



EUROPEAN CENTRAL BANK

EUROSYSTEM

**ECB**  
DG-MIP  
T2-T2S Consolidation Project Team

# T2-T2S Consolidation

## Outcome of the market consultation

AMI-Pay meeting

29 September 2017

## Statistics

<b>URD</b>	<b>Institutions</b>	<b>Comments</b>
CLM	62	831
RTGS	59	646
SHRD	56	981
Glossary	22	68
<b>TOTAL</b>		<b>2526</b>

- The market consultation on the user requirements for the future RTGS services took place between 10 May and 30 June 2017
- The user requirements are divided into three documents
  - URD for the Central Liquidity Management
  - URD for the RTGS Services
  - URD for the Shared Services



EUROPEAN CENTRAL BANK

EUROSYSTEM

**ECB**  
DG-MIP  
T2-T2S Consolidation Project Team

# T2-T2S Consolidation

## High-level Summary of Business Changes

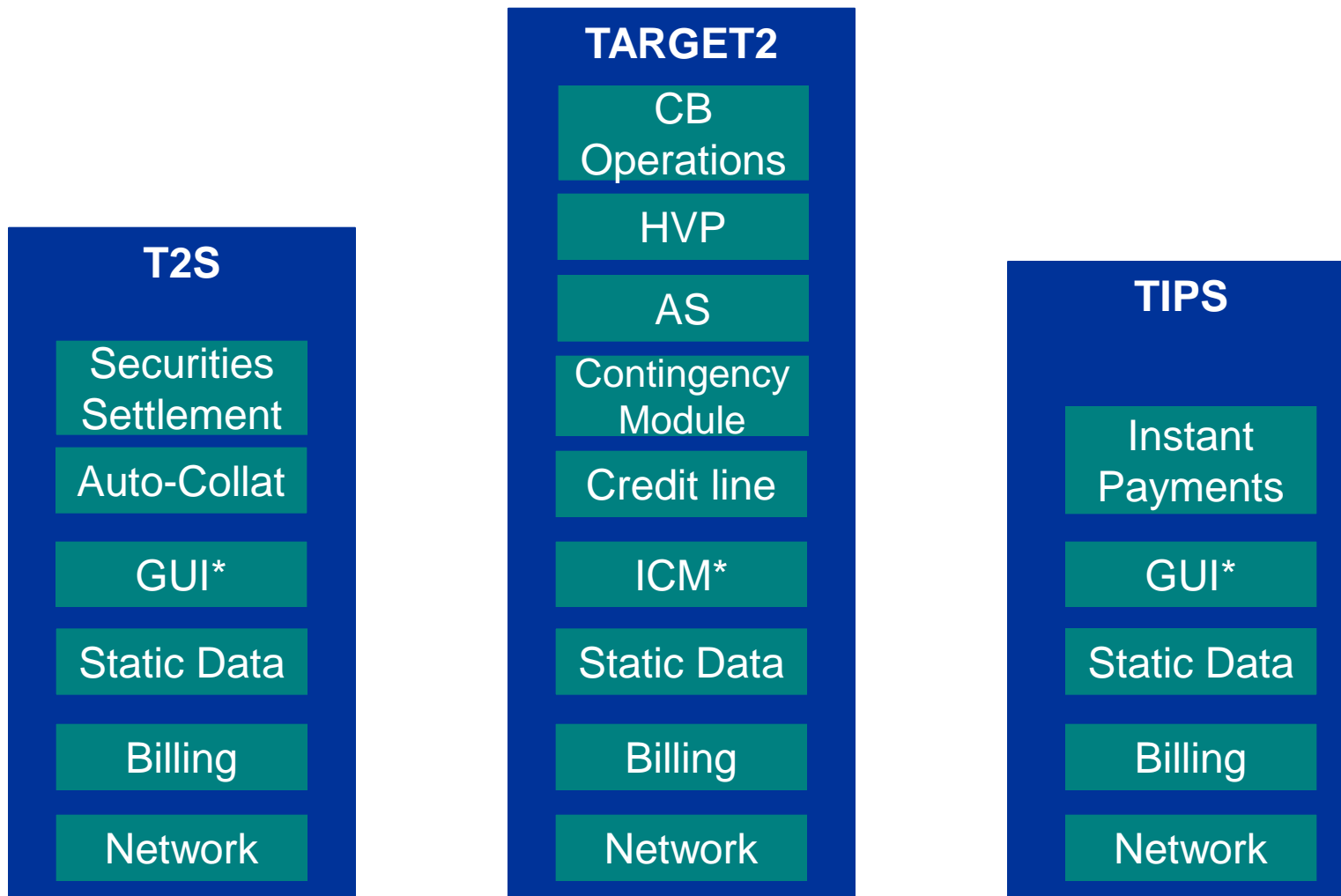
*Changes compared to the presentation to AMI-Pay and MMCG workshop  
(26 June) are highlighted*

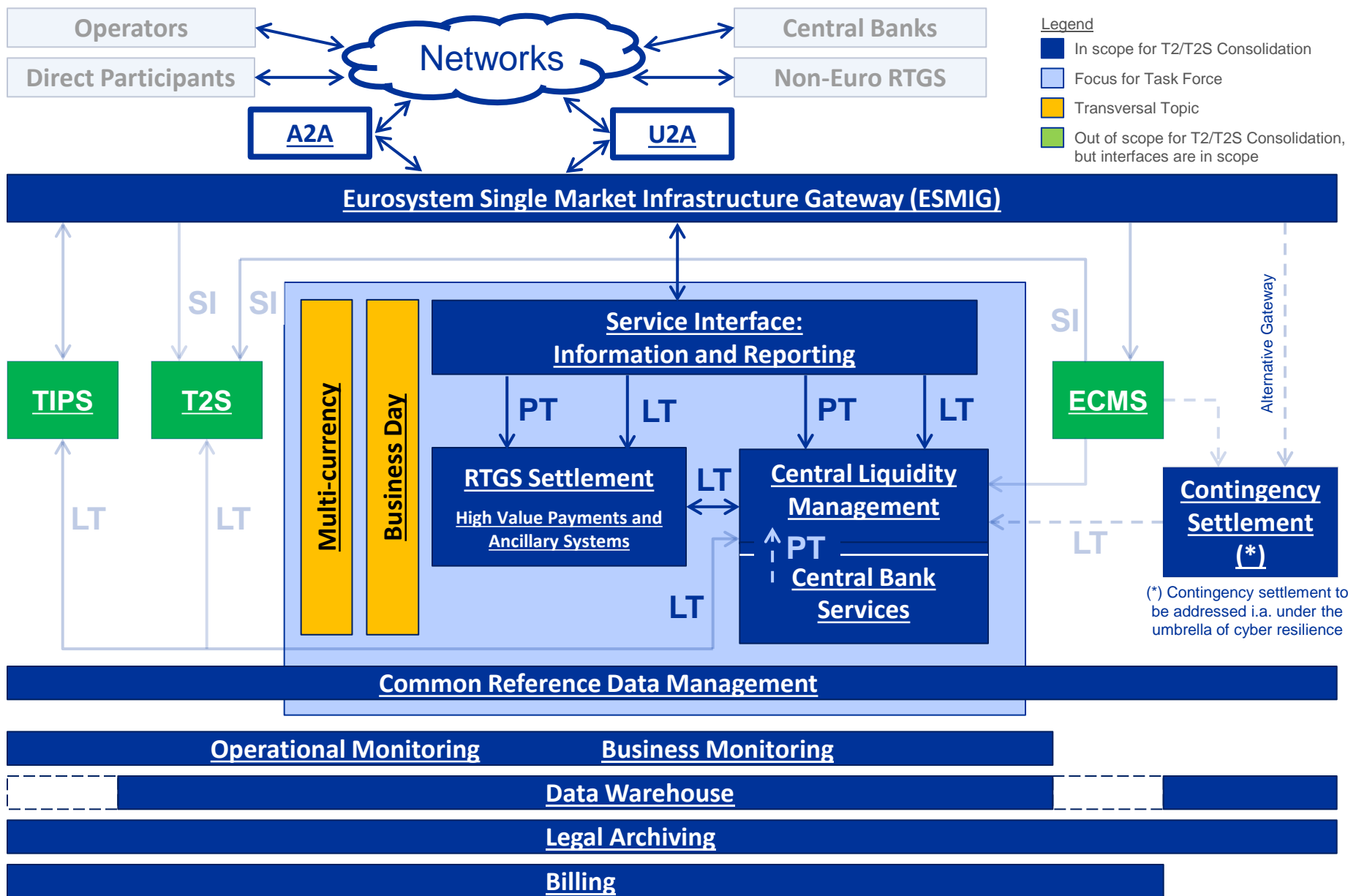
AMI-Pay meeting  
29 September 2017

# Overview

- 1 Modular Approach**
- 2 Central Liquidity Management (CLM)
- 3 Shared Services
- 4 RTGS and Ancillary System Settlement
- 5 High level Project Plan and Go-live

# Situation after the start of TIPS





Main Business Flows: PT – Payment Transaction; LT – Liquidity Transfer; SI – Settlement Instruction (Not exhaustive)

# Overview

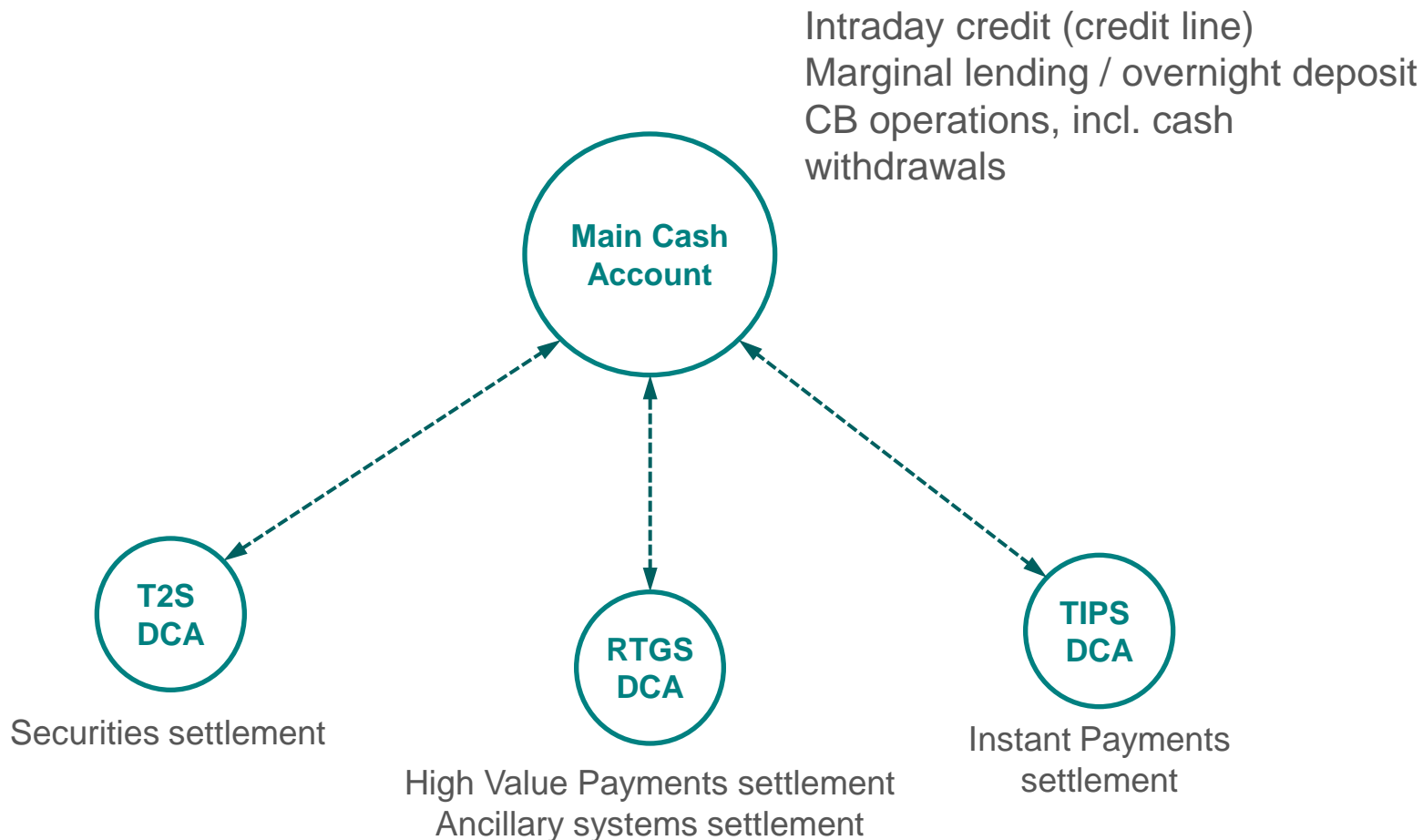
- 1 Modular Approach
- 2 Central Liquidity Management (CLM)**
- 3 Shared Services
- 4 RTGS and Ancillary System Settlement
- 5 High level Project Plan and Go-live

## Features

- Provides a Main Cash Account that can be used for:
  - Holding minimum reserves
  - Participating in monetary policy operations
  - Accessing intraday credit
  - Accessing standing facilities
  - Funding cash withdrawals
  - Any interaction with Central Banks in their role as Central Bank of issue
- Centralises all necessary features to manage the liquidity across all Eurosystem services that a participant uses
- Provides a central liquidity overview (“Dashboard”) in a single screen with easy access to more detailed information
- Enables the usage of available payment capacity whenever one of the connected services is open for business (weekends still under analysis)



## Account Structure



## Advantages

- Allows a clear allocation of liquidity for the different settlement purposes (i.e. RTGS, T2S, TIPS)
- Segregates interaction with central banks from RTGS participation (i.e. no RTGS DCA needed for monetary policy purposes)
- Automation allows event based management of liquidity for services, e.g. if the balance falls below a certain floor amount or if payments are pending\*

*\*) requires support from the related settlement service*

## Grouping of accounts

- **Banking Group**

- An entity allowing a number of Parties to be viewed collectively for certain business purposes, such as oversight and regulation

- **Account Monitoring Group**

- An optional clustering of cash accounts for liquidity monitoring purposes

- **Liquidity Transfer Group**

- An optional clustering of cash accounts for the purpose of arranging liquidity transfers between them on a Whitelist basis

Central Banks can set up all these aspects independently from each other based on the registration forms

# Whitelist

- A list of either:
  - accounts from which liquidity transfers are accepted; or
  - accounts to which liquidity transfers are authorised
- By default, all following liquidity transfers will be exempted from the Whitelist check
  - To and from CB Accounts, as liquidity transfers involving such accounts cannot be restricted
  - Between accounts belonging to the same Party
- The accounts in the Whitelist can belong to any Party defined in the system
  - Liquidity transfers within the same service, the accounts in the Whitelist must be a subset of the accounts in the Liquidity Transfer Group
  - Liquidity transfers between two different services, the accounts in the Whitelist can belong to any Party (i.e. no limitations based on Liquidity Transfer Group)
  - As long as T2S EOD cash sweep is mandatory, these sweeps overwrite the Whitelist check
- Whitelists are set up by participants

## Automation available



- Allocation of liquidity to the different settlement services is in the hands of the treasury
- New features allow to configure automated adjustments based on events (in addition to scheduler ~~time~~-based events ~~standing orders~~)

Event	Potential adjustment
Ceiling amount reached on a DCA	Transfer of liquidity exceeding a defined amount to the MCA
Floor amount reached on a DCA	Transfer of liquidity from the MCA to reach a defined amount on the DCA again
Unsettled payment on the DCA	Transfer of liquidity to reach the payment's amount from the MCA (subject to payment priority)

## Automation available

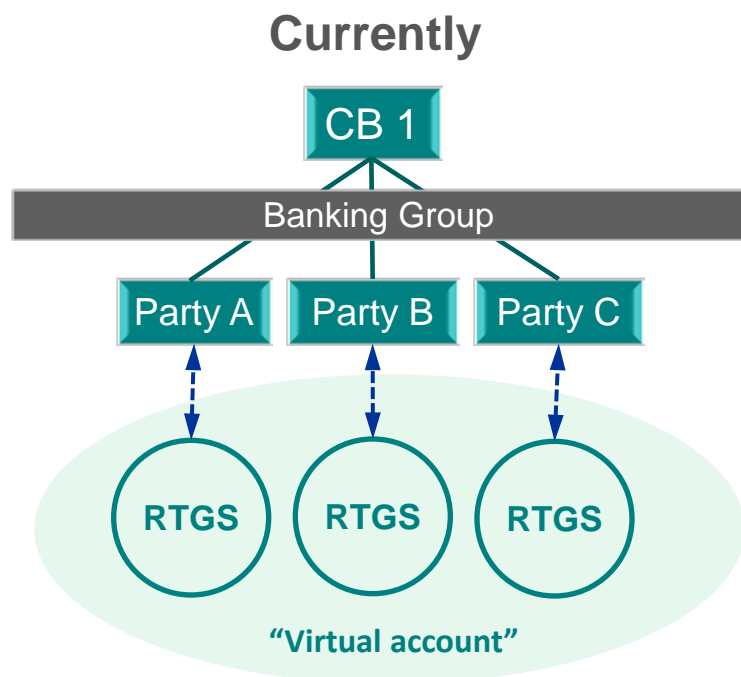


- All operations ~~and reservations~~ on the Main Cash Account have higher priority than all RTGS DCA operations ~~and reservations~~
- Any pending transaction on the Main Cash Account will automatically trigger liquidity transfers from RTGS DCAs of the same party (mandatory, no configuration needed)
- A ceiling ~~floor~~ amount can be specified on the Main Cash Account in order to automatically transfer liquidity (including liquidity available from the credit line) to a DCA

## Additional aspects

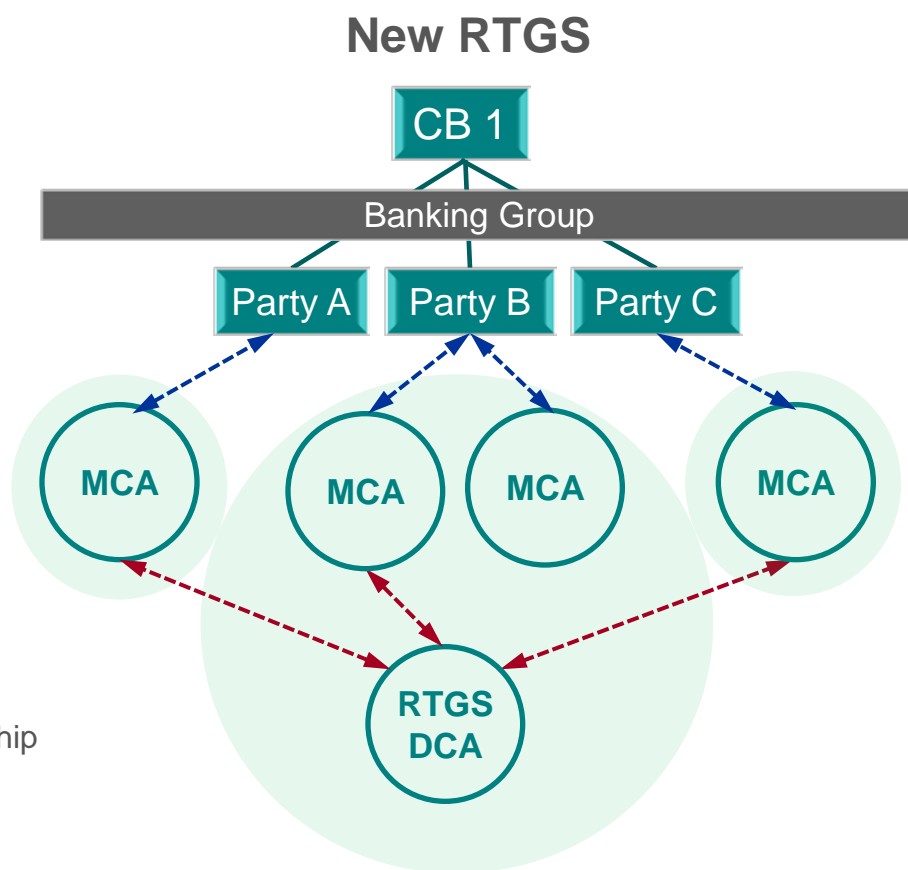
- Provides almost all the features that are available today for HAM/PHA accounts (*only support for “CB customers” is not foreseen*)
- Reserve management and automated standing facilities are technically capable to take all balances into account potentially eliminating the need for physical cash sweeps at EOD
- Currently available co-management of HAM accounts can be reflected via access rights and message subscription in a flexible way

# Additional aspects – setup of accounts



↔ CB-Party relationship

↔ Funding relationship



- More flexible setup of accounts makes virtual accounts superfluous



# Overview

- 1 Modular Approach
- 2 Central Liquidity Management (CLM)
- 3 Shared Services**
- 4 RTGS and Ancillary System Settlement
- 5 High level Project Plan and Go-live

## Common Reference Data

- Reduces effort of creating and maintaining multiple copies of reference data
- Enables a central (by Central Bank) blocking of parties across the different services
- Centralised management of user access rights in terms of functionality and data access

## Shared Billing

- Aggregates relevant data provided by the different services into invoices based on a given pricing scheme
- Streamlines the creation of invoices as data is directly aggregated to the required level for all Eurosystem counterparties
- Granularity and pricing of billing items is to be defined by the different services (in line with their pricing scheme)
- Flexibility regarding party triggering a billable event, party to be billed and party to be charged remains

## Data Warehouse

- Shared Data Warehouse will allow to consolidate data across different services (i.e. T2S, RTGS, ~~TIPS\*~~, CLM etc.)
- Provides access to historical data to participants via reports, pre-defined and ad-hoc queries enabling user specific configuration as needed
- Optimises the provision of reporting services as it reduces the impact of queries and reports on live operations by retrieving the data from the data warehouse instead of production

\* Storing of TIPS data in DWH will be assessed once TIPS has defined its respective requirements

## Eurosystem Single Market Infrastructure Gateway

- Provides a shared communication infrastructure for all services
- Allows Single Sign-on for GUI across the different services including user authentication, signing, signature validation, logging and archiving of messages
- Multi-vendor approach, i.e. communication will be network agnostic and not rely on proprietary features of VAN providers
- Communication will be using ISO 20022 compliant formats (the actual ISO20022 standard where available)

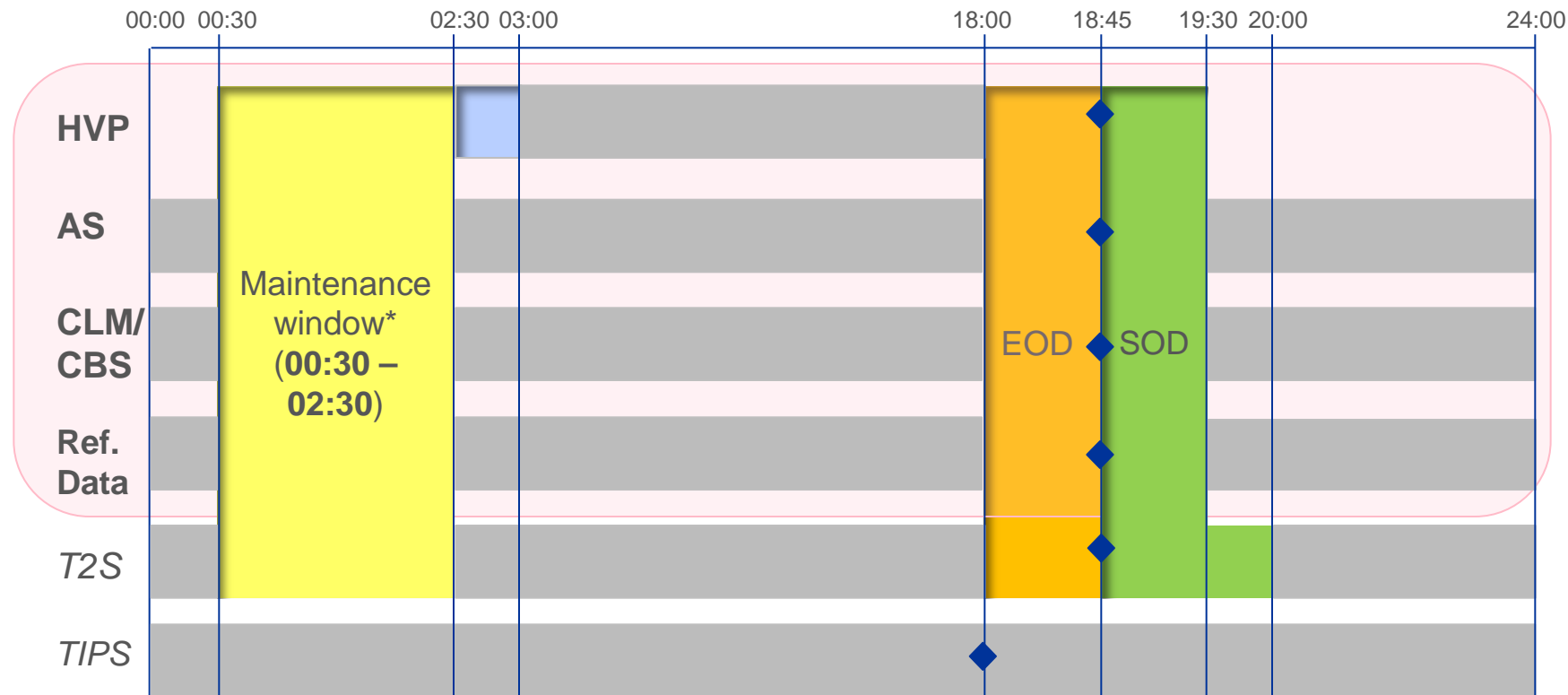
## Additional aspects – Migration to ISO 20022

- The migration to ISO 20022 messaging format will change the communication from current Y-copy to V-shape
- The migration will take place with a Big-Bang approach at the time of introduction of the new RTGS services
  - The service will not support two versions of a message standard in parallel
- The migration to ISO 20022 will follow the fully-fledged approach (incl. supported characters and field length) for payment business
  - The TARGET2 MX messages (currently supporting e.g. AS business) shall be harmonised to the extent possible with the ISO 20022 compliant messages used in T2S
- The Usage Guidelines of the HVPS+ Task Force will be taken into account

## Additional aspects - Minimum Reserve Calculation

- General Documentation for Minimum Reserve Policy is taken into account
- Creates technical possibility to consider for the Minimum Reserve Calculation all relevant accounts with the Eurosystem across all market infrastructure services
- Avoids unnecessary liquidity transfers at the end of the business day and the retransfer of the liquidity at the start of the next business day (a must for TIPS to work properly)
- T2S cash sweep would remain initially, but can be made optional later on

# Additional aspects – technical availability of services



18:00 – End of Day is the same in all services *and driven by CLM*

◆ 18:45 – Change of business day (except TIPS, where it is at 18:00, after closure of RTGS)

19:30 – Start of Day

00:30-02:30 – maintenance window in all services\* except TIPS

02:30-03:00 – in HVP amend / revoke warehouse payments

\*) to be agreed with the users of the relevant services



## Additional aspects – business day schedule

- Timing of EOD/SOD activities (e.g. standing facilities) should remain largely unchanged compared to today
- Within the technical availability times of a service, the following aspects are still to be discussed
  - Aligning the timing of the maintenance window across all Eurosystem market infrastructure services from 00:30-02:30 (*currently from 03:00-05:00 in T2S*)
  - Liquidity management during TARGET closing days to support instant payments clearing and settlement

## Additional aspects – Multi-currency

- One of the benefits expected by the T2-T2S Consolidation is to allow the future RTGS services to be multi-currency
- The service shall not offer any conversion feature between currencies settling within the same service
- Each currency may have its own closing days as well as its own business day schedule ~~with potentially different time for the change of business day~~
- The Payment-vs-Payment functionality was identified as a future potential change and shall not be implemented with the initial version of the service

# Overview

- 1 Modular Approach
- 2 Central Liquidity Management (CLM)
- 3 Shared Services
- 4 RTGS and Ancillary System Settlement**
- 5 High level Project Plan and Go-live

## Features – HVP Settlement

- HVP settlement procedures remains largely unchanged
- The participants can instruct Urgent and Normal priority payments
- Queued Urgent payments may trigger an automated liquidity transfer, e.g. a liquidity injection from the Main Cash Account
- Normal priority payments benefit from currently available liquidity saving mechanisms (e.g. entry disposition with offsetting features, highly efficient optimisation algorithms)
- Reservations for Highly-Urgent and Urgent payments remain with the same functionality as today
- HVP settlement is possible ~~Earlier opening hours (as of 03:00 am) for HVP settlement are under consideration~~

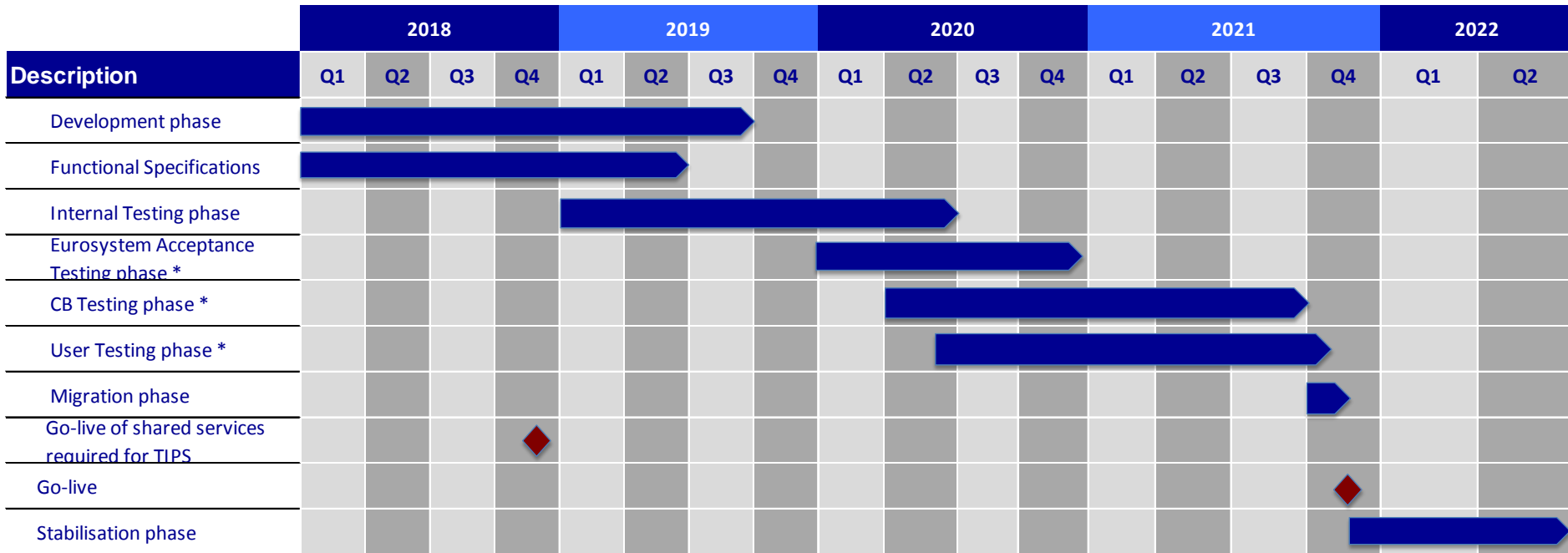
## Features – AS Settlement

- AS settlement will be streamlined to provide the functionality that is still required for:
  - Linked Settlement with Debits first (previous model 4)
  - Linked Settlement with All-or-nothing (previous model 5)
  - Interfaced model with dedicated sub-account (previous model 6-interfaced)
  - Integrated model with AS technical accounts (previous model 6-real time)
- Other models can be handled with liquidity transfers and individual payments to/from the AS
- All supported AS settlement models will be available throughout the whole business day, i.e. also during NTS

# Overview

- 1 Modular Approach
- 2 Central Liquidity Management (CLM)
- 3 Shared Services
- 4 RTGS and Ancillary System Settlement
- 5 High level Project Plan and Go-live**

## Project schedule



\* covering preparation and execution in equal proportions

**Thank you for your attention**