

FinTechs and the impact on payment services in the European Union

Pedro Machado
Chief Legal Counsel • Head of Legal Department

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Agenda

1. **FinTech Framework**
 1. **FinTech Definition**
 2. **Mapping the Ecosystem**
 3. **Opportunities and Challenges arising from financial innovation**
2. **European Level**
 1. **Institutional Perspectives**
 2. **European and National Initiatives**
3. **Portugal and Financial Innovation**
4. **Payment Services Regulatory Framework**
 1. **Payment Services Directive (PSD2)**
 2. **EBA Regulatory Technical Standards**
 1. **RTS-SCA**
 2. **RTS-CSC**
5. **Central Banking in a Hyperconnected World**



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 - 2. RTS-CSC**
- 5. Central Banking in a Hyperconnected World**



FinTech is generally being defined as “technologically enabled innovation in financial services that could result in new business models, applications, processes or products with an associated material effect on financial markets and institutions and the provision of financial services.”

European Banking Authority, Glossary for Financial Innovation



1.2 Mapping the Ecosystem

PAYMENTS PROCESSING & NETWORKS



MOBILE WALLETS & REMITTANCES



RETAIL INVESTING & SECONDARY MARKETS



FINANCIAL SERVICES & AUTOMATION



CAPITAL MARKETS & INSTITUTIONAL TRADING



CORE BANKING & INFRASTRUCTURE



WEALTH MANAGEMENT



PERSONAL FINANCE & SAVINGS



DIGITAL BANKING



MORTGAGE LENDING



REAL ESTATE INVESTING



REGULATORY & COMPLIANCE



INSURANCE



PAYROLL & BENEFITS



CREDIT SCORE & ANALYTICS



GENERAL LENDING & MARKETPLACES



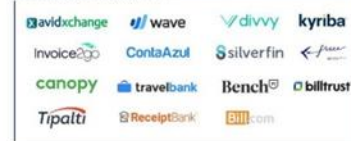
POINT-OF-SALE & PERSONAL LENDING

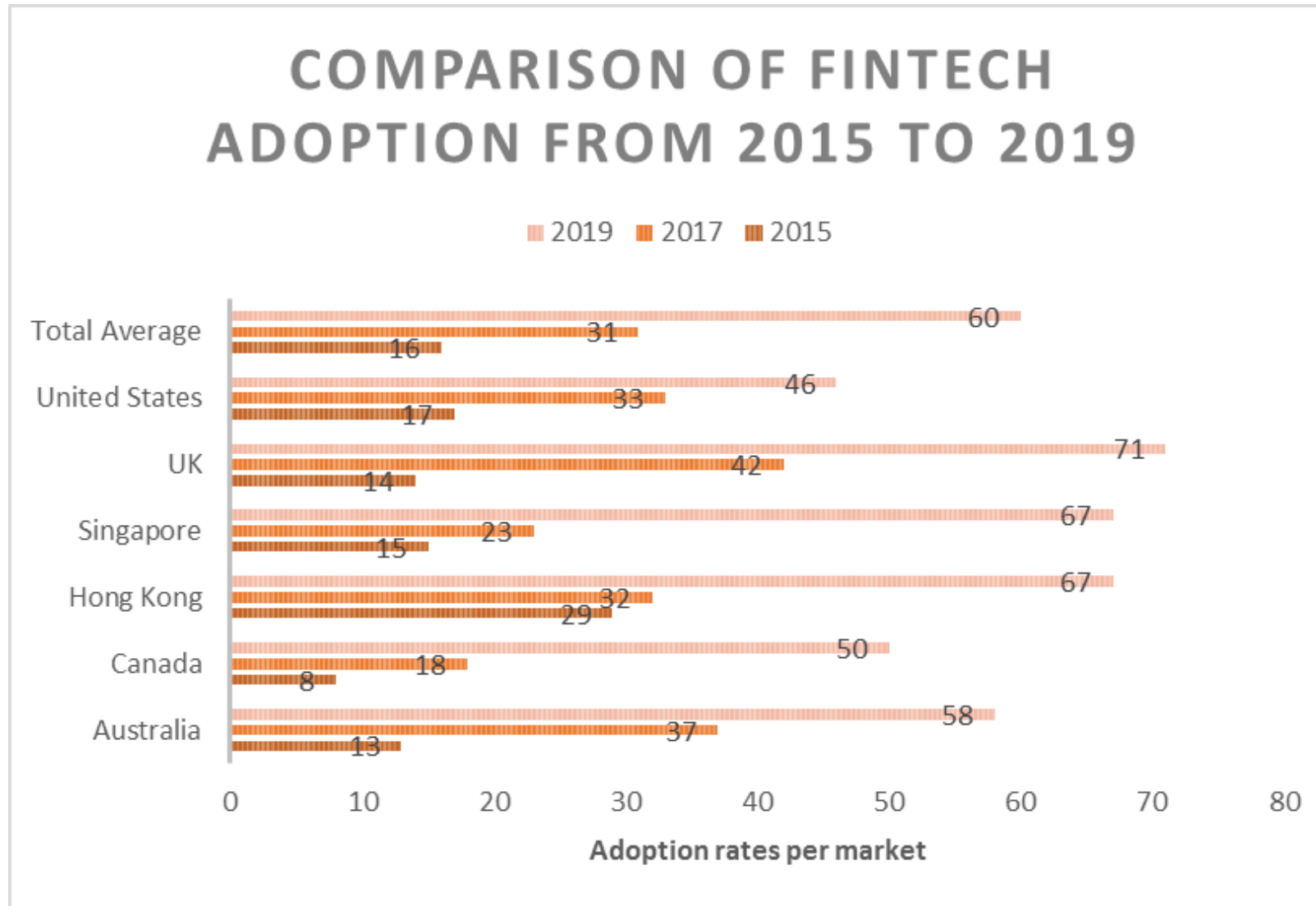


BUSINESS LENDING & FINANCING



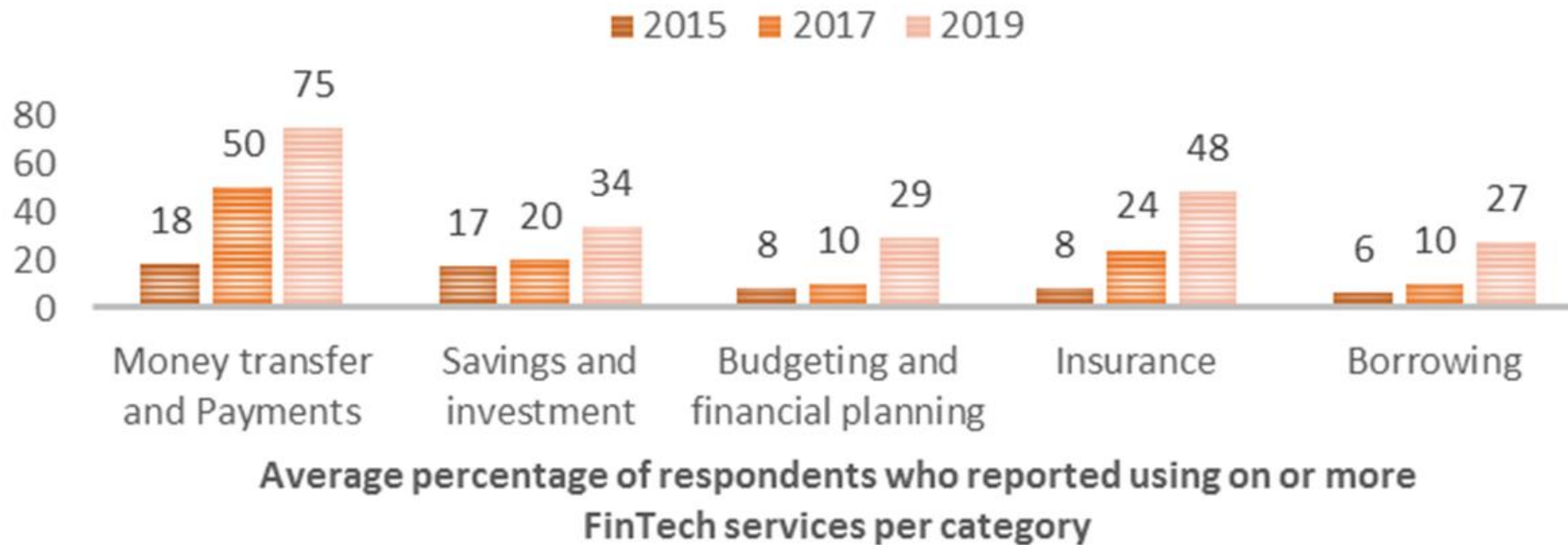
ACCOUNTING & FINANCE

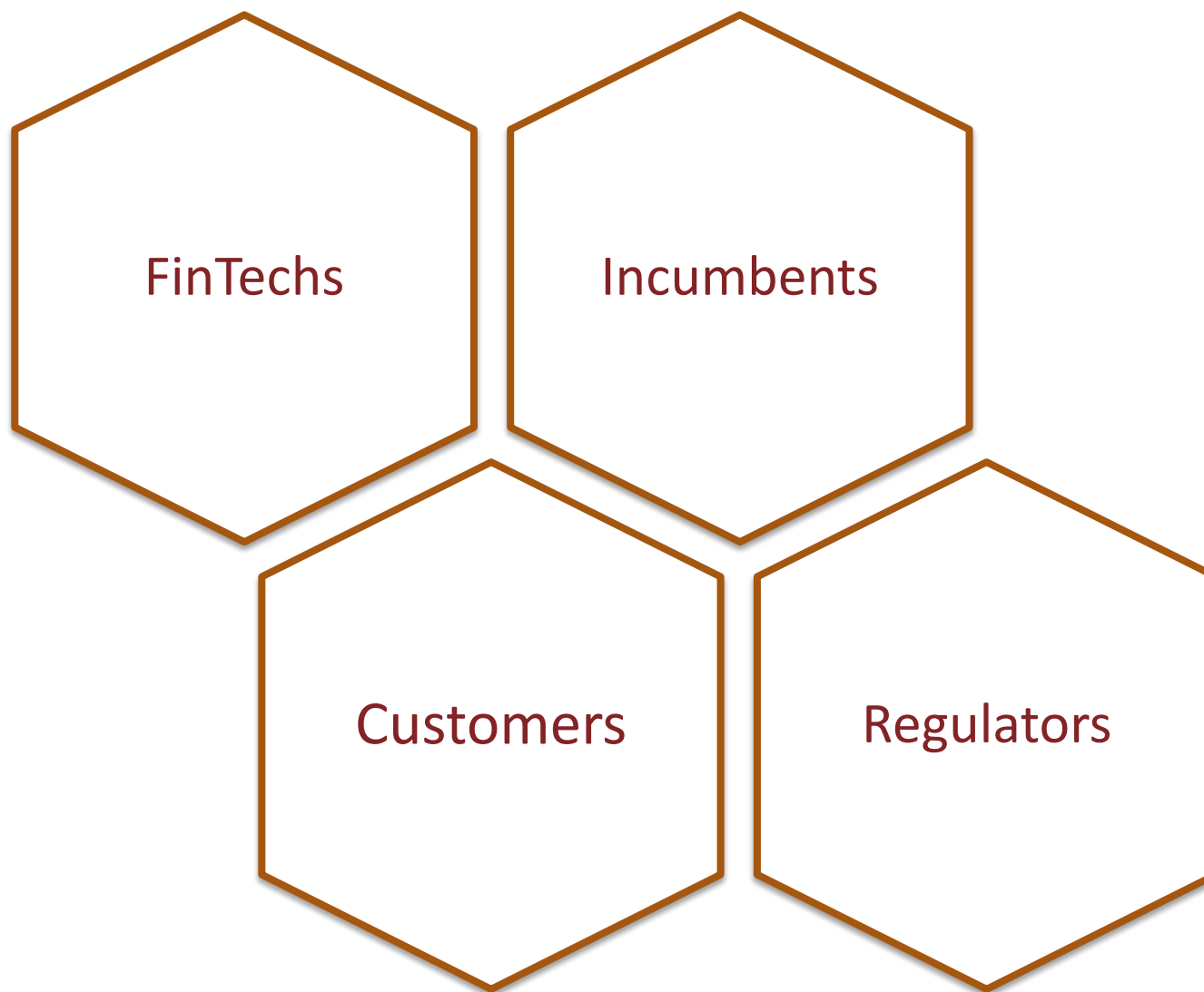






COMPARISON OF FINTECH CATEGORIES RANKED BY ADOPTION RATE







Opportunities arising from financial innovation

INCUMBENTS

- Simplify and automate processes
- Improve the customer experience | New business opportunities
- Reduce costs | Improve operating margins
- Solve technology legacy

CUSTOMERS

- Financial Inclusion
- Improve user experience
- Reduce costs and increase service availability

REGULATORS

- Simplify and automate reports
- Better ability to handle large amounts of information
- Improve regulation and supervisory methodologies
- Promote innovation as a factor of economic development

FINTECHS

- Cooperate with the incumbents | Gain scale and credibility
- Lower customer acquisition cost
- Build flexible and agile business models



Challenges arising from financial innovation

INCUMBENTS

- Higher levels of competition | Redefinition of the role of incumbents
- Cybersecurity threats
- Manage legacy system

CUSTOMERS

- Rely on new technologies and business models
- Share personal data
- Costs and barriers to change

REGULATORS

- Regulate new business models
- New forms of supervision
- Control cybersecurity threats

FINTECHS

- Build customer trust
- Cooperate with major institutions
- Obtain licenses to operate | Barriers to entry
- Get funding | make projects feasible



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European Commission FinTech Action plan

ENABLING INNOVATIVE BUSINESS MODELS TO REACH EU SCALE

- Enabling innovative business models to scale-up across the EU through clear and consistent licensing requirements
- Increasing competition and cooperation between market players through common standards and interoperable solutions
- Facilitating the emergence of innovative business models across the EU through innovation facilitators

SUPPORTING THE UPTAKE OF TECHNOLOGICAL INNOVATION IN THE FINANCIAL SECTOR

- Reviewing the suitability of our rules and ensure safeguards for new technologies in the financial sector
- Removing obstacles to cloud services
- Enabling FinTech applications with the EU blockchain initiative
- Building capability and knowledge among regulators and supervisors in an EU FinTech Lab
- Leveraging technology to support distribution of retail investment products across the Single Market

ENHANCING SECURITY AND INTEGRITY OF THE FINANCIAL SECTOR

- Balancing greater data sharing and transparency with data security and protection needs
- Mandating the ESAs to prepare a harmonised framework for testing the resilience of significant market participants' IT infrastructures



EBA FinTech Roadmap

MONITORING THE REGULATORY PERIMETER

- Assessing current authorization and licensing approaches to FinTech firms
- Analyzing regulatory sandboxes and innovation hubs

MONITORING EMERGING TRENDS

- Analyzing the impact on incumbent institutions' business models
- Analyzing the prudential risks and opportunities arising from the use of FinTech

PROMOTING BEST SUPERVISORY PRACTICES

- Assessing cybersecurity and promoting a common cyber threat testing framework

ADDRESSING CONSUMER ISSUES

- Focusing in the areas of unclear regulatory status of FinTech firms and related disclosure to consumer
- Finding potential national barriers preventing FinTech firms from scaling up services to consumers across the single market.

IDENTIFYING AND ASSESSING AML/TF RISKS

- Update of the Risk Factors Guidelines to address ML/FT risk associated with FinTechs
- Working on knowledge sharing among AML/CFT competent authorities, FinTechs and technology providers



Single Supervisory Mechanism

“Our philosophy is technology-neutral and seeks neither to support nor to discourage the use of any particular FinTech solution. All SSM banks, both incumbents and market entrants, regardless of their business model, are responsible for putting in place adequate risk management processes to address the risks they face, including emerging FinTech-related risks.

Supervisors need to understand the impact of FinTech on banks’ business models, as well as on their risk management frameworks. Against this background, our objective is to promote a common understanding of FinTech-related risks and to ensure a consistent supervisory approach across the SSM, based on the current regulatory framework and fully aligned with the European Banking Authority (EBA).”

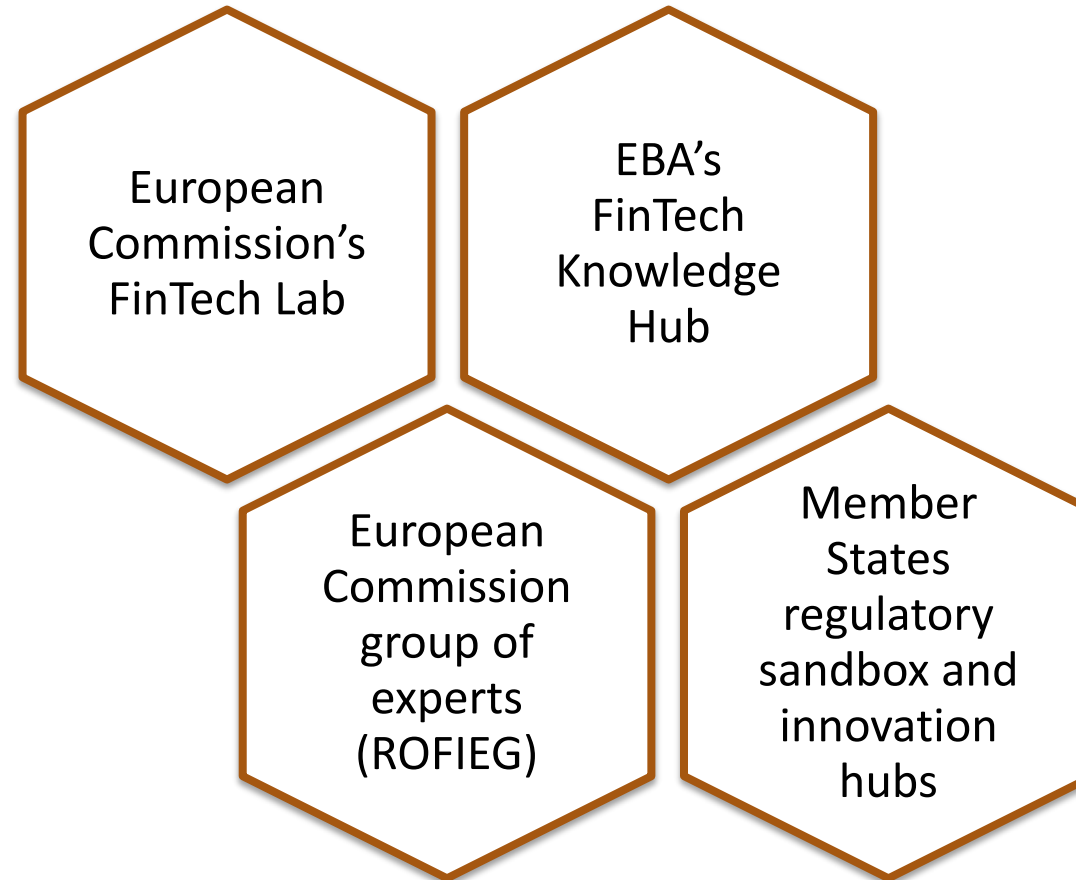
SSM FinTech Supervision Industry Dialogue

2.1 Institutional Perspectives





European and National initiatives



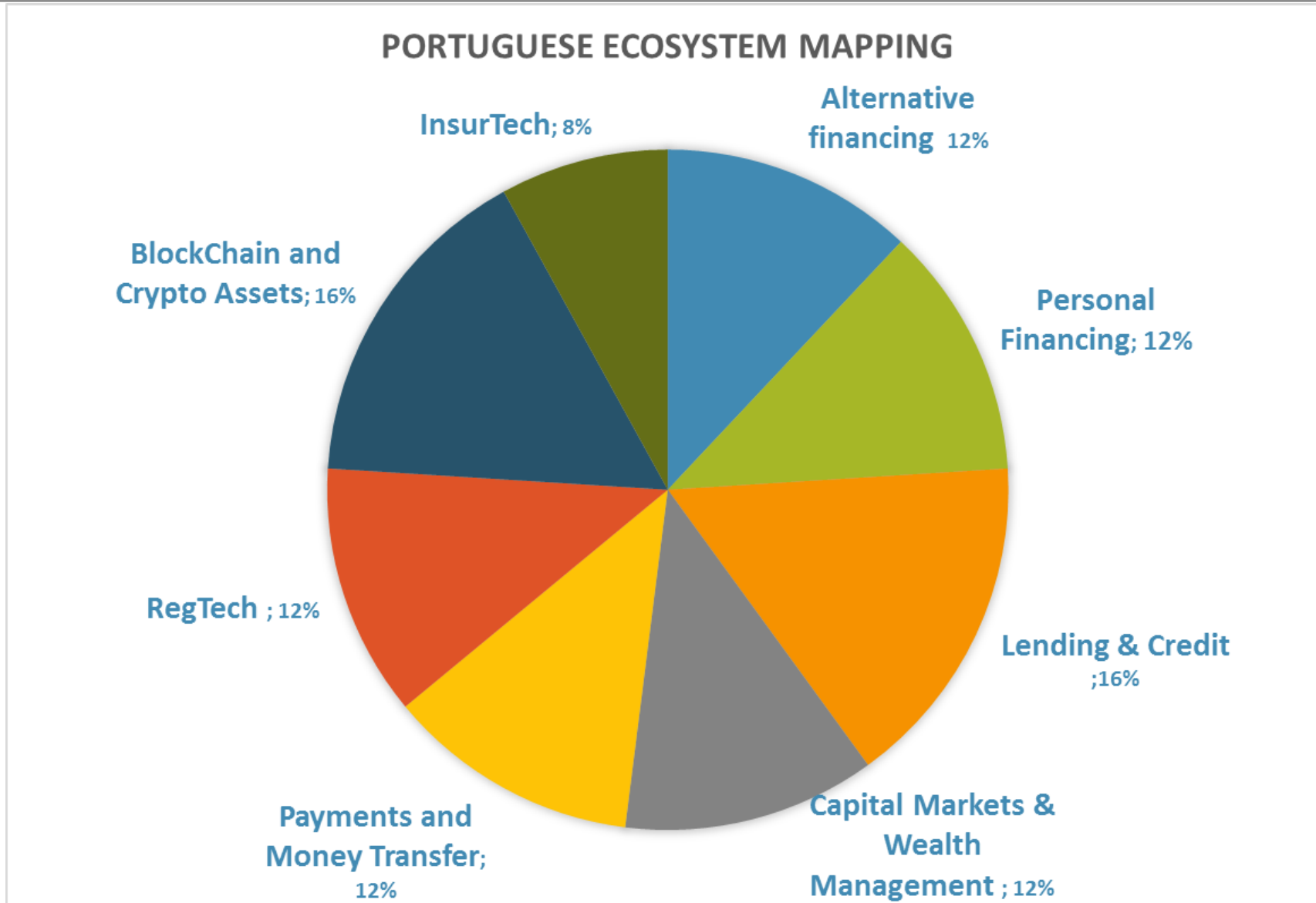


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3. Portugal and Financial Innovation





Banco de Portugal and Financial Innovation

- Participation in various European initiatives, notably in the context of EBA and SSM.
- FinTech +
Banco de Portugal provides a contact channel about Fintech to clarify issues related to innovation in financial products and services, as well as a set of relevant information in this field.
- Multidisciplinary think tank created to study the evolution of Digital Banking and FinTech (FINLAB)



Banco de Portugal, Securities Market Commission (CMVM), Insurance and Pension Funds Supervisory Authority (ASF) and Portugal Fintech Association created “Portugal FinLab - where regulation meets innovation”, a communication channel with new market players aiming to develop the FinTech, InsurTech and RegTech ecosystem in Portugal.

Within this setting regulators provide guidelines to the participants on how to operate in the regulatory system.



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4. Payment Services Regulatory Framework

“To fulfil its mandate under the Treaty, the Eurosystem is committed to keeping step with **innovation in financial services** while, at the same time, safeguarding the **safety and efficiency of the financial market infrastructure**. It is essential that we respond to the increased digitalization of our society, **delivering innovative and efficient services** to our economy, which has an impact on the lives of all Europeans.”

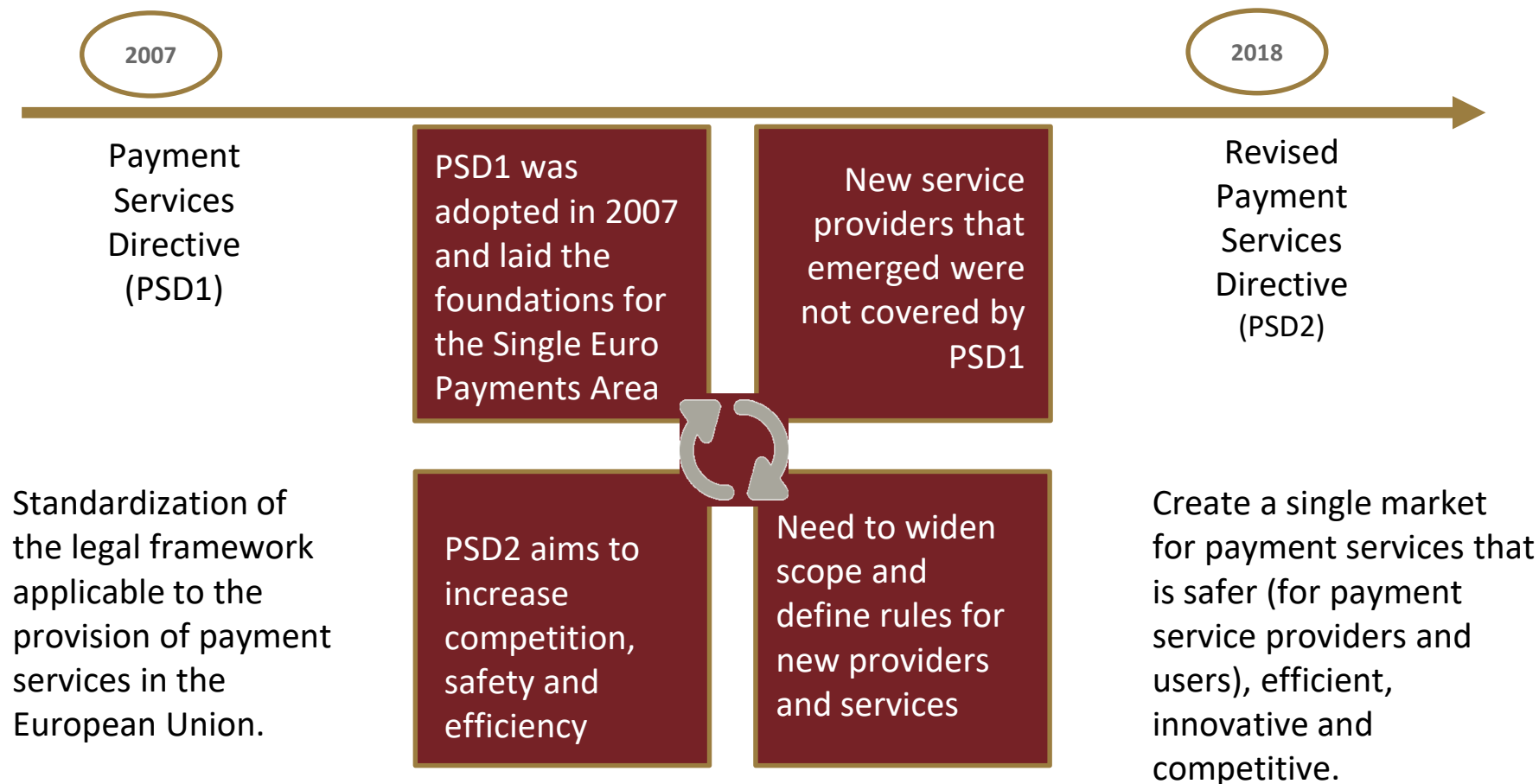
“FinTech has **created the potential** for the design and implementation of innovative financial services that can better serve users’ needs in terms of speed and convenience. Innovative developments that **lead to better services can support** commerce, in particular e-commerce, as well as **productivity and income growth**.”

“... in order to thrive, innovative financial services need a clear legal and regulatory framework. **The revised Payment Services Directive (PSD2) and the Regulatory Technical Standards (RTS)** lay the groundwork for this.”

“Developing Europe’s payment landscape” - Yves Mersch, Member of the Executive Board of the ECB, 18 May 2017



Payment Services Directive (PSD2)





The different players in the PSD2 world

TPP | Third party payment service providers

- a) **Account Information Service Providers (AISP)** Allow to aggregate information on accounts held with one or more banks in a single application or website, provided that the accounts are accessible online.
- b) **Payment Initiation Service Providers (PISP)** Enable online payment transactions to be initiated on behalf of the payer immediately with the payee, without the payer having to interact with their bank.



Revised Payment Services Directive (PSD2)

a) Increased security in electronic payments transactions

- Strong customer authentication
- Secure communication channels between payment service providers involved

b) Payment service provider and payer's liability for unauthorised transactions (new rules)

- If there is a strong suspicion that an unauthorised transaction resulted from fraudulent performance of the payer, the general rule for immediate repayment does not apply (Article 73(1) of PSD2).
- Even if the unauthorised transaction was initiated through a payment initiation service provider, it is up to the payment service provider to reimburse the payer (Article 73(2) of PSD2).
- The payer may be required to bear, up to a maximum of EUR 50, losses resulting from unauthorised payment transactions (Article 74(1) PSD2)



Regulatory Technical Standards

- a) Define specific security measures that were only addressed through general principles in PSD2
- b) Ensure effective and secure communication between the relevant actors

RTS for strong
customer
authentication (RTS-
SCA)

RTS for common and
secure open standards
of communication
(CSC)



RTS-SCA Application

The customer's identity has to be verified, using at least two of the following features

KNOWLEDGE

- Something only the user knows (PIN, password,...)

POSSESSION

- Something only the user possesses (a card, mobile phone, ...)

INHERENCE

- something the user is (biometric identification)

+ EXTRA ELEMENT FOR ALL REMOTE TRANSACTIONS

- A unique authentication code which dynamically links the transaction to a specific amount and a specific payee



RTS-CSC

To ensure secure communication channels between account servicing payment service providers and payment initiation and account information service providers

Secure Communication Channel

Via a dedicated
communication interface
- creation of an
Application Programming
Interface (API)



Via the adaptation of the online
banking interface.



**Explicit consent from payment
service users is needed!**



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“To make things smoother—at least a bit— we need dialogue. Between experienced regulators and those that are just beginning to tackle fintech. Between policymakers, investors, and financial services firms. And between countries. Reaching across borders will be critical as the focus of regulation widens— from national entities to borderless activities, from your local bank branch to quantum-encrypted global transactions. (...) The stakes of—and gains from— cooperation are high. We want no holes in the global financial safety net, however much it gets stretched and reshaped. (...)”

I believe that we, as individuals and communities, have the capacity to shape a technological and economic future that works for all. More importantly, we have a responsibility to make this happen.”

CHRISTINE LAGARDE, “CENTRAL BANKING AND FINTECH - A BRAVE NEW WORLD”, MIT Press Journal, Volume 12
https://www.mitpressjournals.org/doi/pdf/10.1162/innov_a_00262



5. Central Banking in a Hyperconnected World

