

ISO 20022 Programme

Quality data, quality payments

Tanja Van Sterthem, SWIFT Standards Advisory Services

Romania Business Forum, 23 October 2019

What is ISO 20022?



What is ISO 20022?

A recipe for making financial messaging standards



A methodology to develop common financial messaging standards, based on a business dictionary



An open, neutral and global standard, freely implementable by anyone and supported by an open governance process

Business model

Message model

Syntax

Syntax independent business model, commonly implemented in XML and may be represented in any other future format including JSON for APIs





How is ISO 20022 different from MT? Rich data – Sender's reference example

MT103, Single Customer Credit Transfer

{1:F01ABNANL2AAXXX1234012345}

{2:O1031511010606UBSWCHZHGXXX00000130850105141149S}

{3:{108:UHBMT103001}{121:360f1e65-90e0-44d5-a49a-

92b55eb3025f}}

{4:

:20:494931/DEV

:23B:CRED

:32A:090828EUR1958,47

:33B:EUR1958,47

:50K:/122267890

BIODATA GMBH

HOCHSTRASSE, 27

8022-ZURICH

SWITZERLAND

:59:/502664959

H.F. JANSSEN LEDEBOERSTRAAT 27

AMSTERDAM

:71A:SHA

pacs.008, FI To FI Customer Credit Transfer

```
<?xml version="1.0"?>
<Document xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"</p>
xmlns="urn:iso:std:iso:20022:tech:xsd:pacs.008.001.08">
 FIToFICstmrCdtTrf>
    <GrpHdr>
      <Msgld>494931/DEV</Msgld>
      <CreDtTm>9999-12-31T00:00:00</CreDtTm>
      <NbOfTxs>1</NbOfTxs>
      <SttlmInf>
        <SttlmMtd>INDA</SttlmMtd>
      </SttlmInf>
    </GrpHdr>
    <CdtTrfTxInf>
      <PmtId>
       <Instrld>494931/DEV</Instrld>
       <Txld>NOTPROVIDED</Txld>
       <EndToEndId>NOTPROVIDED</EndToEndId>
        <UETR>360f1e65-90e0-44d5-a49-a92b55eb3025f</UETR>
      </Pmtld>
```

Field 20 Sender's Reference is limited to 16 characters



Rich, structured, logically grouped data

Customer can send

- 35 characters in Message Identification field
- 35 characters in Instruction Identification field
- 35 characters in End To End Identification field
- 35 characters in Transaction Identification field



How is ISO 20022 different from MT? Flexible and easily maintained — Embedded and external code lists

MT103, Single Customer Credit Transfer

Transaction Details (B)
71A Details of Charges
Code
Beneficiary [BEN]
Our customer charged [OUR]
Shared charges [SHA]

Embedded codes are strictly defined in the message and limited to global definitions, making them limited, rigid and difficult to maintain

Externalised and flexible code definitions

pacs.008 v8, FI to FI Customer Credit Transfer

Embedded code list

Credit Transfer Transaction Information [1,*]
Charge Bearer [1,1]
Borne By Creditor [CRED]
Borne By Debtor [DEBT]
Following Service Level [SLEV]
Shared [SHAR]

pacs.004 v9, Payment Return

Externalised code list

Transaction Information [0,*]
Return Reason Information [0,*]
Reason [0,1]
Code [1,1]

ExternalReturnReasonCode Component
IncorrectAccountNumber [AC01]
InvalidCreditorAccountNumber [AC03]
ClosedAccountNumber [AC04]
BlockedAccount [AC06]

- Codes can be embedded or externalised from the definition of the message, making code maintenance and updates easier
- Proprietary codes are also supported, allowing customers to bilaterally agree on codes between them





How is ISO 20022 different from MT? Efficient screening – Beneficiary customer example

MT103, Single Customer Credit Transfer

{1:F01ABNANL2AAXXX1234012345} {2:O1031511010606UBSWCHZHGXXX00000130850105141149S} {3:{108:UHBMT103001}{121:360f1e65-90e0-44d5-a49a-92b55eb3025f}} **{4**: :20:987654321/DEV :23B:CRED :32A:011521USD10551,50 :33B:USD10551,50 :50K:/122267890 **BIODATA GMBH** HOCHSTRASSE, 27 8022-ZURICH **SWITZERLAND** :59:/1234567890 CUBA SPORTS BAR GRILLE 1234 OCEAN DRIVE 90099 LA :71A:SHA

Unstructured and ambiguous Beneficiary Customer details, e.g. "Cuba" in beneficiary name can be confused with a sanctioned country

Structured, unambiguous data

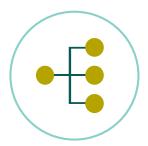
pacs.008, FI To FI Customer Credit Transfer

```
<?xml version="1.0"?>
<Document xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"</pre>
xmlns="urn:iso:std:iso:20022:tech:xsd:pacs.008.001.08">
 FIToFICstmrCdtTrf>
    <CdtTrfTxInf>
       <Cdtr>
         <Nm>Cuba Sports Bar & Grille</Nm>
         <PstlAdr>
            <StrtNm>Ocean Drive</StrtNm>
            <BldgNb>1234</BldgNb>
            <PstCd>90099</PstCd>
            <TwnNm>Los Angeles</TwnNm>
            <CtrySubDvsn>CA</CtrySuDvsn>
           <Ctry>US</Ctry>
         </PstlAdr>
       </Cdtr>
```

Structured and labelled data brings clarity to the message and enables accurate and efficient screening

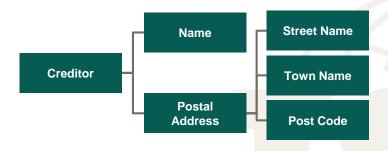


What improvements does ISO 20022 bring over MT?



Element hierarchy

- Nested elements for logical grouping of data
- For example Creditor comprises of:





Dedicated elements

- For example
 - Dedicated End-to-end Identification customer reference from Debtor to Creditor
 - Settlement Account is a dedicated element rather than relying on cross-field validation, and includes granular sub-elements including Currency of account
 - Service Level Code or Proprietary description repeated
 3 times to capture specific service expectations
 - Charge information includes sub-element to capture the Agent that takes charges or is due charges
 - o Mandatory **Debtor Agent** and **Creditor Agent** are static roles which clearly identify who services the customer



Enhanced data model

- Extensible financial language that accommodates local practices and their variants
- For example
 - Accounts identified by sub-elements such as IBAN or Other
 - Codes identified as **Proprietary** or as an ISO recognized **Code**, which may be defined externally to the message
 - Agents and party identification includes LEI and more granular Postal Address

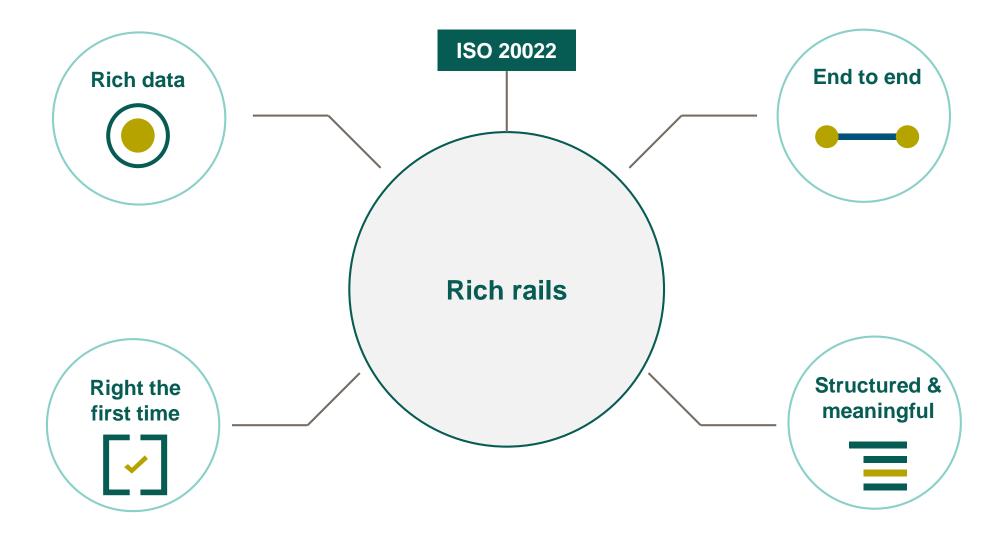


New elements

- Enabling On Behalf Of (OBO) payments for example using Initiating Party field to capture details of party initiating credit transfer on behalf of Debtor
- Structured **Remittance Information** can include rich invoice information to support reconciliation for the **Creditor**
- Dedicated instruction elements allow instructions for specific parties, such as Instruction for Creditor Agent and Instruction for Next Agent



New capabilities enabled by ISO 20022





A global shift to ISO 200222

A rush to ISO 20022

ISO 20022 has been adopted by market infrastructures in 70+ countries replacing domestic or legacy formats

Delivering next gen payments

ISO 20022 is the key standard in next gen payment schemes, including instant payments, move to 24x7, supporting open banking over APIs



Global domination

In the next 5 years, ISO 20022 will dominate high-value payments, supporting 87% of transactions values worldwide

A growing impact

This shift is already impacting the cross-border payment system; under the Eurosystem 'big bang' move to ISO 20022



The SWIFT ISO 20022 programme



A community agreement



In 2018, the global financial community agreed to migrate from the MT (FIN) payment message standard to ISO 20022



The move to ISO
20022 will begin in
November 2021
and coexistence with
MT (FIN) will run
until November
2025



All FI to FI
payments and cash
reporting messages
will move to ISO
20022



All players need to start preparing for the migration now to be ready for November 2021

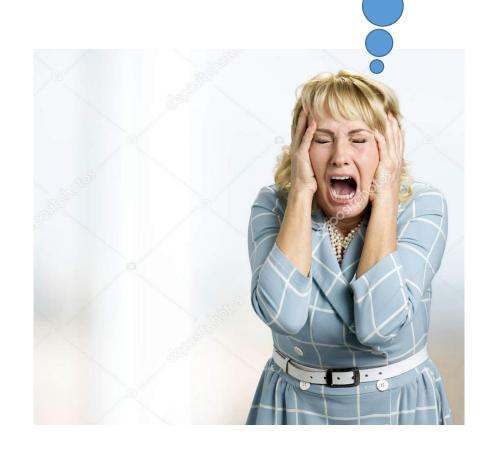


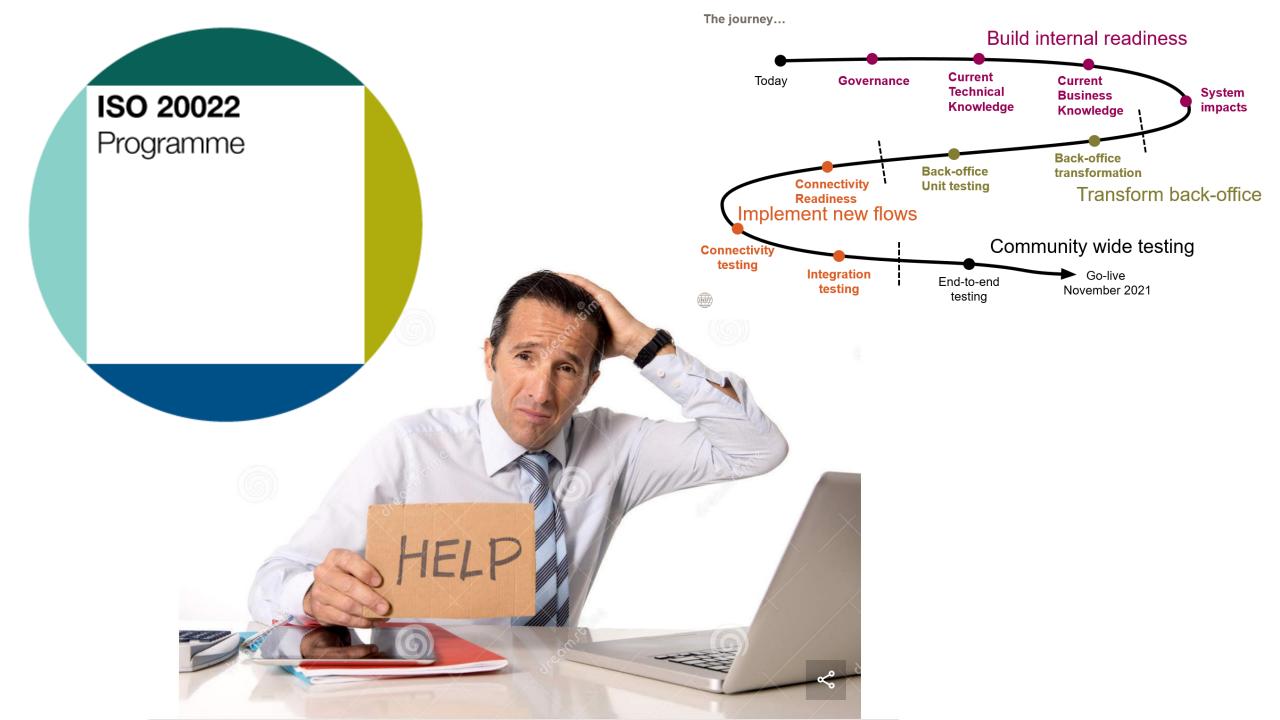
ISO 20022

Programme

What, When, How and Why do I need to adopt ISO 20022?

What are the benefits of implementing ISO 20022?
What's driving ISO 20022 adoption?
How much will it cost me?
Where do I start?





Building readiness what does it mean?



- Not a connectivity project
- Impacts back-office, business channels and • How will you get the compliance.

Building awareness early is important



- What is the scale of the project?
- Who should be driving it?
- resources?

Setting-up a structure is key for success



- ISO 20022 uses a richer set of data
- It will be published this year
- It might create impacts on processes

Change of data structure can be evaluated ahead

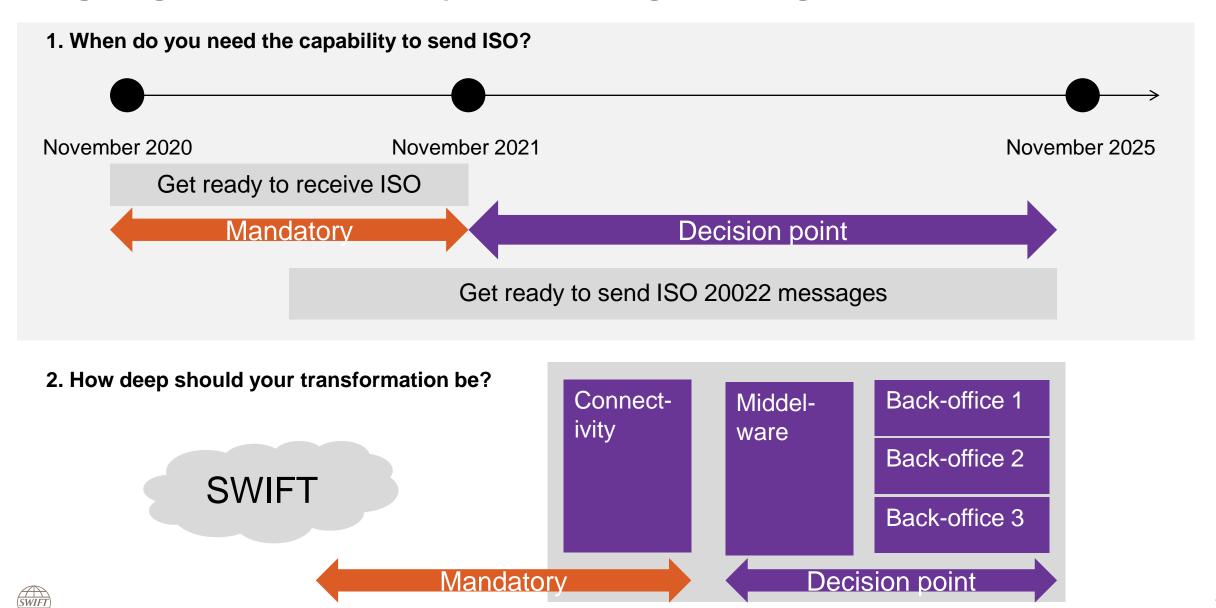


- It is a different protocol (not FIN)
- It uses different message structure (XML) and different system messages

Technical trainings can be taken ahead



Integrating ISO 20022 for Correspondent Banking – some high-level choices



Expected profiles

Any Financial institution member of FIN

- Mostly beneficiary bank at first
- Low volume at first related to the domestic currencies adopting ISO early such as USD, EUR, GBP, CHF...

Minimum requirements:

- Connects
- Drain ISO payments
- Integrate them

Regional Bank with some intermediary business

- Banks acting as intermediary towards other counterparties for the relevant currencies
- Might have to pass on rich data should they get a rich ISO payment messages

Additional requirements:

Deal with rich data in their back-office

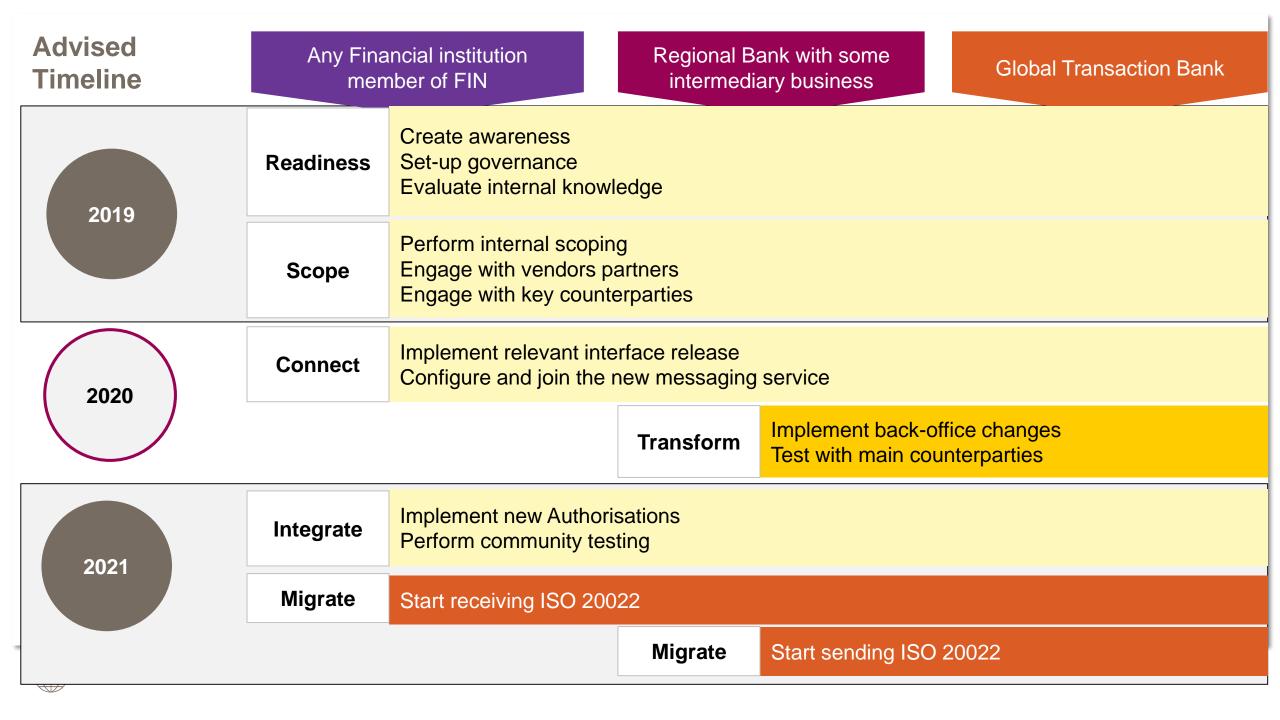
Global Transaction Bank

- Banks with a global reach
- Major suppliers of payment messages across markets
- With extensive network of correspondents

Additional requirements:

 Have capability to send and receive ISO messages from day one



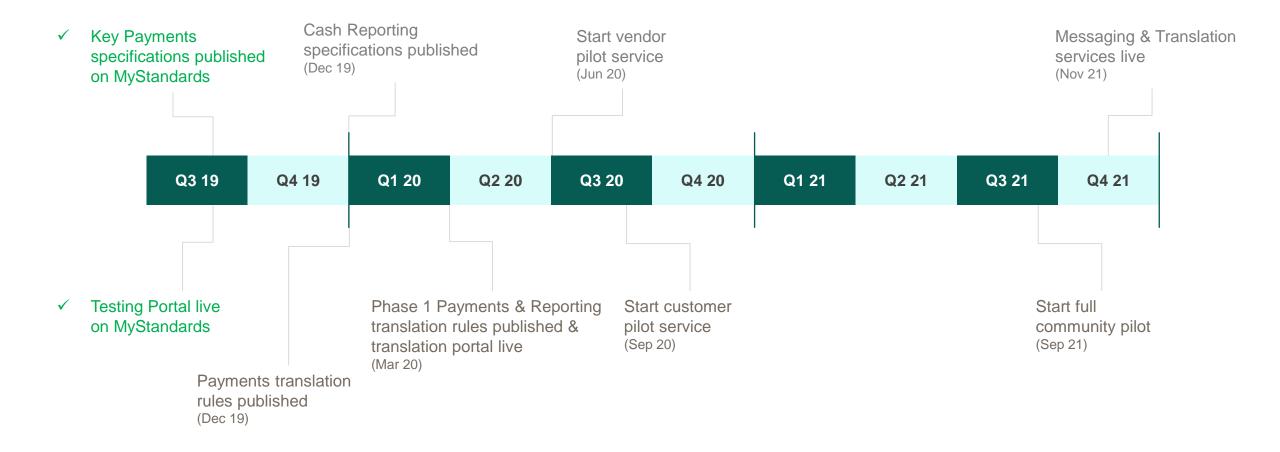


The SWIFT ISO 20022 Programme Deliverables



ISO 20022 Programme

CBPR+ related deliverables





CBPR+ Usage Guidelines in scope

MT	ISO 20022 equivalent	Availability
MT 103 / 102 MT 200 / 201 / 202 / 202 COV / 203 / 205 MT 103 RETURN / MT 202 or 202 COV RETURN	pacs.004.001.0x	Published on MyStandards, July 2019
Business ACK / NACK	pacs.002.001.0x	
Business Application Header (BAH) MT 210 MT 900 / 910 MT 941 / 942 MT 940 / 950 MT n92 MT n96	head.001.001.0x camt.057.001.0x camt.054.001.0x camt.052.001.0x camt.053.001.0x camt.056.001.0x camt.029.001.0x	Under review by CBPR+ group Planned for availability December 2019
MT 204 MT n95 MT 103 REVERSE	pacs.010.001.0x camt.026.001.0x, camt.087.001.0x, others <i>tbc</i> pacs.003.001.0x	Planned for availability by Q2 2020
Out of scope: MT n98 / n99 ISO 20022 Programme - Quality data, quality payments	 Not in scope of CBPR+, customers should move from using proprietary & free form messages to structured ISO 20022 equivalent messages Customers can agree bilaterally and continue to exchange these messages 	

ISO 20022 coexistence measures





New many-to-many SWIFTNet InterAct Store-and-Forward service

- All users automatically enrolled by November 2021
- Validation of Cross-border Payments and Reporting Plus (CBPR+) market practice guidelines



Relationship Management Application

- Available for ISO 20022 over InterAct
- Enable automatic conversion of MT relationships to ISO 20022



Simplified rules for addressing messages and address mapping

- BIC to Distinguished Name (DN)
- BANKCC99ABC → ou=abc,o=bankcc99,o=swift



Implementation and testing resources

- Interactive documentation of message guidelines and mappings
- Testing portals
- Translation sandbox



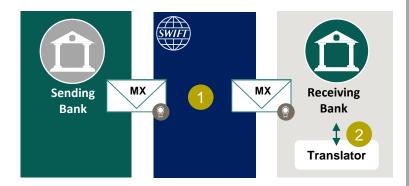
Translation service (see next slide)

- API: from ISO 20022 to MT and MT to ISO 20022
- In-flow: from ISO 20022 to MT only



Translation capabilities – focussing on MX to MT translation

Local Service Stand-alone or on interface



Scope

- MX ⇔ MT: send or receive side
- CBPR+ and others (including internal format and enrichment)

Components:

- Integration solutions on interfaces (IPLA, AMH, SIL)
- Standalone product (Translator)

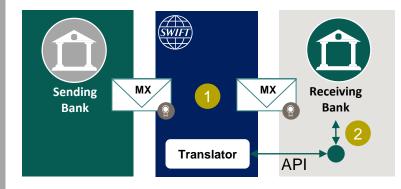
Implementation cost:

- Price list and a fixed cost per library (CBPR+, T2)
 - **Professional services**

SWIFT

ISO 20022 Programme - Quality data, quality payments

Central service API based



Scope

- MX ⇔ MT: send or receive side
- CBPR+ at first, MI can be added

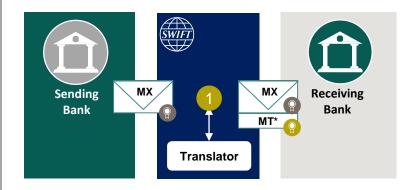
Components:

- Secured API access (no connector delivered)
- Integration project (could be on our software)

Implementation cost:

- Free consumption for a given period of time
- Fixed price for subsequent years
- (optional: Professional services)

Central Service Messaging based



Scope

- MX to MT only: receive side only!
- CBPR+ only

Components:

 Relevant Interface release including the ISO features, no license impact

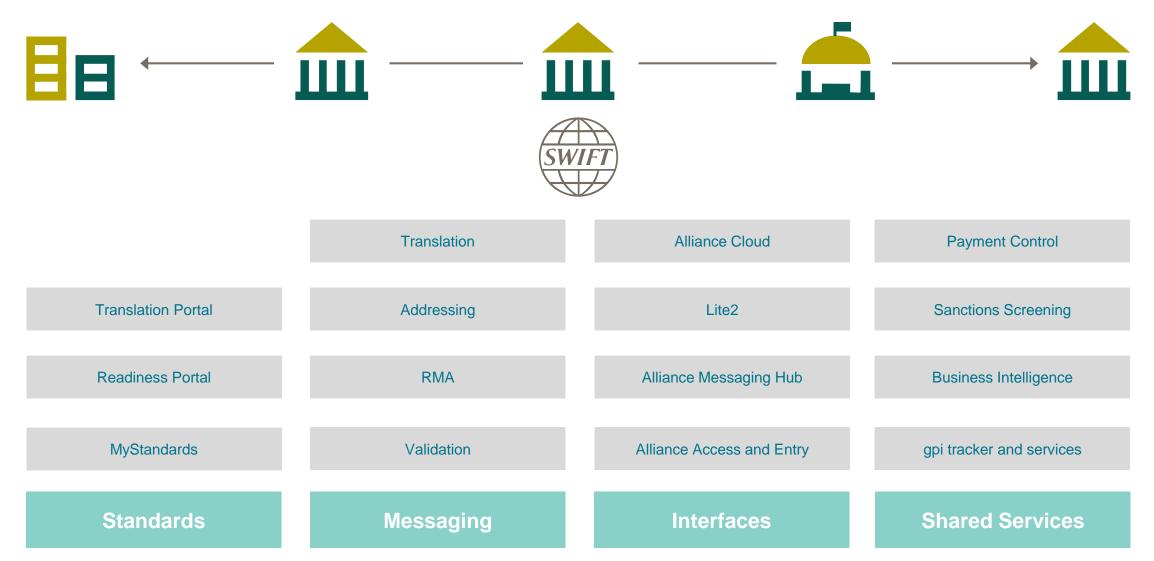
Implementation cost:

- Free consumption for one year
- Fixed price for subsequent years

Evolution of the SWIFT offering

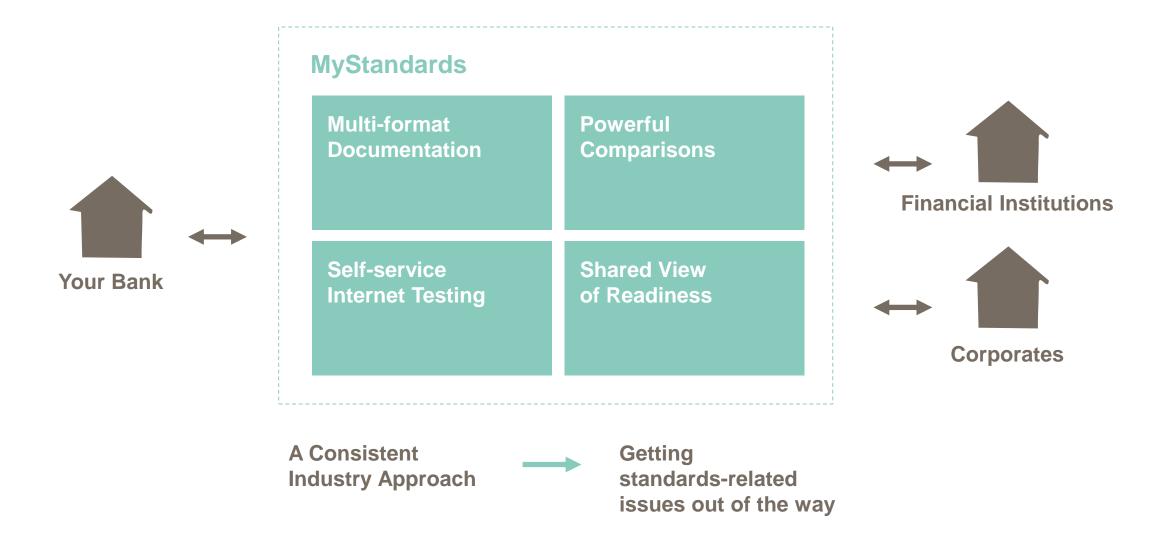


SWIFT is transforming its portfolio to support the ISO 20022 adoption





MyStandards, More Than A Repository Of Specifications





Benefits of MyStandards & Readiness Portal

2x
Faster time
to revenue

50% Cost Savings Smooth customer experience

Risk Reduction

Cut onboarding time by half

Self-service model offloads integration managers

Easy to do business with your bank

More control on process and depth of testing

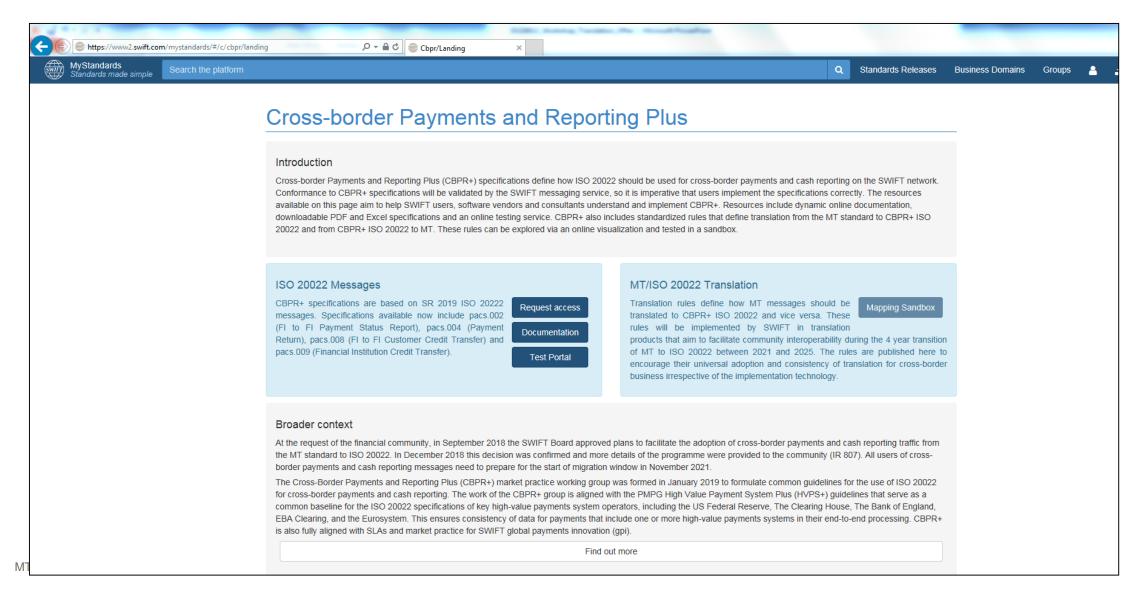
Applies across channels

(SWIFT, host to host, e-banking)



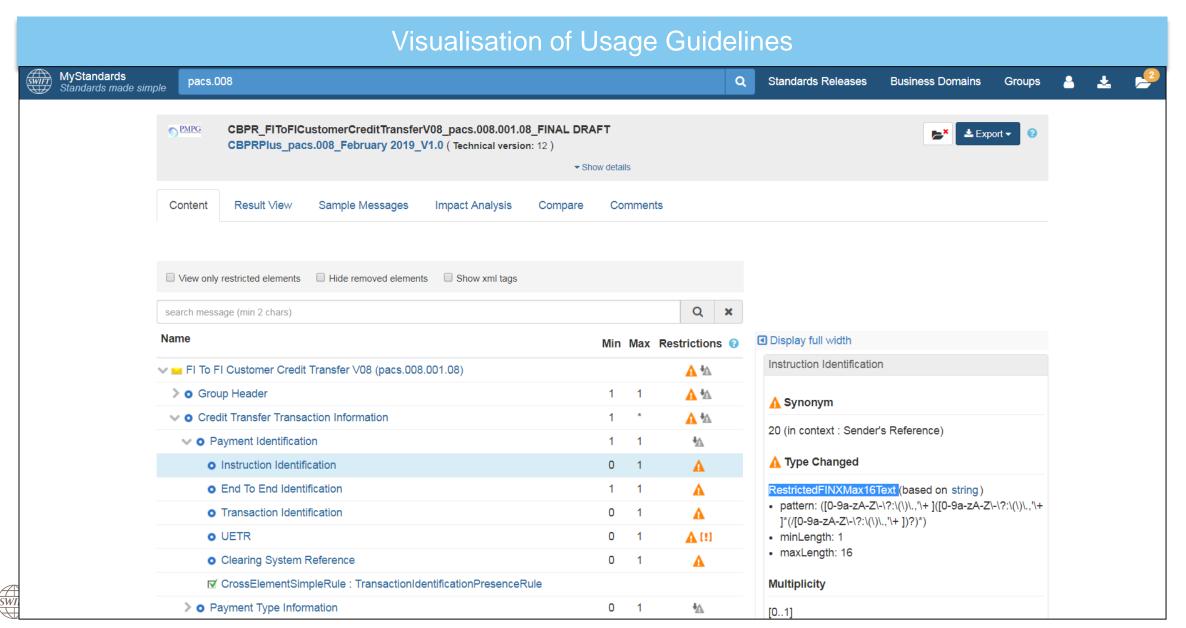
Standards tools and platforms – CBPR+ Landing Page

https://www2.swift.com/mystandards/#/c/cbpr/landing

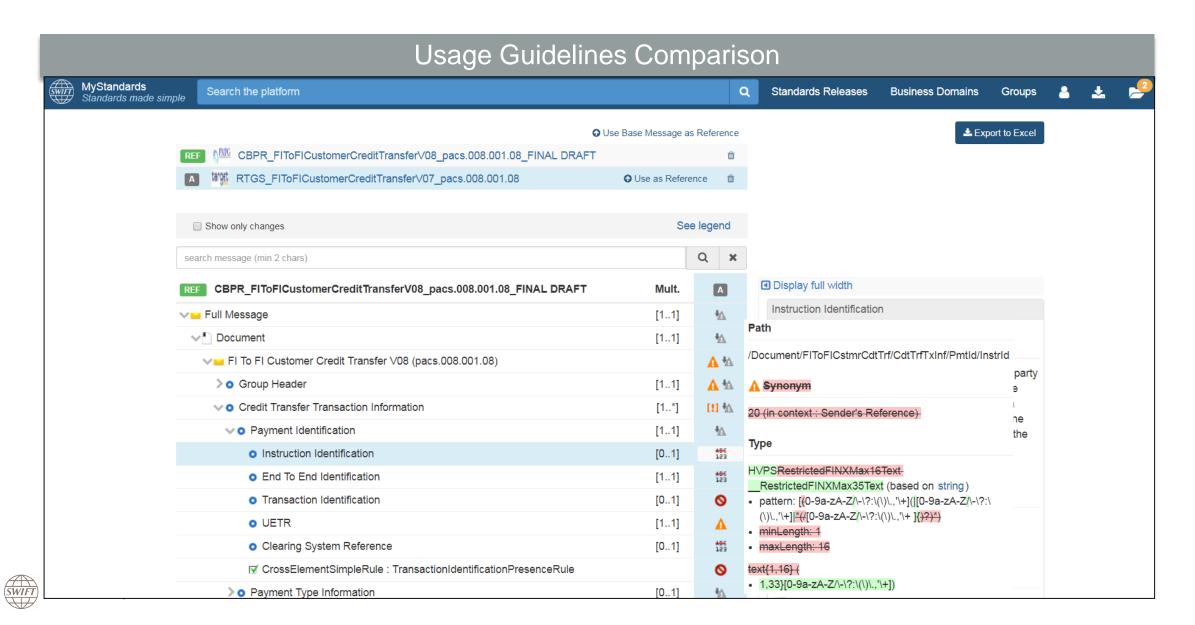




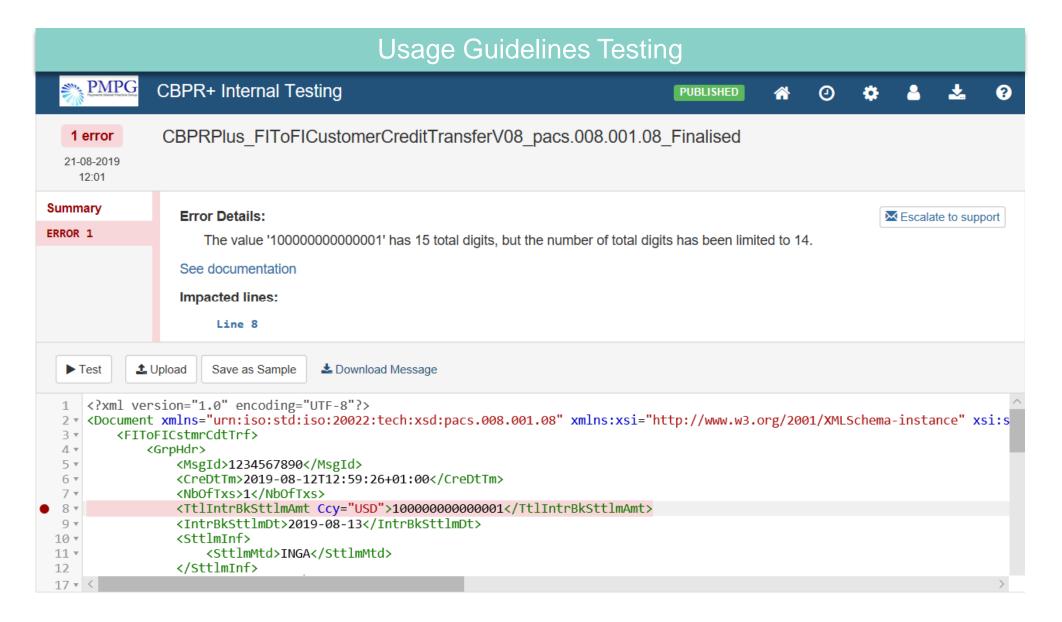
Standards tools and platforms – MyStandards for the CBPR+ / MI migration – Analyse



Standards tools and platforms – MyStandards for the CBPR+ / MI migration – Compare



Standards tools and platforms – MyStandards for the CBPR+ / MI migration – Test

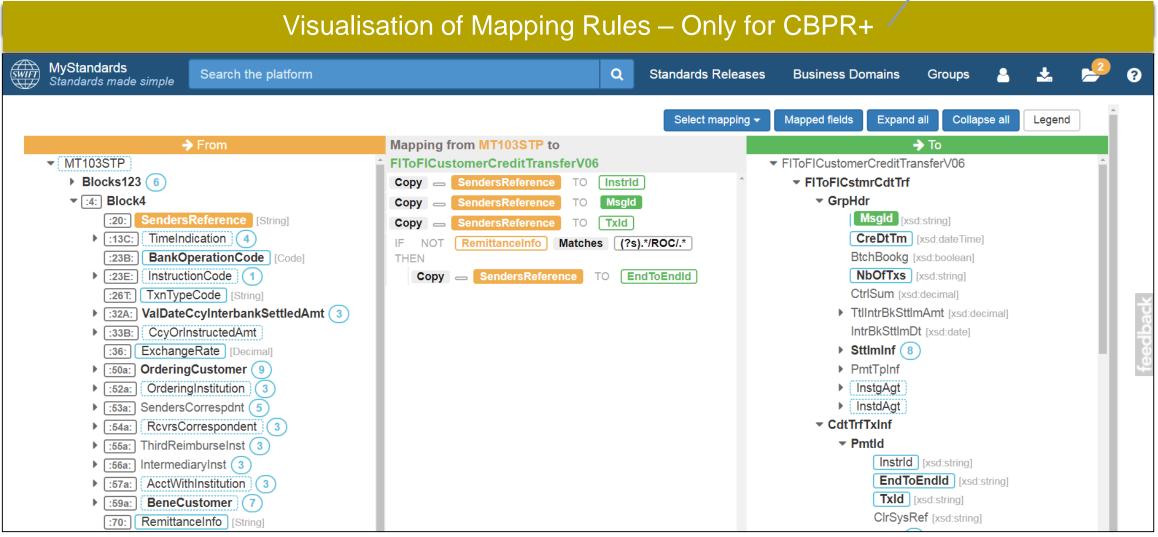




Dec. 2019

31

Standards tools and platforms – MyStandards for the CBPR+ migration – Analyse Mapping Rules



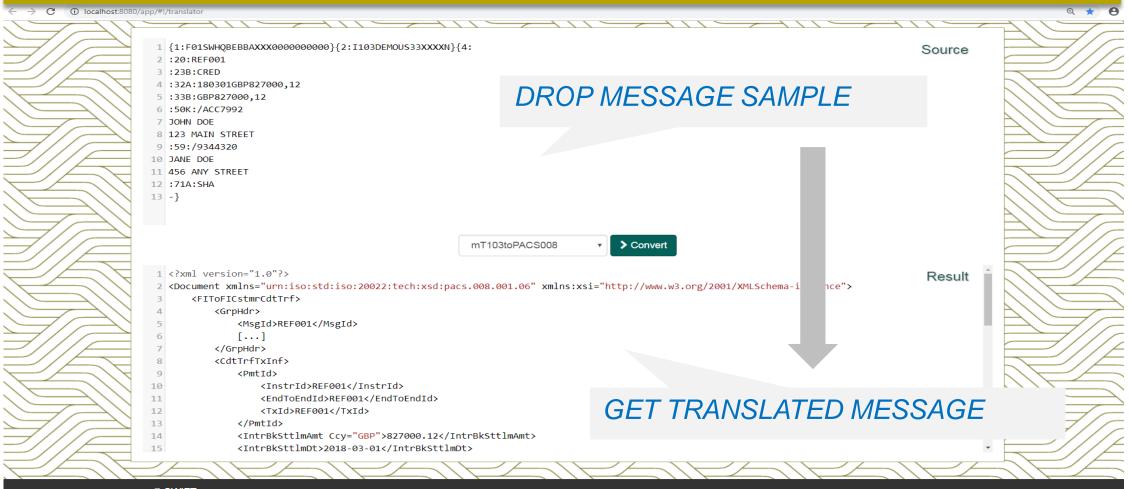


SIBOS - September 2019

Dec. 2019

Standards tools and platforms – MyStandards for the CBPR+ migration – Tes Mapping Rules

Mapping Visualisation Rules Sandbox – Only for CBPR4



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In Summary: Our Standards Products Portfolio

MyStandards

Central online repository

Share specs (intern/extern)

Consult, analyse and compare

User-2-App

Readiness Portal

Test specs

Validation reports

Customised portals

User-2-App

SWIFT Translator

Map, validate and translate

Flexible deployment model

Multi-formats and networks

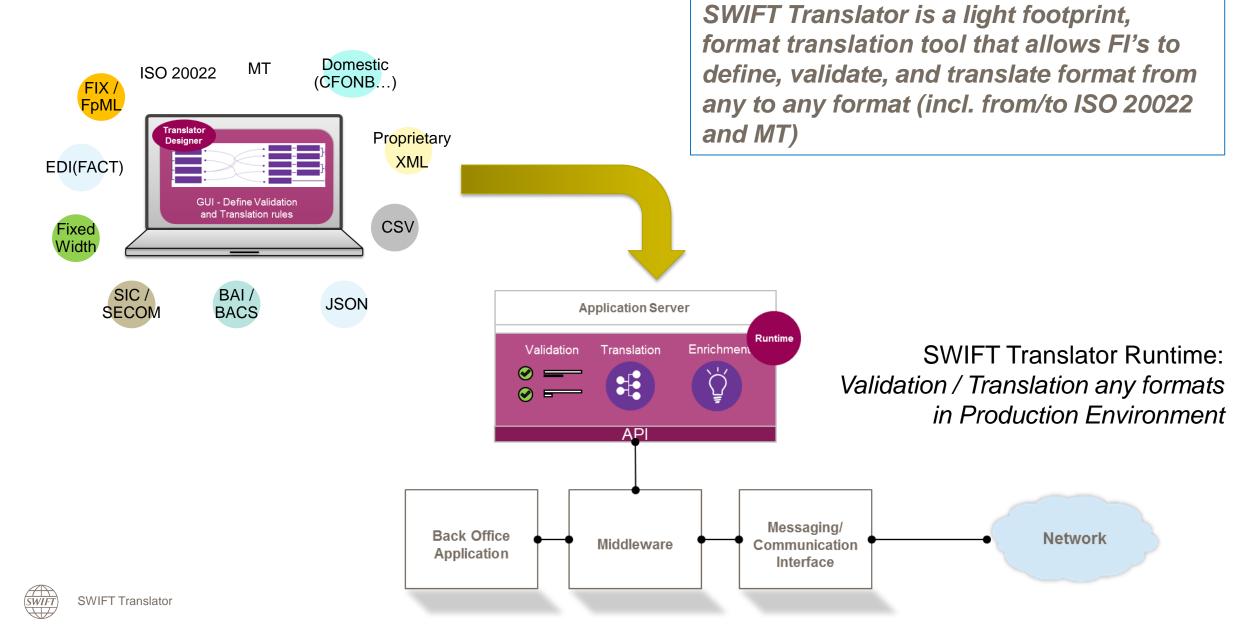
App-2-App

Across all formats and channels

(SWIFT, host to host, e-banking)



SWIFT Translator



The SWIFT Translator - our offering for on premises translation

TO

Define

Message formats and mapping rules

Validate

Input / Output message formats and rules

Translate

Messages in production environment

WITH

Flexibility

Deployable as standalone – Network Independent Or embedded in your SWIFT Interface

Efficiency

Integrated with MyStandards : reuse Usage Guidelines extend formats in MyStandards

Expertise

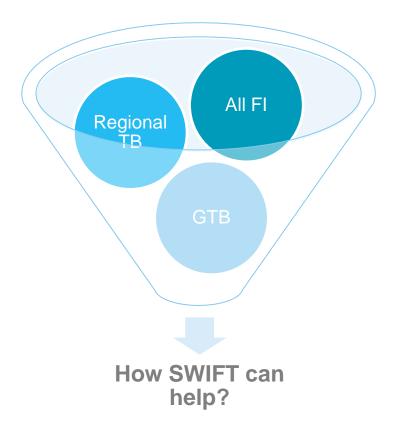
Powerful predefined mapping libraries and unique ISO 20022 experience



How Can Swift Help?



Products and Services



High Level Impact Assessment

Business and technical analysis

Feasibility Study

Provides functional requirement specifications for future infrastructure

Messaging Gap Analysis

Mapping

MT to MX

Training
ISO20022
ISO 20022 for Payments

My Standards and Readiness Portal

- License
- Training

Integration Portfolio

- License
- -Training
- Consultancy

gpi, FCC & BI

ISO 20022 Service Assistance for Key Clients

Standard Services

Business Services

Technical services

SWIFT Single Point of Contact (SPOC)

Standard Advisory

Review of Standard Definitions

ISO 20022 Trainings & Advice

Mystandards/Translator Implementation

Business Advisory

Advise about setting up business and messaging flows related to payments or securities

Assistance with membership and SWIFT administration related projects and topics

Technical Advisory

Review of future SWIFT architecture

Advice on resiliency and capacity set up

Assistance on SWIFT security related topics



Act now!



A global transaction bank recently estimated that the project could result in hundreds of mandays working days for a mid-sized bank



Build a team with business and technical expertise and ensure up-tospeed on ISO 20022



Complete an impact assessment on how the migration will impact your business flows, tech estate and counterparty relationships



Contact your payment vendors and work with them to ensure all your third-party applications are ready for 2021



Contact your SWIFT account manager – we can help you assess the impact and support your project, end-to-end

Where can I get more help?



Where can I get more help?



ISO 20022 work sessions

Share this presentation with your Product, IT and Operations teams

SWIFTSmart

The <u>SWIFTSmart</u> e-learning training platform includes an introduction to ISO 20022



ISO 20022 hub

The <u>ISO 20022 Programme hub</u> provides more information on the programme, timeline, transition period and resources

MyStandards

The <u>CBPR+ MyStandards page</u> hosts all usage guidelines, a readiness portal for testing your back office applications and a mapping sandbox to publish translation rules

Knowledge Centre

The Knowledge Centre hosts detailed documentation on SWIFT products services, including the SWIFTNet messaging service that will be the basis for the new InterAct service to support CBPR+ compliant flows



Customer support

SWIFT Customer Support is available 24/7 to answer specific queries if you do not find the information you are looking for

Consulting services

Expert standards and technical consultants are available to help you assess impact of ISO 20022, get trained, define your project and support your implementation. Contact your account manager to find out more

Vendor support

SWIFT has provided most commonly used vendors with necessary information to incorporate CBPR+ guidelines into their core banking, middleware, screening, reconciliation and other financial products





www.swift.com