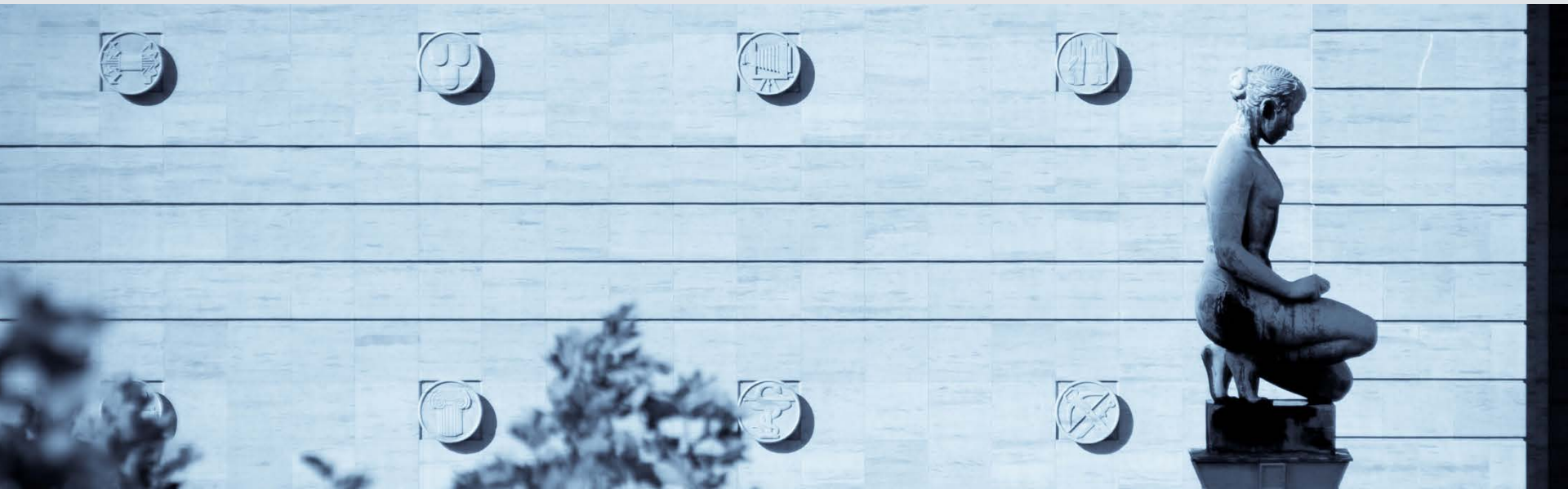


AMIPAY NSG – TIPS infosession

11/01/2018



Agenda

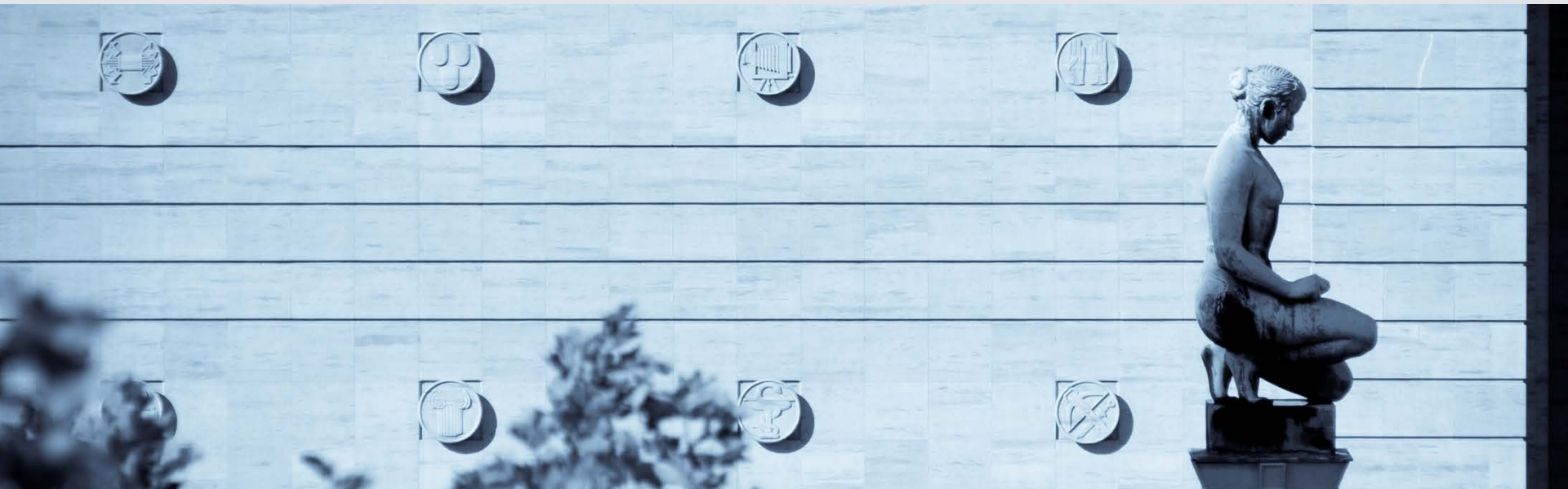
- ▶ TIPS and ASI6 RT
- ▶ TIPS functioning
- ▶ T2 in view of TIPS

- ▶ Role of the NBB
- ▶ Conclusions



TIPS and ASI6 RT

Axelle Waterkeyn
Payment systems advisor



TIPS

- ▶ Euro area not to lag behind in speed of payments
- ▶ Promote efficiency and ensure market integration in the settlement of instant payments
- ▶ Decision of extending the availability of central bank money settlement up to 24/7/365 to facilitate the emergence of instant payments



Principles

- ▶ Same participation criteria as TARGET2
- ▶ Instant payments settlement in Central Bank Money
- ▶ 24/7/365 operating hours
- ▶ Operated on a full cost-recovery basis
- ▶ SCT Inst Scheme
- ▶ Multi-currency technical capability

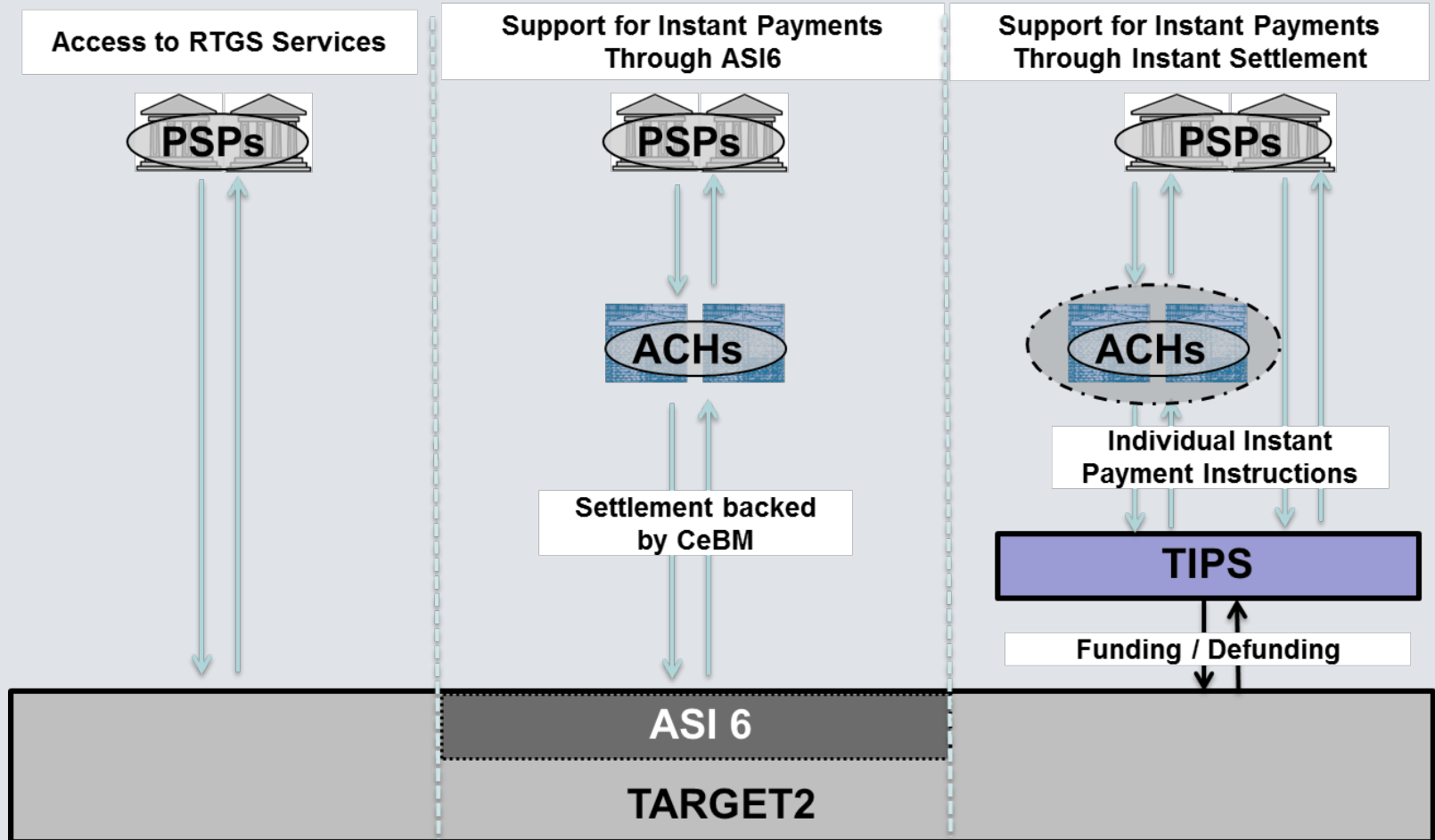


TIPS & ASI6 RT

- ▶ ASI6 RT: Ancillary System Interface settlement model 6 Real Time
- ▶ TIPS: TARGET Instant Payment Settlement
- ▶ Go live in November 2018

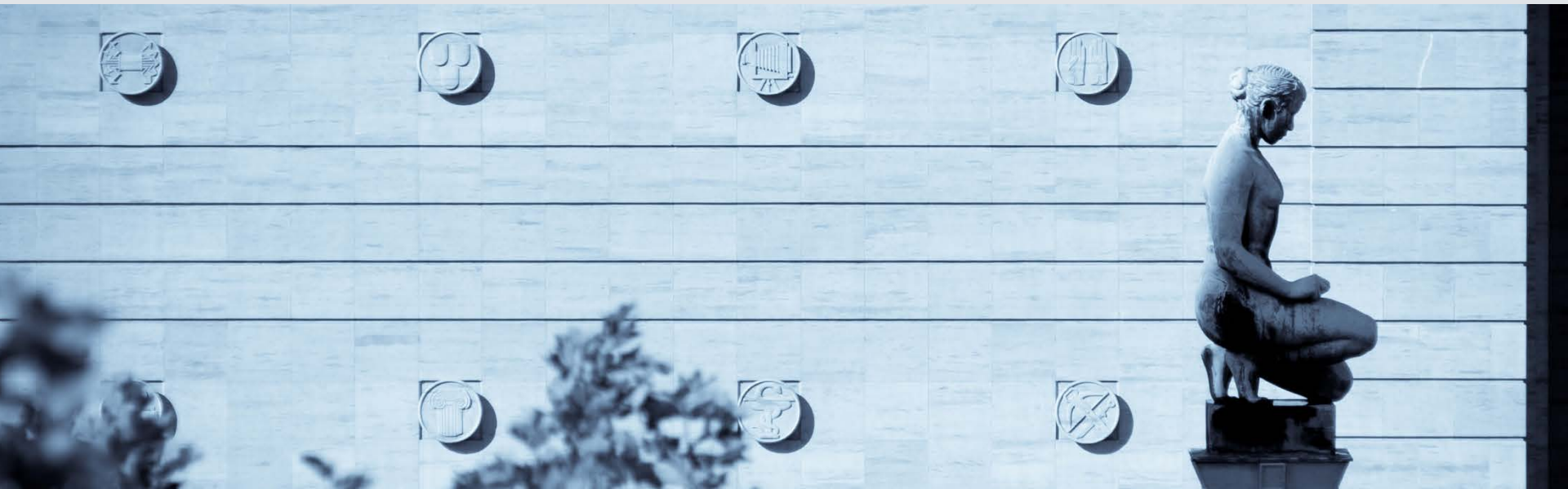


Co-existence of payment services



TIPS Functioning

Rudi Verschaeren



TIPS Principles

- ▶ A service for:
 - Instant payment settlement
 - Both domestic and cross-border
 - In central bank money
- ▶ Immediate or close-to-immediate interbank clearing of the transaction
- ▶ Extends the availability of central bank money settlement to 24/7/365
- ▶ Liquidity management features to support process
- ▶ Offer queries & reporting tools to support monitoring and reconciliation
- ▶ Participation not mandatory
- ▶ Network agnostic



TIPS Service Scope

- ▶ SCT Inst scheme compliant settlement service to allow:
 - Instant transfer of funds
 - From originator to beneficiary
- ▶ In scope:
 - Routing service to forward SCT Inst instructions from originator to beneficiary
 - Instant settlement of SCT Inst instructions accepted by beneficiary
 - Immediate transmission of status messages after settlement
 - Liquidity transfers between TARGET2 and TIPS
- ▶ Out of scope:
 - Liquidity transfers between TIPS accounts
 - Additional services (e.g. mapping of mobile numbers to IBAN's)



TIPS Actors

▶ TIPS operator:

- Legal and organizational entity that operates TIPS
- Setup and maintain Central Banks reference data
- May operate on behalf all actors

▶ Central Banks:

- Setup and maintain common reference data community
- May operate on behalf all actors community
- Provide cash services

▶ Participants:

- Identified by BIC11
- Holds TIPS account(s)
- Linked to TARGET2 RTGS account
- Access to Central Bank money according TARGET2 rules



TIPS Actors

▶ Reachable parties

- Recognized by BIC11
- Do not have TIPS account
- Contractual agreement with TIPS participant to use account for settlement instant payments
- TIPS participants can setup limits to reachable parties to limit access (Credit Memorandum Balance)

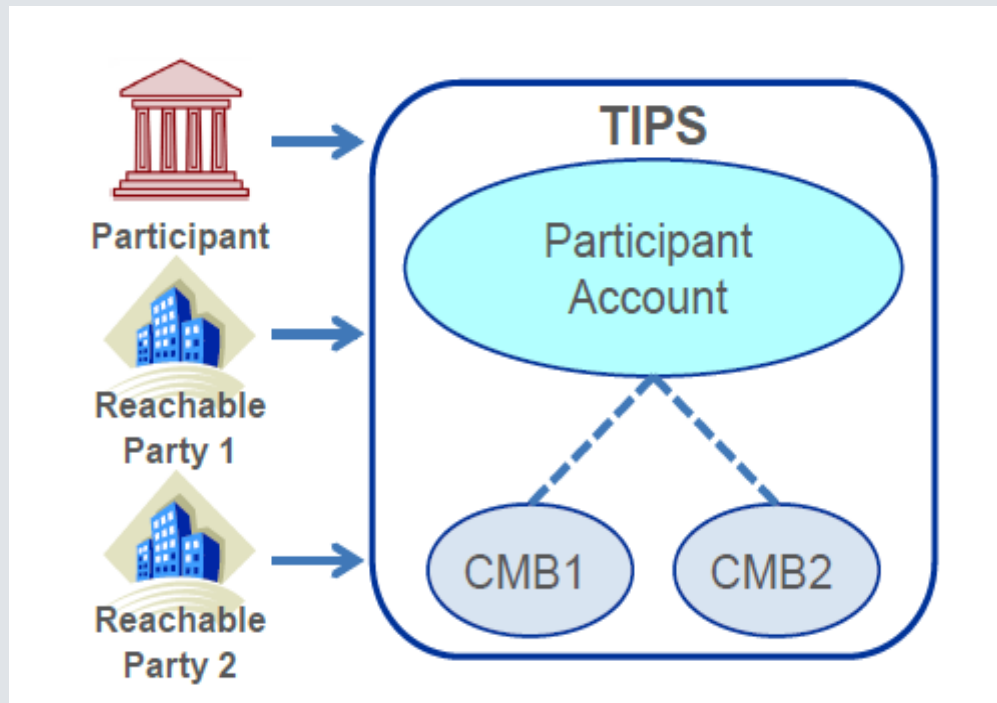
▶ Instructing parties

- Contractual agreement to send (receive) instant payments to (from) TIPS on behalf of:
 - Participants
 - Reachable parties
- Functionalities instructing party granted in advance by participant in terms of access rights



Credit Memorandum Balance (CMB) limits

- ▶ Keeps track on the amount used by a reachable party on a participants TIPS account
- ▶ Allows participant to set maximum limit for each single reachable party

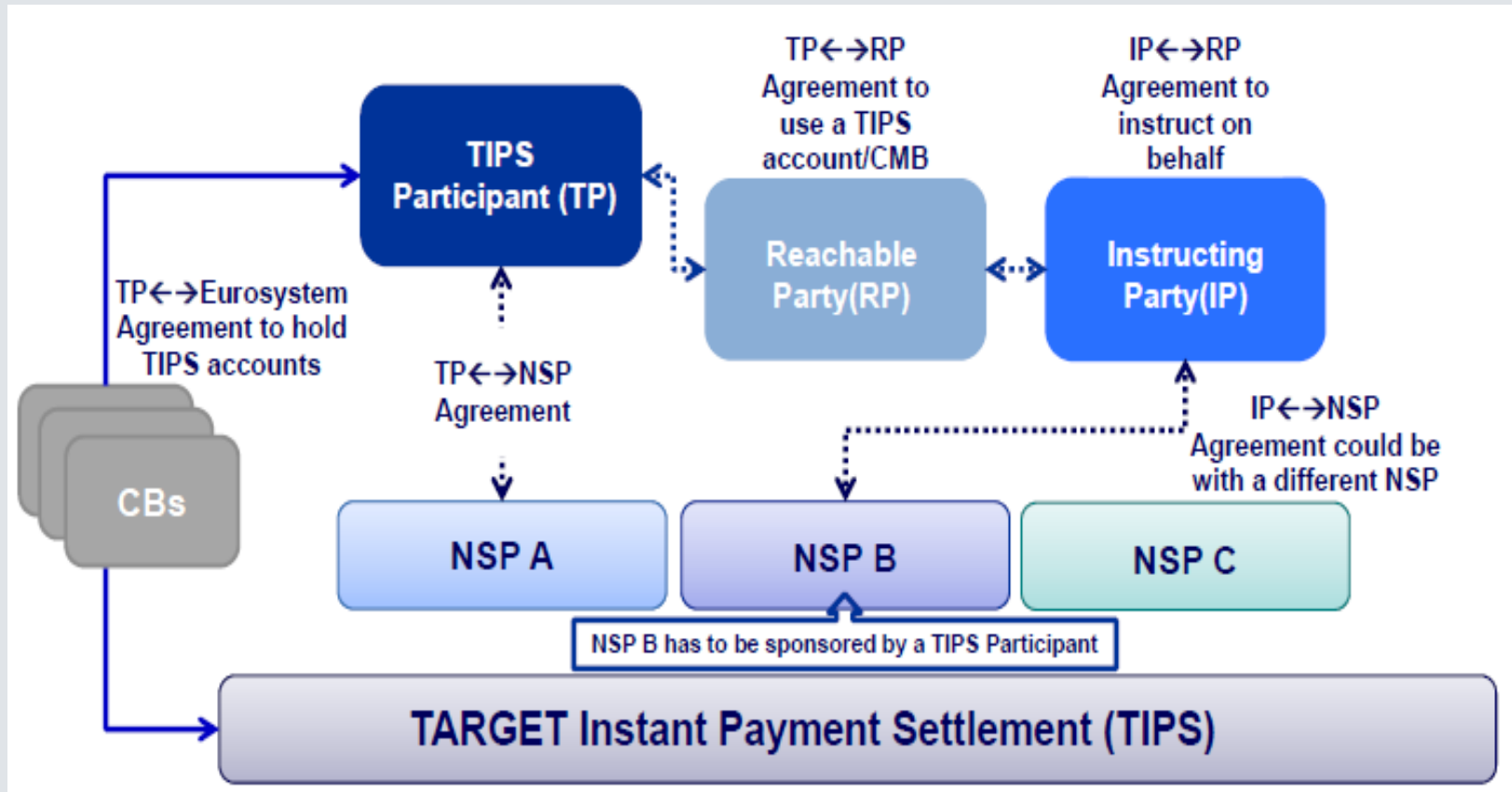


Contractual agreements framework

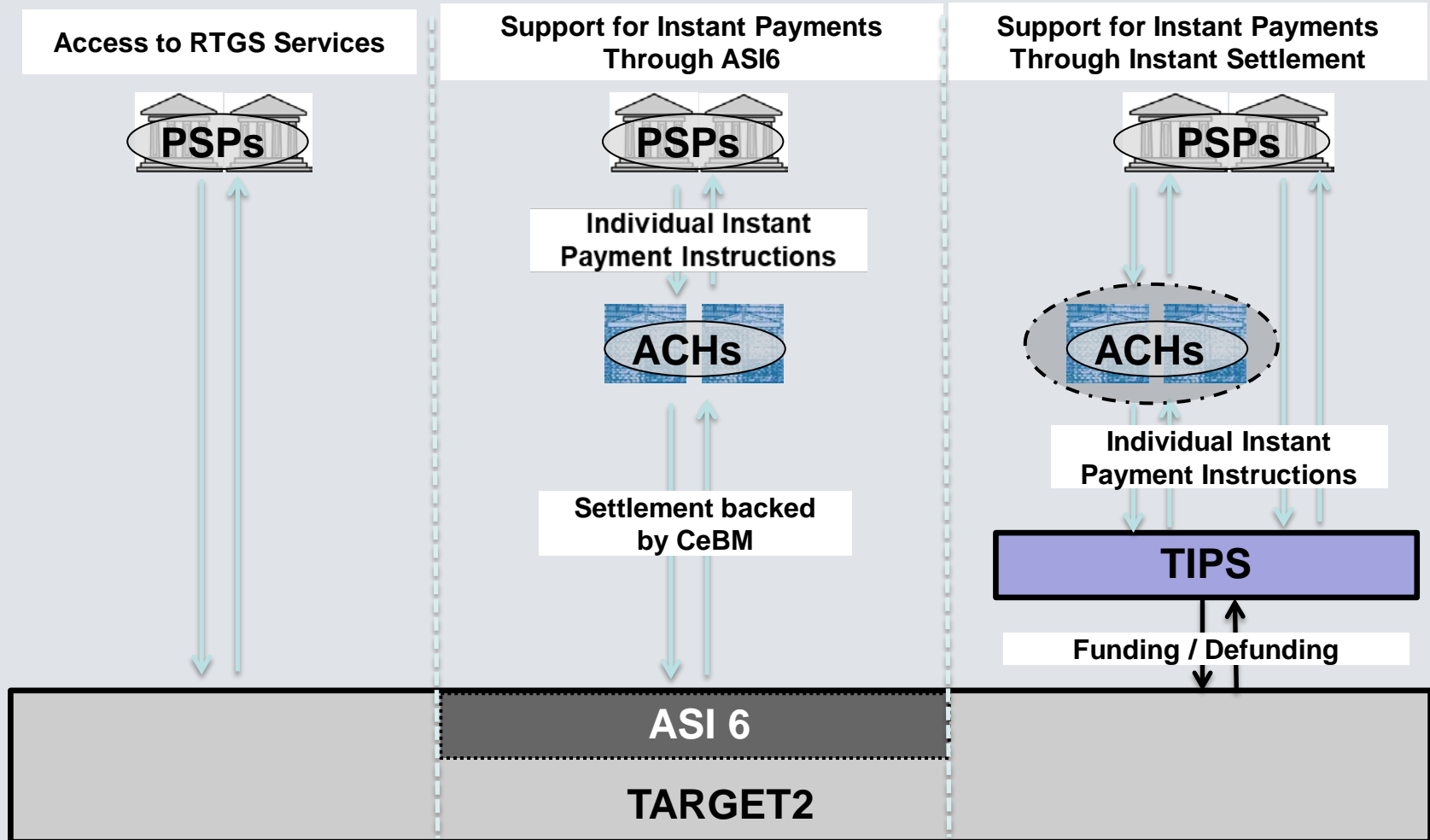
- ▶ Between TIPS participant and Eurosystem
 - TIPS account legally opened in the TARGET2 component of responsible CB
 - Same eligible criteria as for opening TARGET2 account
 - Account dedicated to settlement on TIPS
 - Applicable to minimum reserve calculation
- ▶ Between TIPS participant and
 - selected compliant network service provider (NSP)
 - reachable party
 - instructing party
- ▶ Additional contract reachable party – NSP (in case a different NSP is used)



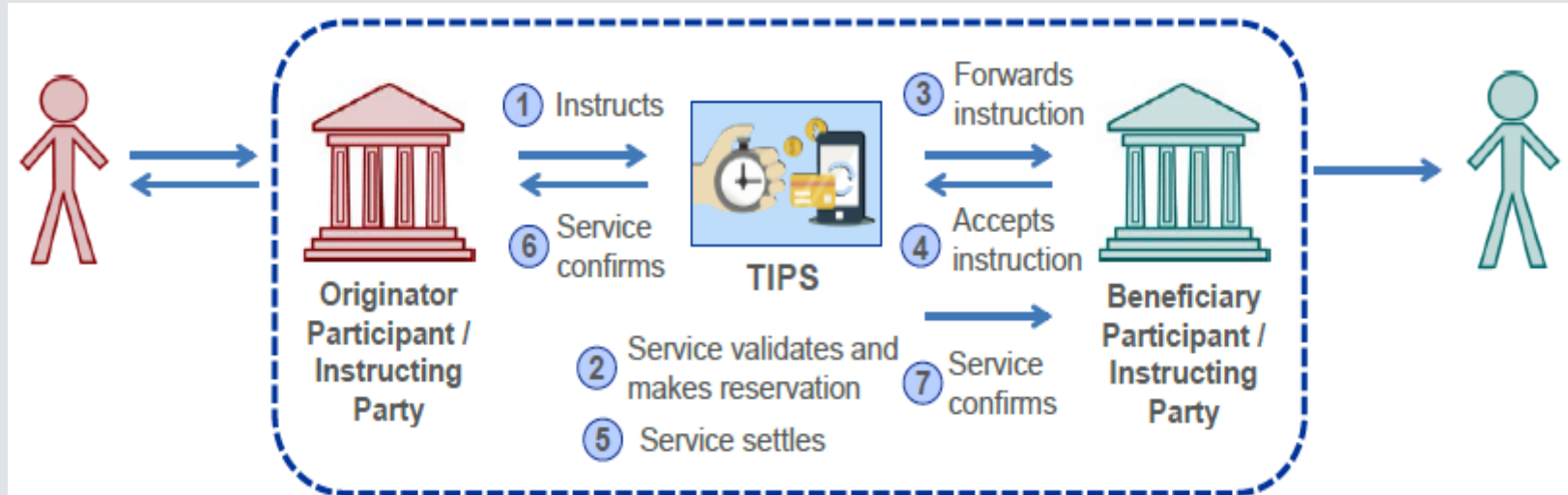
Contractual agreements framework overview



Co-existence of Payment Services

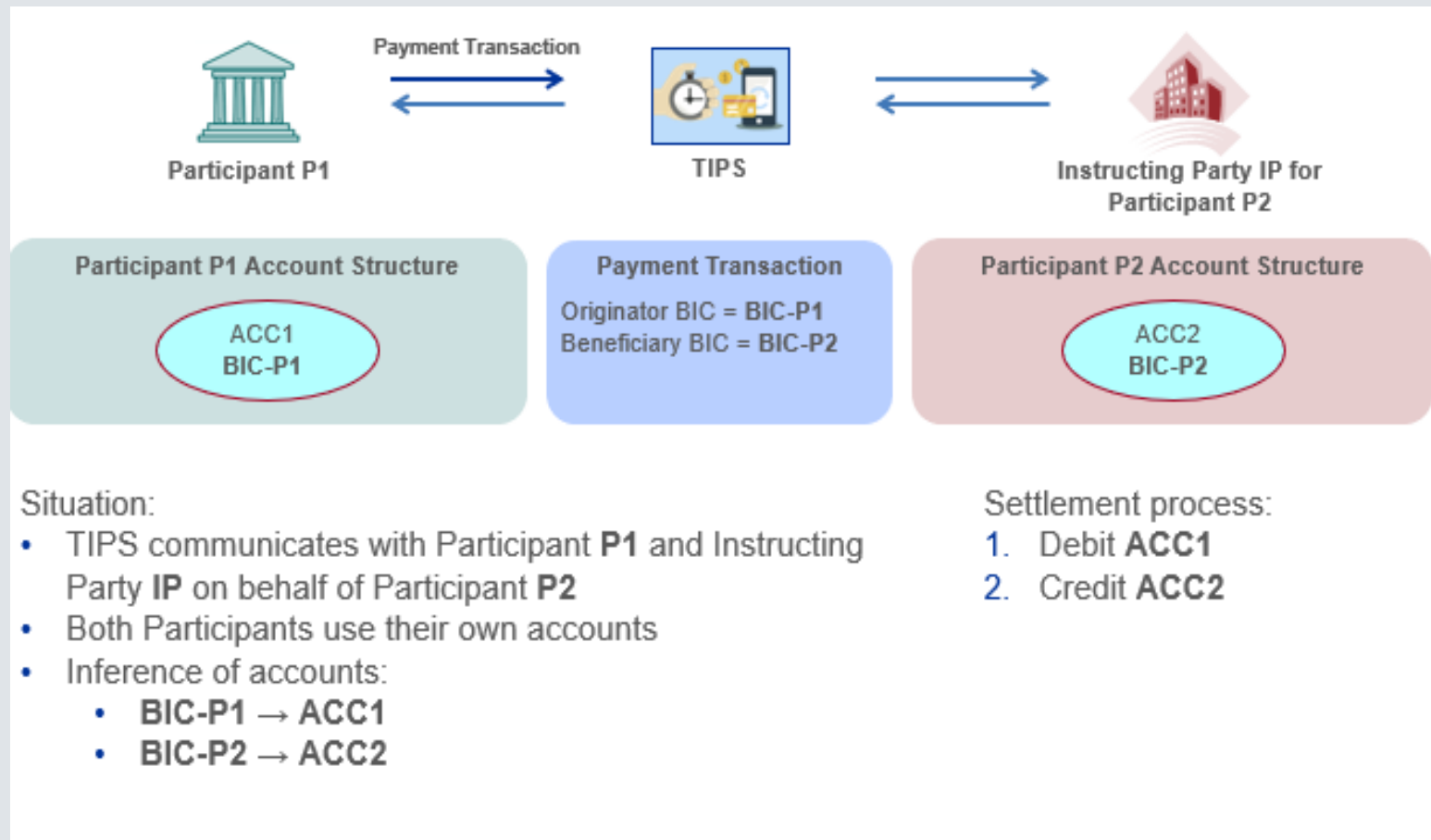


Use case: process flow regular transaction



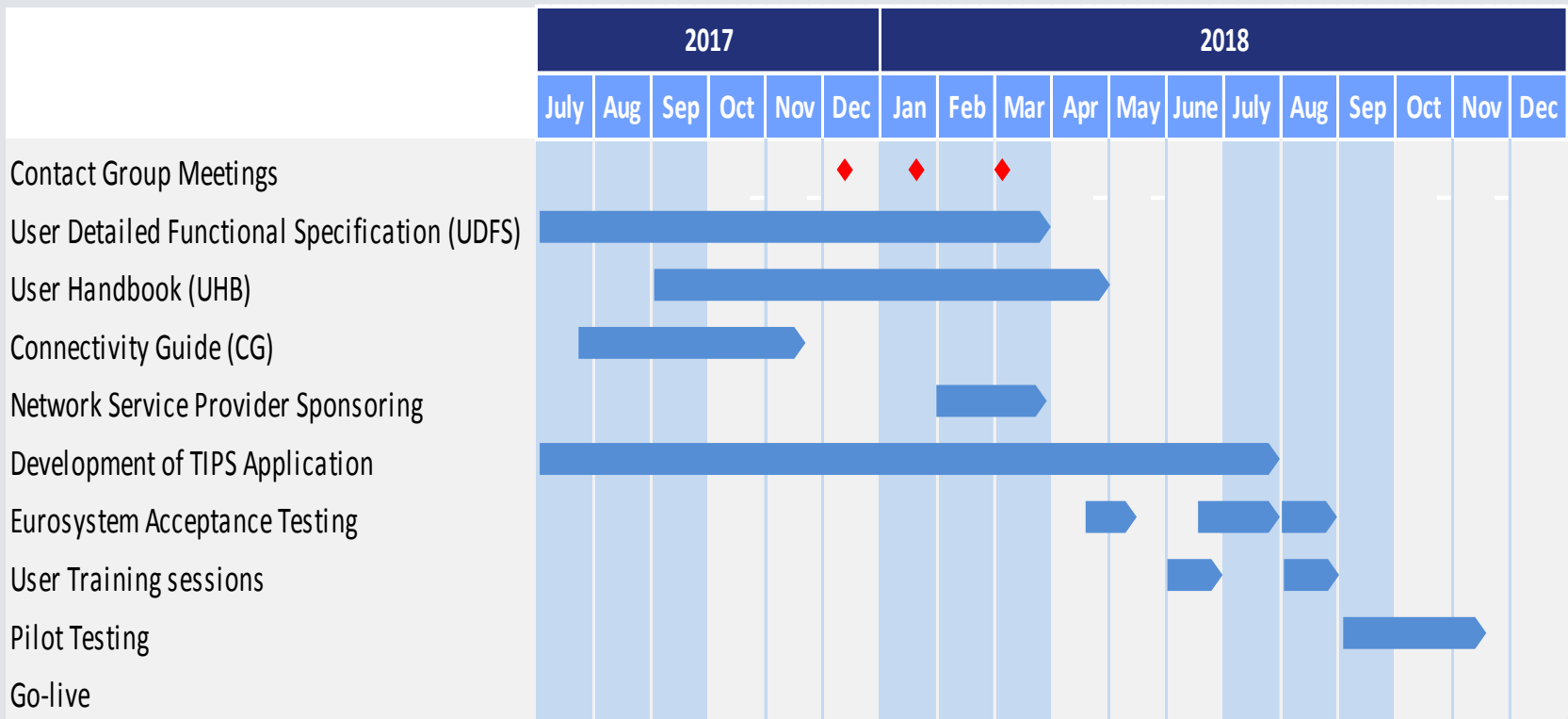
1. TIPS receives an instant payments transaction
2. TIPS validates and reserves the amount (conditional settlement)
3. TIPS forwards the transaction for acceptance to the beneficiary participant or the party acting on its behalf
4. TIPS receives a positive confirmation
5. TIPS settles the payment
6. TIPS confirms the settlement to the originator participant or the party acting on its behalf
7. TIPS confirms the settlement to the beneficiary participant or the party acting on its behalf

Use case: accounting process



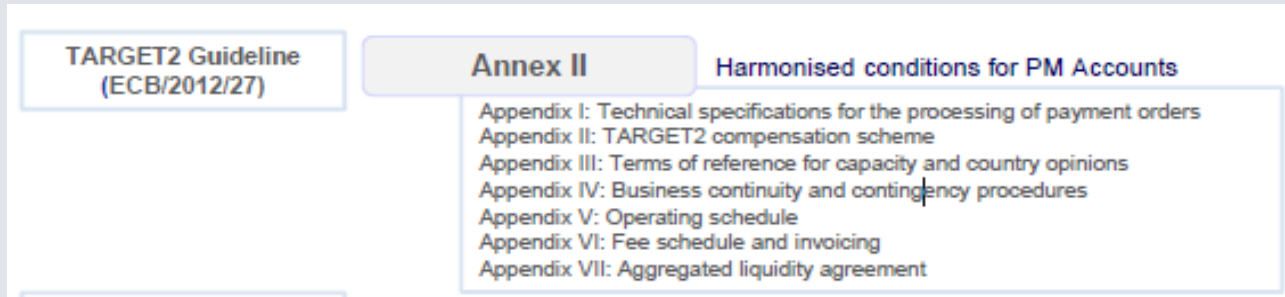
TIPS timeline

- ▶ Project endorsed by the Governing Council of the ECB in June 2017
- ▶ Timeline:



Amendment to the TARGET2 Guideline

- ▶ Harmonized conditions laid down in Annex II of the TARGET2 Guideline



- ▶ Modifications to be elaborated by a joint task force composed of legal and FMI experts





EUROPEAN CENTRAL BANK

EUROSYSTEM

TARGET2 in view of TIPS

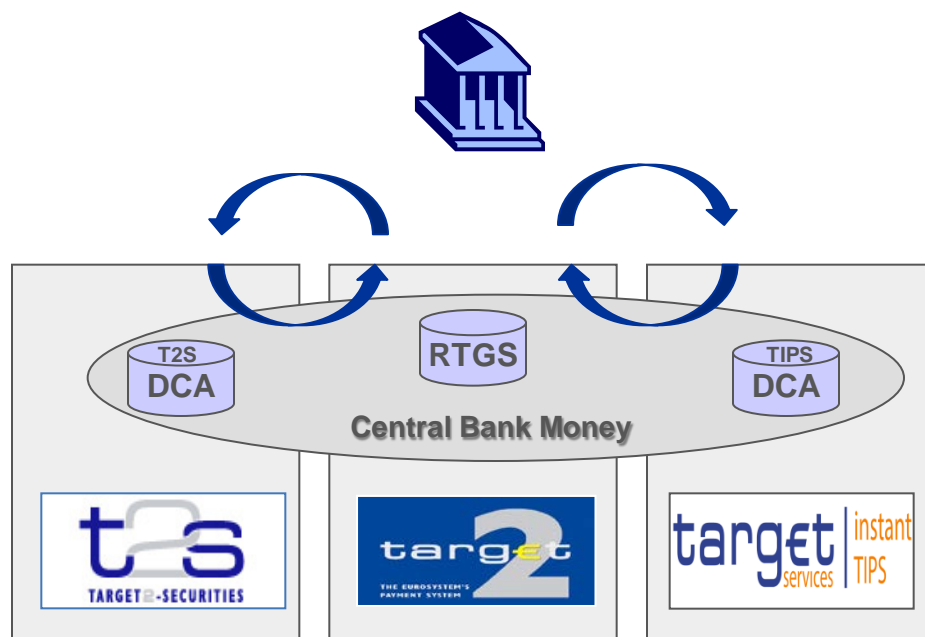
TIPS Contact Group

3rd Meeting on 13 December 2017

- 1 Overview
- 2 Liquidity management link
- 3 ICM liquidity management features
- 4 Reserve Management and Standing Facilities link

- 1 Overview**
- 2 Liquidity management link
- 3 ICM liquidity management features
- 4 Reserve Management and Standing Facilities link

Overview

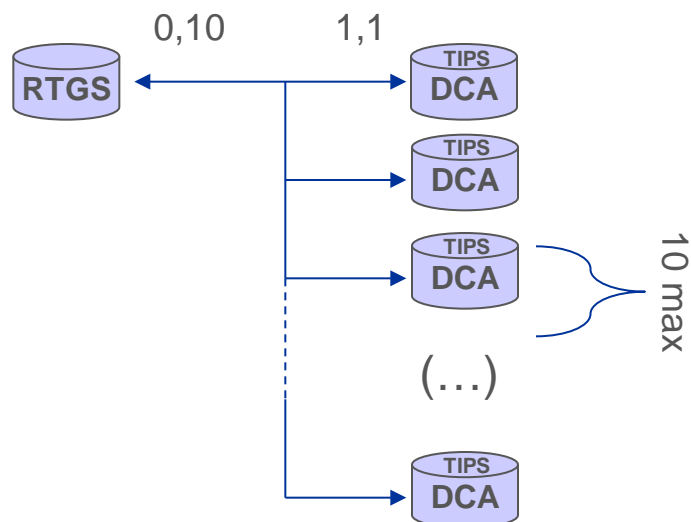


To properly manage their liquidity, participants need to:

- **monitor** each account real-time
- get a **consolidated** position real-time
- **push** liquidity from RTGS to DCAs
- **pull** liquidity from DCAs to RTGS
- manage fulfilment of **reserves**
- control recourse to **standing facilities**

- 1 Overview
- 2 Liquidity management link**
- 3 ICM liquidity management features
- 4 Reserve Management and Standing Facilities link

Liquidity Management (LM) link



The holder of the linked RTGS account is:

- responsible for **managing** the liquidity on the linked TIPS DCA(s)
- bound to **pay the fees** stemming from the usage of TIPS billable services

The LM link may be established between:

- accounts held by **different** legal entities
- accounts held by **different** Central Banks

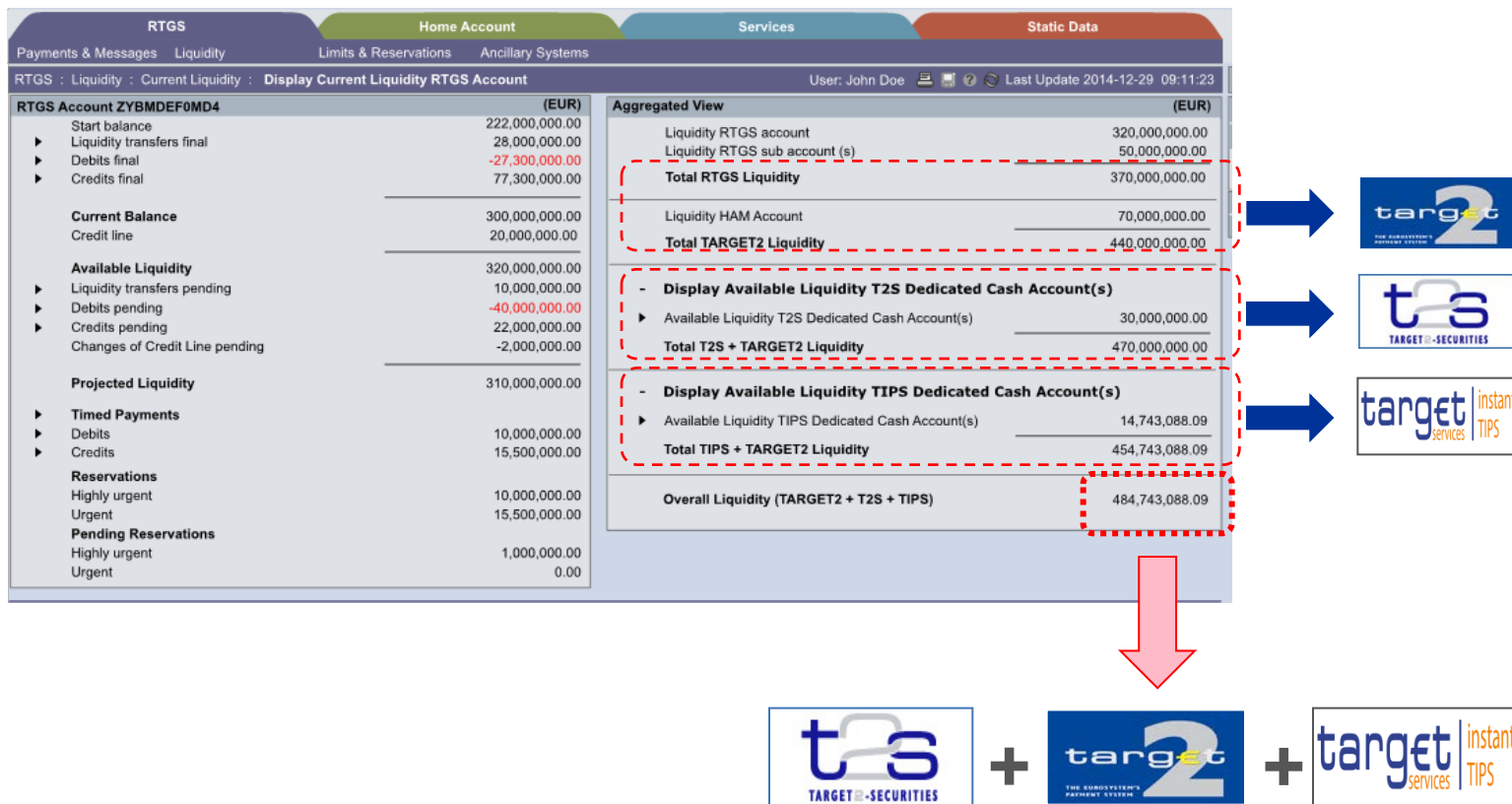
Any TIPS DCA may shift liquidity to **any** RTGS account and vice versa (i.e. irrespective of the LM link).

The LM link allows **access** to the liquidity management features of the ICM.



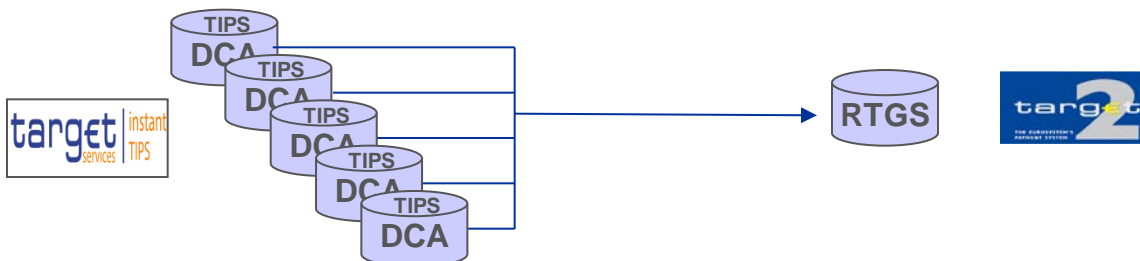
- 1 Overview
- 2 Liquidity management link
- 3 ICM liquidity management features**
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Liquidity management features (TARGET2 ICM)



Liquidity management features (TARGET2 ICM)

RTGS		Home Account		Services		Static Data	
Payments & Messages		Liquidity		Limits & Reservations		Ancillary Systems	
RTGS : liquidity : Current Liquidity : Dedicated Cash Accounts : Display Available Liquidity On TIPS Accounts						User: John Doe Last Update 2014-12-29 09:11:23	
Overview Available Liquidity on linked Dedicated Cash Account(s) in TIPS (EUR)				Current Liquidity on RTGS Account in TARGET2 (EUR) ▶ 20,763,125.12			
Dedicated Cash Account	Available DCA Balance (EUR)	Defined Standing Orders to TIPS (EUR)	Settled Standing Orders to TIPS (EUR)	Pending RTGS Debits to TIPS (EUR)	Settled RTGS Debits to TIPS (EUR)	Settled RTGS Credits from TIPS (EUR)	
○ C CZ EUR ZYBMDEF0MD4 0000000000000001	13,515,000.00	1.01	1.01	▶ 0.00	▶ 0.00	▶ 0.00	
○ C CZ EUR ZYBMDEF0MD4 0000000000000002	1,211,188.09	0.00	0.00	▶ 0.00	▶ 17.94	▶ 0.00	
○ C CZ EUR ZYBMDEF0MD4 0000000000000003	17,000.00	37.01	37.01	▶ 0.00	▶ 0.00	▶ 1,000,000.00	
○ C CZ EUR ZYBMDEF0MD4 0000000000000004	0.00	0.01	0.01	▶ 0.00	▶ 0.00	▶ 0.00	
⊙ C CZ EUR ZYBMDEF0MD4 0000000000000005	0.00	21.01	0.00	▶ 10.04	▶ 0.00	▶ 0.00	
Total Value of 5 entries (EUR)	14,743,088.09	59.04	38.03	▶ 10.04	▶ 17.94	▶ 1,000,000.00	



Liquidity management features (TARGET2 ICM)

RTGS		Home Account	Services	Static Data
Payments & Messages		Liquidity	Limits & Reservations	Ancillary Systems
RTGS : Liquidity : Liquidity Transfer TIPS Dedicated Cash Account		User: John Doe Last Update 2014-12-29 09:11:23		
RTGS Account BIC: ZYBMDEF0MD6 Name: Name_MD6 Account No.: CZPCINZYBMDEF0MD600000000000003023 Available Liquidity (EUR): 5,111,418.68		Transfer (EUR) Amount (EUR): <input type="text"/> Payment Reference: <input type="text"/> End to End ID (opt.): <input type="text"/>	TIPS Dedicated Cash Account Account No.: <input type="text"/> Name: Name_MD6 + Available Liquidity (EUR)	



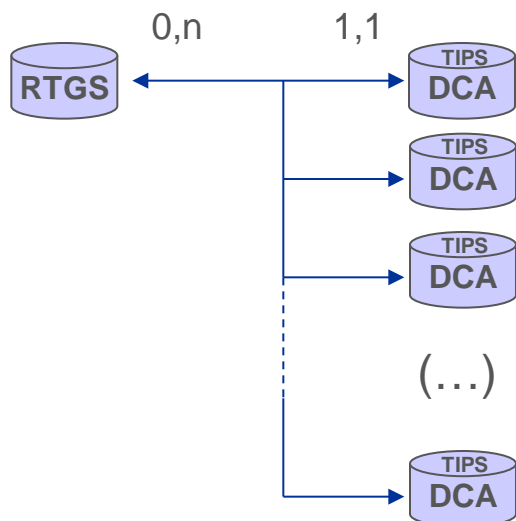
Liquidity management features (TARGET2 ICM)

- The liquidity management features of the ICM will be provided as part of the TARGET2 **core services** (no extra fee).
- No access to the **TIPS GUI** is required for liquidity management purpose for „**simple**“ business cases.
- In the event the TIPS participant is relying on an Instructing Party for exchanging SCTInst transactions, it may **discard** any direct connection to TIPS.
- Direct access to TIPS (U2A or A2A) is only necessary for more „**complex**“ set-up e.g. reachable parties with CMB.

- 1 Overview
- 2 Liquidity management link
- 3 ICM liquidity management features
- 4 Reserve Management and Standing Facilities link**

Reserve Management Standing Facility

(RM & SF) link



The overnight balance on the TIPS DCA is:

- subject to **same remuneration** rules as those applicable to the RTGS account;
- taken on board in the fulfilment of **minimum reserves** of the participant;
- taken on board in the automatic recourse to **standing facilities** for the account participant.

The RM link shall comply with the **GenDoc**. In particular the RTGS (or HAM) account and the linked TIPS DCA shall be held with the **same** Central Bank.

The RM and LM links are **independent** (i.e. a TIPS DCA may be linked to an RTGS account for LM link and to another RTGS account as RM link)



Reserve Management Standing Facility

(RM & SF) link

RTGS		Services	
Reserve Management	Standing Facilities	Administration	
Services : Reserve Management : Participant : Display Minimum Reserve			
Participant			
Participant BIC	XXXXXXXXXX		
Participant Name	XXXXXXXXXXXXXXXXXXXX		
Minimum Reserve			
Current Maintenance Period	From 2017-06-14	To 2017-07-25	
Minimum Reserve (EUR)	0.00		
Total Minimum Reserve (EUR)	0.00		
Fulfillment of Minimum Reserve			
	Current Balance (EUR)	End of Day Balance	Previous Day (EUR)
- RTGS Account	51,788,017.49	51,788,117.49	
TIPS Account		1,788,017.49	
Running Average (EUR)	4,349,071.72		
Adjustment Balance (EUR)	0.00		



Closing balance
RTGS account

Closing balance
TIPS DCA



Updated running average, which includes the closing balance of the RTGS account + TIPS DCA

(*) Only available when the Central Bank has subscribed to the Reserve Management module of TARGET2

Reserve Management Standing Facility

(RM & SF) link



Examples...

End of day balance



150€



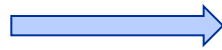
50€



$\left\{ \begin{array}{l} \text{Min. Res.} = 200\text{€} \\ \text{MLF (auto.)} = 0\text{€} \end{array} \right.$

-100€

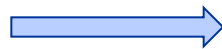
25€



$\left\{ \begin{array}{l} \text{Min. Res.} = 0\text{€} \\ \text{MLF (auto.)} = 75\text{€} \end{array} \right.$

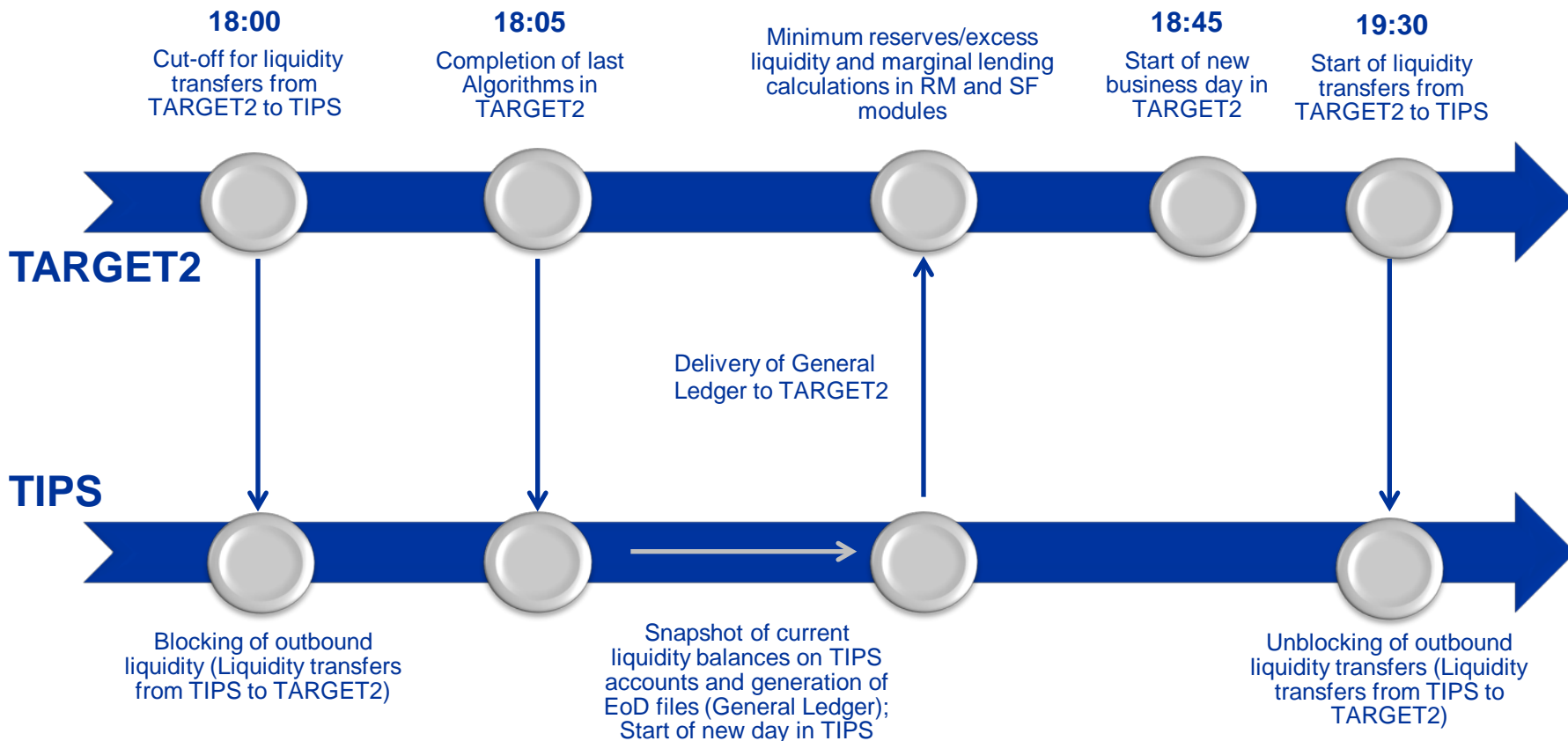
-100€

250€



$\left\{ \begin{array}{l} \text{Min. Res.} = 150\text{€} \\ \text{MLF (auto.)} = 0\text{€} \end{array} \right.$

Timeline of EoD procedures in TARGET2 and TIPS and calculation in RM module



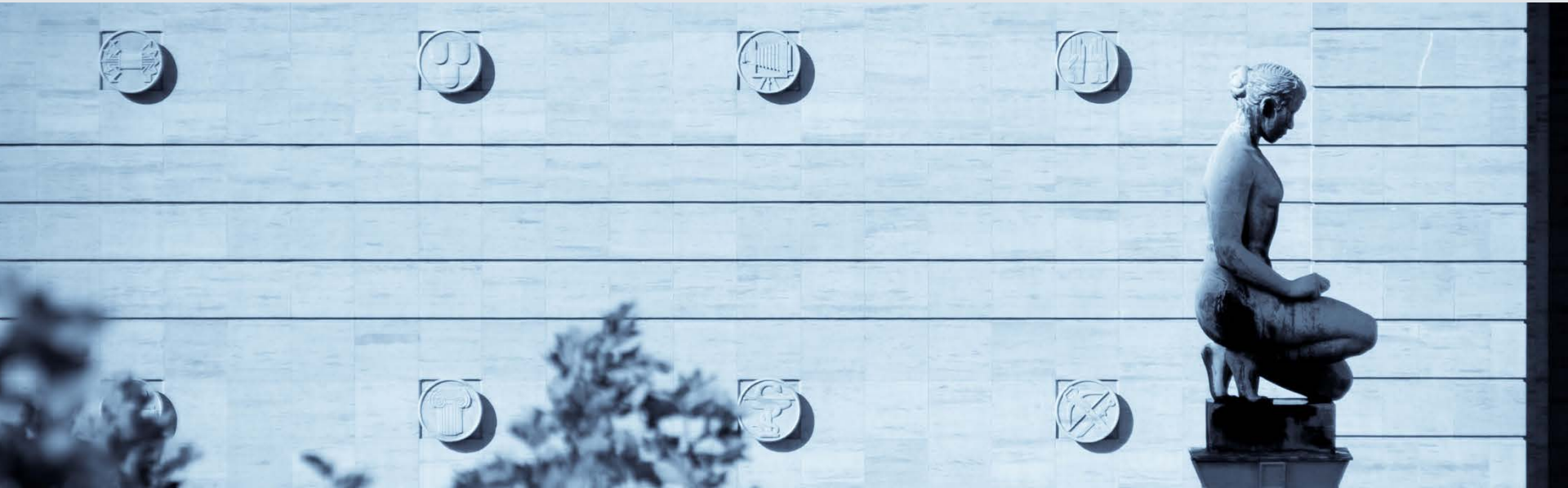
 **TIPS@ecb.int**

www.ecb.europa.eu/paym

 **ECB: market infrastructure and payments**

Role of the National Bank

Thomas Lambrecht

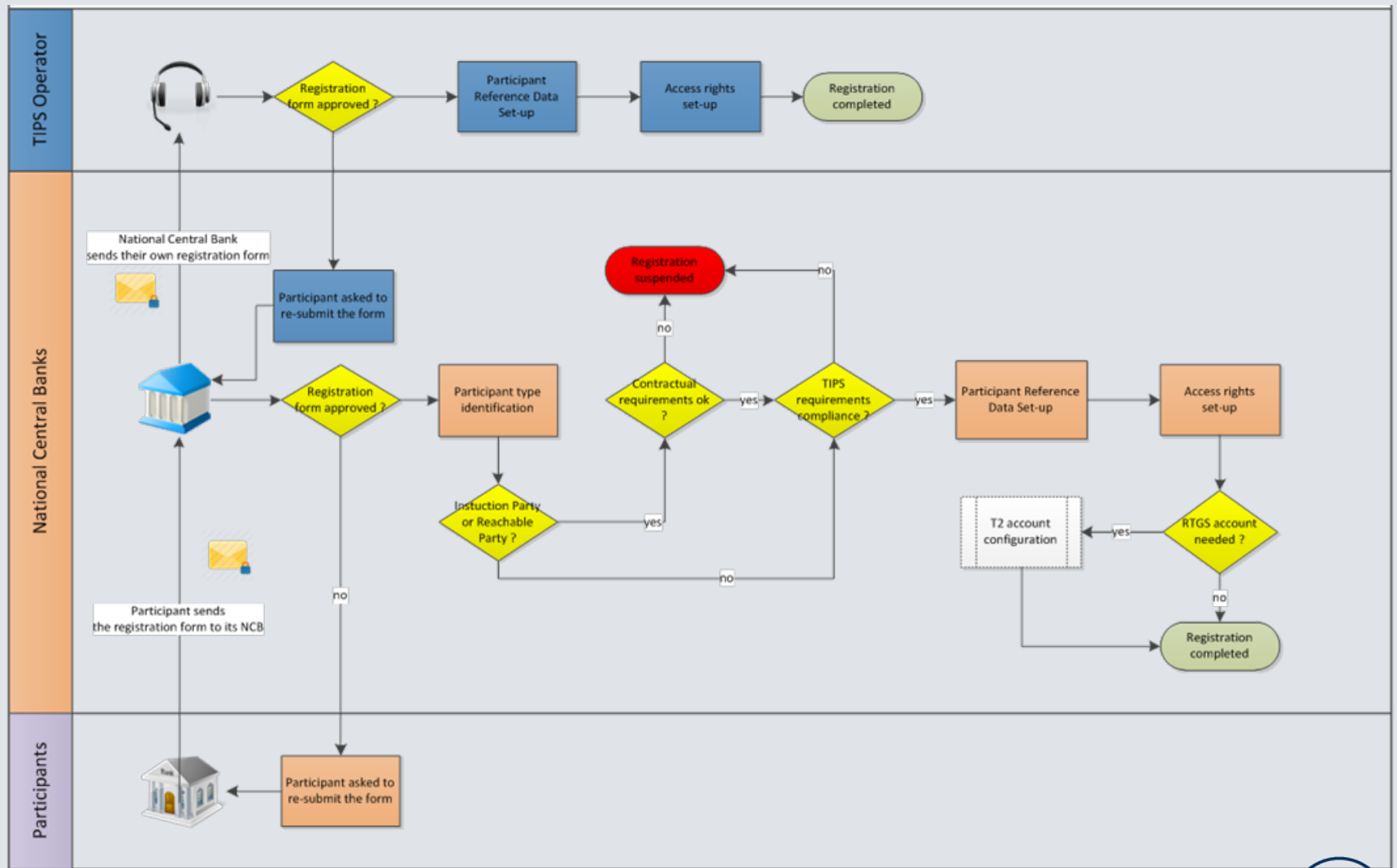


Role of the NBB

- ▶ Setup and maintenance of common reference data



Reference Data Registration Process



Which common reference data (CRDM)?

Entity	Possible operations	Responsible Actors(s)	U2A availability	A2A availability
Actor	Create, Update, Delete	TIPS Operator, CB	Yes	Yes
Account	Create, Update, Delete	TIPS Operator, CB	Yes	Yes
CMB	Create, Update, Delete	TIPS Operator, CB, Participant	Yes	Yes
Report Subscription	Create, Update, Delete	All TIPS Actors	Yes	No
BIC	Create, Update, Delete	TIPS Operator	Yes	No
BIC-DN Routing Table	Create, Update, Delete	CB, Participant	Yes	No
Currency	Create, Update, Delete	TIPS Operator	Yes	No
System Settings	Create, Update, Delete	TIPS Operator	Yes	No
User	Create, Update, Delete	TIPS Operator, CB, Participant, Reachable Party	Yes	No
Role	Create, Update, Delete	TIPS Operator	Yes	No
Role-User Grant	Create, Update, Delete	TIPS Operator, CB, Participant, Reachable Party	Yes	No
RTGS Status	Create, Update, Delete	TIPS Operator	Yes	Yes



Common reference data setup by NBB

▶ Process:

- Actors
 - Participant
 - Reachable party
- Accounts (TIPS DCAs)
- Users
- Grant roles



Users and roles

- ▶ Any individual or application interacting with TIPS is identified by a Distinguished Name (DN)
 - `<cn=smith,ou=tips-ops,o=bnkacct,o=nsp-1>`
- ▶ Certificates are issued by each NSP
- ▶ The actions a user can perform in TIPS are defined by the roles assigned to them



Users and roles

- ▶ Central Bank party administrators grant roles to party system administrator
- ▶ System administrator creates users (defined by DN) for its party
- ▶ System administrators can assign roles to their users



Common reference data setup

- ▶ CMBs: can be created by participants or NBB on their behalf
- ▶ BIC-DN routing table:
 - Instructing Parties are DNs that are authorised to send instructions on behalf of a specific BIC. Defined by DN-BIC routing table set up within the CRDM.
 - Can be defined by CB or Participant



Common Reference data setup

- ▶ Data is propagated to TIPS on a daily basis
- ▶ Shortly before the business day change of TARGET2
- ▶ available 5 days a week, 22 hours a day
- ▶ More urgent functions: TIPS GUI (24/7/365)



Functions Available in TIPS GUI

Type	Description
Query	Account balance and status query
Query	CMB limit and status query
Query	Payment transaction and status query
Local reference data	Blocking/Unblocking of a Participant
Local reference data	Blocking/Unblocking of an Account
Local reference data	Blocking/Unblocking of a CMB
Local reference data	Increase/Decrease of a CMB limit



Role of the NBB

- ▶ Setup and maintenance of common reference data
- ▶ Blocking



(Un)Blocking

▶ Cental Bank only:

- Participant
- TIPS Account
- Can be credit, debit or both
- Bank failure



Role of the NBB

- ▶ Setup and maintenance of common reference data
- ▶ Blocking
- ▶ Contingency “Act on behalf”
 - In TIPS
 - In TARGET2



“Act on behalf” in TIPS GUI

- ▶ Modify CMB limit
- ▶ (Un)Block CMB
- ▶ Queries:
 - Instant Payment Transaction status
 - CMB limit and status
 - Account balances and status
- ▶ Outbound Liquidity Transfer from TIPS to RTGS



“Act on behalf” in TARGET2

- ▶ Liquidity Transfers
 - Outbound (push) to TIPS
 - Inbound (pull) from TIPS
- ▶ Limited to TARGET2 operating hours for LTs



“Act on behalf”

- ▶ Contingency procedures on NBB website
- ▶ Forms to be updated for TIPS



Role of the NBB

- ▶ Setup and maintenance of common reference data
- ▶ Blocking
- ▶ Contingency “Act on behalf”
 - In TIPS
 - In TARGET2
- ▶ Approval of CGU subscription



CGU Subscription Approval

- ▶ Closed Group of Users created and managed by Network Service Provider
- ▶ Subscription via electronic workflow
- ▶ To be approved by:
 1. Responsible Central Bank
 2. The TIPS Operator
- ▶ Activation max. 2 weeks after TIPS Operator approval.




Support Hours

- ▶ All TARGET2 Business Days
- ▶ Support hours aligned to standard TARGET2 business hours
- ▶ 24/7 on call technical support by TIPS Operator for connectivity issues



National Service Desk

- ▶  +32 2 221 20 45
- ▶  Target2.helpdesk@nbb.be
- ▶  **National Bank of Belgium**
Payments and Securities
Helpdesk Target2
Boulevard de Berlaimont 14
1000 Brussels



Network Service Provider

- ▶ Services to be provided:
 - Network connectivity;
 - Messaging services:
 - U2A GUI
 - A2A mode: messages and reporting
 - Security services: PKI and closed group of user management;
 - Operational services support and incident management.
- ▶ U2A actor identification and authentication
 - Certificates in a smart-card or USB token.

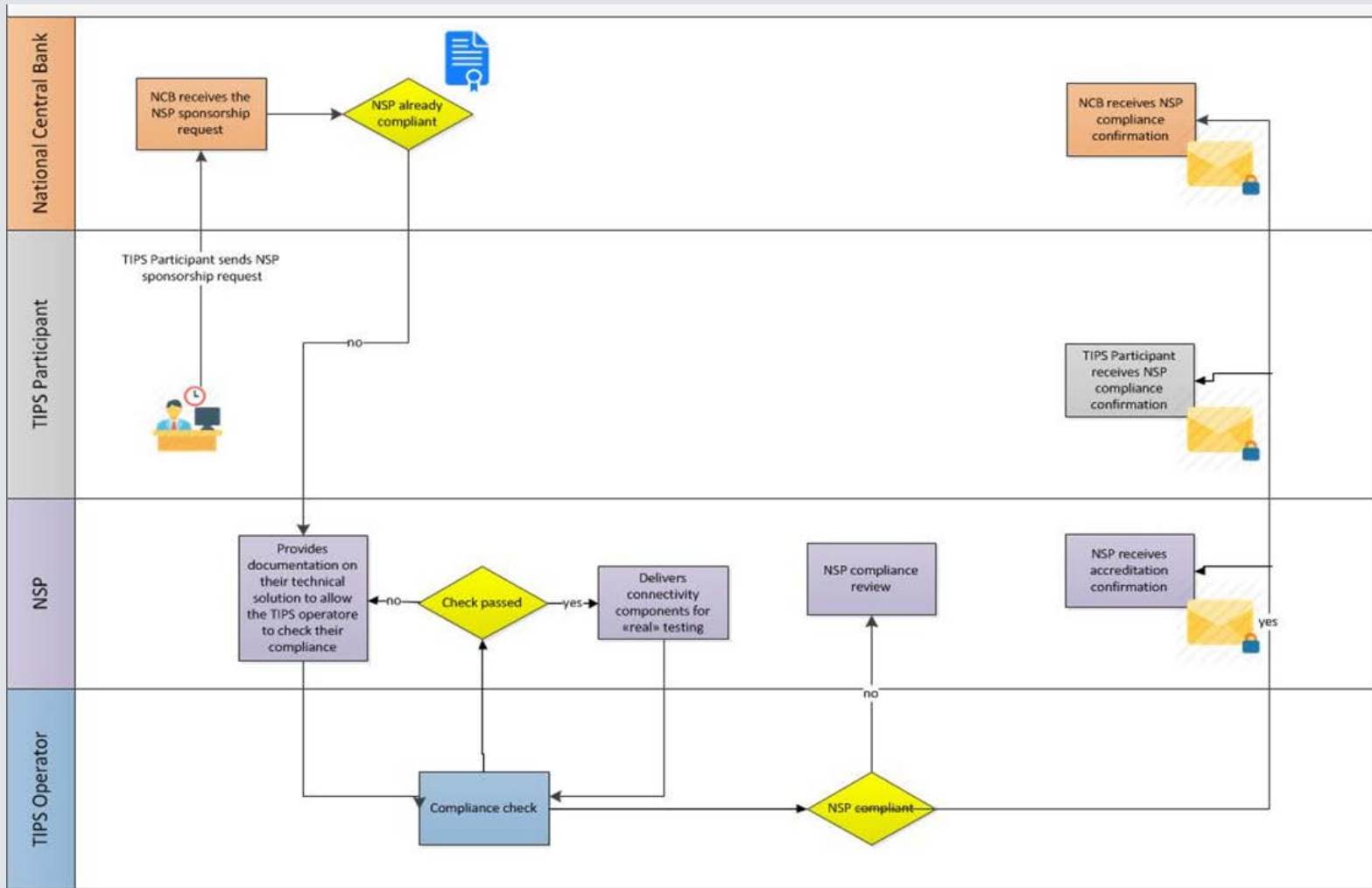


Role of the NBB

- ▶ Setup and maintenance of common reference data
- ▶ Blocking
- ▶ Contingency “Act on behalf”
 - In TIPS
 - In TARGET2
- ▶ Approval of CGU subscription
- ▶ NSP Sponsoring



Network Service Provider sponsoring



Network Service Provider sponsoring

1. Send NSP sponsorship request to NBB using specific form.
2. NBB check: NSP already certified?
 - Yes: feedback to participant
 - No: NBB shall request technical documentation from NSP
3. NSP delivers documentation to TIPS operator



Network Service Provider sponsoring

4. TIPS operator verifies documentation:
 - Documentation approved; NSP delivers connectivity components for testing.
 - Documentation rejected; NSP may make adjustments and retry in following compliance check window.

5. TIPS Operator executes compliance check testing on NSP infrastructure:
 - Successful: NSP is certified
 - Unsuccessful: NSP may retry in following compliance check window.



NSP Sponsoring timeline

- ▶ Sponsoring starts end January
- ▶ Process duration approx. 4 months
- ▶ Frozen period 6 months after go-live:
 - No sponsorship procedures
- ▶ Draft connectivity requirements on [ECB website](#) (April 2017)
- ▶ Final version by end January



Changing NSP

- ▶ Dismissal of current NSP:
 1. TIPS actor communicates intention to NBB
 2. NBB forwards to NSP
 3. NSP removes TIPS actor from CUG
 4. NSP confirms completion to NBB
 5. NBB updates Reference Data in TIPS

- ▶ New NSP registration process follows NSP sponsoring procedure.



TIPS Billable Items

- ▶ Pricing: max. €0,0020 per instant payment transaction for first two years of operation
- ▶ Working assumption:
 - No entry or fixed fees
 - Billable items: Transaction related services, account management services and information services
 - Instant payments and recalls charged
- ▶ Awaiting approval from Market Infrastructure Board



Conclusions

- ▶ Go live end of November 2018
- ▶ Participation mode
- ▶ NSP choice/sponsor as from February 2018
- ▶ Pilot testing in September 2018

- ▶ Questions?



Thank you for your attention!

