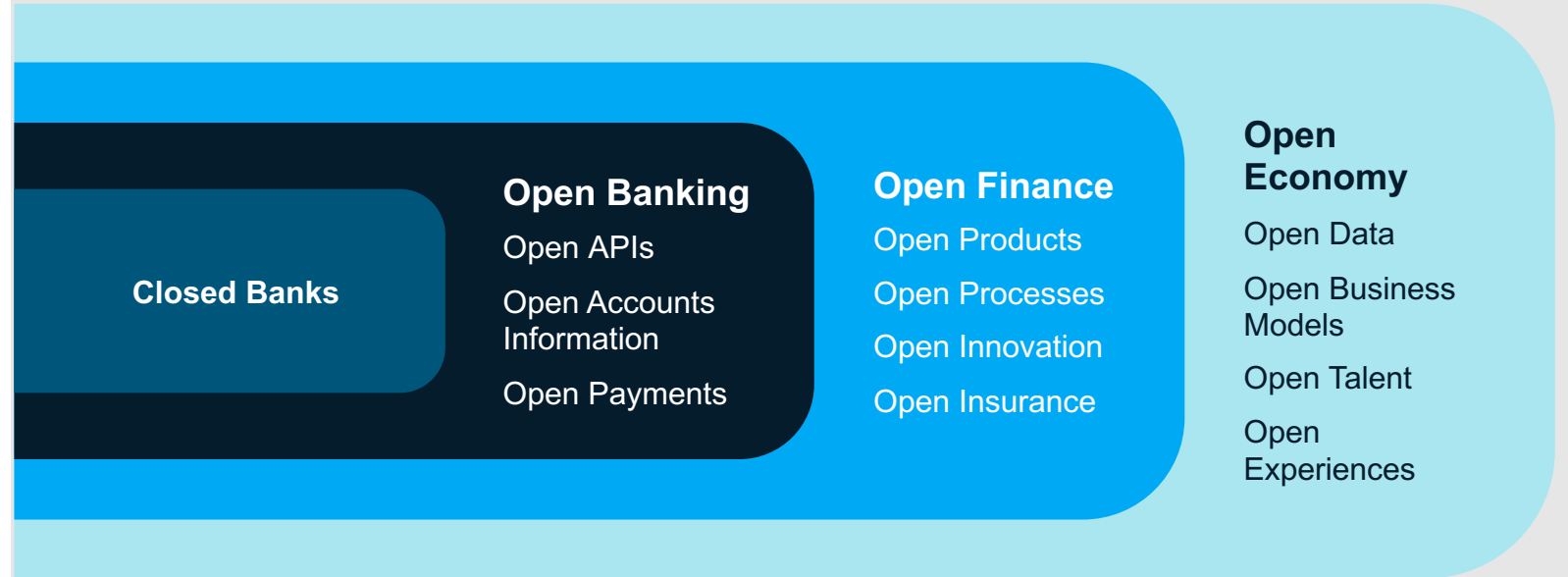

Open Banking is evolving towards Open Economy



Open Banking guarantees to **third-party financial service providers**, through APIs, the **access to consumer banking data**

It has **been traditionally focused on retail banking**, but may also include **business customer** propositions

Open Finance goes beyond open banking, enabling third party providers the access to a **wider range² of financial data**

Propositions cover a **wide range applications**, incl. **hyper tailored credit and wealth management offerings** for consumers, or businesses, **holistic financial management**

Open Economy is the next stage of Open data sharing, **allowing through APIs the access also to non-financial data**

Potential propositions may be **big data-based analytics, individual offerings** or **holistic optimization** of all types of contractual relationships

1. Personal financial management.

2. In addition to traditional bank data also e.g., non-bank transaction, insurance, credit, wealthmanagement data

Five key forces are driving the Open Finance market opportunity globally and locally



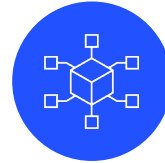
Regulation

Regulation driven and market-led adoption of Open Finance APIs across markets is **expanding awareness** and addressable use cases



Financial Institutions

Financial institutions are **Increasingly willing** to offer access and integrations to third party apps, further **driving availability and access to APIs**



API Aggregators and Networks

Aggregators are **enabling ease of access for Fintechs** and could **potentially push new innovative business models** and additional **non-regulatory-driven standardization**



Consumer expectations

Altered consumer expectations and increased willingness to share credentials with 3rd party platforms have raised the bar for **innovation** in services and product offerings and **fueling account/user growth**



Search for New Revenue Streams

Many banks are facing **slow growth** in their traditional businesses and are **exploring new revenue streams** by:

- providing **traditional services to new customers**
- creating and distributing **new product offerings**

Through Open ('Public') APIs, **Open Finance creates access to financial services products and consumer data** for financial services players, Fintechs, Telcos and other third-party players

The opportunity for Open Finance is substantial

Potential GDP impact by 2030, % of GDP

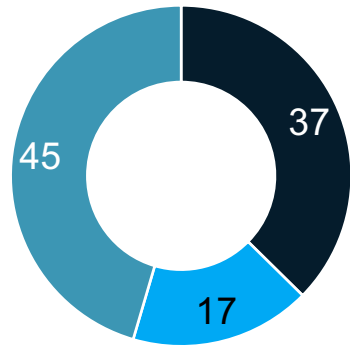
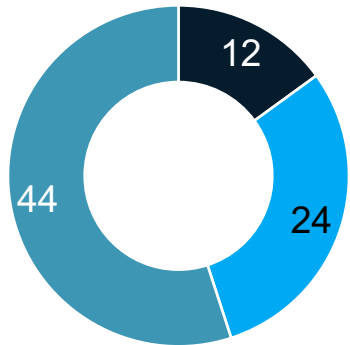
■ SMEs¹ ■ Individuals ■ Financial institutions

Developed markets

1-1.5% GDP

UK, US

EU

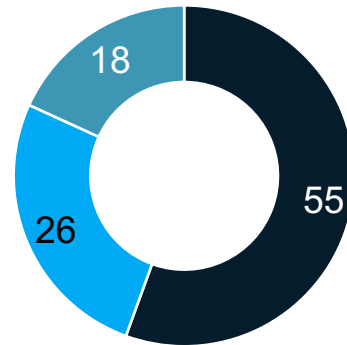


Economic value is driven more by **financial institutions**

Emerging markets

4-5% GDP

Africa, India & others



Economic value is driven more by **SME and individuals**

Benefits for financial institutions



Customer acquisition



Customer retention because of value added innovation



Reducing cost of customer acquisition



Increase in operational efficiency with improved workforce allocation

Benefits for customers



Access to **relevant financial services**



Enhanced **customer experience**



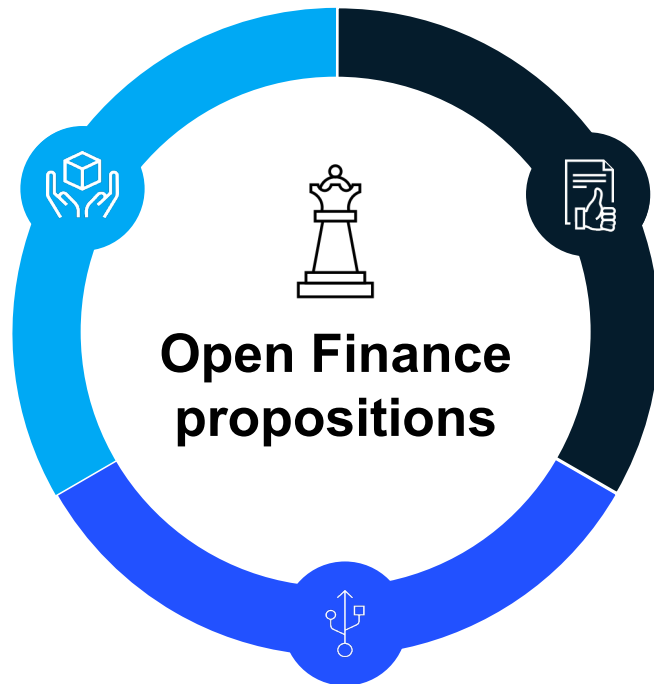
Secured access



Transparency

1. Micro, Small & Medium Enterprises

Adoption of open APIs in the Open Finance market has been accelerated through three main propositions



Providing APIs / data access to others

- Players that **expose data and/or capabilities through a programmatically consumable service** or an Application Programming Interface (API)
- Generate value through **additional channels that bring additional customers or business volume** through integrations



Consuming APIs of others

- Customer platforms (e.g., web and/or ecosystem apps) that **use APIs to integrate with external financial and nonfinancial service providers** to bring a broader set of data and services to clients
- Generate value through **enhanced user experience or product augmentation** over the data (or service) received from APIs



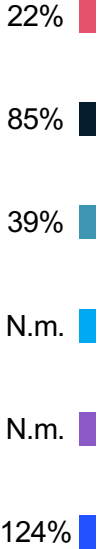
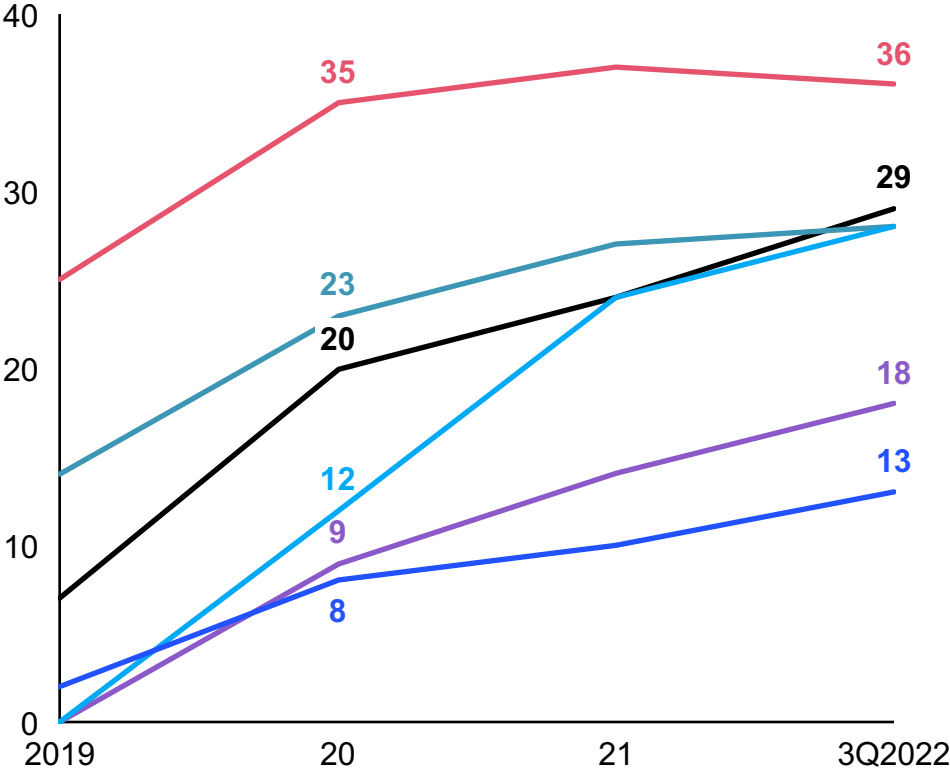
Providing API infrastructure components

- Players that provide **infrastructure components** to enable other organizations to **provide or consume services through APIs**
- Generate value through **hosting or revenue sharing or subscription services** with the API providing and consuming players

Italy's banking ecosystem is progressing towards the Open Banking paradigm

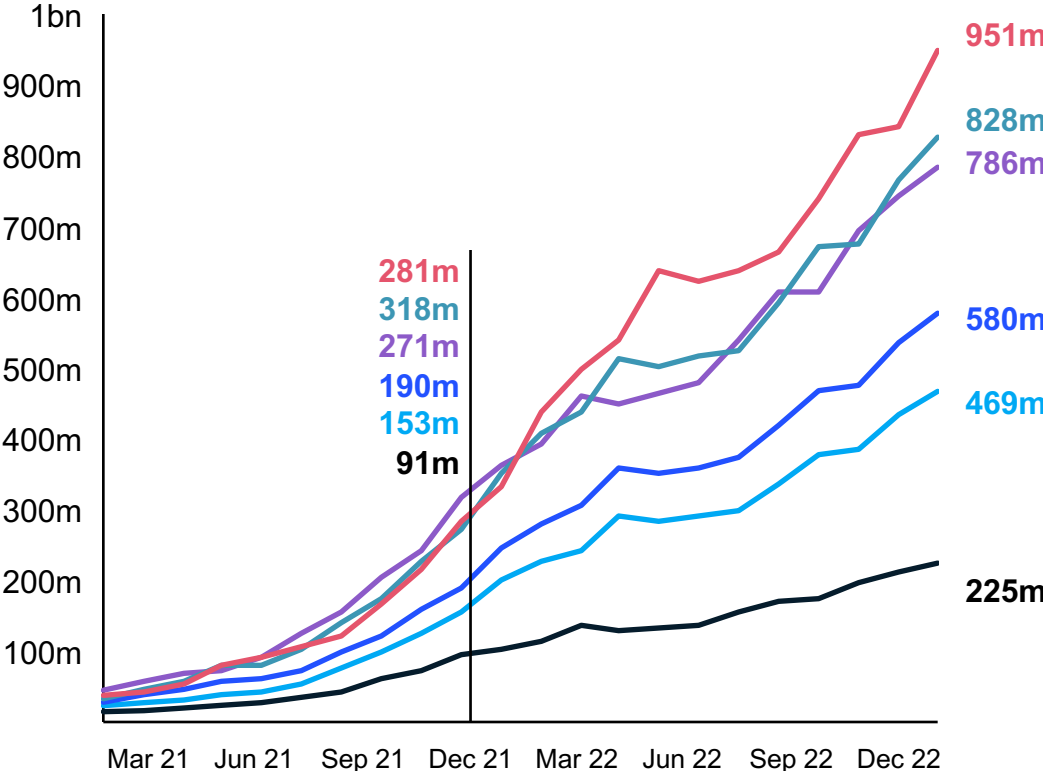
Number of TPPs regulated by Home NCA

CAGR
2019-2021

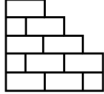



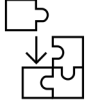









Germany Netherlands France Italy Poland Spain

Monthly transaction volumes:
Top 6 countries (excluding the UK)

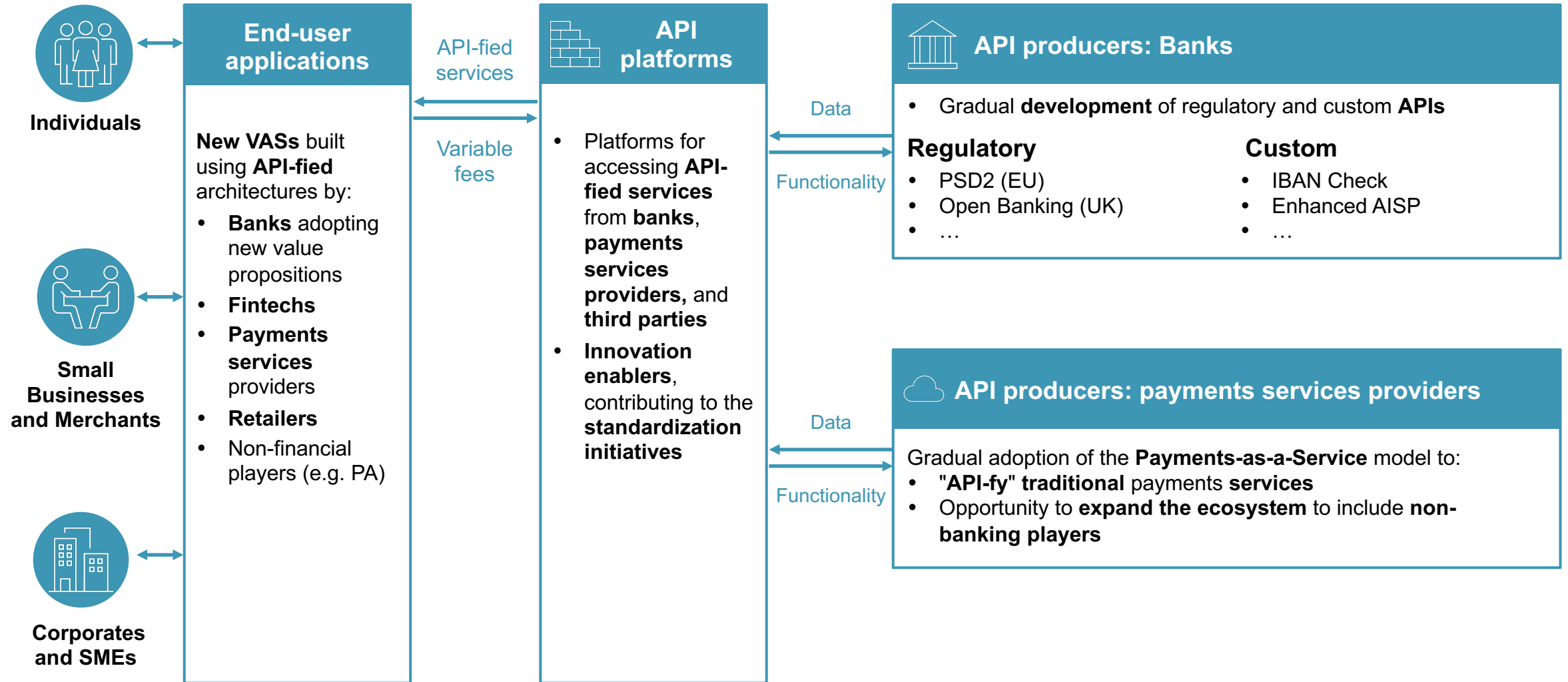


There are six enablers that guarantee a well functioning Open Finance in Italy

Enabler	Description	Current state of Italian market
 Infrastructure Providers	API providers driving innovation and contributing to the standardization initiatives	
 Product Augmenters	Product and services providers that leverage Open Banking to enhance their product's customer experience	
 New Business Models	Players offering products using innovating business models like Embedded Finance , where industry players can incorporate financial product into their customer journeys by partnering with banking providers	
 Providers of APIs (e.g., ASPSPs)	Banks going beyond simple compliance , developing a true strategic approach towards open banking and finance	
 Skills and technology	High maturity of the API technology allowing to offer high value adding services	
 Customers	Trusting customers keen to try new services, being conscious of the opportunities and advantages that Open Banking can provide	














API platforms simplify the connection between banks, PSPs and non-financial players, promoting innovation and additional standardization ...

Selected examples



...while enabling Embedded Finance, the next disruptions

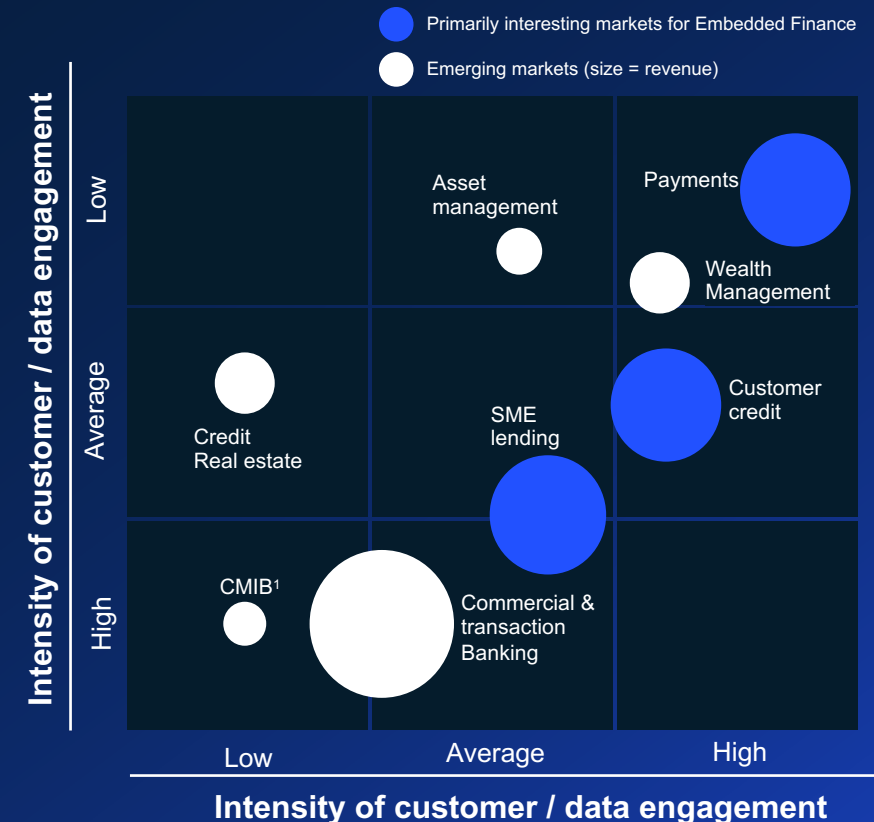
Maturity of embedded finance per industry

	Industry	Typical use cases
High maturity industries 	 E-commerce platform	Financing options both for sellers as well as buyers, payment solutions
	 Social media	Transfer of money. payment and account solutions
	 Retail stores	Financing options for buyers. payment solutions. beyond banking products e.g., loyalty programs
Emerging industries 	 Travel & Hospitality	Financing options for buyers. beyond banking products e.g., loyalty programs
	 Mobility & transportation	Payment, financing options
	 Telco	Money transfer
	 Media	Financing options for buyers
Early industries 	 Energy	Money transfer, transactions
	 Real Estate & Housing	Money transfer, transfer (deposit) accounts
	 Health	Financing options both for providers and Patients, payment

E-commerce platform, social media and retail were the pioneer in financial service offering. Other industries such as energy, real estate and healthcare are now emerging

Source: McKinsey

Payments are highly sought-after for embedded finance offering, given the high return and high customer touchpoints



1. Capital Markets and investment Banking