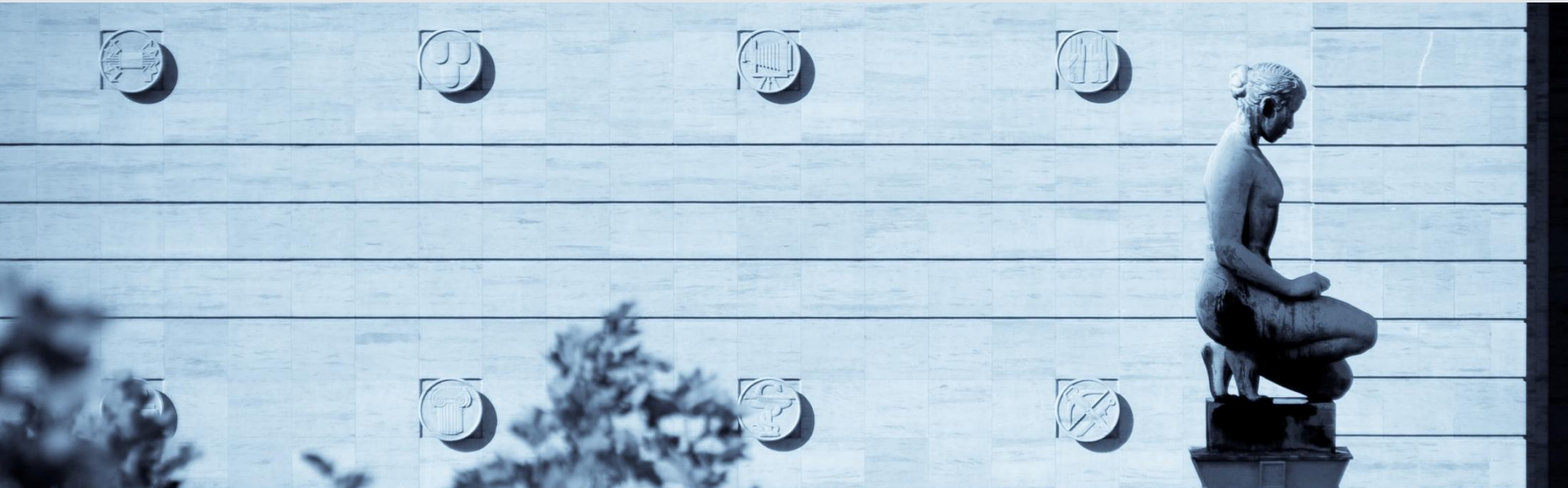


# T2S Testing

07 May 2015

Rudi Verschaeren



# NBB testing Without payment banks

- ▶ Interoperability testing (EAC): NBB to test:
  - Connectivity and static data set-up
  - Bilateral interoperability: mock entity set-up:
    - ◆ Certification testing
    - ◆ Authorisation testing:
      - » NBB as T2S system entity
      - » NBB as central bank
      - » NBB as collateral manager
      - » NBB own business
    - ◆ Simulation functionalities used by payment banks
    - ◆ Simulate directly connected parties
  - Multilateral interoperability:
    - ◆ Production like system entity configuration with subset of static data
    - ◆ Includes testing of operational procedures



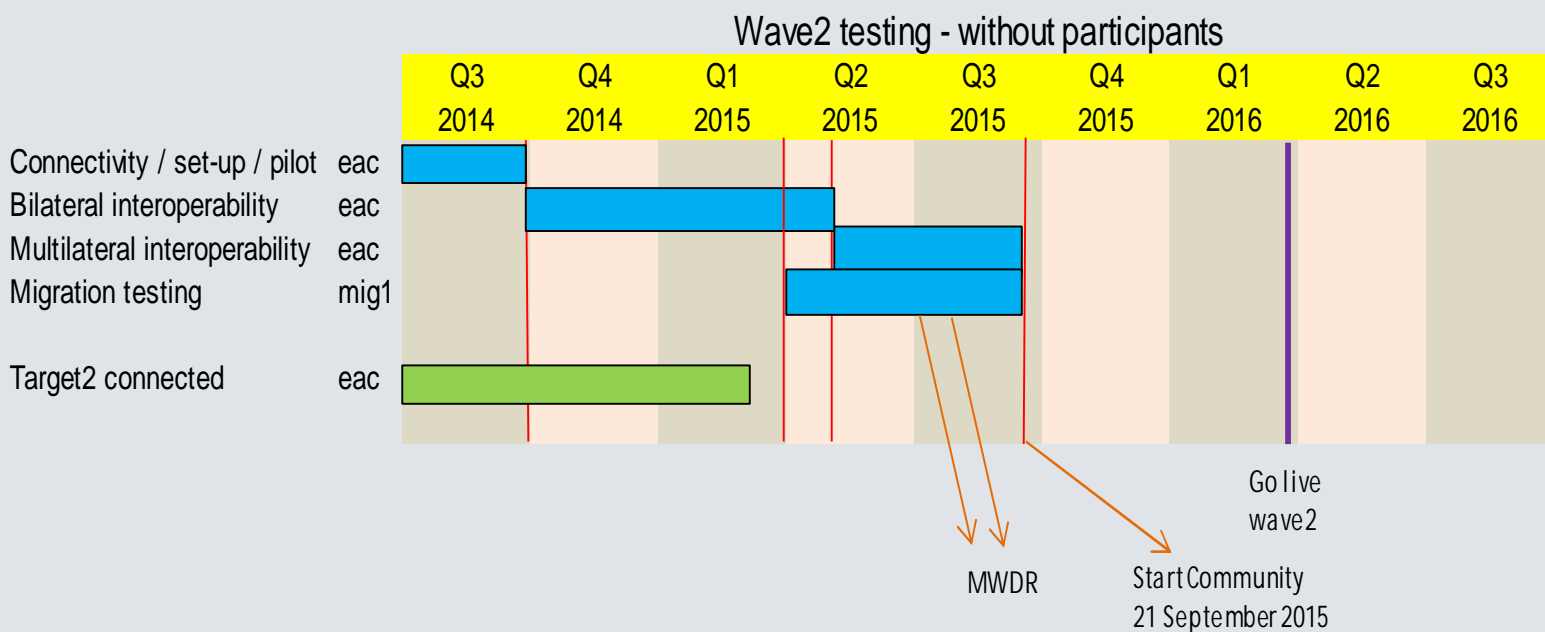
# NBB testing Without payment banks

- ▶ Migration testing (MIG1):
  - NBB to test with all actors of migration wave2:
    - Validation of:
      - ◆ Tools provided by T2S to upload data
      - ◆ Planning of the migration weekend
      - ◆ Contingency scenario's
    - Testing of
      - ◆ Pre-migration: upload of static data following the pre-migration schedule
      - ◆ Migration: upload of transactional data
    - Via:
      - ◆ Rehearsal : subset of static and dynamic data
      - ◆ Dress rehearsal: production like set of static and dynamic data followed by three operational days
      - ◆ PMR - MWR -/- PMDR - MWDR



# NBB testing Without payment banks

- At least 2 MWDR to be performed:
  - July 3-4/2015
  - August 8-9/2015
  - September 5-6/2015 (optional)



# Community testing stage

- ▶ Community test environment : MIG2
  - Dedicated to Community and Business Day testing stages for all migration waves
  - Connected to T2 during community testing stage
  - Not used anymore after end last migration wave
- ▶ Pre-production test environment: UTEST
  - Dedicated for pre-production testing activities for already migrated CB's CSD's and their communities.
  - Set-up per migration wave
  - Exception: Wave2 runs part of the community testing on the pre-production environment
  - When all waves are migrated
    - remains unique test environment for payment banks and CSD clients
    - With T2 connected as from March 2017



# Testing with Community

- ▶ Connectivity testing
- ▶ Certification testing
- ▶ Authorisation testing
- ▶ Migration testing:
  - Pre-migration testing
  - Migration week-end testing
- ▶ Community testing stage
- ▶ Business day testing stage



# Connectivity testing

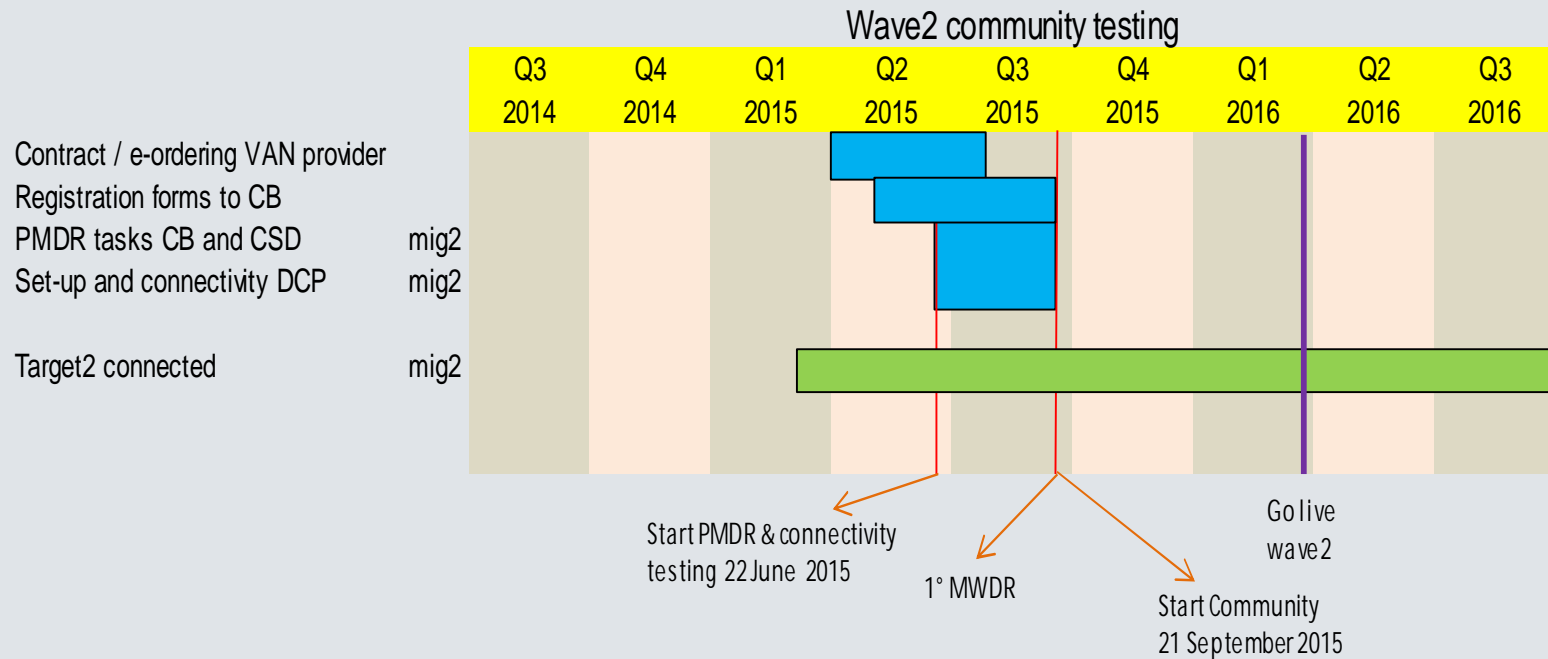
- ▶ Applicable to all directly connected DCA holders
- ▶ Prove that the DCA holder can connect to T2S:
  - U2a mode: login to the GUI
  - A2a mode: exchange of XML messages
- ▶ Preconditions to start testing:
  - Establish a contract with a VAN provider
    - E-ordering to the T2S services
    - Tokens are provided
    - Initial tokens activated by a local security officer at the payment bank
  - Fill out the registration forms provided by its CB
  - CB has captured the payment bank static data following the PMDR playbook
    - Payment banks connected in a2a mode first
    - DCP's in u2a mode in principle as from July 20 Th 2015



# Connectivity testing

## ► Start connectivity testing Wave 2:

- Earliest date 22/06/2015 – 3 months before start Community testing
- Latest date 24/08/2015 – 1 month before start Community testing





# Certification testing

- ▶ Applicable to all directly connected DCA holders
- ▶ Provide evidence that the directly connected DCA holder will not harm the T2S system

## 1.3 CENTRAL BANK AND DIRECTLY CONNECTED DCA HOLDER CERTIFICATION

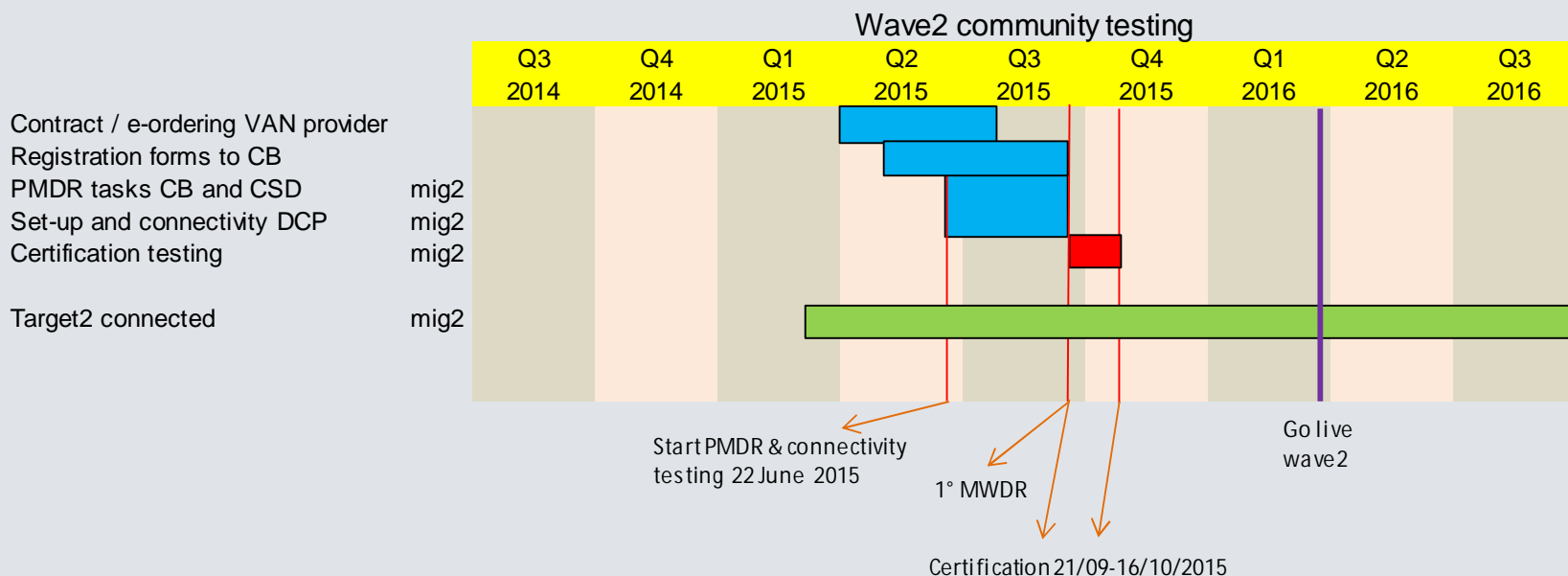
*M: Mandatory/ O: Optional depending on whether the T2S Actor will use the functionality in production/ '-': not applicable*

Test ID	Connectivity mode	Test case name	Relevant for		
			Central Bank liquidity provider	Central Bank collateral manager	Directly Connected DCA Holder
CERT_02	A2A	Send a request to create a Party (file and/or single message)	M	M	-
CERT_13	A2A	Send a request for an Immediate Outbound Liquidity Transfer (file and/or single message)	M	M	M
CERT_14	A2A	Send a request for defining a Security as eligible for collateralisation (file and/or single message)	-	M	O
CERT_15	A2A	Send a Security Valuation Creation	-	M	O
CERT_07	A2A	Receive a report (in push mode and/or pull mode)	M	M	M
CERT_16	U2A	Create an External RTGS Account	M	M	-
CERT_17	U2A	Enter an Immediate Outbound Liquidity Transfer	M	M	M
CERT_12	U2A	Display a report	M	M	M



# Certification testing

- ▶ Directly connected payment banks to submit a report through its home Central Bank
- ▶ The Eurosystem will validate and provide evidence of the certification
- ▶ Timeframe for Wave 2: 4 weeks as from 21/09/2015



# Authorisation testing

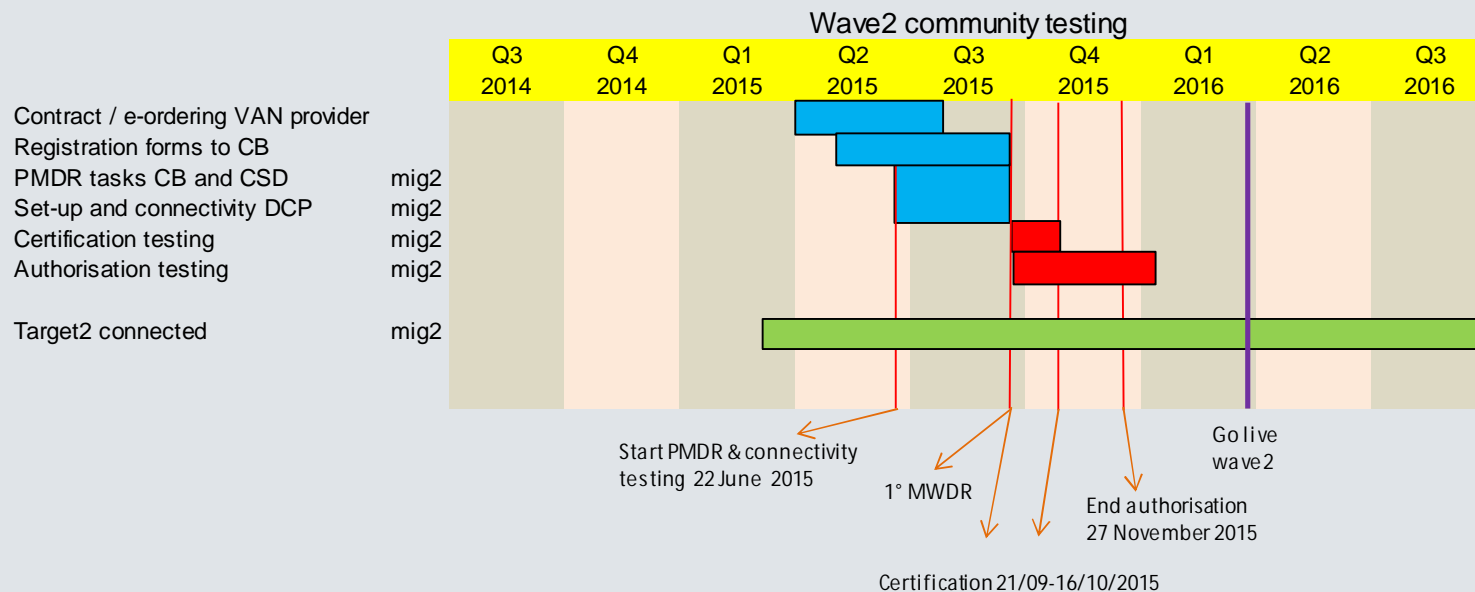
- ▶ Applicable to all directly and indirectly connected DCA holders
- ▶ Prove that a DCA holder is able to use all the T2S functions according to its future business setup
- ▶ Precondition to start : certification testing completed
- ▶ List test cases: Guide to TARGET2 User testing
  - ▶ 76 test cases :
    - ▶ mandatory or conditional
    - ▶ Applicable to directly connected or indirectly connected DCA holders
  - ▶ Example:

Access right management			
AUTH-T2S-RIGMN-0010	Creation of a Business User	<u>DC</u>	MAND
AUTH-T2S-RIGMN-0020	Grant role to a user	<u>DC</u>	MAND
AUTH-T2S-RIGMN-0030	Grant privileges to a user	<u>DC</u>	MAND



# Authorisation testing

- ▶ In addition to the T2S authorisation test cases, T2 RTGS accountholders must run T2 interoperability test cases related to the T2S system
- ▶ End date for authorisation testing wave 2: 27/11/2015



# Migration testing

- ▶ First test : set-up of mig2 environment
  - PMDR
  - MWDR
  - From 22/06/2015 till 20/09/2015
- ▶ Second test: set-up of utest environment
  - PMDR
  - MWDR
  - From 16/11/2015 till 12/02/2016
- ▶ Same principles applicable as for the connectivity to mig2:
  - ▶ e-ordering if needed
  - ▶ registration forms to CB



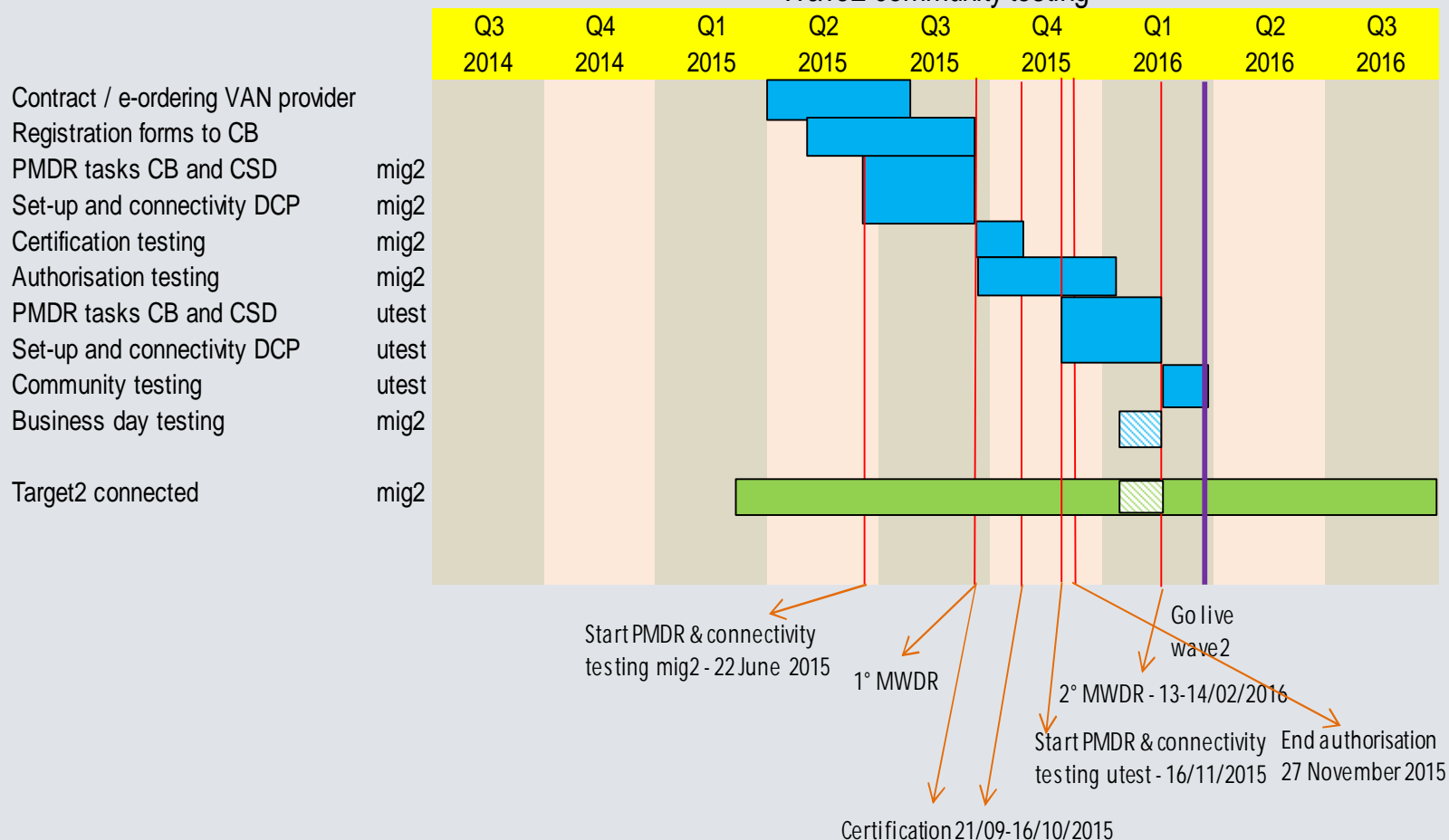
# Community and business day testing

- ▶ After the migration to utest, wave 2 will continue community testing including:
  - ▶ Familiarisation with operational procedures
  - ▶ Incident management procedures
- ▶ Business day testing for wave 2 is foreseen on the mig2 environment:
  - Simulation of several consecutive business days
  - Participation of communities other waves if needed
  - Includes 4 consecutive weeks of live timing
  - Between 18/01/2016 and 12/02/2016
- ▶ Scenario's to be agreed between all actors wave2



# Final overview

Wave2 community testing



# Available documents

## ▶ Target2:

- ▶ [http://www.ecb.europa.eu/paym/t2/professional/nov\\_2013/html/index.en.html](http://www.ecb.europa.eu/paym/t2/professional/nov_2013/html/index.en.html)
  - ▶ Guide to TARGET2 user Testing
  - ▶ Annex 1 — description of connectivity test cases
  - ▶ Annex 2 — description of interoperability test cases
  - ▶ Interoperability testing document for the TARGET2/T2S interface
  - ▶ Authorisation testing list
  - ▶ Authorisation test

## ▶ T2S:

- ▶ <http://www.ecb.europa.eu/paym/t2s/about/keydocs/html/index.en.html>
  - ▶ T2S Guide for Payment Banks
  - ▶ Frequently asked questions about T2S functionalities
  - ▶ List of T2S privileges and third party receipt privilege
  - ▶ T2S Certification Testing test cases version 1.0
  - ▶ T2S Connectivity Guide v1.0
  - ▶ T2S User Detailed Functional Specifications (UDFS)
  - ▶ T2S User Handbook (UHB)

