

Embedded Lending in Europe

Capturing an addressable
market worth € 10bn in revenue



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1. INNOPAY vision on Embedded Finance

2. Sizing the Embedded Lending opportunity

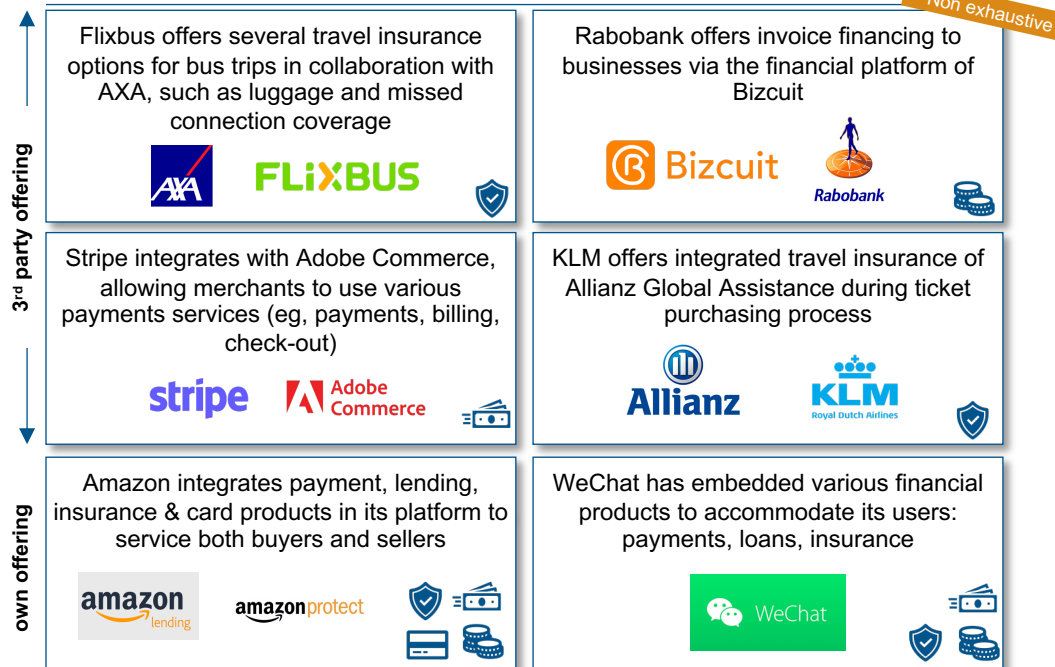
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Digitalisation drives customer expectations for 'embedded' financial products at the point of need: Embedded finance

Financial products are increasingly integrated at the point of need



30% of financial product distribution to take place in various digital ecosystems

- Ongoing digitalisation drives growing customer expectations for integrated product offerings within digital journeys
- 30% of global economy is expected to shift to digital ecosystems in 2025¹ where these digital journeys are enabled
- This will impact how distribution of financial products e.g., payments, insurance, lending, deposit accounts and cards will take place moving forward
- Distribution of financial products is increasingly taking place via non-financial platforms: e.g. e-commerce platforms, marketplaces, bookkeeping software platforms and other digital interfaces used by customers to interact and transact

Legend:



Source: INNOPAY analysis, 'McKinsey – Beyond Digital

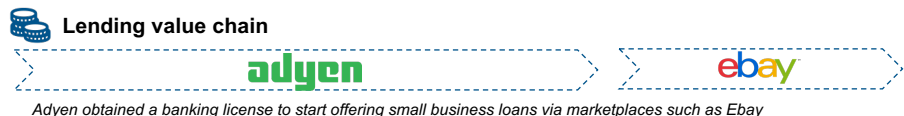
New players in Embedded Finance are emerging quickly to facilitate and capture demand, forcing incumbent FIs to protect revenue share

New players emerge that facilitate and capture Embedded Finance demand, thereby disrupting the value chain...

Traditional value chain: 'integrated'

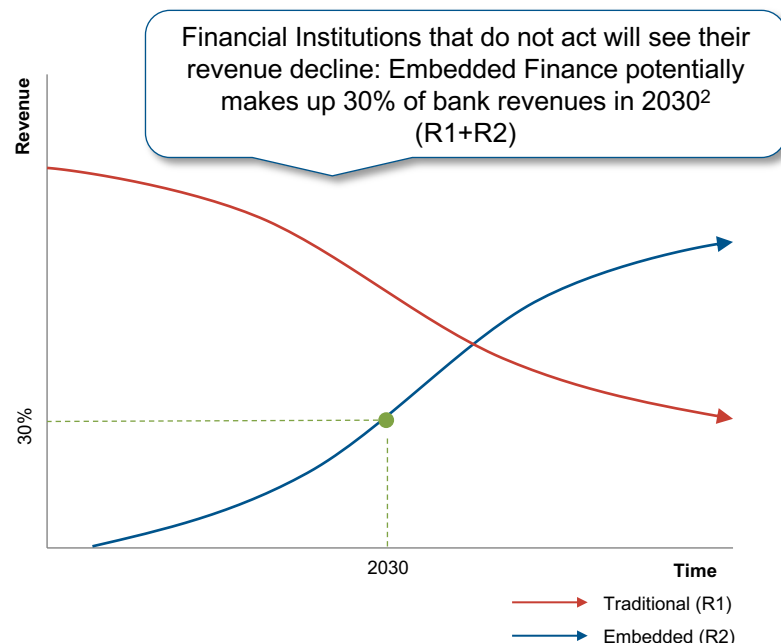


New value chain: 'decoupled'¹



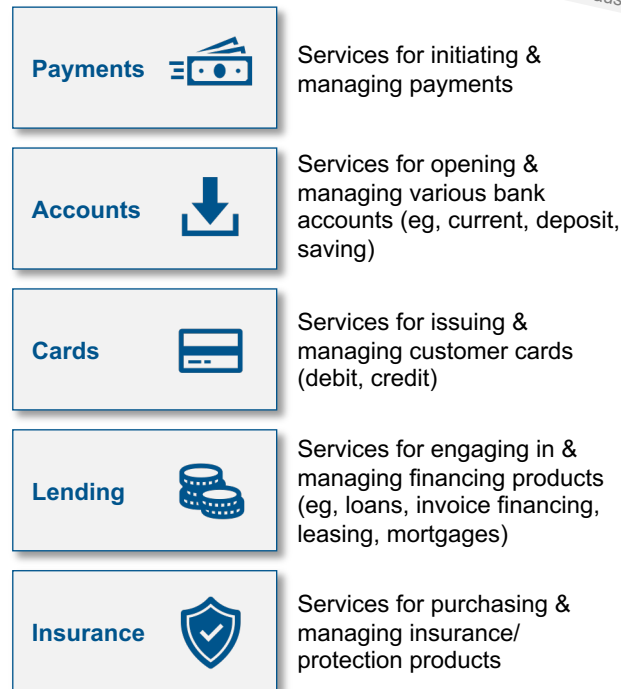
Source: INNOPAY analysis ¹Note: License provider & technology provider can be performed by the same party ²Note: Based on available market studies & client engagements
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...forcing incumbent FI's to protect revenue share



Retailers, software packages, marketplaces, Ecom platforms & 3rd party FIs become main Distributors within various financial domains

Embedded Finance domains



Non exhaustive

Embedded Finance distributors

Traditional retailers



Retailers can enrich the customer checkout experience with relevant financing & insurance options, thereby incentivizing brand loyalty and spending

Software packages



Software packages (eg, bookkeeping, ERP, TMS) can offer relevant financial products directly in business processes to drive business performance

Marketplaces



Marketplaces can service both consumers' & merchants' needs with relevant financing options & insurances at customer check-out as well as the merchant portal

E-commerce platforms



E-com platforms can enrich the customer check-out experience with various payment-, financing & insurance options as well as providing merchants with financing & insurances

Other FIs



Other FIs (eg, PSPs, challenger- & neobanks) service their customer needs with financial products of 3rd party FI's (ie, license provider)

Non exhaustive

Examples



Embedded Finance services cover origination and maintenance of financial products throughout the product lifecycle

Embedded financial services¹

Non exhaustive²

Product origination services

Services to initiate or purchase a financial product within a Distributor's digital channel

| Domain | Payments | Accounts | Cards | Lending | Insurance |
|--------------------|-------------------|---------------------|-----------------|---------------------|-----------------------|
| | Initiate payment | Open new account | Issue new card | Apply for loan | Purchase insurance |
| Financial services | Credit transfer ● | Current account ● | Debit card ● | Secured Loans ● | Home insurance ● |
| | Direct debit ● | Savings account ● | Credit card ● | Unsecured loans ● | Health insurance ● |
| | Bulk payment ● | Fixed deposit ● | Pre-paid card ● | Revolving credit ● | Car insurance ● |
| | FX payment ● | Recurring deposit ● | .. | Invoice financing ● | Travel insurance ● |
| | Instant payment ● | Salary account ● | .. | Factoring ● | Corporate insurance ● |

 In scope for market sizing analysis included in next section
  Retail services
  Business services

Product maintenance services

Services to (self) manage a financial product within a Distributor's digital channel

| Payments | Accounts | Cards | Lending | Insurance |
|--------------------------------|-----------------------|-------------------|-----------------------|---------------------|
| Manage payments | Manage accounts | Manage cards | Manage loans | Manage insurances |
| (variable) recurring payment ● | Mandates ● | Manage limits ● | Request roll over ● | Submit claim ● |
| Standing order ● | Manage saving pools ● | Request new pin ● | Terminate loan ● | Policy amendment ● |
| Cancel payment ● | Close account ● | Cancel card ● | Max loan calculator ● | Request new quote ● |
| .. | Set notifications ● | Manage regions ● | Interest rate calc. ● | |
| .. | Set account sweeps ● | Freeze/block ● | Credit score calc. ● | .. |

¹**Note:** Highly automatable financial services and -products with low(er) risk and proven demand are most suitable for embedded propositions

Source: INNOPAY analysis ²**Note:** More services within these domains as well as other financial domains suitable for embedded propositions

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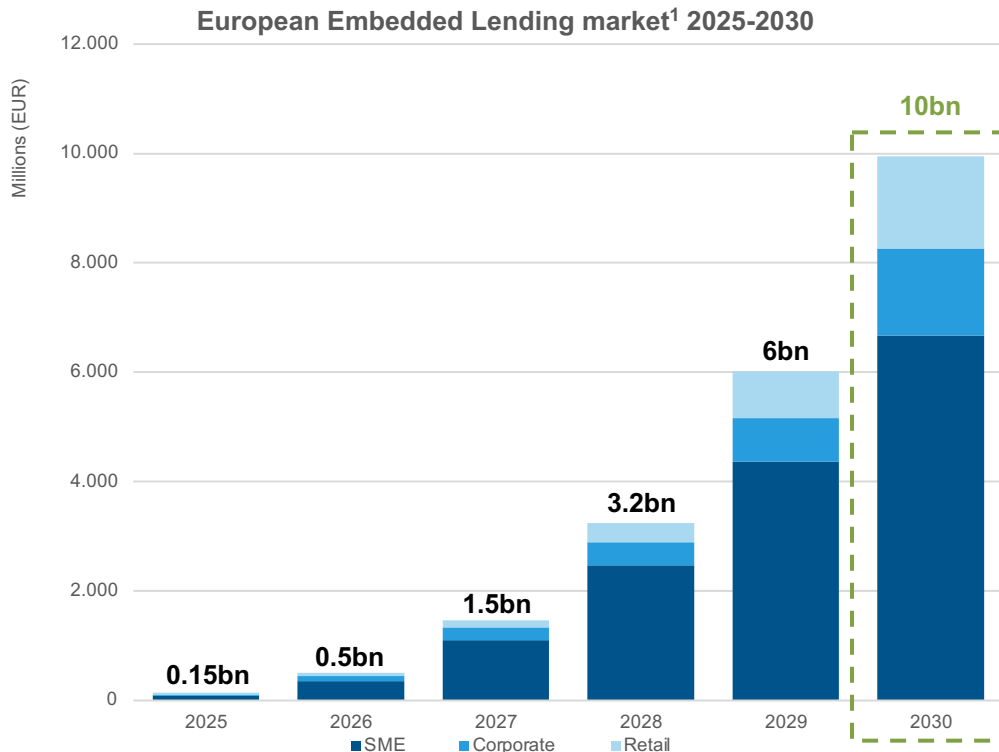
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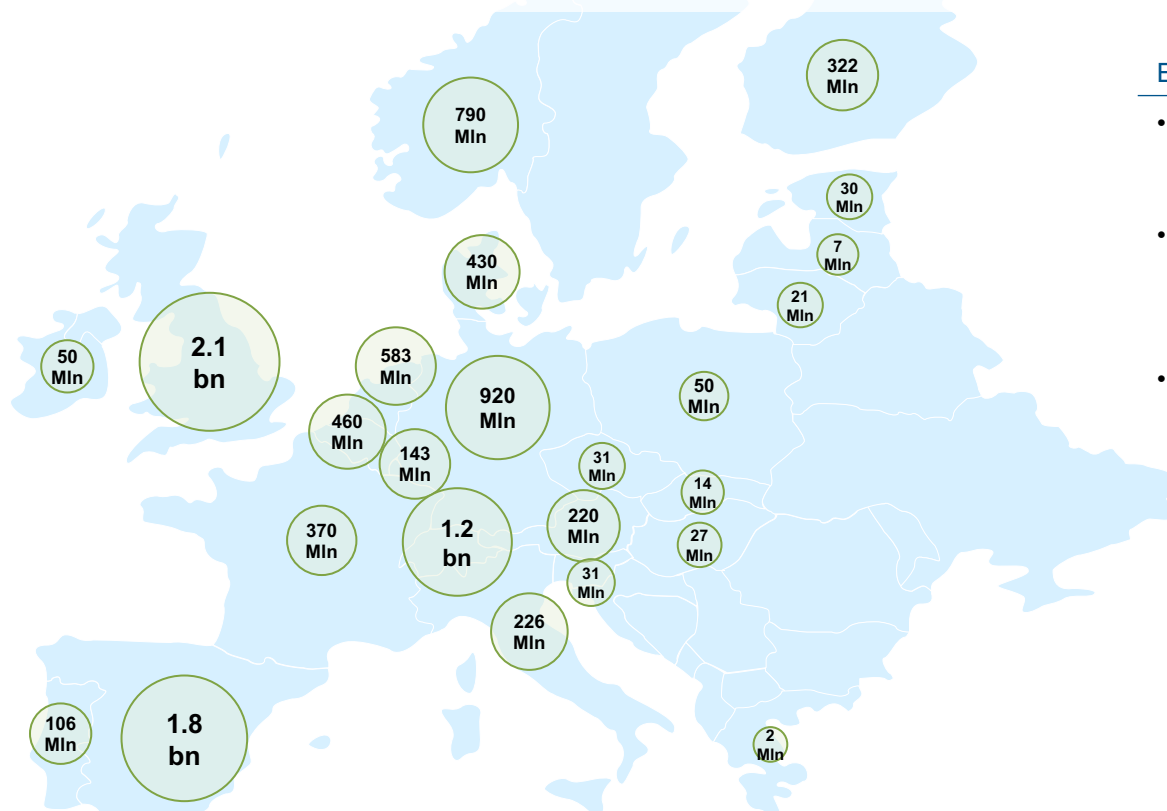
Embedded Lending represents addressable market worth €10bn in revenue per year in 2030, with SME as key revenue driver



Embedded Lending largest for SME segment

- SMEs are increasingly expanding their business towards digital channels and platforms² providing more opportunity for API-enabled loan distribution
- Embedded lending is most suitable for low value loan sizes (<50k), due to their 'fast decision approval' nature as opposed to larger loans that often require more advanced decision making processes
- Embedded Lending is most suitable for loan types that are aligned with SME demand (eg, short term (un)secured loans, invoice financing, BNPL)

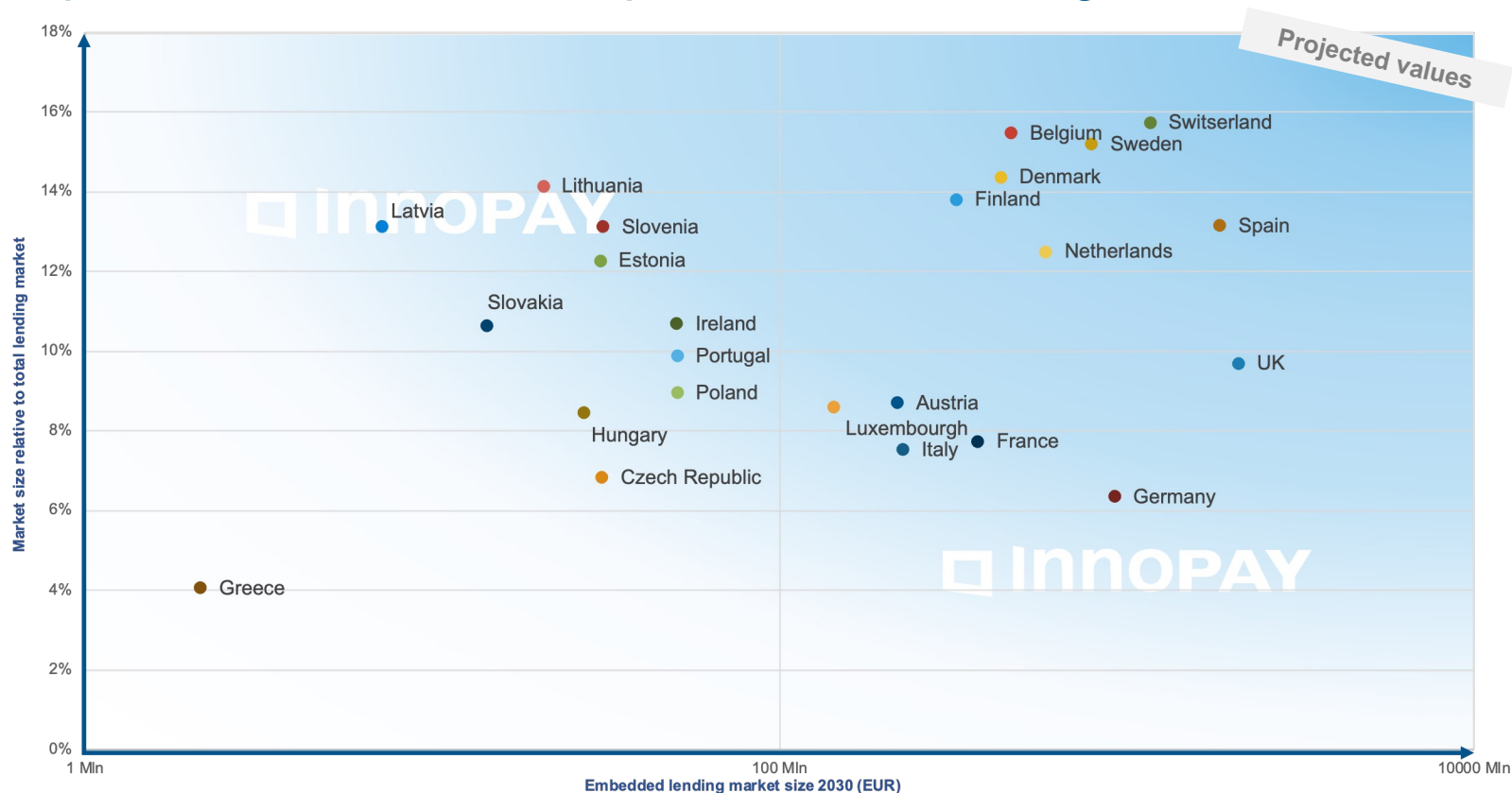
¹**Note:** Depicted revenue involves the spread between interest paid to lenders and depositors, and the interest that can be earned on the outstanding loan. *It involves the revenue from loans minus the cost of borrowing (excl. operational costs & defaults)*



- Embedded Lending opportunities are expected to take-off across Europe with sizable revenue pools in 2030
- Digitisation maturity in countries is one of the main drivers for adoption of Embedded Lending and the shift of traditional product distribution to API-driven distribution
- Embedded Lending expected to be most promising in the UK, closely followed by Spain and Switzerland, due to their large lending markets in combination with mature levels of digitisation

Source: INNOPAY analysis **Note:** Depicted revenue is in EUR for 2030; ¹see methodology in annex

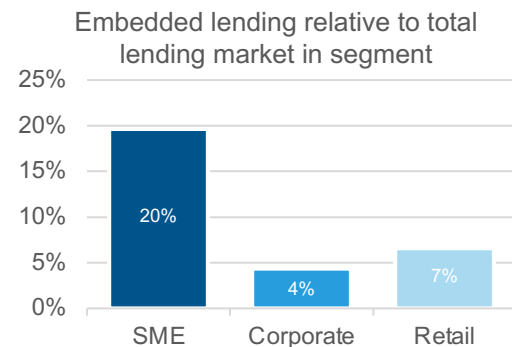
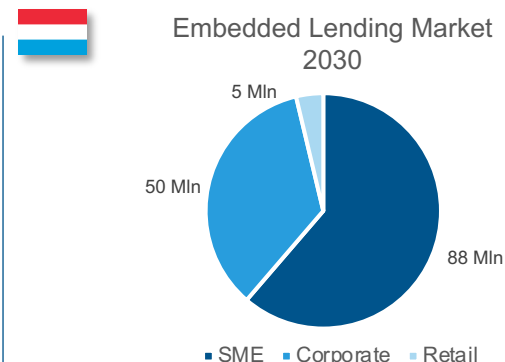
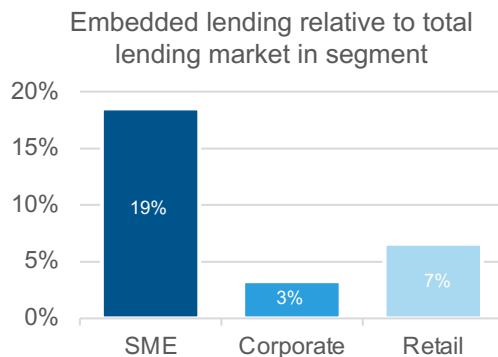
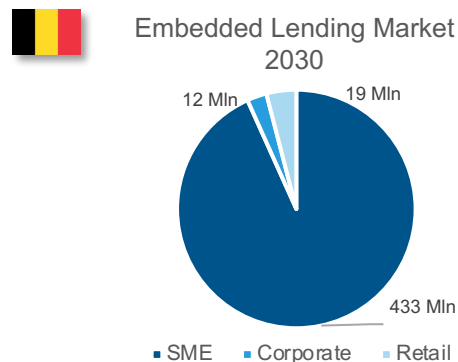
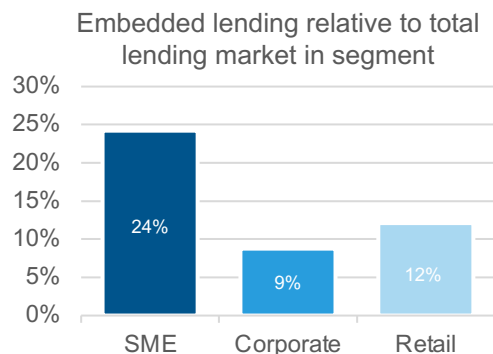
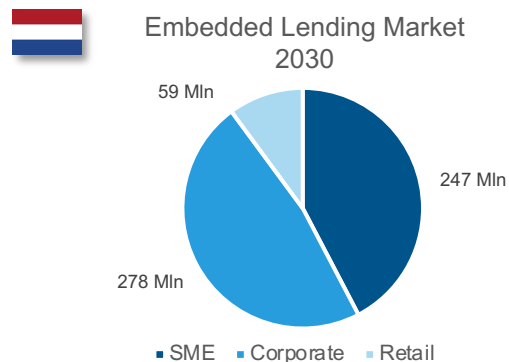
Large relative- and absolute market sizes drive Embedded Lending value pools in Switzerland, Spain, Sweden, Belgium, NL & UK



Source: INNOPAY analysis

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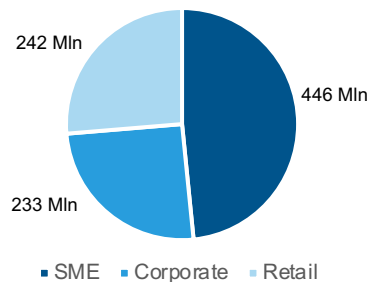
For Benelux, Netherlands has highest Embedded Lending potential with sizeable opportunities in SME & Corporate segment



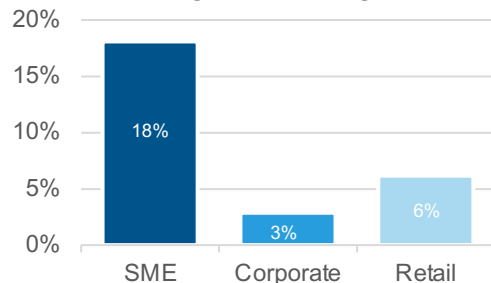
DACH region holds largest Embedded Lending opportunity in Switzerland, primarily in SME segment



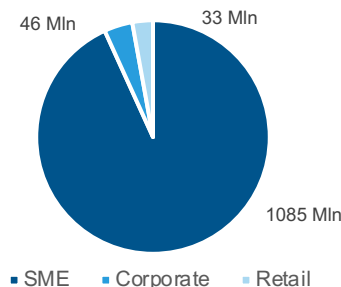
Embedded Lending Market 2030



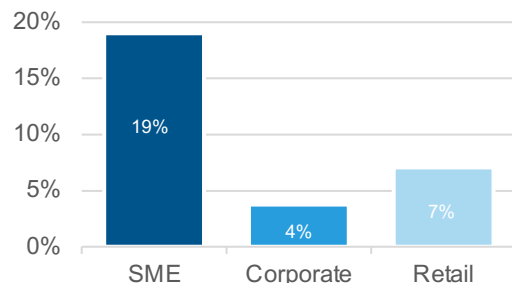
Embedded lending relative to total lending market in segment



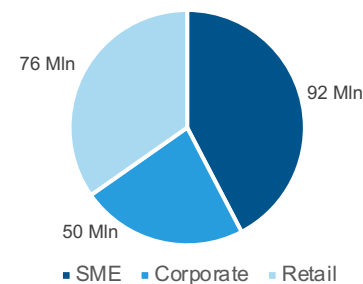
Embedded Lending Market 2030



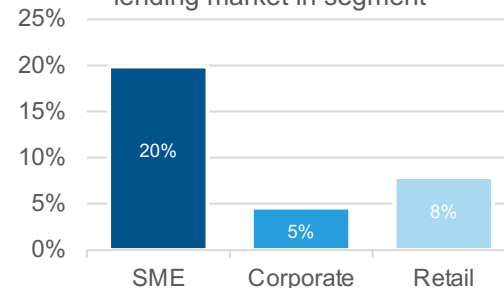
Embedded lending relative to total lending market in segment



Embedded Lending Market 2030



Embedded lending relative to total lending market in segment



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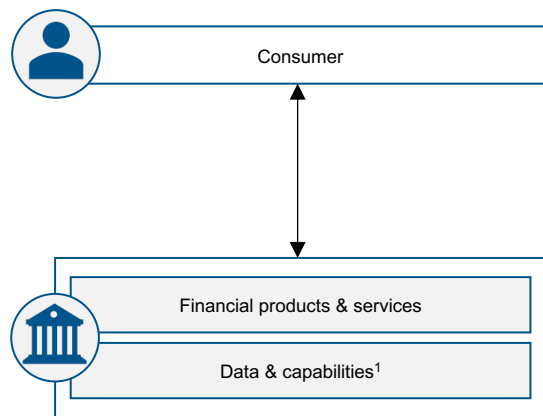
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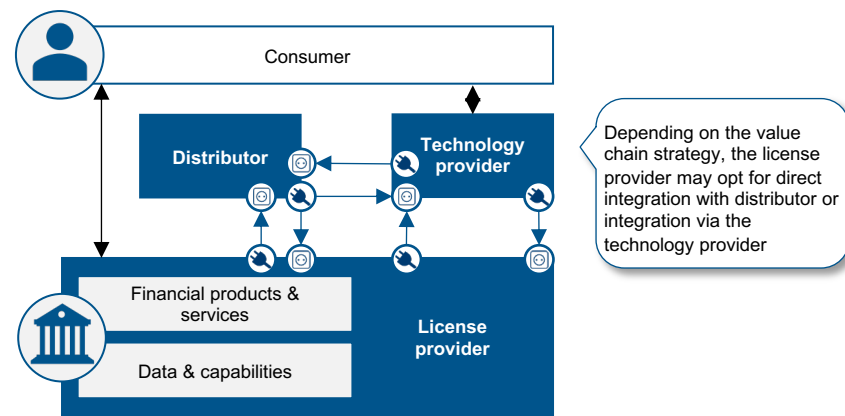
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Banks and other FIs need to shift from traditional financial service distribution to 'Embedded Finance' distribution

Traditional financial product & service distribution



Embedded financial product & service distribution



Exposing APIs towards technology providers & distributors with financial products & services, & data- and capability services



Consuming APIs from technology providers & distributors with (financial) services, & data- and capability services

Next to offering financial services via 3rd parties, digital presence also enables to consume 3rd party services, data & capabilities to enrich propositions

Source: INNOPAY analysis **Note¹**: Complementary to distribution of (embedded) financial products & services

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Banks and FIs need to get five building blocks right to win in Embedded Finance

Where to play



Banks & FIs need to define **where to play**: what are the **customer segments** to address in which **financial domains**, carefully weighing possible gains with potential cannibalisation effects

Value chain strategy



Banks & FIs need to define a **value chain strategy** around the **richness of their product portfolio vs. product depth**: either they gradually expand the embedded finance portfolio across products or become specialist within single embedded finance domains through well-developed capabilities

Partnerships



Based on chosen strategy, Banks & FIs need to ensure **they team up with the right Distributors and Technology providers** that allow them to reach desired target customer segments and can provide them with complementary capabilities

Modern IT stack



Banks & FIs need to **modernise their (often legacy) IT infrastructure** to support API-based product origination and maintenance thereof throughout the product lifecycle

'API first' thinking



Banks & FIs need to **embed an 'API first' thinking** within the various business lines to drive development of financial products that **fit embedded propositions** and **improved servicing of API consumers** (ie, developer experience)

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Calculation methodology & forecast are built on available market data, while occasional work arounds have been applied



Calculation methodology



Embedded Lending market sizes are depicted as the spread between **total potential revenue to be earned and minus the lending costs** for FI's, and consists out of a **replacement market** and **new market** for embedded financial products



Basis for calculation are current market loan sizes in **new loans volume per year** per segment, derived from the OECD library as main source and cross-checked with other available sources



The size of the **shift to embedded distribution** (ie, replacement market) and **boosted conversion** in digital channels (ie, new markets) is determined by using the DESI score (see next slide)



Outstanding Embedded loan amount is calculated by accumulating **new 'embedded' loan volume per year**, where **an average repayment amount is included** based on the average new loans/outstanding loans ratio of all countries



Macro-economic effects are applied to forecast the baseline growth rate of new loans volume per country, such as inflation to average loan size and economic growth on the segment size



Missing data points per country have been **derived from related data points**, or have been substituted with **group averages** and/or data from **neighbouring/similar countries**



Currently high inflation figures, high interest rates and (post)economic impact of Covid-19 as black swan event have been **excluded from the macro-economic trend** to better fit the forecasting period



Workarounds

Geographical Embedded Lending adoption & conversion for Retail, SME and Corporate is segmented using the DESI score

Desi score definition

The **Digital Economy and Society Index (DESI)** is a summarised index on **Europe's digital performance and individual EU member states**, across five dimensions: Connectivity, Human Capital, Use of Internet, Integration of Digital Technology & Digital Public Services

DESI as 'Embedded' driver

Digitalisation maturity is a major driver of Embedded Finance adoption, as distribution & consumption of digital financial services **is closely linked to available technical infrastructure, knowledge and adoption of digital technologies** of consumers and businesses

Projected DESI Score

As Embedded Lending projections in this deck run until 2030, the methodology **accommodates for different pace of digitalisation** between countries, where it is assumed that **less digitised countries will have a higher pace of digitisation than the more mature countries**

Country segmentation

The DESI score primarily **functions as segmentation tool** between the various countries per year, whereby Embedded Lending **adoption & conversion estimates are determined per segment** based on available market research & client interactions for the best performers. The methodology then establishes adoption & conversion figures per country **based on DESI score differences with the top performer**

In order to take into account possible outliers and market shifts, three possible future scenarios were developed and calculated

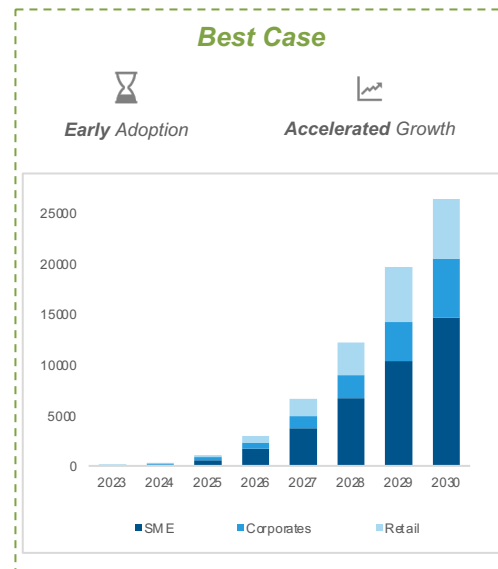
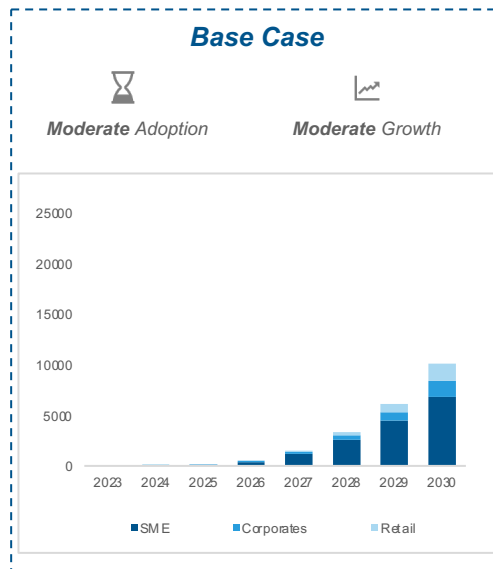
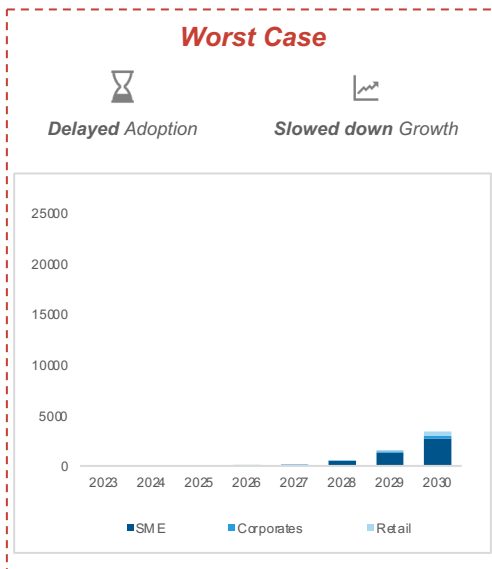


Context

- Assessment is aimed at capturing different scenarios in the context of **speed of adoption** as well as the **overall growth rate** of the embedded lending market
- General **Macro-economic effects** (e.g. interest rates) are kept the same for all scenarios
- DESI score remains the same**, to ensure comparability



Scenarios¹



Source: INNOPAY analysis; ¹y-axis describes yearly revenue potential (in Mio. €)

Key sources

1. OECD Library – Financing SMEs & Entrepreneurs, 2022
2. European Commission – Digital Economy & Society Index
3. Small Business Act Europe - Fact sheets 2019
4. Eurofinas – Key facts & figures Consumer Credit, 2020
5. Statista – Loan sizes Belgium SME segment
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9. KMU Switzerland
10. KMU Austria
11. McKinsey Beyond Digital, 2018
12. McKinsey Global Payments Report 2022
13. BCG - Global Payments Report 2022
14. BCG & Adyen – How platforms are revolutionizing SMB banking
15. Bain – Embedded Finance. What it takes to prosper in the new value chain
16. Accenture - Embedded Finance for SMEs
17. Finastra – Banking as a Service outlook. Paving the way for Embedded Finance
18. Strategy& - 2022 retail banking monitor. Repositioning for Embedded Finance
19. Mambu & AWS – Embedded Finance. Who will the battle in the next digital revolution

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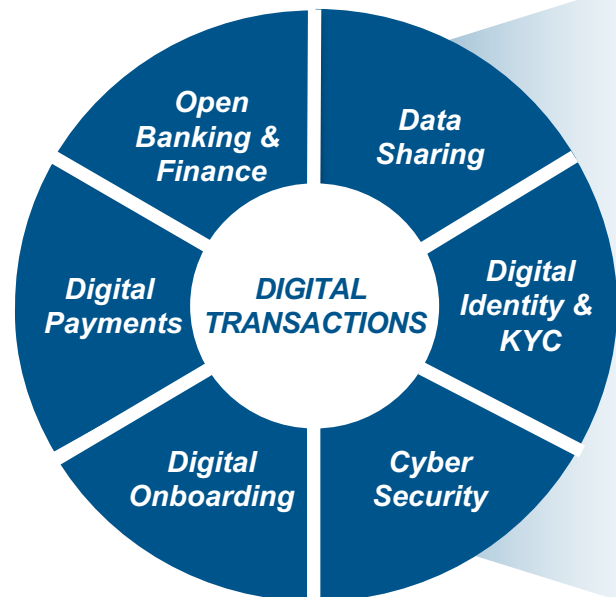
INNOPAY is a recognised expert in digital transactions

- Founded in 2002
- 60+ consultants
- Strategy, product development and execution
- Strong track record in facilitating collaboratives in creating Schemes and Trust Frameworks
- Offices in Amsterdam (HQ) and Frankfurt
- Focus on EU but also global footprint (e.g. APAC, US)
- Founding member of HollandFintech



INNOPAY offers strategy, technology and implementation consulting services on digital transactions across a range of sectors

AREAS OF EXPERTISE



SECTORS

Banking

Create customer value through trust, collaboration and secure access to data

Fintech

Grow towards sustainable business

Insurance

Create value with Open Insurance

Logistics

Achieve simple, cost-effective, and secure data sharing

Mobility

Realise growth in a digital mobility ecosystem

Public Sector

Empower citizens and businesses by digital transformation

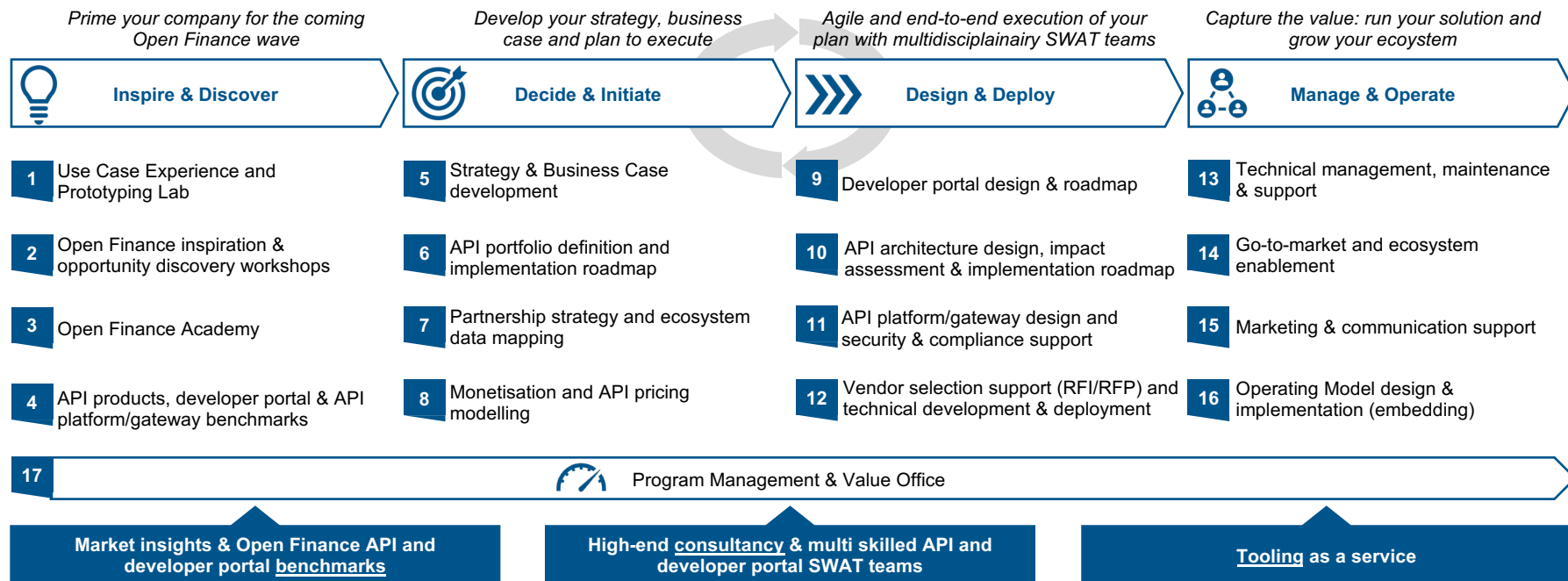
Source: INNOPAY experience

SELECTED INNOPAY MEDIA ACTIVITIES RELATED TO OPEN BANKING & FINANCE



INNOPY helps clients in accelerating time to value with end-to-end Open Finance Transformation Services

CONSULTING SERVICES PORTFOLIO

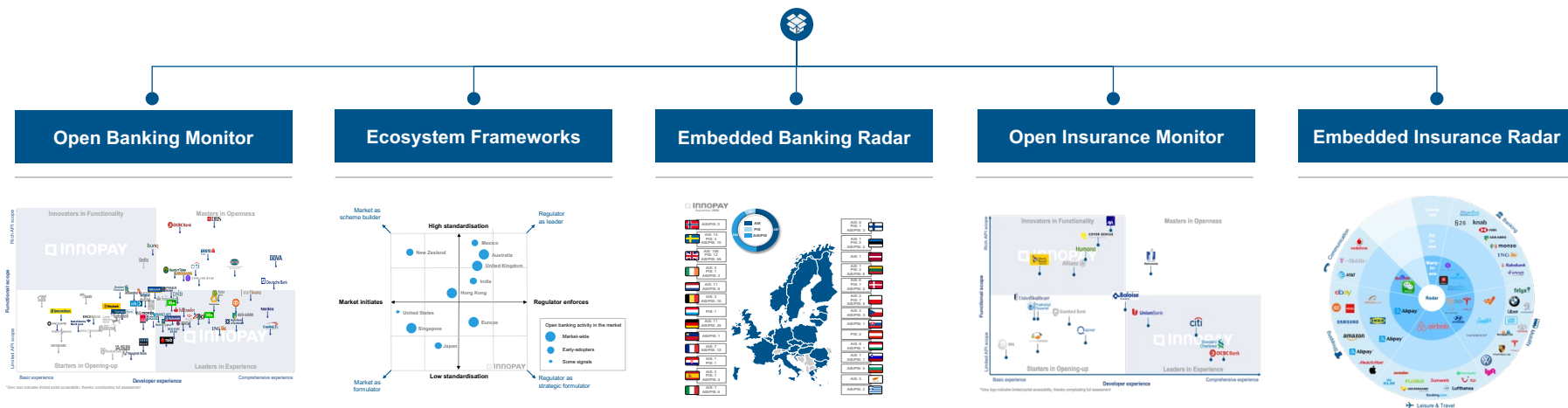


Source: INNOPY experience

Note: Visit INNOPY webpages about our [Open Finance Services](#) and our [Open Finance Expert Team](#).

INNOPAY complements its consulting services with in-depth research and benchmarks of the Open Finance ecosystem

OPEN BANKING/FINANCE



INNOPAY tracks Open Banking API efforts across the globe via the INNOPY Open Banking Monitor

See [Appendix 2](#) for more insights on the Open Banking Monitor

INNOPAY tracks Open Banking and Open Insurance (Trust) frameworks across the globe, driven by market players or regulators

INNOPAY tracks European (licensed) 3rd parties building Open Banking propositions incl. technology and business model

INNOPAY tracks developments of parties (insurers, fintechs and banks) offering insurance APIs

INNOPAY tracks innovative embedded Insurance propositions incl. technology and business model

Source: INNOPY analysis

INNOPAY consulting support is based on three key principles

KEY PRINCIPLES



Leverage Open Banking transformation expertise, experience & unique assets

Financial Institutions benefit from:

- Recognised thought leadership in payments, digital identity and data sharing
- Unique market insights from in-depth research assets and benchmarks, e.g. Open Banking Monitor and Open Insurance Monitor



Leverage international project experience from strategy to implementation

Financial Institutions benefit from:

- Years of experience in supporting banks and other financial institutions across the globe with open banking transformations and resulting international best practices
- Holistic approach and full suite of competencies covering strategy, technology, operations and implementation



Improve and embed capabilities in sustainable manner

Financial Institutions benefit from:

- Lasting results that are embraced by key stakeholders in the organisation
- Sustainable and scalable competencies embedded in the organisation

Source: INNOPAY analysis



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