we had a single field for the entire invoice recipient address, now we've implemented separate fields for street, postal code, city and country. This gives us and our customers enough time to get used to structured address data and they do not have to switch to everything at once at a later date.

How far are you with the technical implementation of the customer interfaces?

We've already conducted a preliminary study and from it derived a functional-technical concept that shows which adaptations must be made in the background for the changeover to the QR-bill. The migration impacts not only our digital channels such as Zak, mobile banking and e-banking, but the core banking system as well. This too must be ready for our own invoicing so that we can serve our suppliers with QR-bills. We'll start a realization phase in July for the implementation of the QR-bill in all systems and applications, so that we'll be ready to operate with the QR-bill by the go-live in mid-2020, at the latest.



What does your invoicing offer comprise? QR-IBAN with QR reference, QR-IBAN with QR reference and message, IBAN with Creditor Reference or IBAN without reference? Or will you depict all versions of the QR-bill?

We're currently reviewing which product range we'll want to offer our customers. As previously mentioned, the benefits and corresponding added value for our customers are foremost.

The currently used payment slips will be in circulation concurrently with the QR-bill for a while. Are you planning to discontinue the ISR after a transition period or will you wait for the official discontinuation of the procedure by PostFinance?

We'll act in accordance with the market. That makes the most sense for customers – especially when it comes to the physical submission of payment slips and QR-bills. If a customer has multiple bank relationships, then it's useful to get everything from a single source. However, I can well imagine that in certain electronic systems we'll only offer the QR-bill before the official end date. We'll coordinate our timing here with the market in order to avoid confusing customers. What's important is that customers are not disadvantaged when it comes to their payment behavior. Actually, it's not up to private customers to gear their payment behavior digitally, but on invoice issuers to enable their recipients to pay their invoices digitally.

GLOSSARY

File transfer: Payment connectivity services are integrated payment transaction solutions for business customers and corporations. They enable file transfer between book-keeping or cash management applications and the account holding bank. Data files can be entered in pain.001 (upload).

EBICS: 'Electronic Banking Internet Communication Standard' (EBICS) is an Internet-based communication standard in payment traffic. Using business software systems, it facilitates the direct exchange of payment instructions, status reports and account statements between business customers and banks.

camt.054: Debit and credit advices are covered with camt.054 messages in the ISO 20022 standard. The delivery of notifications is generally event-driven (e.g. after placing the order) continuously for incoming and outgoing payments.

QR-IBAN with QR reference: In this version of the QR-bill, the QR reference corresponds to the current ISR reference number and must be used together with the QR-IBAN. The QR-IBAN has a special identifier to indicate the payment procedure.

IBAN with Creditor Reference: The Creditor Reference (ISO standard), together with the IBAN, forms another version of the QR-bill. This reference is also used for SEPA payments.

IBAN without reference: This version of the QR-bill is suitable for credit transfers without reference.



“I can well imagine that in certain electronic systems we'll only offer the QR-bill before the official end date.”

Suppose that invoice issuers offer their customers the QR-bill, but they prefer the physical path for payment. How will you convince them that it's better to submit invoices through the e-banking and m-banking channels?

There has been pricing for the physical delivery of payment slips through electronic channels for some time now. Customers who are price sensitive tend to choose our digital channels. However, they are free to choose their preferred payment type.

When will you actively inform your business customers about the introduction of the QR-bill with your versions thereof?

We're currently planning various activities in the area of customer communication. We're continuously adapting our websites. Our business customer advisors have also received the flyer provided by the Swiss financial center which they can actively use in their customer consultations. We'll actively inform customers in the course of the 3rd quarter of 2019.

When are you planning communication activities for your private customers/consumers?

Here, too, we're currently planning various activities in the area of customer communication. On the one hand, we're constantly adapting our websites, while on the other hand, as of the 3rd quarter 2019, we'll actively inform our private customers about the changes through the statement enclosures. Among other things, we're also considering separate mailing activities and broadcast messages through the e-banking system. It's important to us to communicate as a bank transparently and at an early stage.

Interview:

Gabriel Juri und Karin Pache

SIX



Further information

- Standard presentation for bank customer advisors (only in German or French): www.paymentstandards.ch/dam/downloads/standard-presentation-de.zip
- QR-bill flyer: www.paymentstandards.ch/dam/downloads/Flyer-QR-Rechnung-Online-Ansicht.zip
- Subscribe to the newsletter for banks (only in German or French) from PaymentStandards.CH: www.paymentstandards.ch/de/services/form/newsletter-registration.html

FAQ ON THE TECHNICAL ASPECTS OF THE MIGRATION TO THE QR-BILL

Are you planning payment of the QR-bill via file transfer (pain version 11.2019) with e-banking or other solutions?
Yes, via e-banking and via EBICS.

Which current payment offers or account information will no longer be available with the QR-bill?

When the currently-used red and orange payment slips are discontinued after the transition period, the scan function for the orange payment slips will no longer exist. Other product-related offers are currently under review.

Will the notification of debit and credit notices (account reports) according to camt.054 be assured as of 30 June 2020?

Yes, the camt.054 function (including camt.054 ISR) will be available as of that date through e-banking and EBICS. The camt.054 is already available for downloading in the e-banking system.

What is the situation with account statements and reports?

Account statements and reports will also be available through e-banking and EBICS as of 30 June 2020.

You will also have to adapt your scanning platform because of the paper-based QR-bills. How are the preparations going?
We conduct our payment processing through Swisscom. We remain in close contact with them regarding the status of the QR-bill project.

Will you offer blank QR-bill templates for your non-digitally-savvy customers?

This is currently being reviewed within the scope of our future offer.

Do you intend to offer your customers a tool for QR-bill invoicing?

This is also currently being reviewed within the scope of our future offer. However, we assume that there will be numerous possibilities on the market.

Will you provide QR code scanning in Zak or in the e-banking system?

In Zak, m-banking and e-banking, we will make it possible to scan invoices, as is the case the today. This is also done in e-banking with a mobile end device.

When are you planning to make the QR-bill available in your test banking application?

We cannot give you a set date at this time.



Challenges for Bank Communication

The replacement of currently used payment slips by the QR-bill represents a historic event in the Swiss payments. Besides all invoice issuers in Switzerland, this change impacts the entire Swiss society. An urgent communication is therefore essential and must be started as soon as possible.

A well-conceived, comprehensible and helpful customer communication is the be-all and end-all. In order to ensure a successful introduction of the QR-bill, a commitment is required by each individual bank. Especially for smaller ones, the communication resources for launching a major campaign are limited. That is why a wide range of aids are available on the Swiss financial center communication platform at [PaymentStandards.CH](https://www.paymentstandards.ch).

Staff Know-How Forms the Basis

Successful customer communication requires that bank staff has necessary knowledge of the QR-bill. Internal training should therefore start immediately, if not yet done. The information needs of each respective target group are to be taken into account. For example, business customer advisors need more intensive training on the business customer-oriented-part of the QR-bill than private customer advisors do. In the business customer sector, the focus should be on the topic of 'structured invoicing with the QR reference/Creditor Reference', as well as the question of how current invoicing with red/orange payment slips is to be switched over to the QR-bill according to each use case. Back-office and internal/external support desk staff need to ensure they have the appropriate expertise in a sufficiently timely manner. The closer the introduction of the QR-bill approaches, the more customer inquiries will have to be handled.

Start Customer Communication Now!

There is still around a year before the market launch of the QR-bill. If new customer communication measures have yet been undertaken, it is high time to begin. It is important to assign different priorities to individual target groups:

- **Priority 1: Invoice recipients** with system-supporter accounts payable > paying of invoices with the help of an accounting software
- **Priority 2: Invoice issuers** with system-supported accounts receivable > invoicing and closing of open items with the help of an accounting software
- **Priority 3: Other invoice issuers** > invoicing with preprinted payment slips from their financial institution and manual reconciliation of open items

- **Priority 4: Classic consumers** (other invoice recipients) > paying of invoices through e-/m-banking, payment orders or at the post office/bank counter

Invoice recipients with system-supported accounts payable currently represent the most urgent target group. These business customers in particular must be prepared for the receipt of the QR-bill on 30 June 2020. If they are not ready with their systems to pay QR-bills on due date after this deadline, a substantial effort will be required for potential workarounds. Should nothing be done, these bank customers may fall into payment arrears.

Customers who use software for invoicing and who print their own payment slips should be informed at least a year in advance – that is to say, today – about the introduction and application options offered by the QR-bill. In contrast to invoice recipients, issuers need not necessarily complete their migration by mid-2020. They can determine the date for changing over to the QR-bill themselves, as long as red and orange payment slips are still valid. Customers, however, should be shown the advantages of the QR-bill early enough and encouraged to quickly complete the migration.

Less urgent at the present time is communication towards customers who obtain their payment slips from their bank and who manually reconcile their accounts receivable. In this case, it is recommended that they be informed about the introduction of the new QR-bill around half a year before its launch. There are existing communication aids for this purpose, for example, providing relevant information with the help of cover letters, which are usually used for the delivery of the preprinted payment slips.

In the case of customers in the role of classic consumers the communication is also less urgent. Conveying information three to six months before the QR-bill is launched should suffice. Communication can occur, for example, via an e-banking message, in an enclosure to the bank statement, when entering a payment in e-/m-banking or when delivering payment instruction

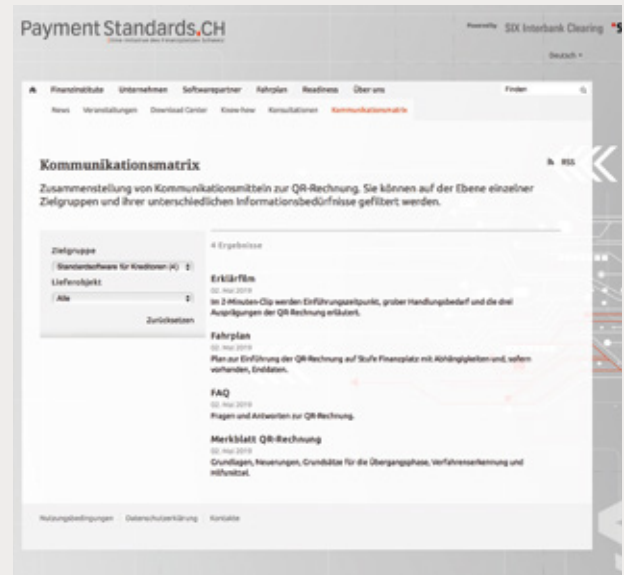


forms. Since this target group pays their invoices through the channels provided by their financial institution, no adaptations are required, at least in a technical sense. The downloading or updating of a corresponding scanning app or replacement of the reader will be needed at the most. Paying with a payment instruction will remain the same as today.

	Q3/2019	Q4/2019	Q1/2020	Q2/2020
Invoice recipients with software	as from now			
Classical consumers (all other invoice recipients)	from Q1/2020			
Invoice issuers with software	as from now			
Invoice issuers without software	from Q1/2020			
Staff	as from now			

Communication roadmap

Market launch of the QR-bill



Example with the 'SIC and/or euroSIC participant with the QR-bill on offer' target group (available only in German and French)

Swiss Financial Center Provides a Variety of Tools to Help

The Swiss financial center provides various materials to support individual financial institutions with their communication campaign. Together with selected representatives from banks, including PostFinance and communications, SIX produced an explanatory film, a flyer for customer advising, a style guide for printing the QR-bill and a presentation for customer reps, among others. They have been published for some time at PaymentStandards.CH. Another important aid is the list of recommendations for the use of the QR-bill, which will be published soon. This involves guidelines illustrating a handful of use cases about how the current invoicing practices (such as with a message field to be filled in by hand) match with those of the QR-bill. The guidelines also take into account different needs of invoice issuers and are especially suited for communication towards this heterogeneous target group. Any type of invoice issuer, be it an SME, a one-man company or an association, should be able to identify themselves as a recipient of the communication. The general section of the guidelines is also suitable for the vast majority of people and especially for internal staff training.

A communication matrix also published at PaymentStandards.CH provides an overview of the guidelines and communication aids made available by the Swiss financial center. The matrix divides the publications by target group (financial institutions, invoice issuers, etc.) with explanations and direct access to the respective aid.

The matrix goes beyond mere communication and also provides links to information (business rules, implementation guidelines, etc.) which supports financial institutions with the technical implementation of the QR-bill. All the content can be widely used for:

- Internal information & training
- Bank customer information
- Partner information (e.g. software partners)
- Product description & brochures
- Manuals & handbooks
- Business terms and conditions
- Process and system adaptations (at banks, software providers and both invoice issuers and recipients)

The communication matrix is constantly being supplemented and should be regularly consulted. Towards this end, an RSS feed can be subscribed to at PaymentStandards.CH which regularly points out new aids. It is highly recommended that bank employees subscribe to the newsletter which appears monthly. With these aids, banks are equipped to continuously supplement their own communication efforts.

Marco Freund
Raiffeisen Switzerland



Further information

- Communication matrix: www.paymentstandards.ch/kommunikationsmatrix
- Newsletter subscription for bank staff: www.paymentstandards.ch/de/services/form/newsletter-registration.html

Harmonization of Payment Transactions ***An Impulse for Digital Switzerland***



SIX Interbank Clearing Ltd Board of Directors

(from left to right)

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Over the last few years, Swiss payment traffic has been fundamentally harmonized and modernized. Moreover, previously different payment schemes of banks and PostFinance have already been integrated and unified on the basis of ISO 20022.

In the upcoming years, all further schemes and formats are going to be gradually adjusted to the new market requirements. Therefore, the digitally readable QR-bill will replace all payment slips and the new infrastructure for eBill will provide for seamless digital payments.



First version of the payment slip

By means of these two Swiss innovations, the Swiss financial center consistently drives the digitization of payment transactions forward and media disruptions are minimized, which makes procedures more efficient and cost-effective. The harmonization has been the biggest financial infrastructure project for the last 30 years offering partners and clients a unique starting position for the development of own innovations and market solutions.

By implementing the postal cheque service and the first version of a payment slip in 1906, the Swiss Post laid the foundation for today's payment transactions. It was thus possible for the population at large to open their own postal cheque accounts and make money transfers to people in distant locations. Banks followed this example by opening own postal cheque accounts, which made it possible for their clients to make money transfers to bank accounts at post office counters. After the Second World War, the Swiss economy flourished, and the population prosperity was continuously growing, the result being an increased demand on extensive payment transactions. A sophisticated slip clearing system was developed in the following decades, but it was slow, inefficient and cost-ineffective due to excessive manual effort needed. In order to change this, in 1987 the Swiss financial center put into operation a payment system – the Swiss Interbank Clearing (SIC).

Automatization Followed by Harmonization

With the launch of the SIC system, payment transactions and the banking sector have been catapulted into the electronic age, the aim being to automate payments processing in a consistent and comprehensive manner. For 30 years SIC has been meeting these expectations, making payments cost-effective, fast, fail-safe and the money flow throughout Switzerland utmost efficient. It turned out, however, that with a pure organic further development of existing processing procedures, the forthcoming digital transformation and growing regulatory requirements in the national and international environment can no longer be mastered. Moreover, payment schemes of banks (DTA) and PostFinance (EPO) from the 80s were structured too differently and too proprietary. It was clear that a complete technological renewal of the SIC system is required and consequently adjustments for all participants involved who automatically process their payments via an accounting software.

Pioneering International Development

Since more and more Swiss companies act globally and integrate their clients and suppliers worldwide into the economic value chain, the digitization of payment transactions cannot stop at the national border. Over half of cross-border credit transfers is conducted in euro, which is why the harmonization plans of the Swiss financial center have been oriented towards the developments in the Single Euro Payments Area (SEPA). As of mid-2014 all EU member states and SEPA countries converted their proprietary schemes on the client-bank side to ISO 20022. It was therefore sensible for Switzerland to be also geared towards this standard. As opposed to the EU, the Herculean task has been organized in Switzerland on a purely private basis, without any regulatory guidelines. Clients, software companies and banks have been cooperating hand in hand over years and have jointly contributed to meeting the ambitious date of conversion to ISO 20022. As of mid-2018, the goal was achieved: ISO 20022 was implemented nationwide in Switzerland and payment schemes of both banks and PostFinance were brought together on a globally proven solution. As opposed to the EU, the conversion was conducted on an 'end-to-end' basis, i.e. starting with a client, through banks and ending up with the market infrastructure. With ISO 20022, Swiss payment transactions are not only future-oriented and competitive, but they are also well prepared for all further schemes to be adjusted swiftly to future challenges as the next step.

Minimizing Media Disruptions – More Effective Processing

The share of electronic credit transfers today already constitutes 75%. Not all these payments are, however, continuously processed in an automated manner. Moreover, there are too many media disruptions in the entire process chain, which makes the payment processing slower, error-prone and therefore inefficient. The payment software of invoice issuers generates paper bills which need to be reentered into e-banking manually by the clients. Digital information is put on paper only to be subsequently digitized by the client. Due to the ongoing transformation of business procedures, such process is no longer up-to-date. Moreover, media disruptions can impede meeting of regulatory requirements, an example being the Anti-Money Laundering Ordinance (AMLO-FINMA). Initiated by international standards on combating money laundering and terrorist financing, the Ordinance obliges banks to execute all payments only upon a detailed and diligent verification. It is obvious that given over a billion credit transfers per year, such verifications are impeded by existing media disruptions. A continuous payment processing free from any media disruptions can succeed only if the existing schemes, processes, formats and slips are simplified, unified or replaced.

More Precision – Less Effort

Next step in the future of payment transactions is the implementation of the QR-bill. It will gradually replace all payment slips from 30 June 2020 onwards and will contribute to a continuous meeting of regulatory requirements in terms of ISO 20022 in a newly automated manner. More information can be found in the QR code compared to payment slips used today. For example, in the case of payments with a reference number, also name, account number and address of the initiating party will be forwarded to the bank of the beneficiary being liable for meeting regulatory requirements. Moreover, the QR-bill automates crucial processes. Information needed for payment can simply be scanned with a smartphone or scanner and released for payment in e-banking and m-banking with one click. The manual effort will therefore substantially be reduced also for clients and erroneous entries can thereby be avoided almost in full. At the same time, the QR-bill also supports all paper-based payment schemes still constituting 25% of total payment transactions today.

One Step Into the Digital Future

eBill goes much further. The new eBill infrastructure will have been implemented by all banks by 2020. eBill minimizes the latest media disruptions and digitizes the entire value chain from billing to payment: the invoice issuers can send invoices directly and safely in e-banking and m-banking of their clients. The clients check all data online and release an invoice for payment by clicking a button. eBill therefore simplifies all processes and focuses fully on a paper-free and digital client experience. In 2020, further functional improvements will follow, an example being eBill for SMEs and a simplified registration for the invoice issuers. Moreover, thanks to

an alternative scheme, the invoice issuers will be able to convert QR-bills into digital bills via eBill in the future.

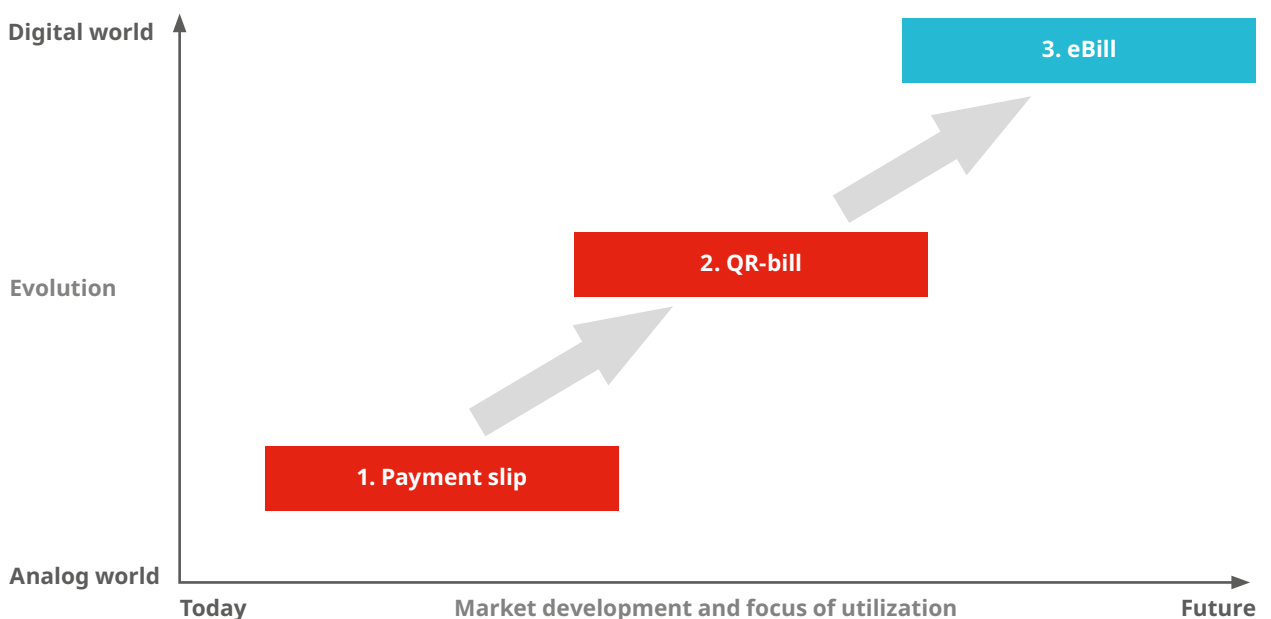
Using the Swiss Innovation Potential

If all things considered, the harmonization of payment transactions constitutes a positive impulse for the entire Swiss economy and society. The QR-bill and the new eBill service include Swiss schemes requiring interdisciplinary innovation work. Banks and software developers can extend the existing solutions with further functionalities by way of both applications related to the QR code and universal invoicing solutions within the framework of the eBill strategy. Thanks to close interconnections between financial processes, payment transactions will be more efficient as a whole. All payment and control processes are seamlessly connected and substantially more cost-effective due to the conversion into ISO 20022 as well as the implementation of the QR-bill and eBill. Data is available more swiftly and the information transparency is increasing, which positively impacts the entire liquidity management of a company.

Investment in the Economic Potential of Switzerland

This has also been shown by a study of the consulting company Deloitte engaged by the Swiss financial center. After a successful conversion into ISO 20022 and the QR-bill, annual process and capital costs will be reduced by CHF 270–300 million compared to today. Three quarters of the savings relate to private companies and the rest to the public sector. Financial institutions bear a large part of the investment costs and they save between CHF 60 and 70 million annually. The private economy must anticipate the investment costs of ca. CHF 500 million, while the public sector of ca. CHF 80 million.

Digital evolution of invoicing



Digital invoices.

Simple. Secure. Fast.

www.ebill.ch

The investment costs are put into perspective when the importance of transaction payments for the entire national economy is being taken into consideration. They support all national and international business processes and substantially contribute to the economic performance of Switzerland. Each year approximately CH 39 trillion are processed by way of interbank and client payment transactions. This means that the Swiss GDP is transferred over the infrastructure of the financial institutions 60 times. The investment accompanying the harmonization of payment transactions provides support in efficiently meeting existing and future regulatory requirements as well as the digital structural change taking place in many economic and social areas. Hence, the harmonization constitutes a valuable contribution to Switzerland successfully making use of its opportunities in the increasingly digital world. Converting into a simplified system means improving the economic environment for large and small companies, which on the other hand can trigger a positive impulse for the attractiveness of Switzerland as a location.

Closed Digital Economic Cycle

Swiss financial institutions have already consistently driven a digital change and supported the economy by means of innovations in exploring new business fields: starting in the 60s with the first ATMs available 24 hours a day, through an account card with a magnetic strip and microchip for cashless payments at a point of sale or e-banking and m-banking, ending up with P2P (peer-to-peer) payments with the use of TWINT. Over the recent years, the entire cash flow has constantly been adjusted to the changing life and social habits in various areas. In doing so, the financial institutions have continuously been making technological changes in stages. This also applies to the harmonization of payment transactions.

Responsible Structural Change

Being aware that payment transactions are crucial for all social groups, it will be possible to execute payments at a post office counter and by mail also after the successful harmonization. All information needed for a payment will also be legible without any technical tools once the new QR code is implemented. Clients prefer-

ring seamless digital e-banking and m-banking decide to use eBill and hence a future-oriented scheme continuously adjusting to the new digital requirements.

The Swiss financial center is aware that as a consequence of such harmonization, all private companies, the public sector, non-profit organizations, associations and finally also private individuals will need to adjust their payment processes. The financial institutions are therefore committed to smooth operation at all levels, actively assisting their clients with the conversion activities. They provide information, trainings and consultations as well as support clients with practical aid such as case studies and test environments. The Swiss financial center aims to actively and sustainably shape the future. This, however, is possible only if the transitions are tailored to various life and company models. The progress can be made in a responsible manner if ideally all groups concerned are supported and assisted when stepping into the digital age.

Board of Directors

SIX Interbank Clearing Ltd



Pierre Arnaud, CEO, Epsitec SA

The Software Industry Anticipates Plenty of Information Activity

Not only is it indispensable for the successful introduction of the QR-bill in approximately 600,000 Swiss companies that software producers implement the QR-bill in their payment and accounting software; the rollout of the software to customers must be completed by the market launch date of 30 June 2020. And – as Pierre Arnaud emphasizes in the following interview – customers must still actually install the updates. The CEO of the IT company, Epsitec SA, also sees other potential risks.

Mr. Arnaud, you are considered to be one of the fathers of the syntax definition of billing information in the QR-bill. What is the purpose?

The QR-bill, as originally proposed by SIX, did not sufficiently meet the needs of payment software users and accounts payable management. That's why the Swico ERP working group proposed expanding the QR-bill schema so as to add additional information pertaining to VAT or payment conditions. These represent real added value for SMEs, because they open the door for improved automation during payment preparation and the booking of payments.

Last year, your company developed business software that enables fully electronic submission of the VAT declaration to the Federal Tax Administration online and around the clock. How does this type of VAT accounting work with the QR-bill?

To generate the VAT accounting, whether electronically or traditionally, unambiguous data is needed which is related to the services purchased. While the principles underlying generation of the VAT accounting have not changed, the additional information in the QR-bill will make it possible to allocate turnover according to VAT rate and the respective time periods with no manual intervention in the bookkeeping.

You have set up an online directory which the developer community can use to exchange questions about the implementation of billing information. Yet, Epsitec is the only company active there. How do you explain this?

I've two possible explanations for this: Either the software companies have not yet begun with implementation of the QR-bill or the specifications published by Swico are so clear that no further explanation is necessary (*laughs*). Seriously though, we've registered few hits at www.swiss-qr-invoice.org so far, but we hope that after reading our interview developers will profit from the exchange platform offered through GitHub.

For quite some time now, the so-called Validator from Swico can be used to test billing information against the defined syntax. How popular is the use of this tool now, and who profits from it?

We don't collect data on the use of the Validator, so I can't back up my answer with figures. This tool is intended for developers who want to check whether the QR code generated by their software conforms – this will be especially interesting in the coming 12 months. However, it is also intended for end-users who want to know what a QR code contains. We have to wait until the QR-bill goes into production; that is when our tool will be useful for this target group.

“This tool is intended for developers who want to check whether the QR code generated by their software conforms.”

Your business software is primarily used by SMEs. What is the mood among customers in regard to the QR-bill generally, and specifically in regard to the 'Billing information' field?

We informed our customers about the changes coming in 2020, and they acknowledge each further development requiring software update a change in habits with clenched teeth. In order to automate accounts payable bookkeeping, invoice issuers have to play along and implement the additional information defined by Swico. The end-customer will only be able to measure the real advantages this new solution offers when the QR-bill is implemented.

The syntax definition is also an important element when an invoice issuer would like to offer alternative payment methods such as eBill to their invoice recipients. What is your experience in this regard? Will the additional addressing as an eBill be programmed at the same time as the introduction of the QR-bill?

It's true that the eBill payment method also uses the additional data in the QR-bill to determine the invoice's payment deadline. Therefore, it makes sense for a software company to generate a QR-bill with the maximum amount of possible data, and also – as soon as it is possible – to integrate the useful additional fields for identification of the eBill recipient. We will, by the way, also do this with our Crésus software.

Moreover, the transition to the QR-bill will also be an ideal time for us to integrate the data in our PDF invoices according to the ZUGFeRD standard, a format specification for electronic invoices. This will enable our users to generate invoices both for traditional customers (QR-bills on paper or PDF invoices) as well as for eBill customers and companies that use ZUGFeRD.

Do you foresee other additional services based on the QR-bill that you will offer to your customers?
No.



A year before introduction of the QR-bill is a good moment to look into the crystal ball. What do you think? How many of your customers will be ready to process incoming QR-bills on 30 June 2020? And how many will send QR-bills to their invoice recipients?

All Crésus users will be able to receive QR-bills as of the end of 2019, thanks to an update subscription. Since the subscription is optional, I can only hope that users of old software versions will also update their installations. This means that we anticipate a lot of information activity. But how many users would like to issue the first QR-bills, be pioneers and be part of it from the start? Probably only a small minority. As long as the major invoice issuers (Swisscom, the federal government, the health insurance companies, etc.) do not act in an exemplary manner, I doubt that our customers will take this step.

Do you recognize industries or other categories of companies that are orienting their organization, processes and systems towards the QR-bill particularly quickly and early on?

We target our Crésus software at all industries. I don't think that acceptance of the QR-bill depends on any one industry – but rather on the internal attitude. I hope that the introduction of the QR-bill will motivate small companies that still use payment slips without reference to digitalize their processes so as to improve post-processing of incoming payments and automate the dunning process. Unfortunately, a completely manual process still exists in many companies.

“I don't think that acceptance of the QR-bill depends on any one industry – but rather on the internal attitude.”

Among which customer groups do you think that the introduction date could become 'critical'?

I don't believe that the deadline for introduction of the QR-bill represents a critical element for our customers because updating of the software will take place automatically.

In contrast, I'm rather disquieted when it comes to passive customers: The problems won't begin until after 1 July 2020. Because, what will happen when these customers become aware that they can no longer pay invoices from vendors who have switched to the QR-bill? Will they take the step or will they continue paying QR-bills manually, regardless of the cost, and thereby possibly create chaos in payment traffic?

APPLICATION EXAMPLE

```
//S1/10/X.66711V8824/11>/200712/20/MW-2020-04/30/107978798/32/2.5:117.22/40/3:5;1.5:20;1:40;0:60
```

/10/	Invoice number X.66711/8824
/11/	Invoice date 12.07.2020
/20/	Customer reference MW-2020-04
/30/	VAT number CHE-107.978.798 MWST
/32/	The VAT details yield an entire invoice amount equaling (117.22+2.93) 120.155
/40/	3.0% discount on 5 Tage 1.5% discount on 20 Tage 1.0% discount on 40 Tage Payment period of 60 Tagen

What are the initial experiences or lessons learned? What tips would you pass on to your industry colleagues that can promote payment-readiness and capability with the QR-bill?

Mainly, the payment software will be migrated in order to be able to generate pain.001-compatible payment instructions so that added value can be created for the end user (such as through booking automation). At the same time, I would seize the opportunity to convert customer addresses into a structured format (street, number, etc.). Only then would I want to generate QR-bills and integrate additional invoicing data, even if they are technically optional.

Hence, my tip: As with the ISO 20022 changeover, the devil is in the detail. Therefore, get started with your migration today, use the tools provided by SIX, Swico and the banks, and share your experiences at www.swiss-qr-invoice.org!

Interview:
Gabriel Juri
SIX



Further information

- ZUGFeRD: www.ferd-net.de/zugferd/definition/was-ist-zugferd.html
- GitHub: <https://github.com/swico>
- Syntax definition of the billing information and Swico Validator: www.swiss-qr-invoice.org

Use of Alternative Procedures – Equipped for the Future

The Swiss financial center is assuming that in the future invoice issuers will also offer their customers other payment methods than just credit transfers, some of which may not yet currently exist. To equip the Swiss QR Code in the QR-bill so that it meets future demands, an additional element has been added to support such alternative procedures.

During a transition phase of approximately two years, the currently used red and orange payment slips will continue to be in circulation, alongside with the QR-bill. Afterwards, the IS/ISR slips will no longer be used. In order for the major effort involved in the switchover to be worthwhile for the stakeholders involved in payments, the QR-bill must be able to be used for as long as possible. The more flexible the design, the faster and more efficient the QR-bill will meet future market requirements. This is why the payment part, besides the required payment information from the ISO 20022 standard, contains also two data fields named 'Alternative procedures'. This makes it possible to add 100 characters of additional information in each field. In this way, the QR-bill is ready to anticipate potential supplemental services or new payment procedures from market participants.

Example of the 'Alternative Procedures' Element

Last year, eBill was positioned on the market by the financial center as the main digital Swiss procedure for paying invoices. To enable invoice issuers who do not yet send electronic invoices to benefit from the advantages of eBill as simply as possible, the QR-bill with its

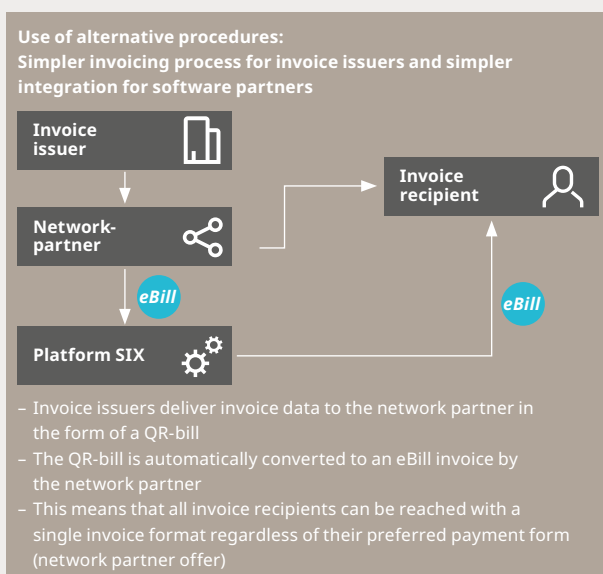
'Alternative procedures' element offers a bridge to eBill for seamless digital payments.

When implementing the QR-bill, the invoice issuer needs only fill in the field reserved for 'Alternative procedures' for eBill in the Swiss QR Code according to the respective specifications. The data contained in these fields, e.g. the invoice recipient's e-mail address, enable the automatic converting of QR-bill into eBill format by the network partner. The tangible benefit for the invoice issuer is that there is no need to know the recipient's preferred payment channel. This means that the network partner, who ensures the electronic invoice exchange between the issuer and the e-banking user, can offer invoice processing either as an eBill invoice or a QR-bill, based on the data available in the latter.

Two Fields

Two alternative procedures can be supported by each QR-bill. The financial center expects that other alternative procedures will be offered by market participants in addition to eBill. The invoicing party can then decide which two alternative procedures its QR-bill should contain. Market participants, who are looking to offer a new payment procedure or possible supplemental services with the QR-bill, must coordinate the intended use in advance and within the framework of a contractual agreement with SIX.

Thomas Reske
SIX



Further information

- Alternative procedures: www.paymentstandards.ch/alternative-procedures
- Contact for providers of alternative procedures: billing-payments.pm@six-group.com
- Specification for use of the eBill alternative procedure in the Swiss QR Code: www.ebill.ch/specs-qr



Automatic Account Payable Reconciliation with Structured Billing Information

One of the many advantages of the QR-bill is that invoice issuers can integrate information for the invoice recipient, which automates the creditor's accounts payable reconciliation. This so-called billing information was standardized and structured by the Swiss ICT and online industry business association Swico.

The invoice issuer's information for the invoice recipient, which is distributed today in an unstructured format in the text part of an invoice, can be integrated in a QR-bill's Swiss QR Code and the payment part. The clear definition regarding both the placement and the structure makes the information about the invoice and the issuer machine readable. In this way, the QR-bill promotes the digitalization and automation of accounts payable processes, which is especially appreciated by large and multinational companies, pension and compensation funds and administrations. 'With the Swiss QR Code, an intelligent payment slip has been created that provides real advantages,' stated Swico CEO Judith Bellaiche. Together with the unstructured messages, the invoicing information that one is familiar with from the red payment slips comprises the so-called 'Additional information'.

Digital Progress Through Cooperation

The Swiss financial center and Swico worked together to ensure that the invoicing information effectively meets the needs of the economy. Judith Bellaiche had this to say: 'We immediately realized that we can only achieve a good solution if we bring all the players to the table. As a trade association, Swico was predestined to offer a common platform.' This platform offers the economy the opportunity to generate added value in companies. In addition to the corresponding syntax definition, it also contains a so-called validator which enables the testing of invoicing



Judith Bellaiche, CEO, Swico

information against the defined syntax. 'This project shows in an exemplary manner, that efficient, standardized solutions can only be implemented when all providers work together. Only the bundling of strengths brings real digital progress,' according to Judith Bellaiche.

Beni Schwarzenbach

SIX



Further information

– Syntax definition for the invoicing information:
swiss-qr-invoice.org

SWICO

Sector	Day	What	Value example	Comments
Separators	//		//	fix //
Prefix	S1	Organization ID	S1	Fix for the Swico syntax definition in Version 1.x
Slip number	/10/	Invoice number	/10/10201409	Free text
Slip date	/11/	Slip date	/11/190512	12.05.2019
Customer reference	/20/	Customer reference	/20/140.000-53	Free text
VAT number	/30/	UID number	/30/106017086	UID CHE-106.017.086 without CHE prefix, without separators and without MWST/TVA/IVA/VAT suffix
VAT date	/31/	Date or start and end date of the service	/31/180508 /31/181001190131	08.05.2018 01.10.2018 to 31.01.2019
VAT details	/32/	Invoice rate or list of rates with corresponding net amounts	/32/7.7 /32/8:1000;2.5:51.8;7.7:250	7.7% of the entire invoice 8.0% on 1000.00, 2.5% on 51.80 and 7.7% on 250.00
VAT import tax	/33/	Pure VAT amount or list of the pure VAT amounts and corresponding rates upon import	/33/7.7:16.15 /33/7.7:48.37; 2.5:12.4	16.15 pure VAT (7.7% rate) for goods import 48.37 pure VAT (7.7% rate) and 12.45 pure VAT (2.5% rate) for goods import with multiple rates
Conditions	/40/	Conditions or list of conditions	/40/0:30 /40/2:10;0:60/40/3:15;0.5:45;0:90	0% discount on 30 days (payment by 30 days after slip date) 2% discount on 10 days, etc.

Information in the Swico syntax definition

ISR/QR-bill Parallel Phase: Measures to Avoid Errors

The orange payment slip (ISR) will be in circulation concurrently with the QR-bill for a certain period. Since the QR-bill uses the basic structure of the ISR reference, it is possible that payment rejects and erroneous credits could be triggered if QR-bills are incorrectly paid as ISR payments. This risk can be mitigated through targeted measures from software providers, invoice issuers, payers and financial institutions.

In an earlier design phase of the QR-bill, a decision was made to make the QR-bill reference (QR reference), in terms of length and check digit, backwards compatible with the ISR reference, which has been established for decades in Switzerland. In this way, the migration costs can be kept reasonable for software providers, invoice issuers and financial institutions that generally have built their entire invoicing and payment traffic infrastructure around the 27-digit ISR reference. Otherwise, there is a risk of payment rejects and erroneous credits during the parallel phase of ISR and QR-bill (Figure 1), when QR-bills are incorrectly paid as ISR payments. Payment rejects and erroneous credits can be prevented through targeted measures (Table) by software providers, invoice issuers, payers and financial institutions.

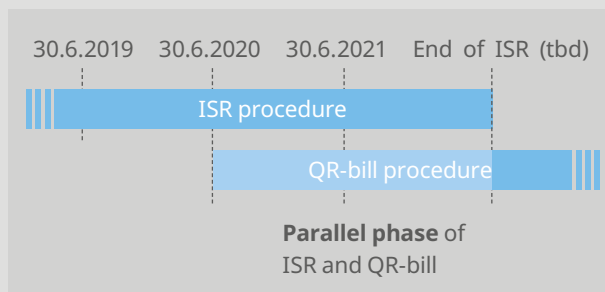


Figure 1: Keeping the parallel phase of ISR and QR-bill as brief as possible

The Price of Backwards Compatibility

If QR-bills with QR-IBAN and QR reference are paid as ISR bills, then this can result in payment rejects or even erroneous credits. The reason for this lies in the different ways that ISR and QR-bill incoming payments are credited to the creditor's account. For incoming ISR payments, the account is identified by the ISR ID in the ISR reference, whereas for incoming QR-bill payments, the account to be credited is determined solely by the QR-IBAN.

If a customer pays a QR-bill as an ISR (e.g. with the ISR payment entry mask in his payment software and using an existing ISR payment template in the master data), a payment instruction message in pain.001 is incorrectly generated as an ISR payment with participant number and ISR reference instead of a pain.001 with QR-IBAN and QR reference – as would be correct for a QR-bill with QR-IBAN (Figure 2). In such a case, the invoice issuer's bank, as is usual for ISR payments in a 2-stage procedure, will attempt to determine the account to be credited using the first six characters of the presumed ISR reference (instead of through the QR-IBAN). If no account can be found within the presumed ISR bank ID, the bank could potentially trigger a reject. Depending on the financial institution, this can lead to unnecessary rejects. In the worst case, the amount might even be credited to another customer!

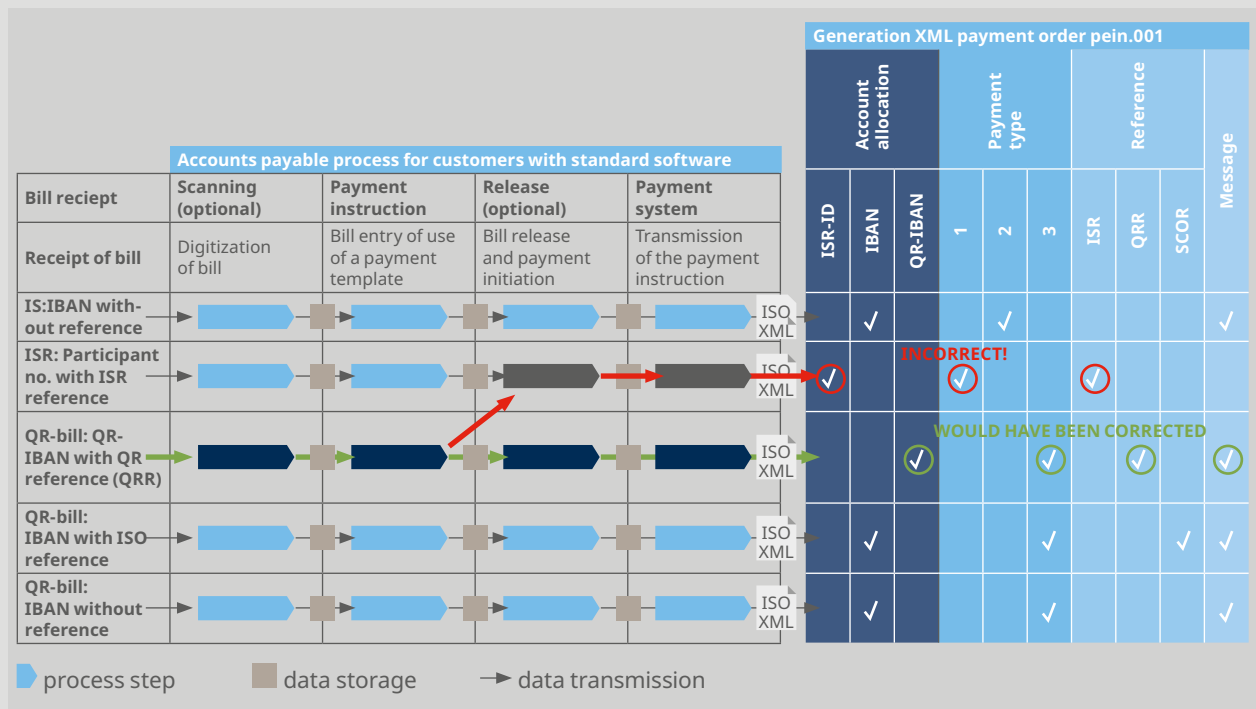


Figure 2: Instead of a QR-bill payment with payment type 3 and QR-IBAN, an ISR payment with payment type 1 and ISR reference will be incorrectly generated, which bears the risk of payment rejects and erroneous credits.

Excursus 1: how does account allocation work with the ISR?

For the ISR procedure of the banks, the ISR-ID in the ISR reference is used for incoming payments in order to find the account to be credited within the bank (Figure 3).

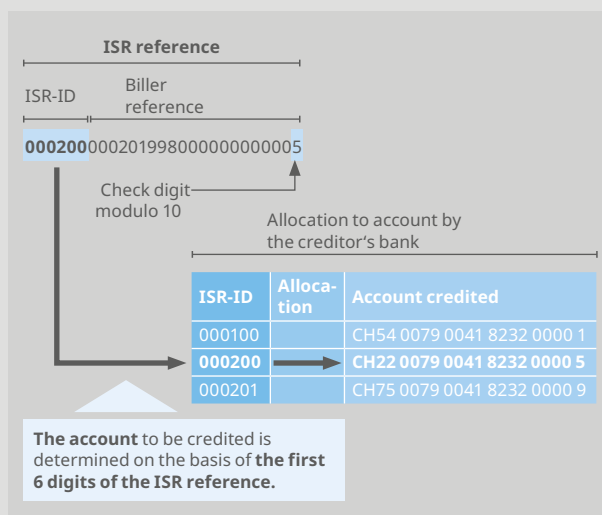


Figure 3: Allocation of the account to be credited for the ISR procedure

Excursus 2: How does account allocation work with the QR-bill?

While the QR-bill procedure, in terms of size and check digit, uses the same reference as the ISR procedure, the ISR-ID, however, will no longer be used, since determining the account to be credited is based on the QR-IBAN (Figure 4). This means that invoice issuers are theoretically free to also use the first six characters of the reference.

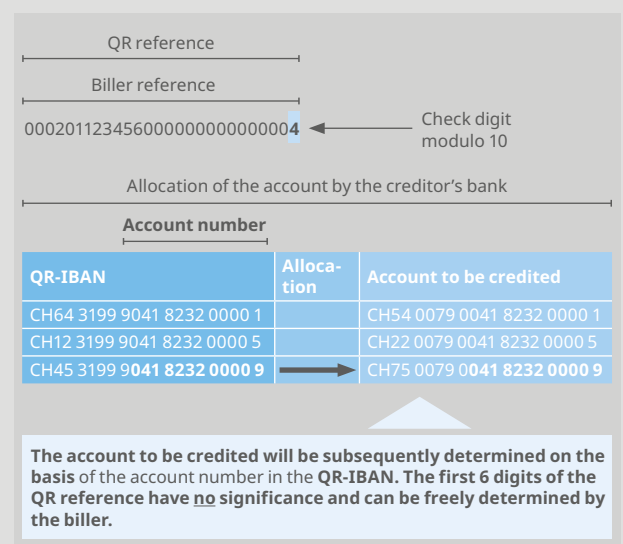


Figure 4: Allocation of the account to be credited with the QR-bill procedure

**Problem: A QR-bill is paid as an ISR bill**

If the debtor uses the ISR procedure to pay a QR-bill, then this can result in payment rejects and erroneous credits.

Correct: The QR-bill is paid as a QR-bill (payment type 3) (Figure 5):

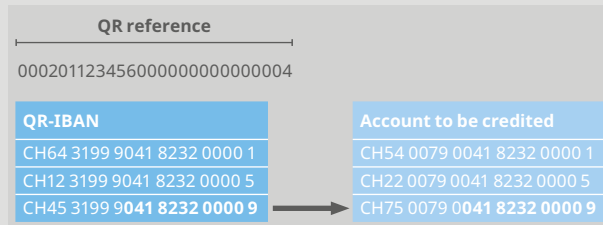


Figure 5: QR-bill is paid correctly as a QR-bill

Incorrect: The same QR-bill is paid as an ISR (payment type 1) (Figure 6), which in this case leads to an erroneous credit of a false account:

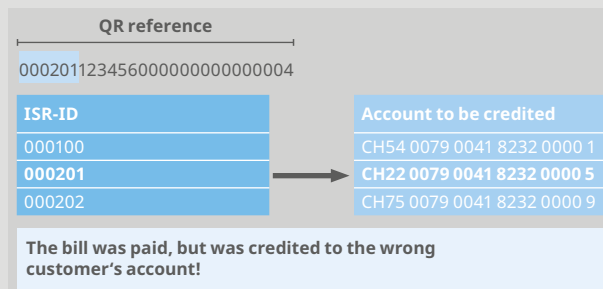


Figure 6: QR-bill is paid as an ISR

Solution: Use the ISR bank ID in the QR reference during the parallel phase

The solution is to retain the ISR bank ID in the QR reference during the parallel phase. Even if a payer would incorrectly pay a QR-bill as an ISR, the correct invoice issuer will be credited (Figure 7).

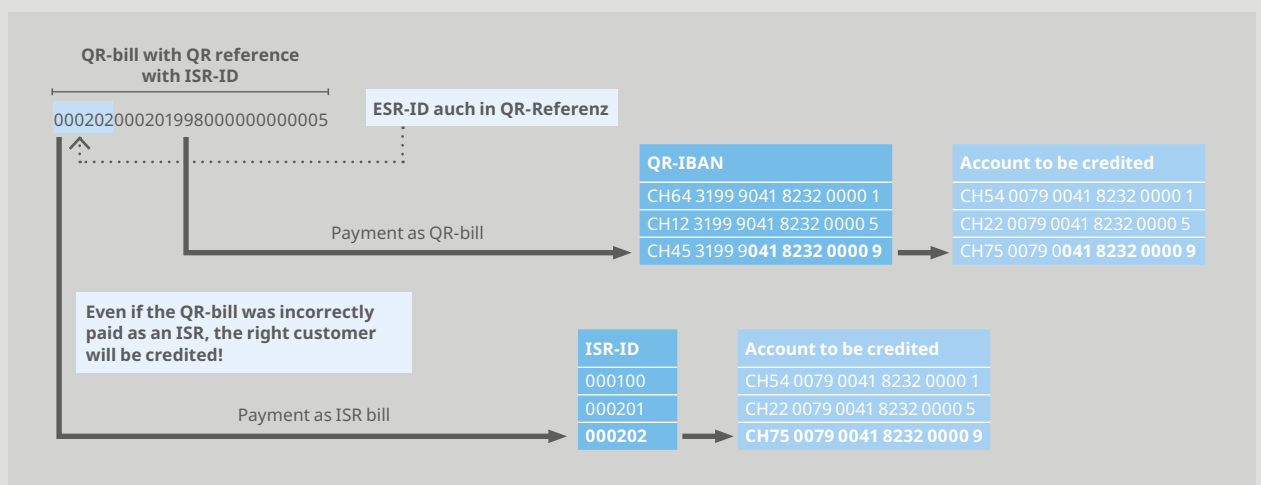


Figure 7: Use of the ISR bank ID in the QR reference during the parallel phase

Sources of Errors

Various situations can trigger payment rejects and erroneous credits and must be prevented by software providers and infrastructure operators with technical and communication measures. Examples of such potential sources of errors include:

- Payment templates and master data are saved in the system as ISR payments. Because the payment system is not QR-bill-ready, the bank customer must use the ISR entry mask for the payment, even though he has a QR-bill in front of him.
- An ISR standing order is updated with the QR reference.
- Although the payment system is migrated to the QR-bill, the bank customer chooses the ISR entry mask to pay the QR-bill in front of him out of habit.

Measures

In the parallel phase (Figure 1), various measures should be undertaken (Table) both by the invoice issuer and the payer to ensure that QR-bills are not paid as ISR bills. If this cannot be prevented, thanks to the measure 'ISR bank ID in the QR reference' such a payment can nevertheless be automatically credited to the correct account.

Peter Ruoss

UBS Switzerland AG



Measures	By the invoice issuer			By the payer		
	Bank	Software provider	Invoice issuer	Bank	Software provider	Payers
Retain the ISR bank ID in the QR reference during the parallel phase.	✓	✓	✓			
Ensure that the payment software is migrated to the QR-bill.					✓	✓
Fill in the current software version in pain.001. Publish (via PaymentStandards.CH) the version that can process QR-bills so that financial institutions can evaluate whether their customers' software is QR-bill-ready.					✓	
Evaluate the QR-bill-readiness of bank customer payment software with the aim of ensuring the complete readiness of all customers.				✓		
Ensure that channels for delivery of pain.001 on the bank side have been upgraded for QR-bill.				✓		
Ensure that the e-banking application was upgraded for QR-bill.				✓		
Ensure that the mobile banking application was upgraded for QR-bill.				✓		
Recognize customer behavior regarding payment entry for QR-bills so that QR-bills are not entered as ISR payments.				✓	✓	
During the parallel phase, check that the correct invoice issuer's ISR bank ID is delivered along with the QR reference for incoming QR-bill payments with QR-IBAN.	✓					
Ensure that QR-bills with QR-IBAN are paid exclusively as QR-bills.						✓
Ensure that the parallel phase of ISR and QR-bill is kept as brief as possible.	✓	✓	✓			

Table: The most important measures for preventing payment rejects and erroneous credits.

QR-bill Processing by Post Office Branches and Branches with Swiss Post Partners

All types of customer payments are exchanged between the banks with an ISO 20022 message through the Swiss SIC and euroSIC RTGS systems. Among them are also transactions with the currently used payment slips. Little will change in practice with the launch of the QR-bill on 30 June 2020.

The statutory universal service obligation (Postal Act, Art. 43 ff.) requires the Swiss Post to provide specific postal and financial services to the Swiss population throughout Switzerland. Among these duties the so-called 'Directive for the crediting of cash to an account held by a third party...' is included, which means nothing more than a payment made at a post office counter with an payment slip.

Through advancing digitization, the number of counter payments is decreasing from year to year. Nevertheless, this service is still appreciated and used by broad sections of the population. The Post registered more than 133 million payments at post office counters or branches with partners in 2018. The costs incurred are billed to the payment recipients by PostFinance. If the payment recipient is not a PostFinance customer, the creditor's bank is charged, which in turn is free to charge the end beneficiary.

Handling of the QR-bill with Counter Payments

PostFinance will process payments of all QR-bill transactions via SIC or euroSIC from the start. Any fees incurred when placing payment instructions at a post office counter will be notified in accordance with the technical requirements of a pacs.008 customer payment. This enables the recipient bank to handle any further billing necessary and notification of the transaction costs just as is currently the case with the IS

and ISR. SIC customer payments will be adapted as part of the SIC standard release in November 2019.

No Change for Creditors

If a QR-bill in Swiss francs is paid at a post office counter, the payment processing will always occur through the SIC system (or euroSIC for a QR-bill in euro). The fees, however, will continue to be charged to the Post account of the beneficiary bank so that they can continue operating as they currently do: Whether the fee is to be passed on to the customer lies within the bank's discretion.

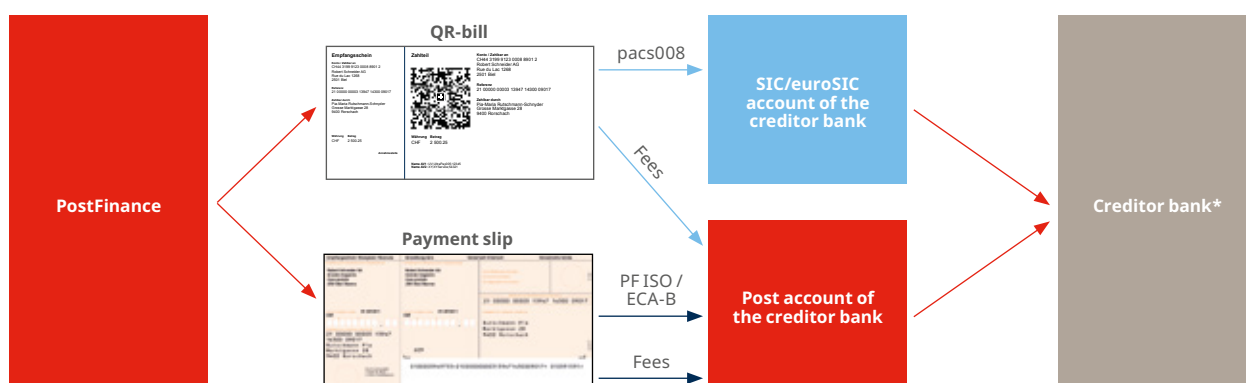
The primary advantage of this solution is that nothing changes for the creditor. There are no adjustments to the currently used camt files, and the incoming payments as well as other downstream processes such as dunning can be reconciled as before.

Samuel Ackermann
PostFinance



Further information:

See the Implementation Guidelines for SIC Platform Release 4.6 of 15 November 2019:
www.six-interbank-clearing.com/sic4



* No adaptations are required by the ultimate creditor, the camt messages will not be adapted.

Fees for payments made at a post office counter



The QR-bill Must Be Understood By Everyone

The 'Menschen für Menschen' Foundation is preparing – as are all other NGOs – for the introduction of the QR-bill. How are they doing this? Where are they getting their information? Where do they need additional support? In the interview, Claudio Capaul, Head Finances & Controlling, and Kelsang Kone, CEO, speak about their approach and about the habits of many donors as well as the new possibilities of acquiring donations with the QR code.

You will be able to use QR-bills in Switzerland for the first time on 30 June 2020. Will your Foundation be a first mover?

Claudio Capaul: No, we won't. Donors tend to be rather conservative and often prefer classic payment means. Therefore, it is important to us that the QR-bill is well understood as a whole before we use it instead of the current payment slips. We will keep an eye on the developments and follow how the whole thing starts and functions.

Kelsang Kone: Where we will have to be active from the start, of course, is with our own payments to our suppliers. Here, we must simply ascertain that we can appropriately depict it in our accounting system. The plan has already been established in any case. This should be relatively easy for us because our systems are not very complex. As private individuals, we are naturally eagerly following the launch on 30 June 2020.



Claudio Capaul, Head Finances & Controlling

From your perspective, what are the advantages of the QR-bill in comparison to the red and orange payment slips?

CC: Printing of the currently used slips on special paper is relatively expensive. We anticipate several benefits in terms of costs. We print the current slips in relatively large numbers in order to save costs. But this also makes us rather inflexible. We will be considerably more flexible in the future when it comes to the use of the 'small series' for appeals for donations, since we will be able to print them ourselves.

At present, we rarely use the red payment slips to attract new donors. The donor's name and address are handwritten by them. We receive this information as an image file and must then enter it manually. Not everyone has legible handwriting. With the QR-bill, this information will be transmitted to us completely, correctly and electronically with the account statement. This saves us a lot of work.

KK: Furthermore, along with our agencies, we will closely look into how the QR code without a payment slip can be used for donation campaigns. This will open up entirely new possibilities.

To enable better processing, no handwritten message field is planned for the QR-bill. What solutions have you considered in this regard?

CC: We primarily use the orange payment slips. This means that we do not make use of the option of handwritten messages at all. As already mentioned, the deciphering of handwriting is often cumbersome. We do not see any disadvantages in the elimination of this message field. It is actually more of a benefit. Should we need information about donors, this can be obtained in online banking at any time. For donors who prefer paper-based payments, there are also other creative possibilities. For example, a donation of CHF 50 can be identified for campaign A and CHF 100 for campaign B. This information, by the way, is also available electronically. Usually, however, our donations are not earmarked.

In autumn of last year it was decided that a perforation is required for the paper-based dispatching of QR-bills. How do you assess this decision?

CC: Many of our donors appreciate paper invoices as well as payment thereof at the post office counter – as they have been accustomed to doing for decades. Therefore, we approve of the perforation. On the other hand, without the perforation requirement, payment slips could be printed on any sort of paper, which would boost flexibility in the office.

What is your estimate of the costs for introducing the QR-bill and what are you doing for the changeover?

CC: What is important is that we are ready to start on 1 July 2020, so that we can pay our invoices. We assume that everything will be ready after the update of our accounting software with the support of our bank.

KK: What will be more interesting to observe will be the migration on the donor side. There we expect valuable input from our interest groups and our agencies. We are also looking forward to the exchange with other charity organizations. We will mutually benefit from good, clever ideas. I'm convinced that the closer we get to the launch day, the more intensive the exchange in our sector will become. Overall, we are relaxed about the introduction and look forward to the new possibilities.

Menschen für Menschen (www.mfm.ch) is dedicated to combating poverty and hunger. The foundation was founded by the actor Karlheinz Böhm (1928-2014). In the spirit of the founder, the Swiss charity creates life perspectives for the poorest families in Ethiopia. The aim of the work is to ensure that they can live in their homeland with dignity. The emphases of the individual projects are the promotion of women, vocational training, micro-credits, children's aid, family planning and agricultural development. The individual components are combined to meet local needs and implemented with carefully selected native partners. The foundation's projects are exclusively financed by donations.

CC: What is important, however, is that especially our donors understand the QR-bill and accept it as quickly as possible. We view this as a challenge for the banks.

“What is important is that we are ready to start on 1 July 2020, so that we can pay our invoices.”

What impact will the QR-bill have on your operating procedures?

CC: For me, as the financial manager, ensuring payment capability is vital. We will make the necessary adaptations there. With incoming payments we will benefit from receiving the payer's data completely and electronically. We also anticipate changes with donation calls. They should become easier.

Do you see new ways of gaining additional donor groups through the QR-bill?

CC: What matters first of all, is that our traditional donor group, the 50+ generation, do not need to make major changes to their habits. This is the generation that has money to donate. The very young tend to have less

money and people between 30 and 40 are in the middle of starting families.

KK: With a QR code on a fundraising poster at rail stations, for example, we could reach stressed commuters or those in a hurry, who can then donate with just a few clicks on their smartphone. I also see creative potential for adverts with a QR code in newspapers. We will give this a try in any case. These are just additional opportunities; there is nothing to lose but everything to gain.

How did you inform yourself about the QR-bill?

CC: SIX sought contact with non-profit organizations at an early stage in the conception of the QR-bill. This means that we learned a lot about it early on. A report about the QR-bill was also presented at a seminar hosted by the Zewo Foundation. Now and then you also come across the topic in the media. I anticipate increasingly more intensive reporting here the closer the launch date approaches.

What role does the bank play as an information channel?

CC: Frankly speaking, we have not yet been contacted. However, we do actually expect good information that helps us with the use of the QR-bill, especially from our bank. To be fair, I must say that our bank did a good job with the changeover to ISO 20022. So I'm relaxed about this.

What additional features do you wish as a charity organization?

CC: I believe that we will first have to wait for the introduction to see what options will best suit on the basis of the QR-bill and especially the QR code. Afterwards, the handling of the QR-bill will become increasingly routine. New wishes and requirements may then arise. I can only emphasize it again: first and foremost is that the QR-bill gains broad acceptance among payers. Therefore, there should be as few changes as possible made for the time being.

Interview:

Karin Pache und Thomas Reske
SIX



Kelsang Kone, CEO

GLOSSARY

QR-bill: As of 30 June 2020, the QR-bill will replace all currently used Swiss payment slips (red and orange) for CHF and EUR invoicing.

1: Payment part: The QR-bill's payment part corresponds to the present terms 'Einzahlung Giro/Versement Virement/ Versamente Girata' in the red and orange payment slips. It contains all relevant data needed for payment execution in form of a Swiss QR Code, as legible information and, optionally, additional information.

2: QR-IBAN: Account number of the creditor. The main difference to the IBAN is that it contains a special identification of the institution (QR-IID) of the creditor from the 5th to the 9th position (values 30000 – 31999). This special identification enables to determine the payment procedure.

3: QR reference: It has the same structure as today's ISR reference (number of 27 positions) and can be used by the invoice issuer only in combination with a QR-IBAN.

4: Alternative procedures: The invoice issuer can support two alternative procedures on each QR-bill. eBill is registered as the first alternative procedure. Invoice issuers may, in the future, if they wish, let a QR-bill be automatically converted into an eBill invoice.

5: Swiss QR Code: This is a QR code (according the ISO 18004 standard) in the payment part of the QR-bill with a Swiss cross as recognition feature. The Swiss QR Code contains in digital form all the information necessary in electronically readable form.

6: Additional information: It enables invoice issuers to provide unstructured information (corresponding to the payment purpose in the red payment slip) or structured billing information (according to the syntax definition of Swico) to the invoice recipient.

Ms
Pia Rutschmann
Marktgasse 28
9400 Rorschach

Robert Schneider AG
Rue du Lac 1268
2501 Biel
Phone: 059 987 65 40
E-Mail: robert@rschneider.ch
Internet: www.rschneider.ch
UID: CHE-123.456.789
Date: 01.07.2020

Bill no. 3139

Dear Ms. Rutschmann

We are billing you as follows for completion of the assigned activities:

Item	Description	Amount	Individual price	Total
1	Garden work	12.5 hrs	CHF 120.00	CHF 1'500.00
2	Disposal of cuttings	1	CHF 310.35	CHF 310.35
	Sum			CHF 1'810.35
	VAT rate			7.7 %
	VAT amount			CHF 139.40
	Bill amount			CHF 1'949.75

Thank you for the assignment. Please pay the bill amount within 30 days.

Yours sincerely,
Robert Schneider

Receipt

Account / Payable to
CH44 3199 9123 0008 8901 2
Robert Schneider AG
Rue du Lac 1268
2501 Biel

Reference
21 00000 00003 13947 14300 09017

Payable by
Pia-Maria Rutschmann-Schnyder
Grosse Marktgasse 28
9400 Rorschach

Currency Amount
CHF 1 949.75

1 Payment part

5

2

3

6

Additional information
Order of 15 June 2020
/IS1/01/20170309/11/10201409/20/14000000/22/36
958/30/CH1106017086/40/1020/4/1/301

Payable by
Pia-Maria Rutschmann-Schnyder
Grosse Marktgasse 28
9400 Rorschach

Currency Amount
CHF 1 949.75

Acceptance point

Name AV1: UV/UltraPay005/12340
Name AV2: XY/XYService/54321

4

Your partner for the implementation of the QR-bill