



# Who will survive in the payments World: banks, fintech or bigtech?

10th Conference on Payments and Securities  
Settlement Systems, Ohrid 5-7 July 2017

**Michiel van Doeveren and Rui Pimentel**

DeNederlandscheBank

EUROSYSTEM



BANCO DE PORTUGAL  
EUROSYSTEM



# 2017: A decisive year for innovative retail payment services in Europe

On 6 January, Yves Mersch, member of the Executive Board of the European Central Bank, declared in Paris that 2017 is a decisive year for innovative retail payment services in Europe.



EUROPEAN CENTRAL BANK

- **Instant Payments:**

The Eurosystem encourages payment service providers to make instant payment solutions in euro available to end users at pan-European level from November 2017

- **Person-to-person (P2P) mobile payments:**

Aligned with the timeline of the instant payment scheme, the Eurosystem expects the launch of a standardised look-up service that allows mobile payments using the mobile phone number of the payee as a proxy for the IBAN

- **Payment Initiation Services:**

The Eurosystem expects the market to work on the definition of a common set of technical, operational and business requirements for the development of an integrated market for payment initiation services (PIS)

# Agenda

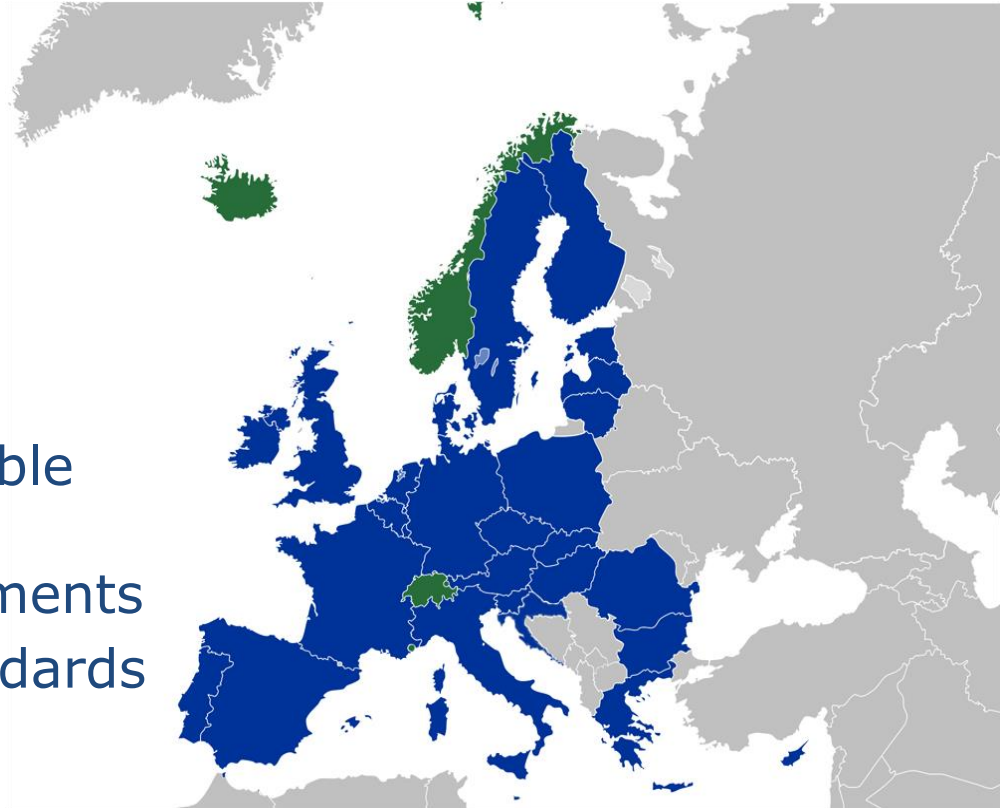


- Single Euro Payments Area (SEPA)
- Potential game-changers: Instant Payments/P2P, Access to Payment Accounts by Third Parties and Distributed Ledger Technologies
- Banks, other PSPs, Fintech or Bigtech?
- InnovationHub DNB and AFM
- Governance of innovation

# Goal of SEPA: an integrated euro payments market



- 34 SEPA-countries
- 523 million citizens
- 4,500 payment service providers
- Single set of payment instruments in Euro
- Efficient and interoperable infrastructures for the processing of euro payments
- Common technical standards
- Harmonised legal basis



# SEPA main topics & drivers



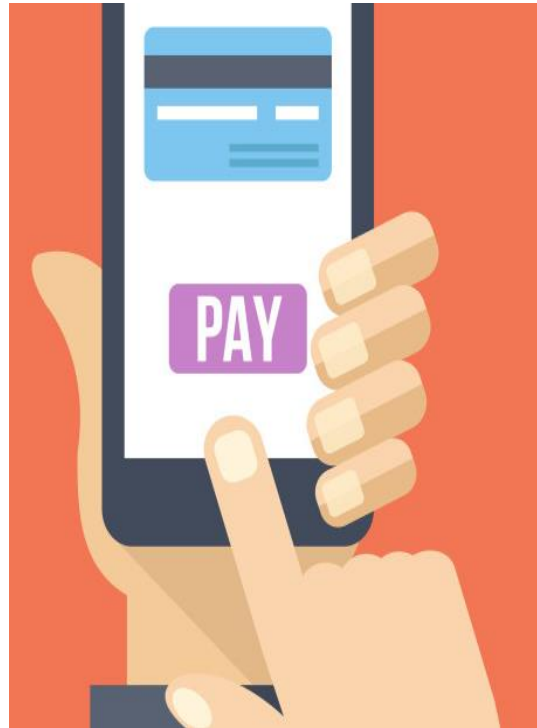
- IBAN and Business Identifier Code (BIC)
- SEPA Credit Transfer + expectation of SCT<sup>inst</sup> Nov 2017
- SEPA Direct Debit (Core & Business-to-Business)
- SEPA for Cards still to be finalised
- ISO standard 20022 (XML)
- Legal framework: SEPA Regulation, revised Payment Services Directive (PSD2), Payment Accounts Directive, Interchange Fee Regulation



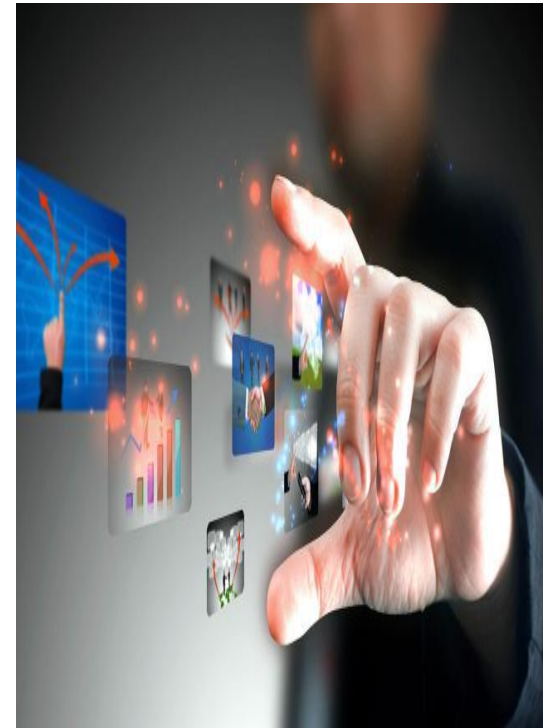
# The world of payments as we know it is undergoing a process of significant transformation trends



Cash → Electronic



New devices



Face-to-Face → Remote

# Trends in the payments landscape



## Further digitalisation

- Growth in e-commerce, social networks, online activity
- Demand for suitable payment solutions



## Mobile solutions

- Fast spreading ownership and usage of smartphones & other mobile devices: M-banking, Contactless, mPOS terminals, P2P



## Focus on speed, user-friendliness & new trends

- Speed at the POS (contactless), instant, possibly blockchain
- Aliases, one-click-buy, biometrics



## New market participants

- Fintech & Big tech
- Impact of PSD2/access to the account by third parties

# Bigtech and the importance of data

**Data** as a growingly important commodity

- Collection, treatment and usage for multiple purposes
- Appetite from bigtech companies in this domain
- Payments not an exception





# There are 4 factors which contribute to a recipe for success

1. Cooperation between different parties

2. Clear added value to consumers and retailers (i.e. end-users)

3. Communication by providers

4. Business case

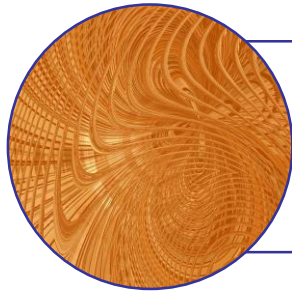


# Barriers to overcome

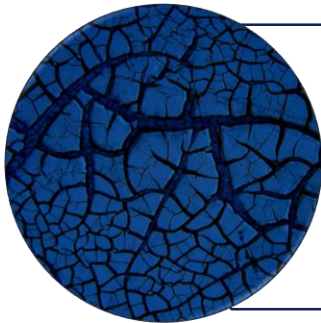


## Market features

- etwork industry
- Two-sided market



## Complexity of infrastructures and decision-making process



## Market fragmentation

# New solutions are being introduced

## Strong technologic focus





# Dutch Fintech Landscape 3.0



# Instant Payments



**Launched:** Bahrain, Brazil, Chile, China, Denmark, Iceland, India, Japan, Korea, Mexico, Nigeria, Poland, Singapore, South Africa, Sri Lanka, Sweden, Switzerland, Turkey, UK  
**In development:** Australia, Netherlands, SEPA (pan-European), Spain, US, Thailand  
**Under evaluation:** Canada, Malaysia, Philippines, Vietnam (plus many others in early stages)



# Instant payments: the new normal

SEPA: new optional scheme SCT<sup>inst</sup>, from 2018 in NL (Nov-2017)  
Netherlands: future basis for all retail payments,  
“the new normal”, including batch transactions

Three main elements of Instant Payments:

1. Always Open: 24/7/356  
No banking holidays anymore
2. Instant Processing  
Within 5 seconds in NL, 20 in Europe
3. Acknowledged  
The amount has been credited to the payee

This allows instant payments to be used in areas where credit transfers have not been applicable before, such as at the point of sale.



# Person to Person payments

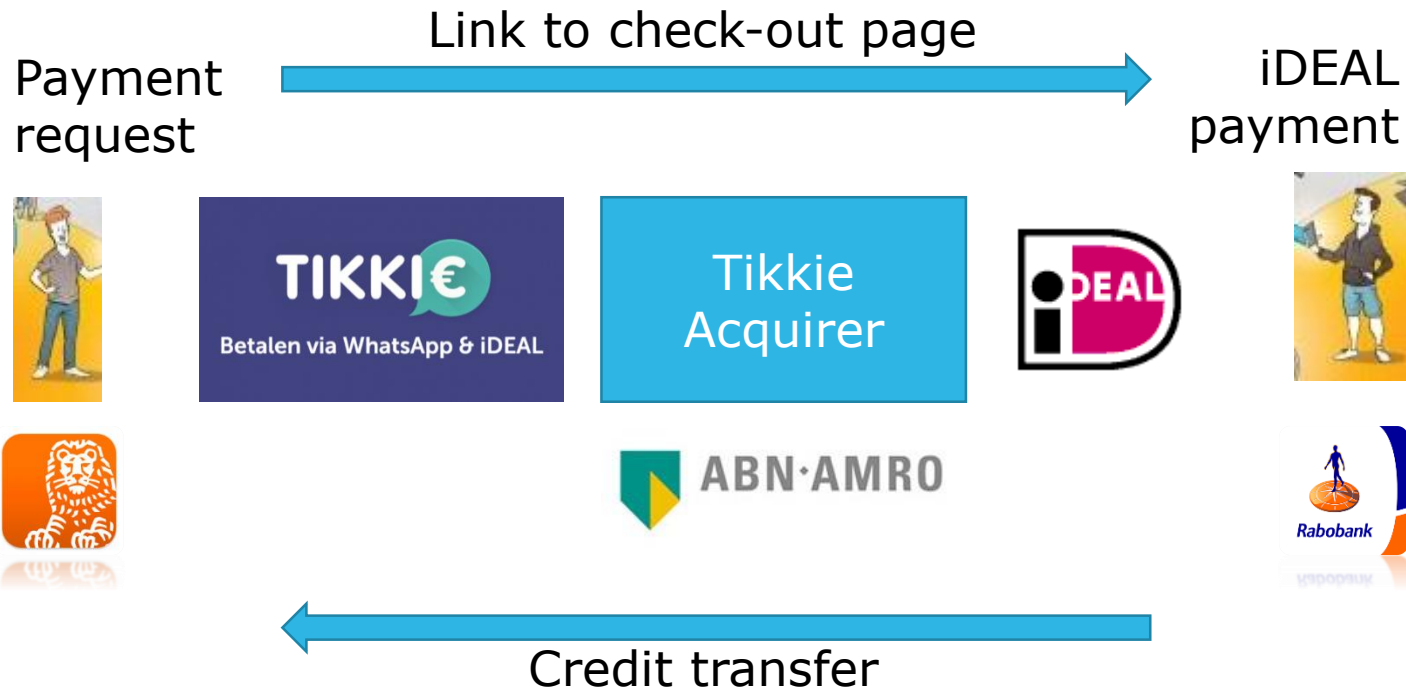
Towards a better customer journey:

- Paying somebody using a mobile phone number rather than the IBAN
- Using SEPA credit transfers
- And processing near-instant

But without the new instant payment infrastructure and IBAN lookup services



# Interim solutions for instant payment apps



# Interim solutions for instant payment apps

In Portugal, the MB Way product has been launched 2015 as an evolution Multibanco (MB) range of services, based on the existing card infrastructure



A smartphone/tablet app allowing e- & m-commerce purchases (and also in store) and instant transfers between registered users in association to debit cards of the MB brand

Currently offered by 14 issuing banks (> 90% market share in the retail market) with estimates of strong growth potential

Immediate availability of funds to the beneficiary of P2P transfers

# Interim solutions for instant payment apps

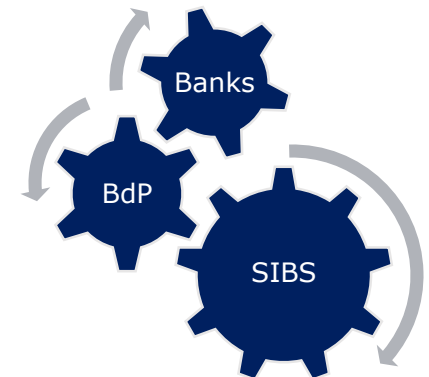
Cooperation between SIBS and offering banks is a key part of the development of MB Way services while Banco de Portugal is the regulator and owner of SICOI in which clearing takes place

New features have been recently added to the MB Way solution, while others under development for later launch in 2017

Risk mitigation measures implemented in SICOI with new measures in the pipeline for 2017

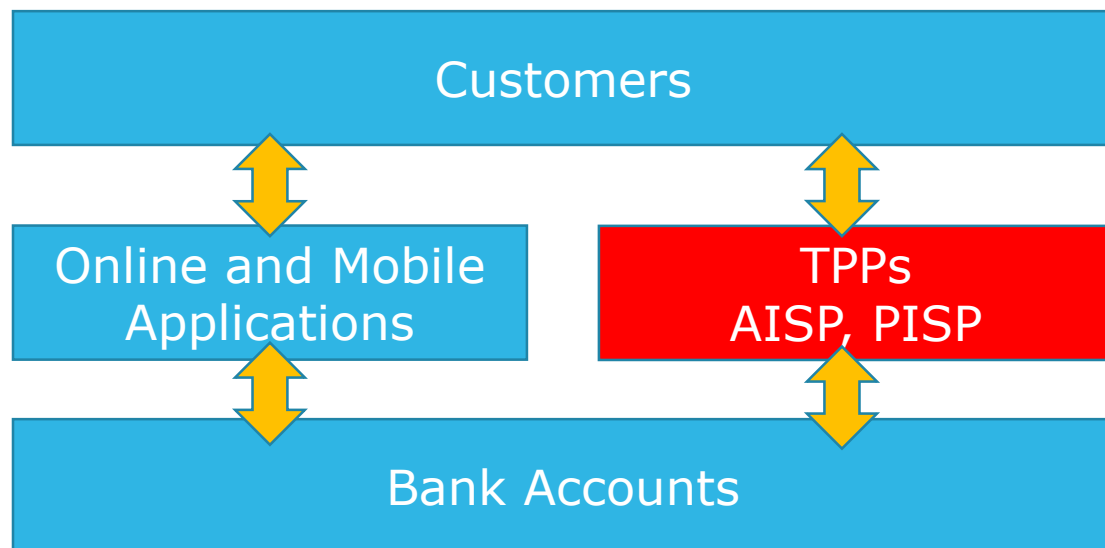
Multiple mobile phone numbers can be associated to one card enrolled in MB Way

Availability and monitorisation 24/7/365

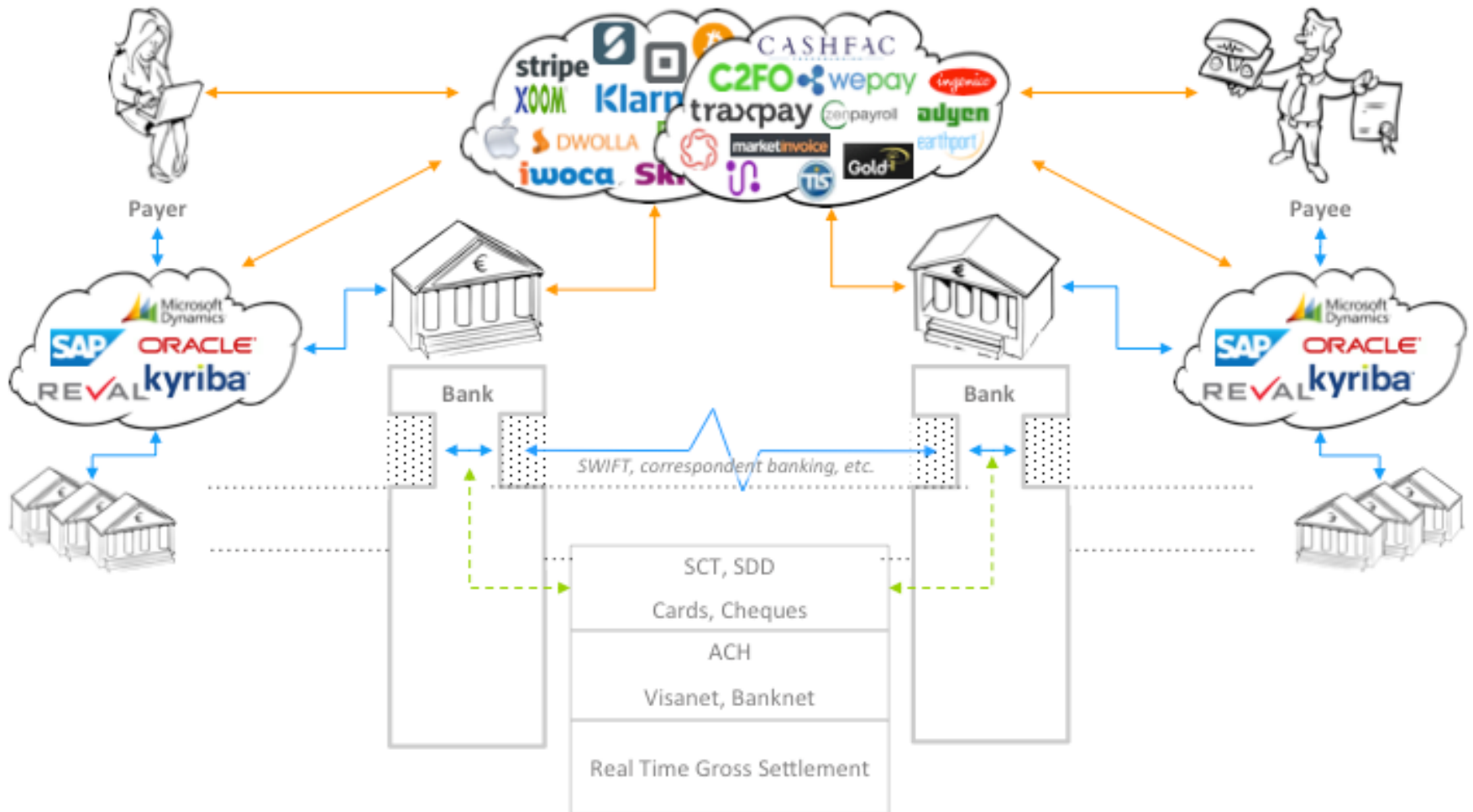




# PSD2 defines a new market model

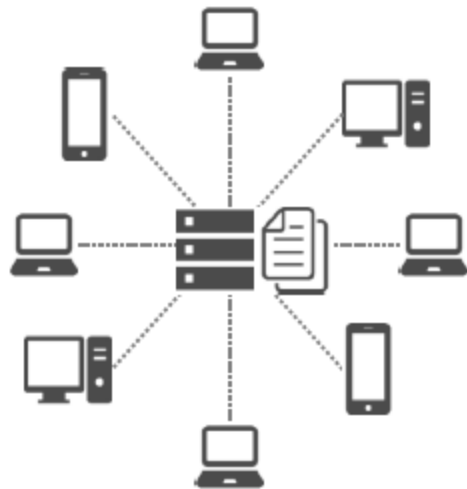


# FinTech: innovation 'on top of' banking

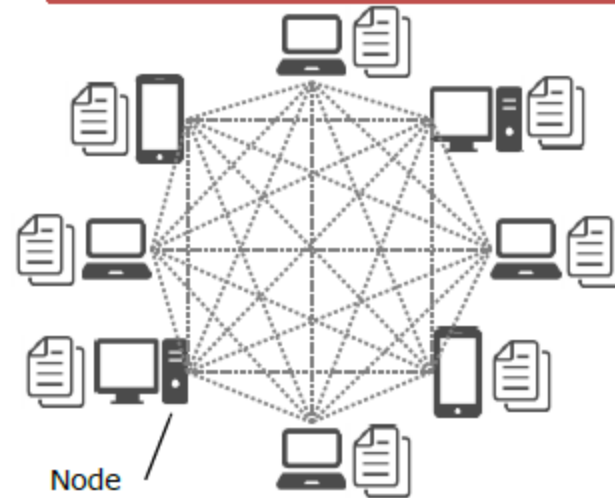


# Blockchains and distributed ledger technology

**Centralized system  
(Conventional system)**



**Blockchain-based  
system**



# Different DLTs



# Potential benefits of blockchain

Resilience

Efficiency

Intelligence

Operational

Cyber

Fewer  
intermediaries

Smart  
contracts



# Implications for central bank tasks

- ❖ Promoting the smooth functioning of the payment system
- ❖ Monetary policy
- ❖ Supervision and oversight
- ❖ Catalyst
- ❖ New resources & knowledge of new products
- ❖ Fostering dialogue with new players

# DNB discusses blockchain with market participants and does its own research

- ❖ For example: Dutch Payments Association research
- ❖ Plus: bilateral discussions, discussions in existing market groups
- ❖ DNBCoin

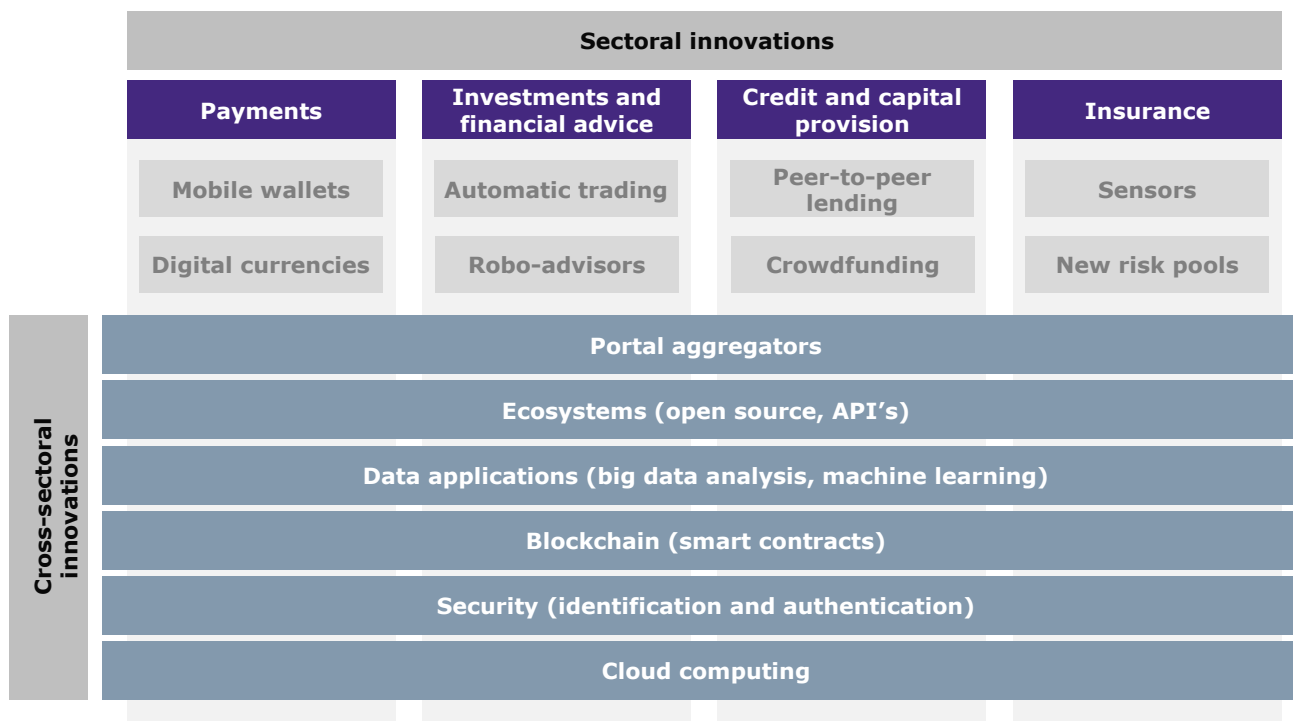


# Blockchain could be the future of payment systems

But there are challenges:

- Striking the right balance
  - ✓ In terms of trust between participants
  - ✓ Between transparency and privacy
- Fragmentation
- Vested interests
- Interoperability

# Innovations are applied within and across financial market segments



# A scenario analysis based on four parameters

## **Innovation speed**

The speed by which technological innovations are developed and adopted by financial institutions and their customers

## **Value chain disintegration**

The extent to which existing value chains are being disintegrated (different firms for different activities)

## **Presence of new entrants and/or substitute products**

The extent to which (new) innovative competitors enter the market (as opposed to adoption by incumbents)

## **Market concentration**

The extent to which the financial market is moving towards a monopoly/oligopoly





# Scenario analysis: overview



## SCENARIOS

**1** Adoption by established financial institutions

**2** Market fragmentation as a result of FinTech

**3** Absorption by BigTech

## SUMMARY

The established financial institutions adopt technological innovation and introduce these to the market in a high pace. These institutions can be domestically (1a) or foreign (1b) based.

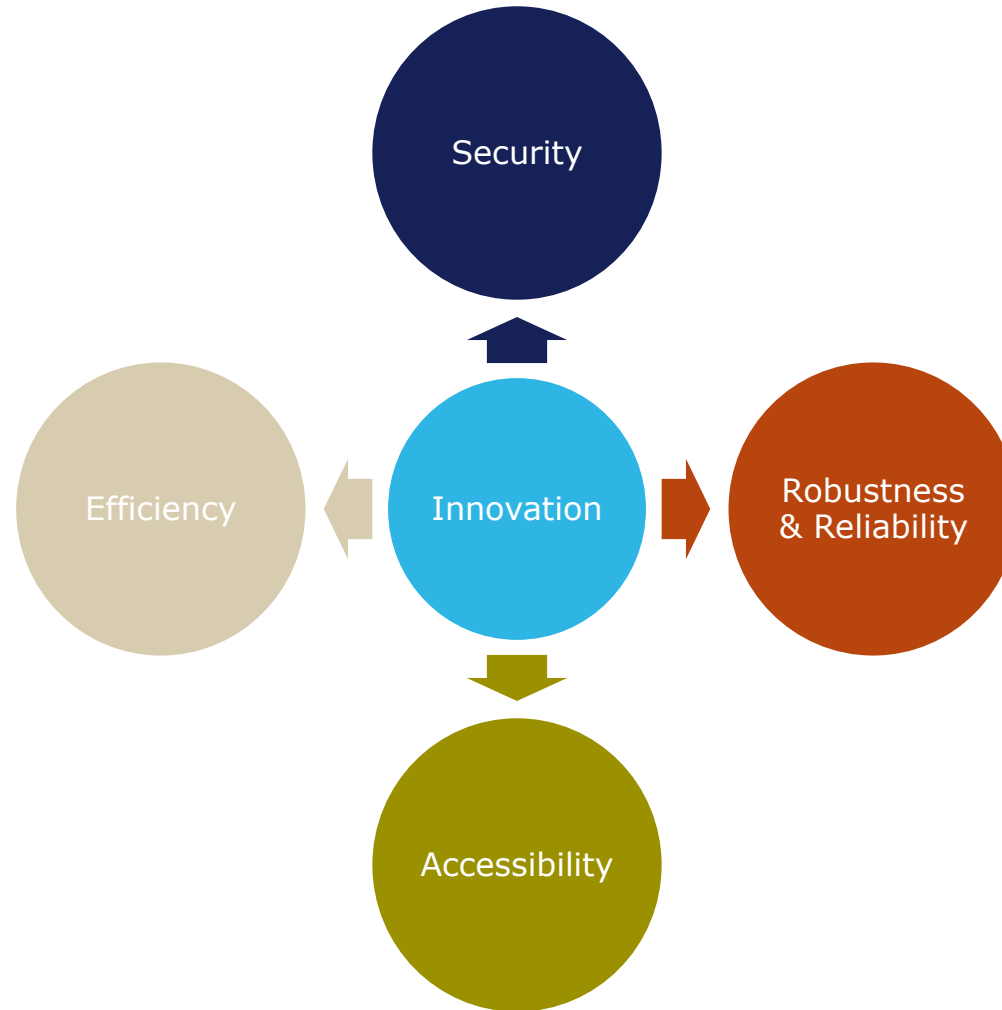
Technological innovations are adopted primarily by FinTech companies, who use them to effectively compete with established financial institutions across the value chain. This leads to a fragmentation of the market for financial services.

Technology giants such as Google or Apple ('BigTech') adopt innovations effectively integrate these across the value chain. In doing so, these firms crowd out established financial institutions.

# Technological innovation has positive and negative implications



# Innovation affects all aspects of payments



# Role of central banks



## Having an eye for society

- Balance between safety vs efficiency
- Needs all stakeholders



## Promote cooperation

- Between stakeholders
- Domestically and internationally

# DNB's & BdP's approach

## Oversight / Supervision

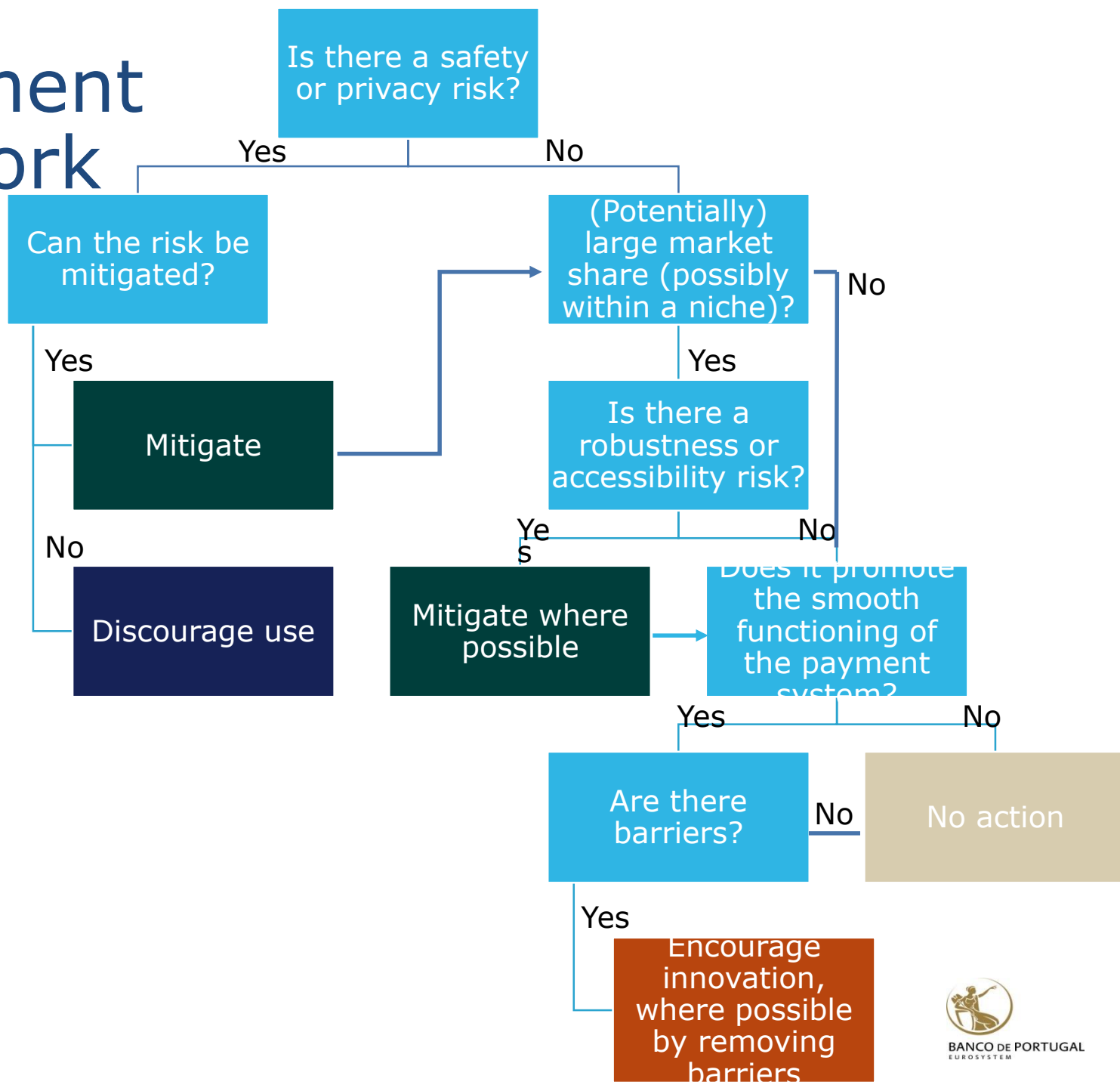
- Examining innovations used/developed by financial institutions
- Applying regulations, guidelines and recommendations

## Observation of innovations in the payment landscape

## Evaluation of innovations, in case of:

- Rapid rise in the number of transactions/users
- Involvement of a party with a large customer base
- Alerts concerning risks
- Need in society

# Assessment framework



# InnovationHub (1)

- InnovationHub: a Platform of DNB and AFM for all innovations and supervision issues of existing and new market parties
- To ease the gap between fintech, bigtech, banks, payment institutions and supervisors
- Launched on 9 June 2016



# InnovationHub (2)



- InnovationHub  
form:<http://www.dnb.nl/toezichtprofessioneel/innovationhub/index.jsp>
- Innovations garden (sandbox)
- 'Light' supervision regime (licensing) for fintech?
- EU-context (European passporting)



# National Forum on the Payment System NL

Objective: contributing to an efficient organisation of the Dutch retail payment system from a social point of view

Issues regarding:

- Efficiency
- Security
- Reachability & Accessibility and Financial Inclusion
- Innovation
- Instant payments



# National Forum on the Payment System PT

Objective: contributing to an efficient organisation of the Portuguese retail payment system and involve all relevant actors

Issues regarding:

- Efficiency & accessibility
- Security
- Regulatory framework
- Innovation & new habits
- Context of digital transformation



# Euro Retail Payments Board



- Aim: To foster an integrated, competitive and innovative payments market in the EU
- Chaired by the ECB
- Participants: representatives of supply and demand side, national central banks and European Commission
- Results May 2017: instant payments, P2P mobile payments, Access to the account.



<http://www.ecb.europa.eu/paym/retpaym/governance/eu/html/index.en.html>

# Concluding remarks (I)



The success of innovative payment solutions depends on

- User-friendliness, added value of new payment products, security, reachability & accessibility and efficiency, compared to the existing products
- Efficient and cross-channel market infrastructures
- Well organised governance model: balancing competition and co-operation, role for governments/central banks/authorities and private organisations

# Concluding remarks (II)

(cont)



- Role for banks, other PSPs, fintech and bigtech
- Further standardisation, cost reduction and mass adoption
- Contactless payments, instant payments, access to the account and distributed ledger technology are important innovations

# Any questions?

