

# Leveraging ISO 20022 to Optimize Supply Chain and Trade Finance Management Platforms: Harmonized ISO 20022 for Cross-Border Payments – A Data Model Also for Blockchain Solutions in Logistics



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PPI*



Thursday, November 30



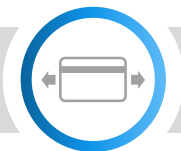
10:00 - 11:00 EST  
16:00 - 17:00 UHR  
16:00 - 17:00 CET

More information at:

<https://wiki.hyperledger.org/display/STSIG>

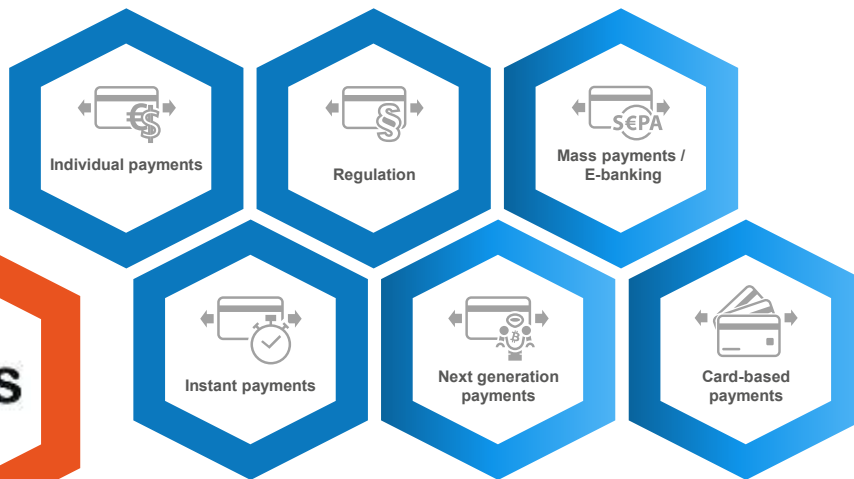
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1. Introduction PPI AG
  2. Basic overview - ISO20022
  3. Harmonization Requirements by CPMI
  4. From classical Loro/Nostro to CBDC paradigm shift
  5. A Real-Life Example – blockchain platform automation of supply chain processes





Payments excellence

Products



Consulting Payments

## ISO 20022 – definition and roles

ISO 20022 does not define the message standard itself but specifies rules and a methodology for how messages are to be developed – a standard for standards

### Supported by SWIFT

- SWIFT assumes the role of the registration authority (RA) – as a service provider for the community

### A concept for the development of standards

- A single standardisation approach (methodology, strict procedure) to be used by all financial standards initiatives
- A central financial repository

### Freely and openly available – task of the RA

- More than 740 messages are available free of charge on [www.ISO20022.org](http://www.ISO20022.org)
  - Not just payments
- 20+ organisations are involved alongside SWIFT

### Not mandatory

- SWIFT is not mandating a migration
- Communities decide if and when they want to migrate
  - This also applies esp. to new releases

### Not just XML

- ISO 20022 is independent of network and syntax
- ASN.1 is another available syntax

### Also a basis for API

- in order to support non file-based communication consistently to the ISO 20022 data model
- representation via JSON next to XML

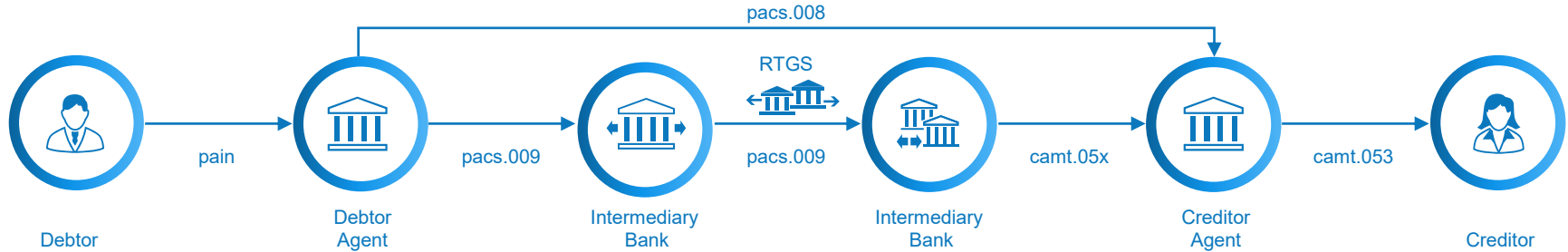
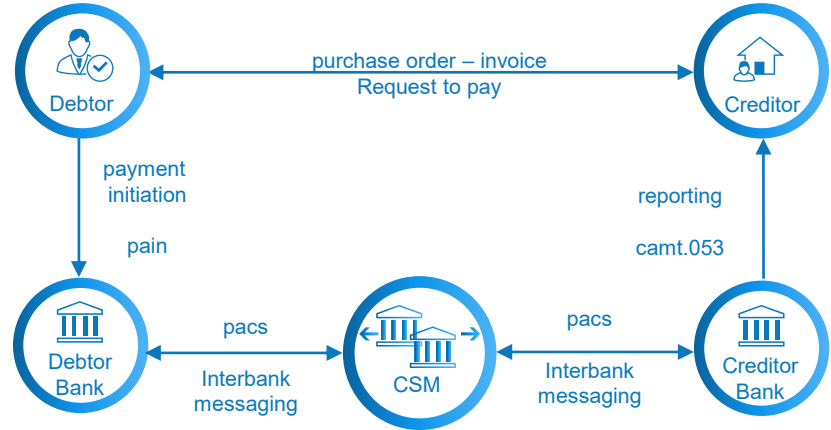
See also “The Beauty of ISO 20022” – as old as March 24<sup>th</sup>, 2021 - but still true

<https://www.hyperledger.org/learn/webinars/the-beauty-of-iso-20022>

# ISO 20022 and the 4-Corner-Model

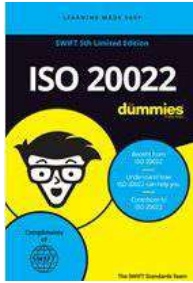
pain.001.001.09 = Business Domain + purpose + variant + version

pain = payments initiation  
 pacs = payments clearing & settlement  
 acmt = account management  
 camt = cash management  
 setr = securities trade  
 colr = collateral  
 tsin = Trade Services Initiation

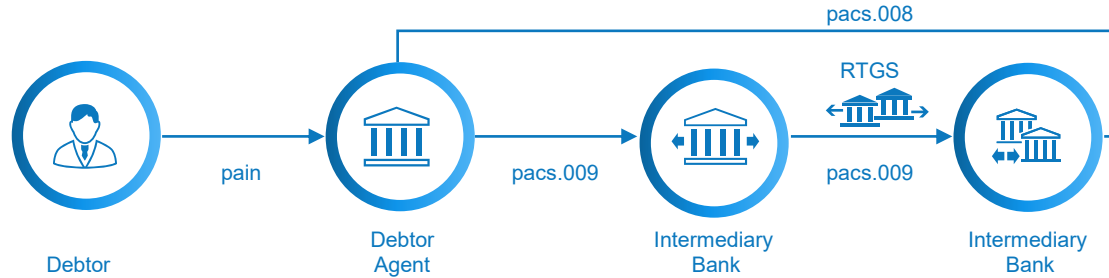


# ISO 2022 and the 4-Corner-Model

pain.001.001.09 = Business Domain + purpose + variant + version



<https://www.swift.com/campaign/iso-2022/iso-2022-dummies>



<https://www.iso2022.org>

## Data Elements and Example

Identification \ OrganisationIdentification \  
BIC Other \ Identification \ SchemeName

```

<InstrId>494931/DEV</InstrId>
<TxId>ABCD-XYZ</TxId>
<EndToEndId>NOTPROVIDED</EndToEndId>
  
```

```

<UETR>360f1e65-90e0-44d5-a49-
a92b55eb3025f</UETR>
  
```

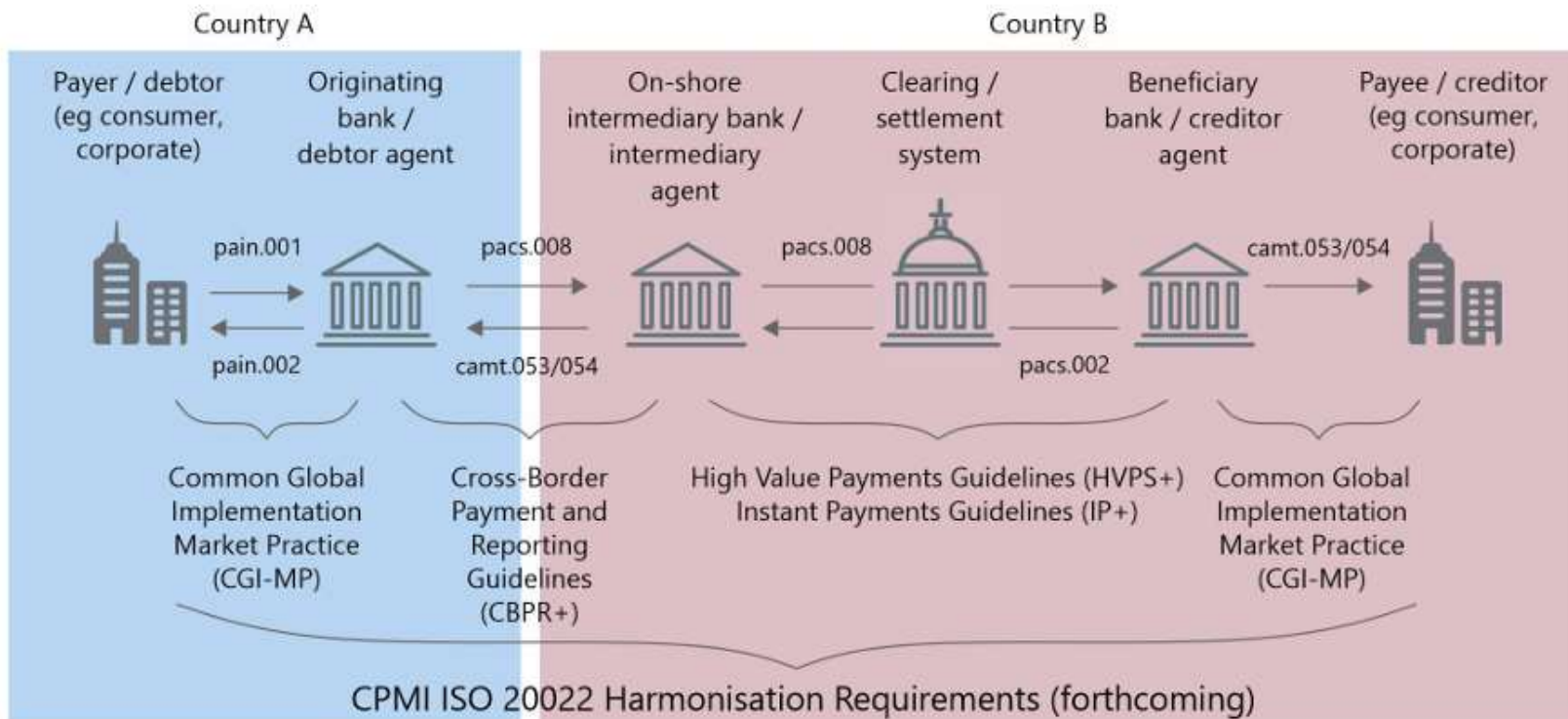
```

<Nm>Cuba Sports Bar & Grill</Nm>
<PstAdr>
  <StrtNm>Ocean Drive</StrtNm>
  <BldgNb>1234</BldgNb>
  <PstCd>90099</PstCd>
  <CtrySubDvsn>CA</CtrySubDvsn>
  <Ctry>US</Ctry>
</PstAdr>
  
```

# The ISO 2022 standard has already been adopted for payments in more than 70 countries – in near future 80% of volume High Value Payment Systems (HVPS)

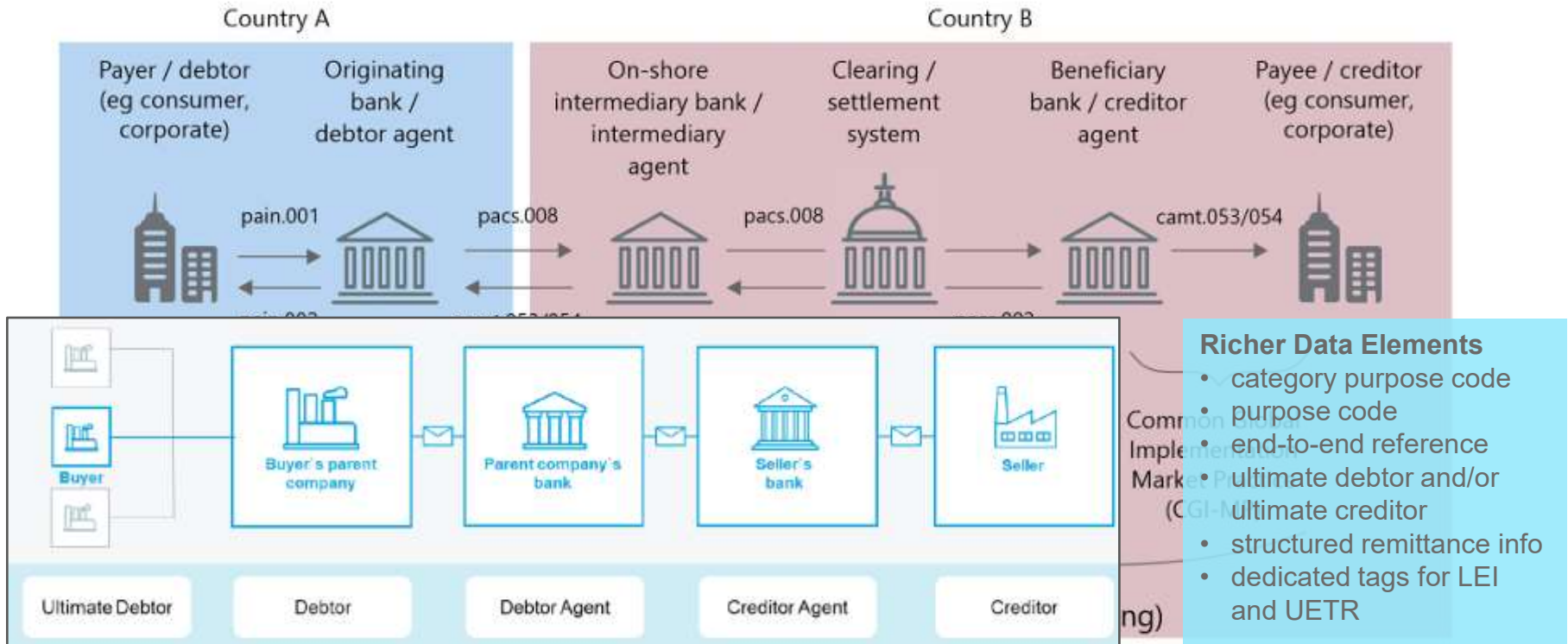


# Global STP by ISO 2022 through End-To-End transport of richer and better structured information





# Global STP by ISO 2022 through End-To-End transport of richer and better structured information



## Global Harmonization – CPMI Data requirements core set of message and 12 basic requirements

- appropriate message for a particular business function
- ISO 2022 externalised codes for payments and payment-related processes
- the character set used for ISO 2022
- common time convention across messages
- unique end-to-end reference
- transparency on amounts, FX and charges
- unique account identifiers to the extent possible
- identify all FIs involved in standardised way (BIC or LEI)
- identify all entities **and** persons involved structured way
- common minimum level of postal address - structured
- transport of customer remittance information the whole chain by enabling structured or unstructured remittance information



Message	Description
pacs.008	Customer Credit Transfer
pacs.009	Financial Institution Credit Transfer
pacs.002	Payment Status Report
camt.056	Payment Cancellation Request
camt.029	Payment Cancellation Response
pacs.004	Payment Return
pacs.028	Payment Status Request
camt.110	Investigation Request
camt.111	Investigation Response

Report to the G20

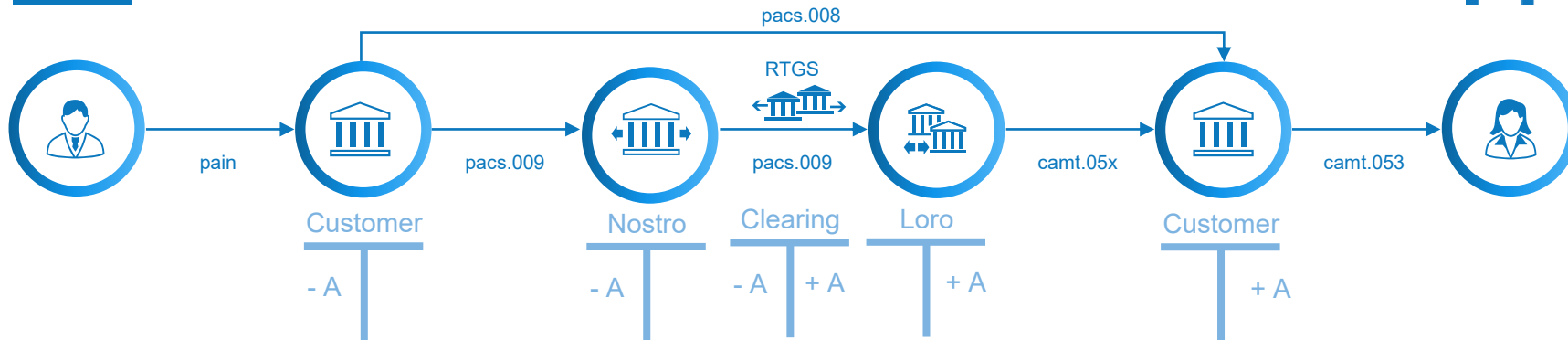
Harmonised ISO 2022 data requirements  
for enhancing cross-border payments

October 2023

to be realized by all HVPS till Nov 2027

# Information flow and value transport

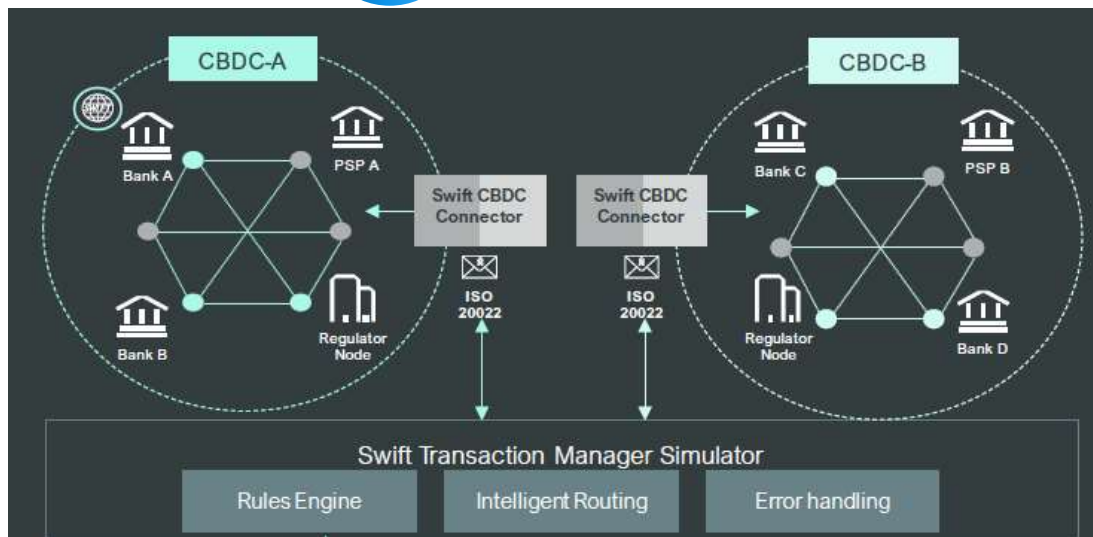
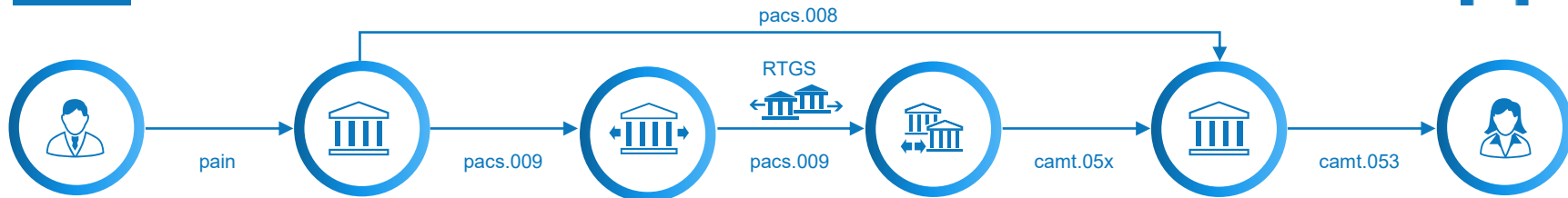
## From classical Loro/Nostro Account to CBDC based paradigm shift



- Value is moved in a classical way – from account to account
- Loro/Nostro account relationship in correspondent banking
- real money is moved in an RTGS (central bank money) in the country of the currency

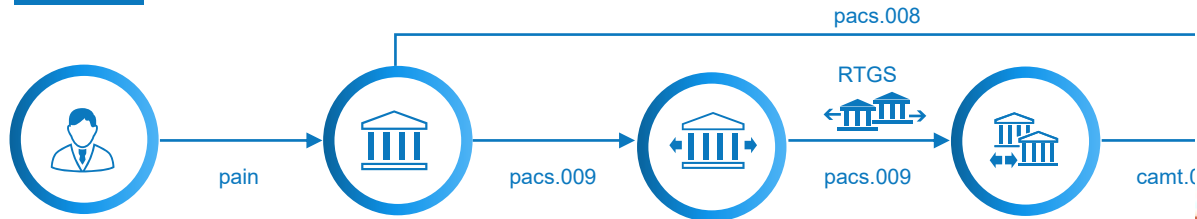
# Information flow and value transport

## From classical Loro/Nostro Account to CBDC based paradigm shift

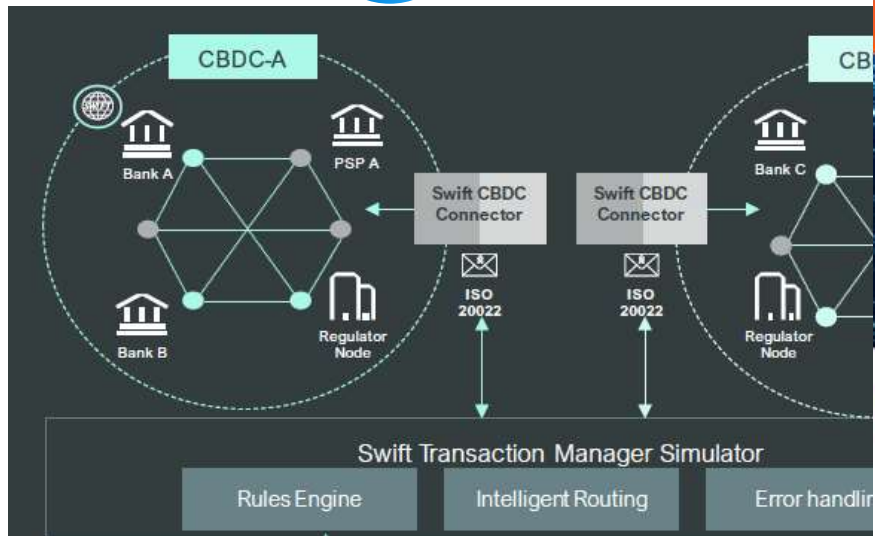


# Information flow and value transport

## From classical Loro/Nostro Account to CBDC based paradigm shift



Committee on Payments  
and Market Infrastructures



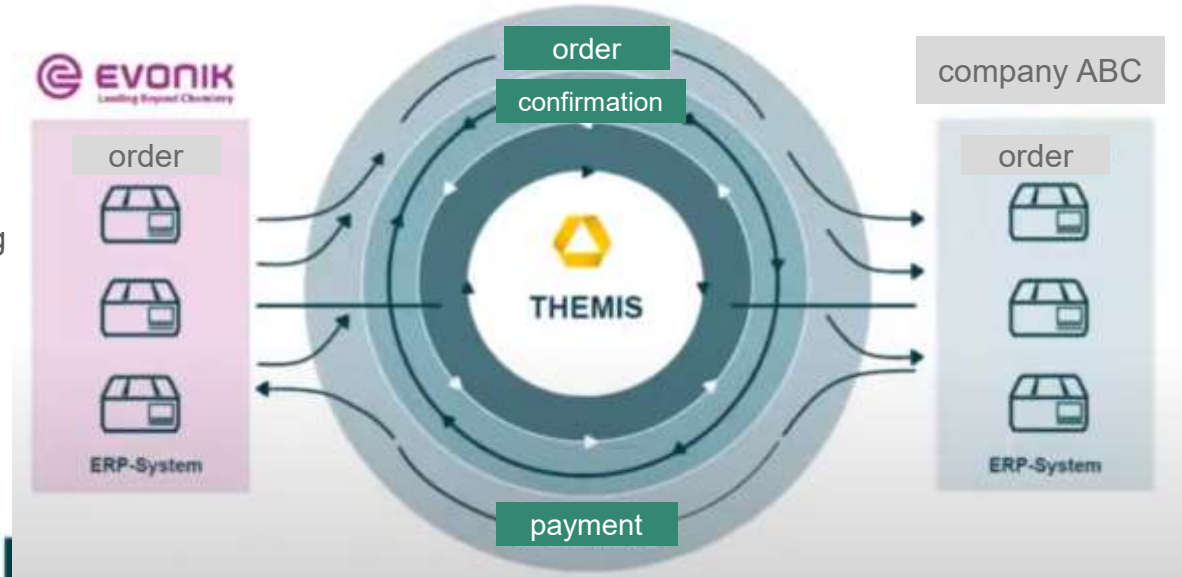
▶ CPMI Report

**Considerations for the use of  
stablecoin arrangements in  
cross-border payments**

October 2023

# Automatization of bidirectional invoice settlement and payment processing

- Corda for highest security
- integration into ERP by standard information flow
- smart contract – payment after automatic validation of order + confirmation matching
- nodes and wallets – payment without intermediary, cash on ledger
- so far e-money by licensed PSP in FIAT money

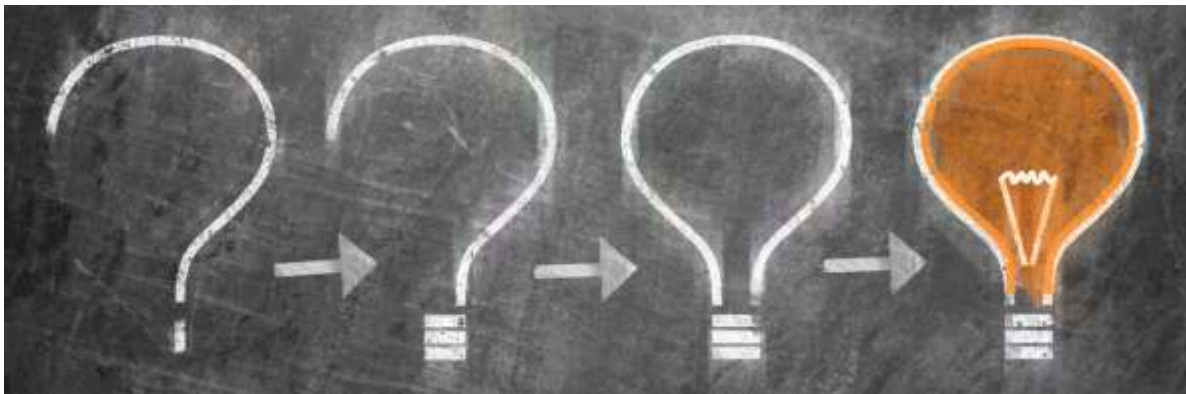


programmable money

wallet

smart contract

business integration





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