

SMEs: last call for banks and incumbents

November 2021

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01

Executive summary

SMEs, and in particular micro and small companies, are an important part of the European economy. The micro and small business segment includes over 25 million companies, with a total turnover of over €10bn, and employs just under 43% of the total number of employees in the European private sector.

Despite the overall size of the segment, these companies have been, up to now, challenging for banks to serve. Due to the small size of these organizations, they are often classified and treated as retail customers. This, coupled with their limited accounting and financial management capabilities, limits their ability to access finance. This is even before considering digitalization and e-commerce limitations due to their small size, limited management bandwidth, and limited resources.

This has left an untapped white space opportunity that is being leveraged by a growing number of new entrants, which are building their propositions based on the most recent technological and regulatory developments. The latter offer the opportunity to lower the cost-to-serve, while addressing some of the needs of these small businesses through new challenges and new data-centric technologies.

Is this a segment and an opportunity lost to banks? Not at all. On the contrary, this is a new space that banks can now also serve profitably based on the same technology and solutions that are being developed by new entrants.

CRIF, directly and through its subsidiaries Strands and CRIF.Digital, supports a number of banks and incumbents within the financial services industry to grow their businesses and address the needs of this micro and small company segment. Propositions like Business Financial Management (BFM), combined with Open Banking data, provide cost-effective ways to expand the financial management capabilities of small companies, while creating new service opportunities for financial services providers. The further integration with analytical solutions for the automated matching of transactions and invoices, a process historically performed manually, provides the ability to perform cash flow forecasting and trigger alerts for specific liquidity positions. This is further helping entrepreneurs and small business owners to manage their businesses and related finances while offering lenders a way to offer funds and manage risk without needing to rely on financial collaterals. Finally, solutions such as CRIF's Sicurnet Business helps both owners and their stakeholders to monitor and manage the cyber risk exposure connected to their digital presence, allowing the expansion of sales and customer interaction with online channels.

By leveraging the right technological capabilities, the opportunities related to micro and small businesses are no longer lost to banks, which that can now profitably serve their needs and successfully and profitably expand into these segments.

02

EUROPEAN SMEs

The European Union (EU) published a User Guide to the SME Definition¹, with a methodology for defining SMEs. Small and Medium Enterprises is a generic term used to classify businesses with a limited number of employees and revenues.

That said, the actual classification of what constitutes a small and medium enterprise differs from the interpretation of the person or company segmenting the market according to the approach that “SMEs come in many different shapes and sizes.”² In developing its classification, the EU remarks that size is not the only factor that determines the classification, but it is also necessary to take into account participation or ownership by larger corporations. For this report we are proposing to use a classification from EU Recommendation 2003/361, whose criteria for classification are illustrated in Fig 1. below.

	Staff headcount	Turnover in €	Balance sheet in €
Micro	< 10	≤ 2 mn or ≤ 2 mn	
Small	< 50	≤ 10 mn or ≤ 10 mn	
Medium	< 250	≤ 50 mn or ≤ 43 mn	
Corporate	> 250	> 50 mn or > 43 mn	

Fig 1 – EU classification of businesses by headcount, turnover and balance sheet

Source: EU Recommendation 2003/361

The EU SME definitions classify Micro-enterprises as enterprises employing fewer than 10 persons and whose annual turnover or annual balance sheet total does not exceed EUR 2 million. Small enterprises are those employing fewer than 50 persons and whose annual turnover or annual balance sheet total does not exceed EUR 10 million and, finally, Medium-sized enterprises are defined as enterprises that employ fewer than 250 persons and either have an annual turnover that does not exceed EUR 50 million, or an annual balance sheet not exceeding EUR 43 million³.

Before looking in detail at the challenges experienced by European SMEs, it is important to understand the size of this business segment, its role within the overall European economic fabric, and the size of the potential opportunity for banks across services ranging from payroll to SME banking services.

SMEs account for 99.8% of the total number of companies and 50.1% of the total enterprise turnover in Europe, generating 26% of European GDP while employing 42.8% of all European employees. These SME statistics are illustrated in Fig. 2 below⁴.

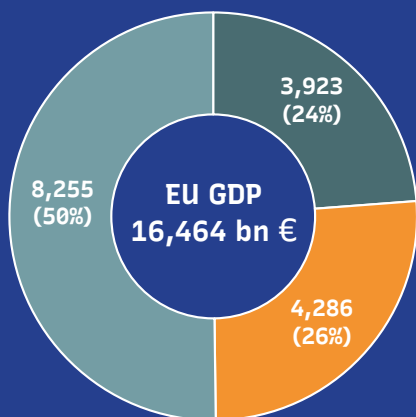
¹ European Commission, User guide to the SME Definition, February 2016

² Ibid.

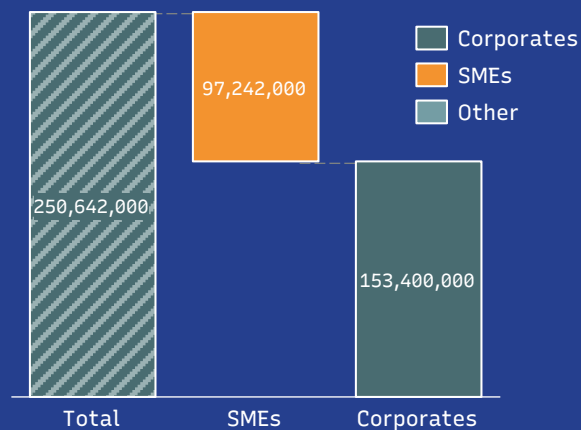
³ Ibid.

⁴ Structural business statistics Database (Eurostat)

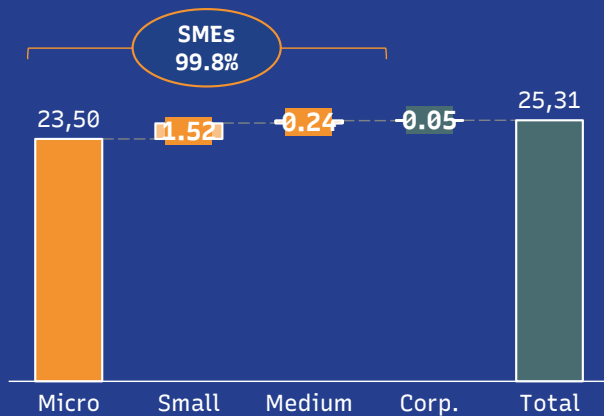
GDP composition in Europe¹⁾ in bn €



Employees in Europe¹⁾



Number of enterprises²⁾ in Europe¹⁾ in mn



Enterprise²⁾ turnover in Europe¹⁾ in bn €

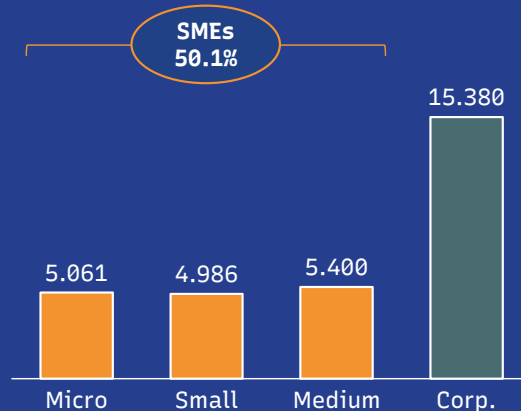


Fig 2 – EU SMEs - number of enterprises, turnover, GDP contribution and number of employees vs. totals.

1) EU 27 and UK

2) Covers non-financial business economy including industry, construction, trade and services but not agriculture, forestry, fishery, education and health.

Source: Estimates for 2019 based on 2014-2018 figures from the Structural business statistics database (Eurostat).

While the total number of people is significant, the individual company activities of each of these firms are small, with micro enterprises generating an average turnover of €215,372 per company compared to a small enterprise with €3,280,263 per company and €22,500,000 for a medium enterprise.

It should come as no surprise that many banks classify micro enterprises as individual or retail customers and therefore serve them through the same channels dedicated to retail customers, which do not offer the full range of services needed by a business user. While the definition and the threshold of a micro enterprise differs from bank to bank, the common factor is that the need of these businesses become smaller and simpler at the size decreases. As their banking needs are simpler, the cost to serve them from a traditional banking infrastructure may not be worth the investment and resources, meaning that smaller companies are being underserved.

With so many micro and small businesses (hereafter referred as Small Businesses – SMBs) dominating the European landscape and only a few large corporates, why have banks not yet figured out how to serve them? Do they need support?

03

**SME
CAPABILITIES
AND NEEDS**

The capabilities of corporations grow as their size increases, but small companies often grow out of an entrepreneurial idea and a necessary focus on sales and delivery. As a result, there are some limitations in terms of functional skills and capabilities as well as their ability to liaise successfully with banks to address their financial needs.

Many studies on SME sectors and their limitations have been published over the years by academic institutions, NGOs and various government offices, and they all point to the same global challenges. These are endemic to the type of company and are a consequence of the limited management bandwidth and balance sheet of these organisations. Any function beyond sales, production and delivery is an overhead that micro and small companies cannot afford. These needs get addressed over time as the company grows in size and evolves over time. Fig. 3 provides an illustration of the needs of companies by size and development stage.

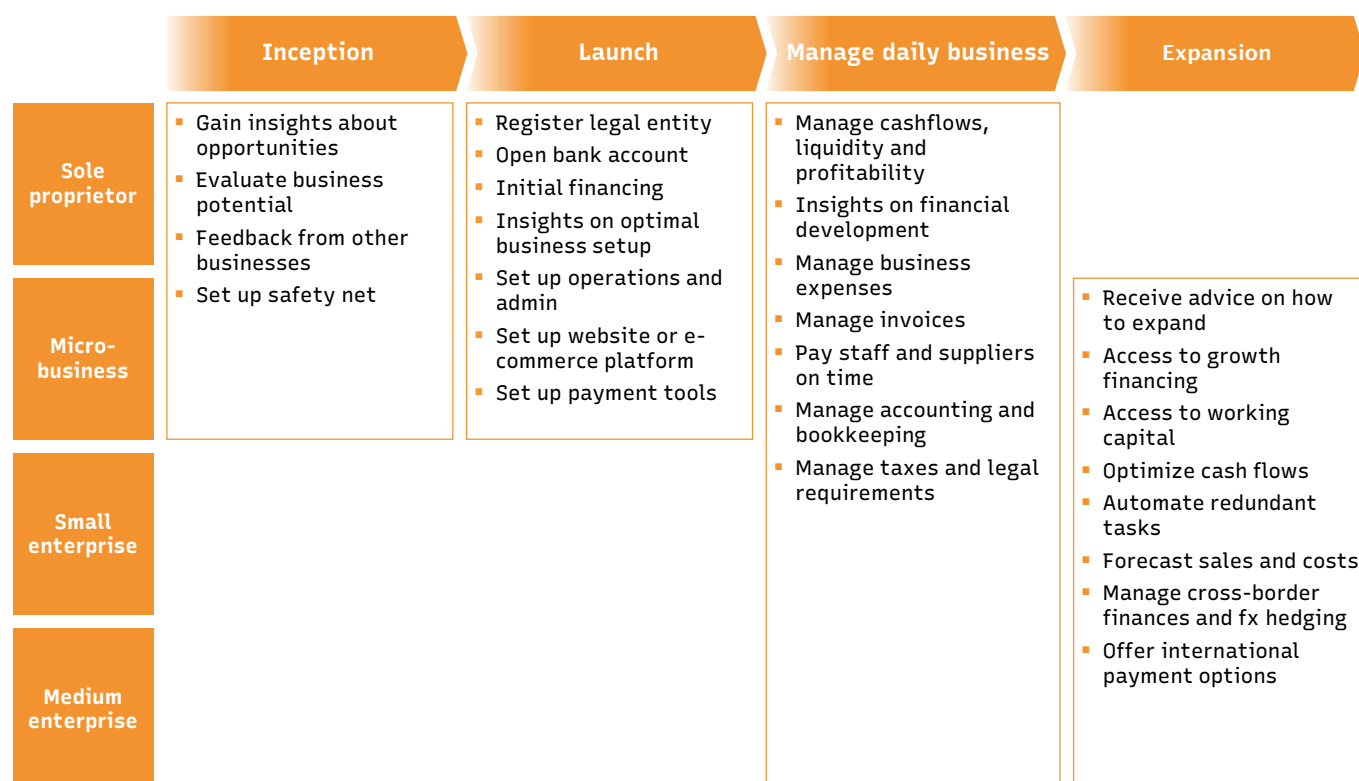


Fig 3 – SME needs by company size and stage

Source: CRIF analysis

Based on research, the literature on the subject and the above needs, as well as based on our experience, CRIF has identified three key challenges for SMEs, particularly common for micro, small and smaller medium-sized companies. These are related to accounting and financial management, access to finance, and to the ability to invest in digitalization and run e-commerce operations.

01 Accounting and financial management limitations.

“...Managers are expected to have a decent level of accounting [and financial] knowledge [...] It is poised that by having adequate level of this knowledge, the managers may have a clear idea of the financial activities and are able to manage the business resources efficiently and effectively.”⁵ “ Yet SMEs are more likely to outsource their accounting work and functions due to a serious shortage of accounting knowledge among the staff.”⁶

Between March and June 2017, the World Bank conducted a survey to assess financial management capabilities across a sample of 600 SMEs in 24 countries in different regions and industry sectors, including developed and emerging economies⁷. The analysis was based on a financial literacy quiz that produced homogeneous results, with no geographical differences found. The outcome was classified by dividing the sample in two company sizes and income levels. The findings are illustrated in Fig 4 below for two groups based on company size.

⁵ Noor Emilina Mohd Nasir, “Small and Medium Enterprises: Critical Problems and Possible Solutions”, International Business Management Journal, January 2017

⁶ Son. D.D. N. Marriott and P. Marriott, “User’s perceptions and use of financial reports in Small and Medium Companies” Accounting Management 2006

⁷ World Bank, Investigating the Financial Capabilities of SMEs Lessons from a 24-Country Survey, June 2018

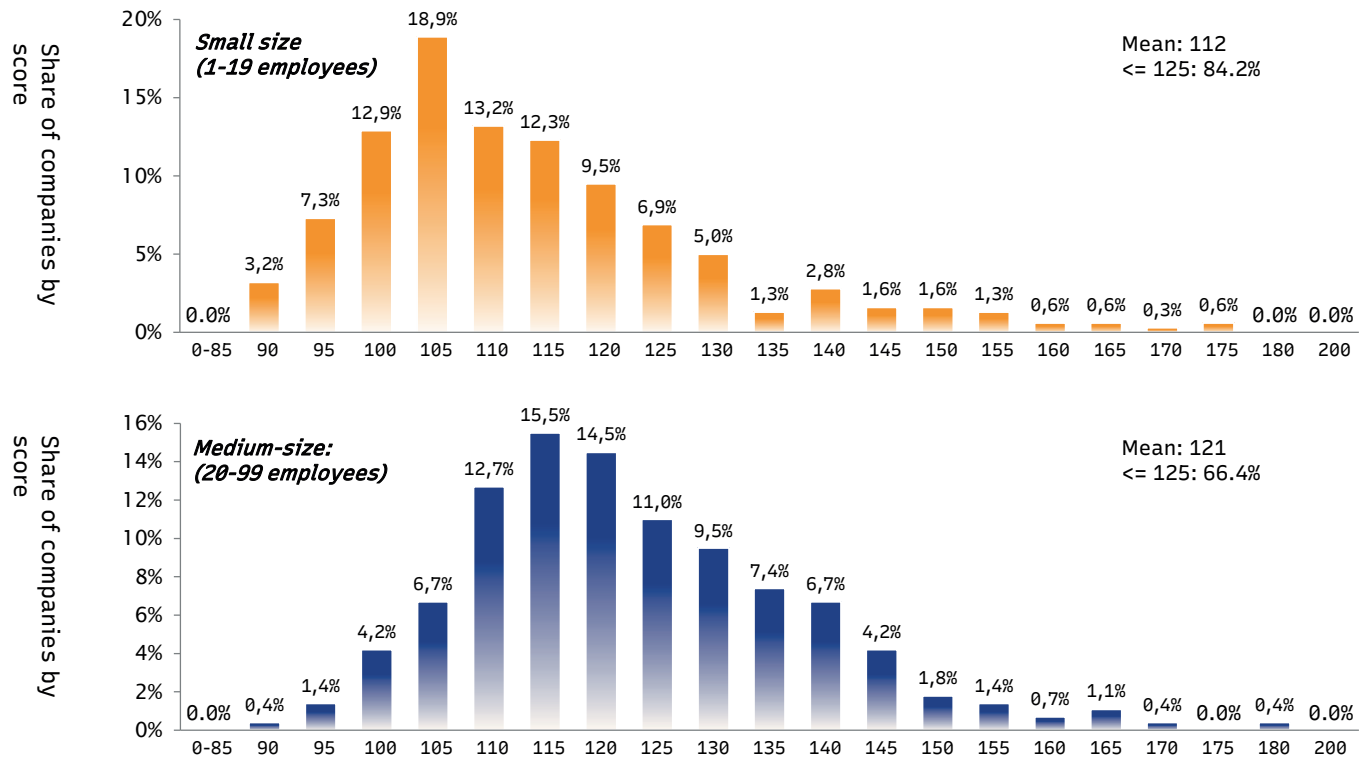


Fig 4 – Financial management capabilities of SMEs based on World Bank's scoring (higher score = better)

Source: World Bank, *Investigating the Financial Capabilities of SMEs Lessons from a 24-Country Survey*, June 2018

While there are differences between small and medium-sized enterprises within the World Bank's scoring method based on a 200-point scale, it is striking to notice that almost 85 percent of small enterprises scored 125 points or less (112 points on average), whereas only 66 percent of medium-sized companies attained 125 points or less (121 points on average). As might be expected, the scores improve as the size of the company increases, but for both groups the scores highlight a general and widespread weakness in the ability to manage the financial side of the enterprise.

This has implications in terms of the ability of companies to manage their accounting and cash cycles, forecast and address cash shortfalls and ultimately their ability to grow. "Not only is the improvement of entrepreneurs' financial capability positive for the enterprises themselves, but it also influences the way they are perceived in the market—for example, attracting investors or affording access to technical/support programs."⁸

⁸ Ibid.

02 Access to finance limitations.

As is commonly known, the primary challenge for SMEs is access to finance and the existing financing gap⁹.

While we consider this to be correlated to the Accounting and Financial Management challenge, as outlined in section 4.1., this is one of the limitations that are most often complained about and regularly monitored and investigated by regulators. As Fig. 5 and Fig. 6 show, nearly 35% of SMEs in Europe highlight access to finance as a very important problem¹⁰ in the context in which SMEs consider bank finance as important for their operations.

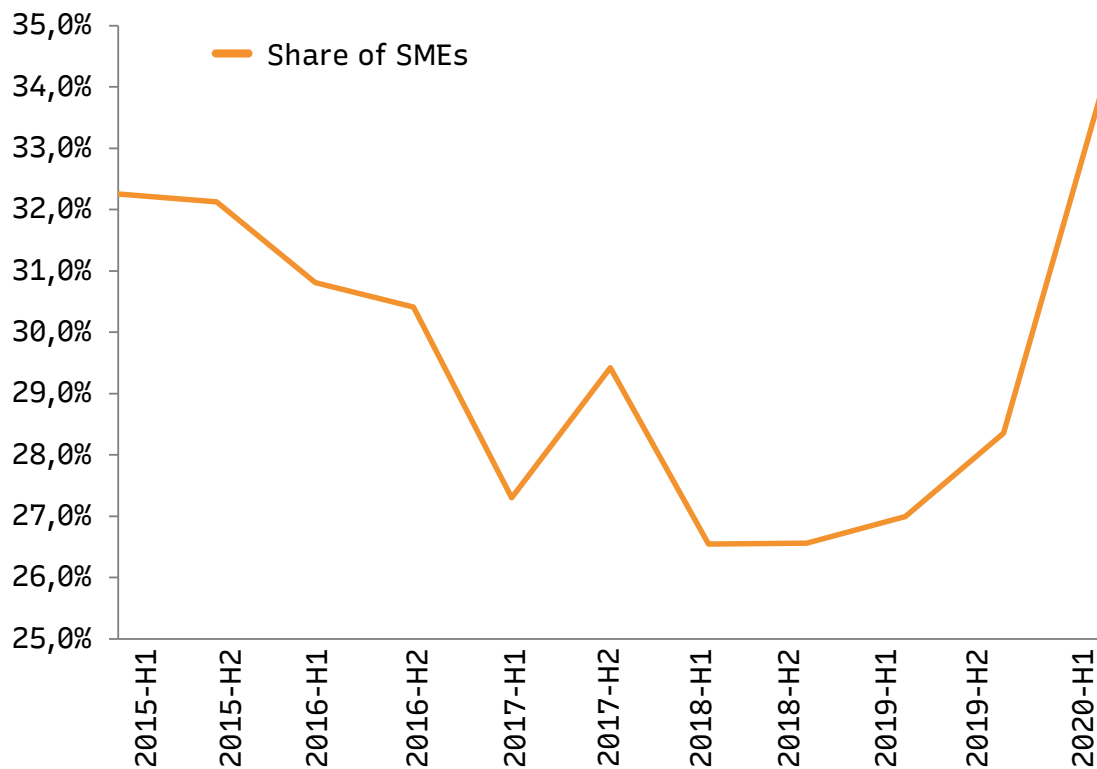


Fig. 5 - Share of SMEs in Europe that consider access to financing as an important problem

Source: ECB SAFE Report 2020

⁹ European Investment Bank, Gap analysis for small and medium-sized enterprises financing in the European Union, December 2019

¹⁰ European Central Bank, SAFE Report, 2020

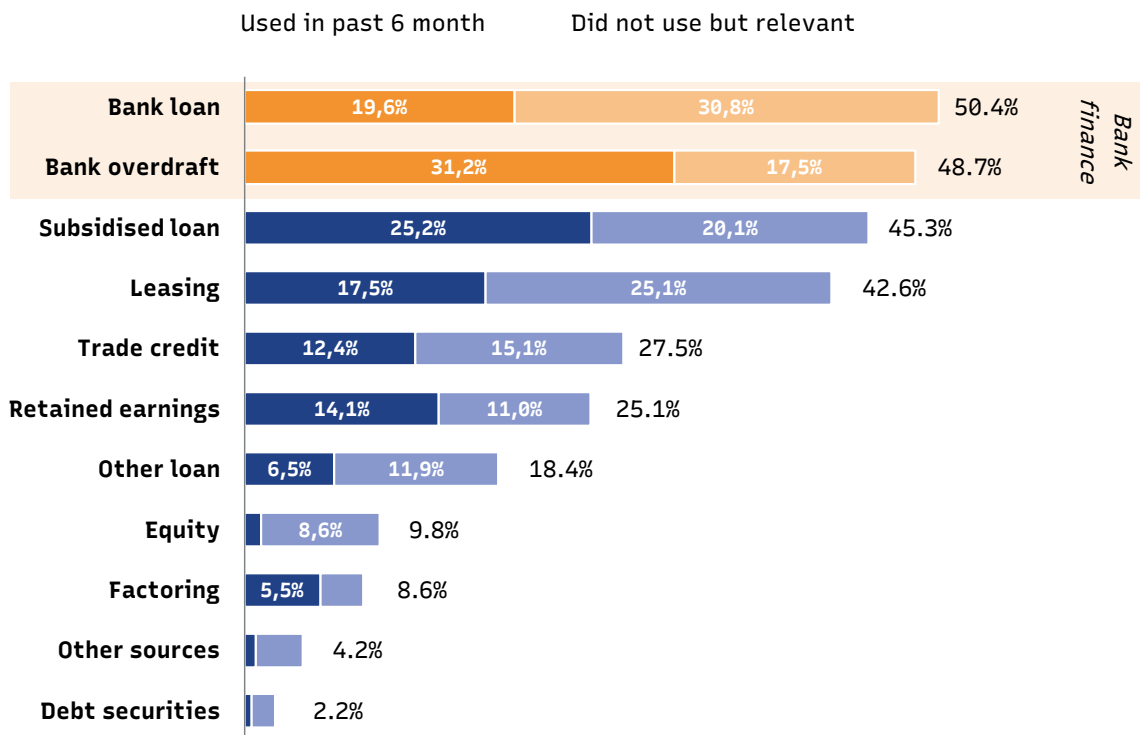


Fig. 6 - Relevance of financing sources for Euro area SMEs (in share of SMEs)

Source: ECB SAFE Report 2020

The European Central Bank (ECB) regularly monitors the status and development of SMEs' use of and ability to access financing.

The latest study from 2020 highlights not only the importance of financing for SMEs across four major European countries, but also highlights that about half of SMEs received a negative outcome to a loan application or did not apply due to reservations such as an expected rejection. The overall findings are shown in Fig. 7.

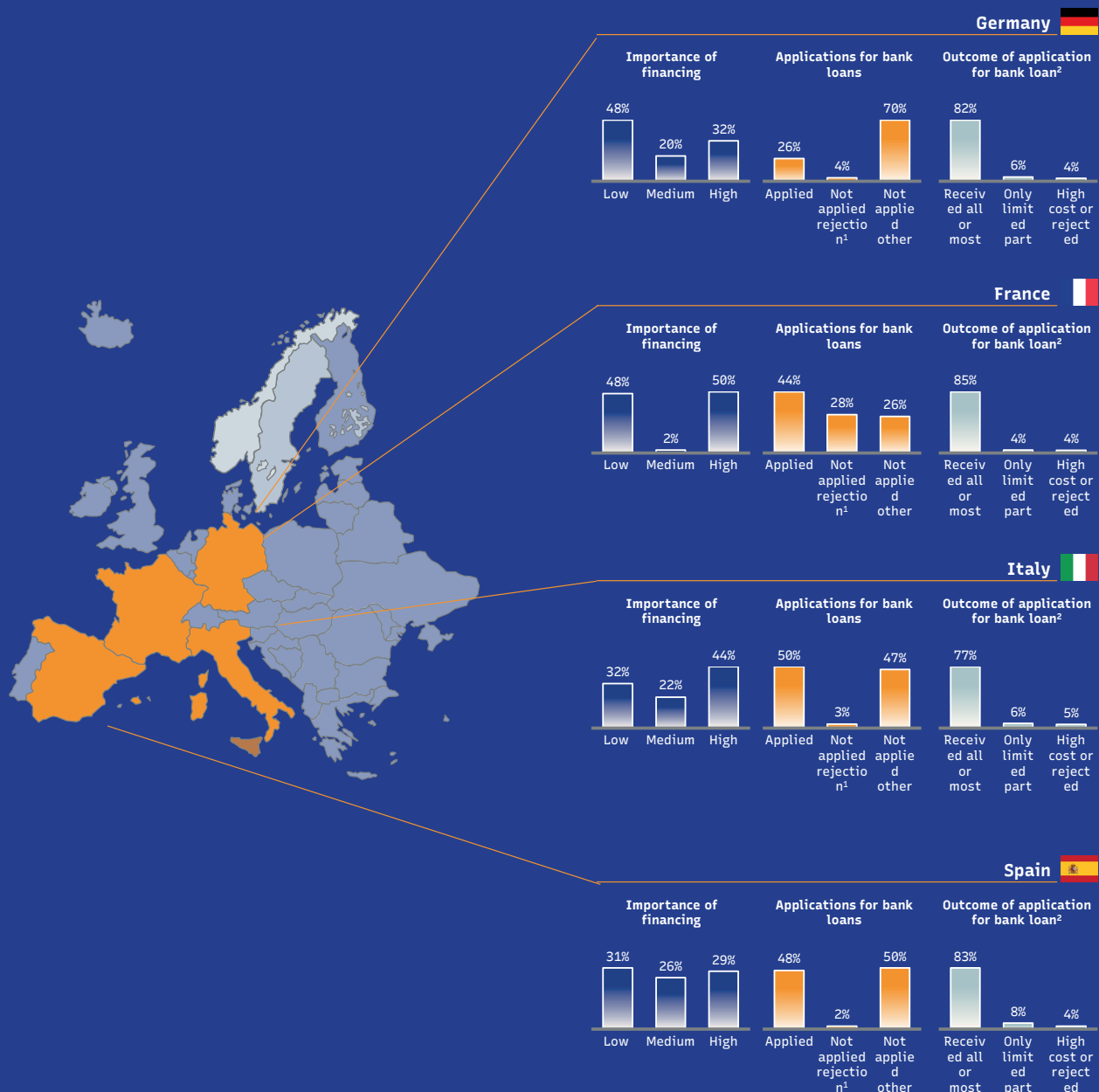


Fig. 6 - Importance of financing and bank loan applications (in share of SMEs) in Europe – selected countries

1) Did not apply because of possible rejection

2) Share data pending

Source: ECB SAFE Report 2020

While this ECB research highlights the challenges facing SMEs in accessing the finance they consider necessary for their operations and growth, this can also be seen as a missed opportunity for lenders which, because of risk management constraints or because of the mismatch between the opportunity and the cost-to-serve, are leaving SME needs unaddressed and ultimately giving new competitors the chance to enter the market.

03 Digitalization and e-commerce limitations

Digitalization is the third important challenge for SMEs as digital capabilities not only make companies more efficient but also more vulnerable, in particular since the shift in online sales due to the lockdowns and remote working of the COVID-19 pandemic.

The COVID-19 crisis accelerated an expansion of e-commerce towards new firms, customers and types of products.

It has provided customers with access to a significant variety of products from the convenience and safety of their own homes, and has enabled firms to continue operating in spite of contact restrictions and other confinement measures.¹¹ Fig. 7 provides an indication of the growth in e-commerce in selected European countries just before and during the first year of the pandemic.

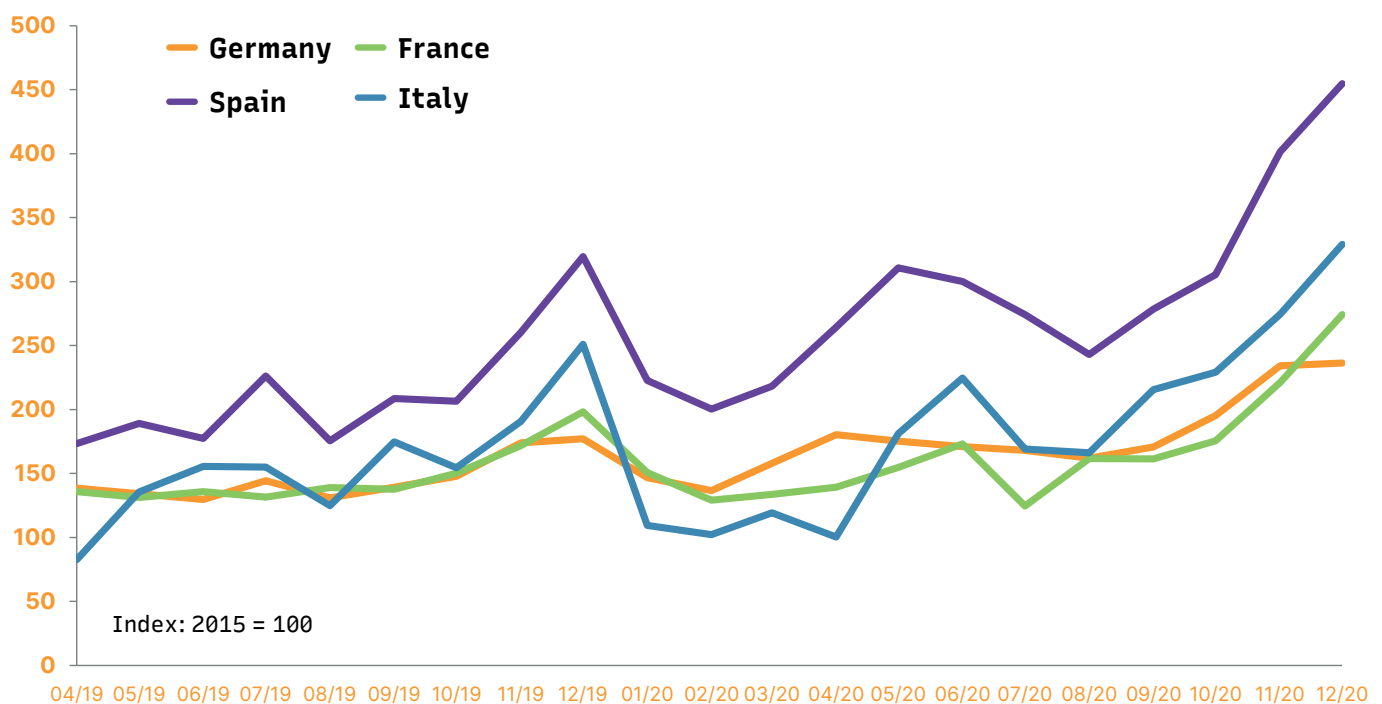


Fig. 7 – Retail spending via mail order houses or via the internet

Source: Eurostat

¹¹ OECD, E-commerce in the time of COVID-29, October 2020

Digital and ITC capabilities are core skills for businesses to survive and grow, “however, a significant number of literatures indicates a low level of usage of ITC among the SMEs”¹². “A lack of ITC literacy and skills among the senior managers of the SMEs are one of the major hindrances”¹³. The effect of the pandemic has pushed SMEs to adopt online channels, to digitize, and, where possible, to move to remote working, with employees connecting to office systems from outside of the office location.

Digital channels require online procedures to identify users and buyers through customer details and API-channelled account credentials, creating a risk of identity theft and hacking of credentials. With digitalization, SMBs are exposing themselves and their stakeholders to new risks, since monitoring, prevention and remediation requires awareness and additional investment in digital technologies and services.

¹² Noor Emilina Mohd Nasir, “Small and Medium Enterprises: Critical Problems and Possible Solutions”, International Business Management Journal, January 2017

¹³ Ibid.

04

CHANGES TO TECH AND REGULATORY OPPORTUNITIES

In the last 20 years, we have not just seen a rapid increase in internet use but also a significant reduction in the cost of technology which, together with the development of Application Programming Interfaces (APIs), has lowered costs, and enhanced the ease and security of data exchange across systems and organisations.

Alongside the development of cloud computing, this has not only lowered the barrier for SMEs to integrate the various systems, but together with the functionalities of the Account Initiation Service Provider and of the Payment Initiation Service – regulated by the revised Payment Services Directive (PSD2) – providers have opened up this untapped SME opportunity.

This regulation enables licensed and permissioned third parties to access bank accounts for the purpose of initiating a payment or accessing current account information.

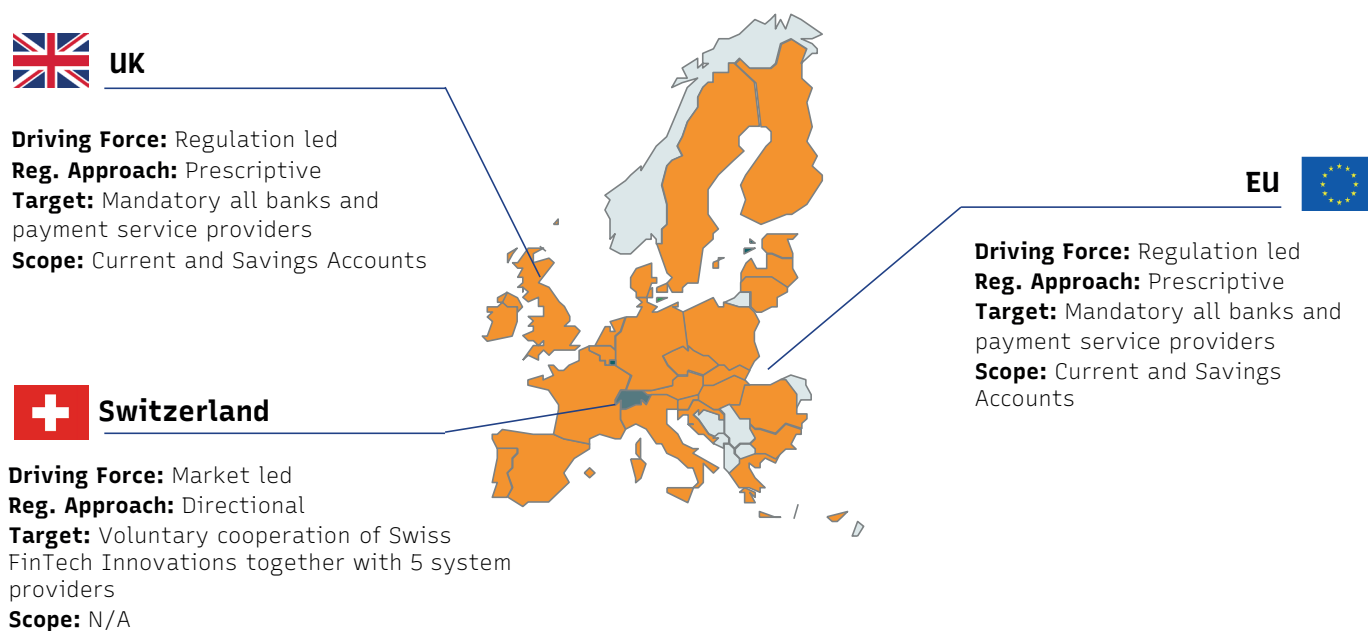


Fig. 8 – Approach to Open Banking in Europe

Source: CRIF analysis

Some new entrants have been using these capabilities to deliver value propositions addressing the cash forecasting needs of micro and small enterprises. Fig. 8 illustrates the characteristics of the three approaches to Open Banking in Europe, with a regulatory mandated approach in the UK and Europe, with a prescriptive approach making it mandatory for banks to comply. In Switzerland the approach is directional and aimed at voluntary cooperation among banks and FinTechs and system providers.



05

WHITE SPACES AND NEW ENTRANTS

The unmet needs of micro and small enterprises have provided a white space for a range of new entrants aiming to provide services to SMEs ranging from lending, payments at a lower cost than that offered by the incumbent banking operators, and financial management solutions based on the account aggregation functionality enabled by Open Banking.

Fig. 9 below offers a snapshot of the players currently offering solutions to micro and small enterprises in Europe.

The providers range from international players like PayPal to European companies like Aidexa and Klarna, all offering comparatively lower cost dedicated packages, built on the ability to deposit funds and ancillary services.

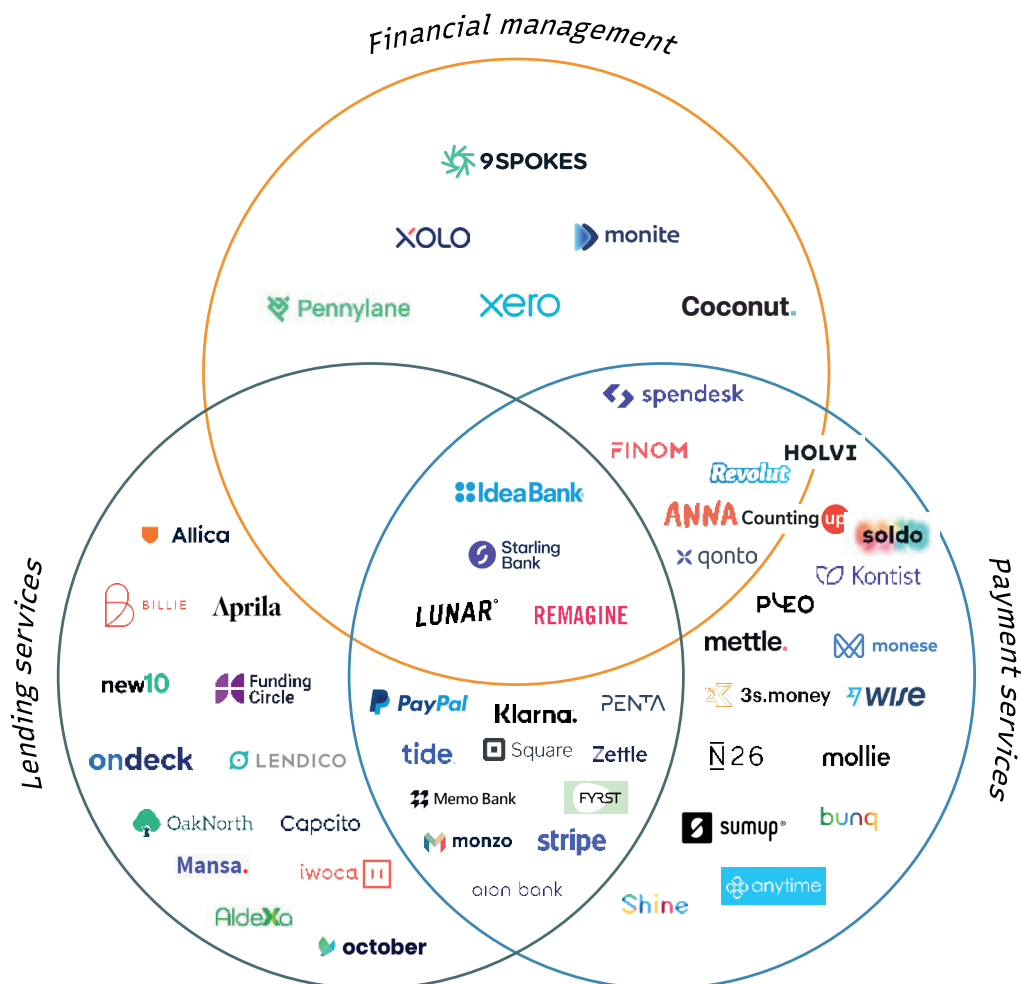


Fig. 9 – New entrants providing services to micro and small enterprises by type of service

Source: CRIF analysis

Banking services with a focus on lending are offered by players such as Ondeck and October. Solutions focused on the provision of payment services are provided by the likes of Wise, Soldo and Sumup, offering enterprises the ability to lower costs and simplify their management. There is also a range of providers of financial management tools to help small companies better understand their cash flows, planning and budgeting expenses and/or investments like Monite, Xero and Coconut.

These services are offered in a range of permutations by players that are focused on one or more specific services, illustrated in Fig. 10. All of the above solutions offer a range of functionalities, illustrated in Fig. 10, that address the various needs of European SMBs across the various stages of their daily management activities and growth, as illustrated in Fig. 11.

Financial Management	Lending services	Payment services
<ul style="list-style-type: none"> ▪ Business set-up support ▪ Bank account opening support ▪ Expense management ▪ Salary payments ▪ Invoicing tools ▪ Banking information aggregation ▪ Bank payment reconciliation ▪ Accounting, including multicurrency accounting ▪ Accounting analytics with smart alerts ▪ Cash flow forecasting ▪ Financial health checks ▪ Performance tracking ▪ Purchase orders management ▪ Quotes and bid management ▪ Reporting ▪ Tax filing ▪ Project management tools ▪ Customer relationship management ▪ Supplier relationship management ▪ Inventory management ▪ Integration with specialised accounting solutions 	<ul style="list-style-type: none"> ▪ Peer to peer lending ▪ Project targeted lending ▪ Targeted sector solutions ▪ Bridge lending ▪ Lender portals ▪ Tiered credit scoring lending portals ▪ Fix term loans ▪ Open lines of credit ▪ Invoice discounting ▪ Working capital financing ▪ Equipment and small-asset targeted lending ▪ Immediate / fast response ▪ Portfolio and credit analysis and monitoring ▪ Dynamic discounting ▪ Factoring 	<ul style="list-style-type: none"> ▪ Prepaid card ▪ Virtual prepaid card ▪ Debit card ▪ Virtual debit card ▪ Mobile payments ▪ Domestic payments ▪ Cross border payments ▪ Currency account ▪ Account 2 account transfers ▪ Payment request / pull payment ▪ Budgeting account and tools ▪ Card payments acceptance ▪ Invoice payments ▪ Integration with specialised accounting solutions ▪ Mobile and web administration consoles

Fig. 10 – Functionality by type of service aimed to the SMB segment

Source: CRIF analysis

SMEs, based on their different sizes, express different needs, as previously seen; therefore, it is not only the type or range of services per se that allows those needs to be met, but also how these services are offered, in terms of ease of use, time saving, channels and pricing for the customer.

Indeed, many types of services overlap in terms of both stages of the companies' daily management activities and growth, as illustrated in Fig. 11.

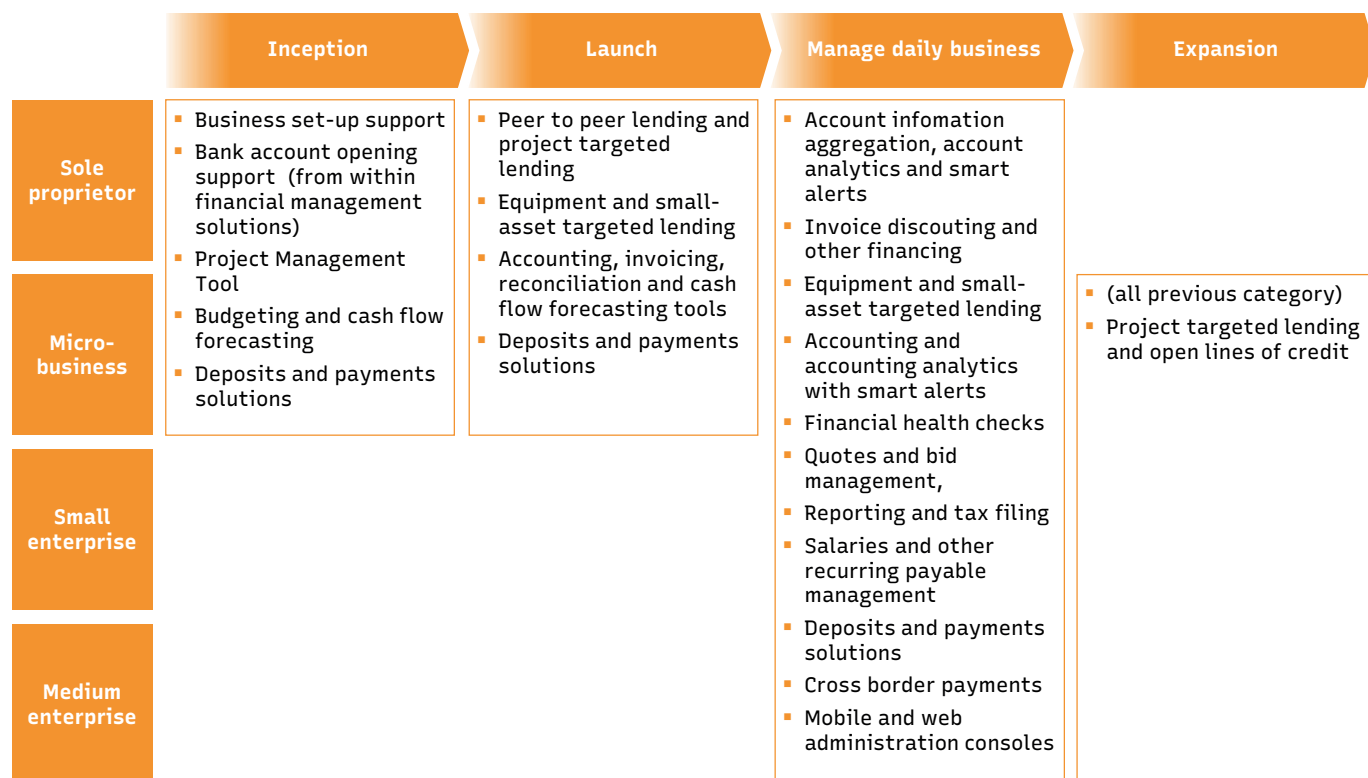


Fig. 11 – Functionality addressing the different needs by company size and stage of development (aggregated descriptions)

Source: CRIF analysis

Some of these SMB-specific value propositions have developed into very structured, orchestration-based businesses such as in the case of Square. Starting from a mobile-POS solution enabling card payment acceptance for micro merchants, and thanks to API connectivity similar to Zettle, Square has managed to connect and integrate a large number of complementary and ancillary services to the point of becoming an SMB-version of Enterprise Resource Planning¹⁴.

Fig 12 provides an illustration of Square's ecosystem and of the number and extent of solutions available to its micro and small enterprise customers.

¹⁴ "Enterprise resource planning (ERP) is a process used by companies to manage and integrate the important parts of their businesses. Many ERP software applications are important to companies because they help them implement resource planning by integrating all of the processes needed to run their companies with a single system. An ERP software system can also integrate planning, purchasing inventory, sales, marketing, finance, human resources, and more." Source: <https://www.investopedia.com/terms/e/erp.asp>

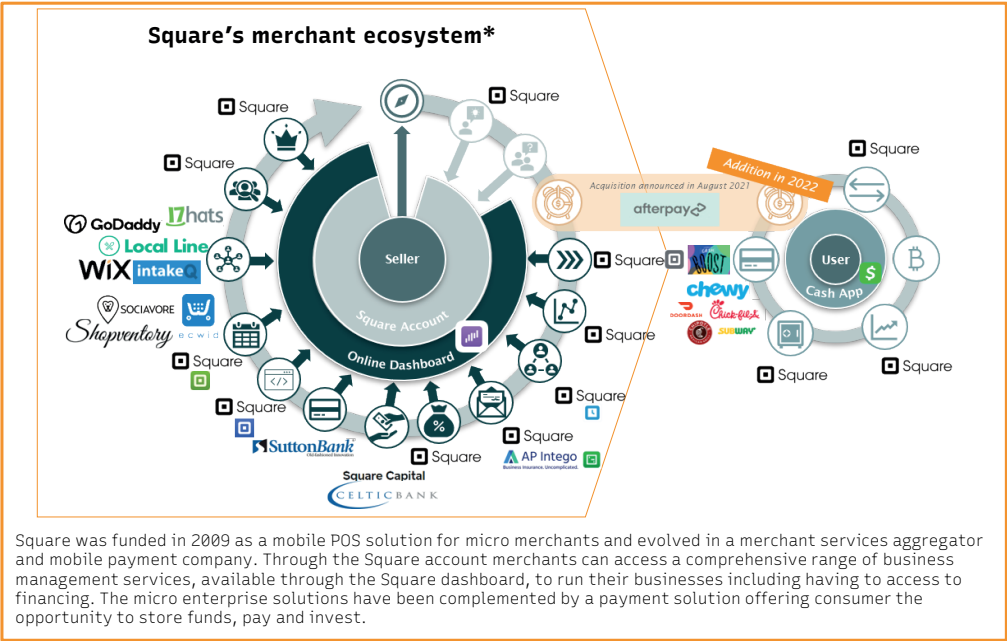


Fig. 12 – A brief description of Square and an illustration of its business ecosystem
Source: Arkwright, From Platforms to Ecosystems 2021, Crunchbase

Fig. 13 illustrates the frequency of the types of services offered by these specialist providers that focus, albeit in some cases not exclusively, on the micro and small enterprise segment.

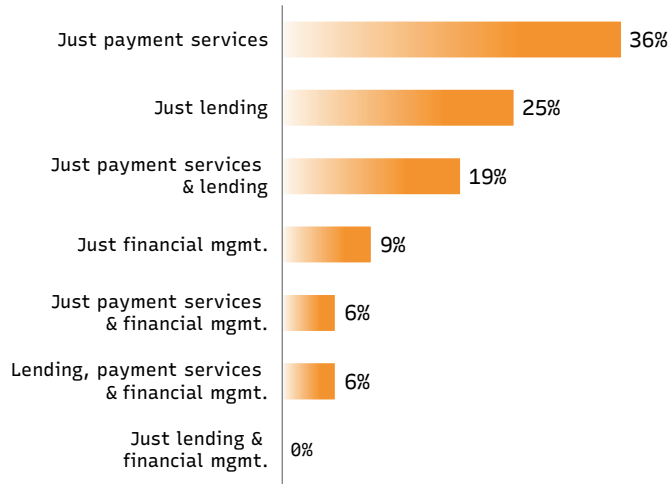


Fig. 13 – Types of services offered by new entrants to micro and small enterprises by share of offering
Source: CRIF analysis

The number of new entrants has been increasing steadily over the last ten years, reflecting the opportunity provided by over 25 million enterprises that are deemed to be underserved by the incumbent financial services providers. Is this an opportunity that is out of reach of European banks?

06

**BANKS AND
INCUMBENTS
WINNING IN
THE MICRO
AND SMALL
ENTERPRISE
SEGMENT**

Banks cannot afford to look passively at new entrants making a success in a segment that has been, until recently, challenging to serve in a cost-effective manner.

CRIF Digital's solutions include a range of digital tools and services enabling banks and financial services incumbents to build fit-for-purpose value propositions for SMEs. Many organisations globally are leveraging CRIF's capabilities within this context with some interesting experiences and lessons learned.

01 Global top tier bank's Business Financial Management (BFM) offering

A global top tier bank established itself as a trusted provider for micro and SMB customers that were previously managed from within the retail division and whose potential for growth and value for the bank had not been previously realised.

This value proposition leverages the account data management and platform of Strands, a CRIF company. The illustrative screenshots in Fig. 14 show the look and feel of the Strands' BFM functionality.



Fig. 14 – Strands' BFM look and feel (example from a desktop interface)

A simple, intuitive graphical interface designed to optimise the user experience helped the bank to substantially increase the number and quality of touchpoints through a new, highly automated, self-service solution for customers that would otherwise have been underserved. The key features of the BFM are as follows:

- **Cash flows analysis** - Review & forecast of incoming and outgoing cash flows; SMB customers can analyze and understand cash flow by tracking historic, actual and forecasted inflows & outflows; furthermore, specific ML algorithms also enable future predictions to anticipate future cash needs (liquidity shortfalls) or unexpected events
- **Financial analysis** - Review & forecast incoming and outgoing cash flows; SMB customers can analyze and understand cash flow by tracking historic, actual and forecasted inflows & outflows
- **Budget** - Users can create monthly budgets to monitor and track business expenses, also drilling down into each budget to view the purchasing history

- **Multi-banking view** – BFM key features are meant to perform best in a multi-banking environment (SMB customers have a greater propensity to having more than 1 current account): aggregated transaction list, aggregated balance transaction categorization, effective UI, and multi-banking budgets
- **Invoicing** – thanks to the retrieval of third-party accounting information (e.g. Quickbooks), Accounts Receivable and Accounts Payable management becomes effortless and enables banks to handle end-to-end payment cycles for SME customers; furthermore, adding invoices to the bank's channel increases the frequency of contact, thus improving customer loyalty
- **Financial calendar** – SMB customers can visually monitor financial commitments thanks to an interactive heat map (daily, monthly and yearly spending patterns) plus all the Accounts Receivable & Accounts Payable; the features also allow the user to see all future scheduled or recurrent payments

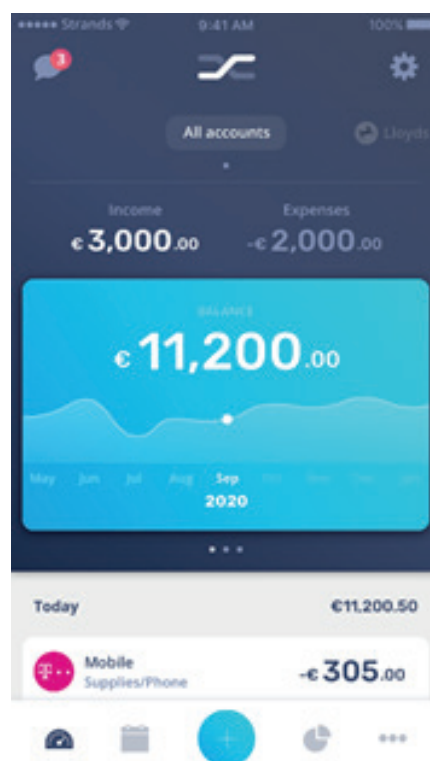


Fig. 15 – Mobile view of aggregated balances, income and expenses

Furthermore, the data enrichment process, combined with an ML-based engine allows specific SMB customer behaviour to be scanned and detected, which can be used to develop insight-driven engagement in order to:

- Drive dynamic and personalized communications based on BFM data;
- (Auto) balance commercial and non-commercial solutions, learning from user feedback;
- Keep channel saturation under control, ranking the most relevant communications first;
- Make recommendations actionable; business users are provided with a set of next best actions.

These customers were previously served through banking services designed for retail customers which were, in practice, not fit for purpose. Micro and small enterprises are now proving to be a growing and primary area of growth for the bank with an interesting potential size of addressable market and a profitability profile that is much greater than that of consumer banking. These types of enterprises deposit values over four times greater than those of retail customers; similarly balances are, on average, fifteen times those of retail customers and, the bank has achieved over 6 times the profitability of the average retail customer thanks to a new service model designed to address the specific needs of these types of companies.

02 Central European bank offering an ERP-like solution to micro enterprises

There are many banks that are looking at the success of new entrants in relation to micro enterprises and, together with CRIF, have looked at the needs of this segment to design a solution that would deliver tangible value to customers.

The integration of account information with invoice data, with the ability to reconcile individual transactions and match them with invoice data, leads to the ability to provide management with an accounting and a cash liquidity forecast view, automating invoice and payment reconciliation, including alerts of due payables and their related impact on accounting, as illustrated in Fig. 15.

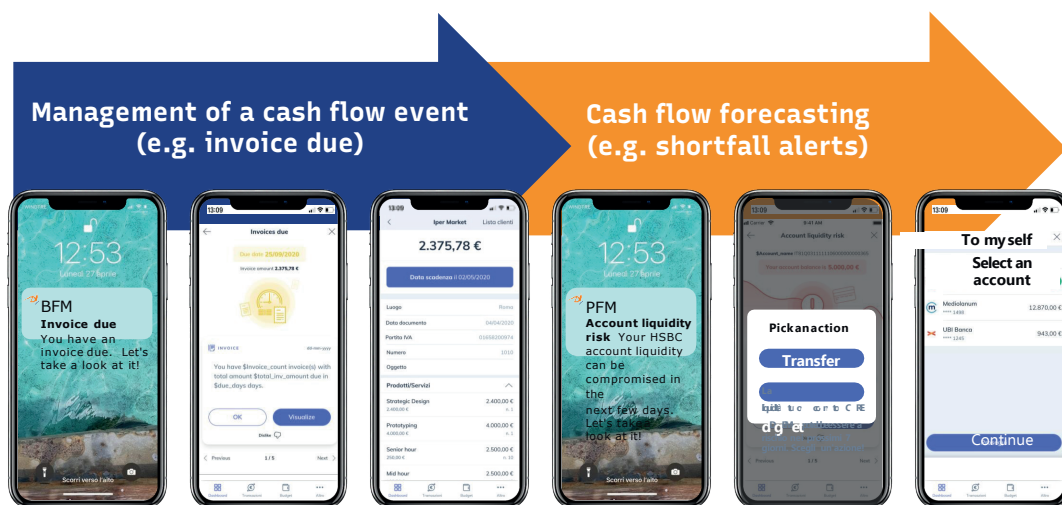


Fig. 15 – Mobile alerts of due invoice and cash shortfall

The solution operates across multiple platforms, on screen and on mobile devices providing timely alerts about cash events that require attention and might be overlooked. In addition to the improved financial management capabilities, the improved visibility of cash offers lenders the opportunity to propose finance offers, without having to rely on collateral to manage the financial risk.

03 **Managing IT security risks protecting micro and small businesses and their financial services providers.**

It has been shown that one of the areas of weakness of SMEs is related to technology. SMEs have fewer dedicated IT staff and a lack the internal knowledge and skills to protect themselves from and manage cyber risk. With the increased exposure to online business, companies are not only leaving themselves, and their clients, suppliers and employees vulnerable to online threats but are also increasing the risk for their financial services providers, and in particular their lenders. That's why SMEs need to have external services supporting them to understand their cyber exposure in an easy, practical and timely manner.

Not surprisingly, attacks have intensified and extended their reach deep into the SMEs segment. The Verizon Data Breach Investigation Report (2019) estimated that 43% of cyber-attacks target small businesses, in a context in which less than a sixth of small business organisations are equipped to prevent those attacks.

How are SMEs affected by cyber-attacks? In addition to the direct monetary and systemic losses resulting from cyber-attacks, there are less direct costs that impact companies for long periods of time following the attacks. These include but are not limited to system downtime costs, brand reputation costs, lost data, and lost productivity (Accenture - The cost of cybercrime).

Most worrying of all, statistics highlight that between 60% and 70% of SMEs are unable to survive a breach and are out of business within six months from the breach as they have no supplemental support mechanism in place to help them rebuild the company and reinstate their operations (Insurance Journal).

Due to the limited skills and knowledge of small companies, there are some “myths” making individuals and organisations mistakenly believe their risk is low, and that cybercrime is something that couldn’t possibly happen to them:

- “Cyber-attacks only target large enterprises”
- “We don’t hold anything of value”
- “We have antivirus software”
- “Cyber threats are external”
- “We don’t have any IT”
- “Cloud providers take care of all our security”

According to the IBM X-Force Threat Intelligence Index 2021, the top 3 attack types are Ransomware (23% of attacks), followed by data theft, and server access attacks. In terms of initial attack vectors, “scan and exploit” rose to first place in 2020, followed by phishing and credential theft.

For this reason, it is critical for SMEs, and for their suppliers, to be able to rely on an external service which promptly identifies the vulnerabilities of an SME infrastructure and helps prevent hackers from exploiting them first.

As these needs developed, CRIF launched SICURNET BUSINESS, a broader service of vulnerability analysis, alerts via e-mails and call/text outreach and assistance to understand the identified vulnerabilities so that small enterprises are aware and can proceed with the fixes and a targeted remediation plan.

Considering that vulnerabilities are exploited by bad actors, SICURNET BUSINESS provides SMEs with a vulnerability assessment to check the configurations of their corporate e-mail accounts to avoid e-mail spoofing, i.e. the illegal use by fraudsters of their e-mail accounts.

SICURNET BUSINESS is able to discover an extensive range of potential vulnerabilities across:

- Domains/sites exposed to malware and phishing
- Weak or inconsistent service configurations
- Outdated software versions or services
- Publicly displayed databases and services
- Unsuitable domain registration or administration contacts
- Service provider risks
- Expiry of security certificates
- Risk of e-mail spoofing

For each vulnerability discovered, the service provides suggestions on how to further investigate and address the issue.

SICURNET BUSINESS is easy to use and understand and it is also designed to be usable by personnel with a low level of ITC and cyber expertise.

Beyond vulnerability analysis, the solution enables monitoring of whether the company's sensitive data or employee e-mail credentials have been stolen and circulated on the dark web so it can take appropriate actions. Examples of data that can be monitored include company user accounts, employee business e-mail credentials, IBANs, and company credit cards.

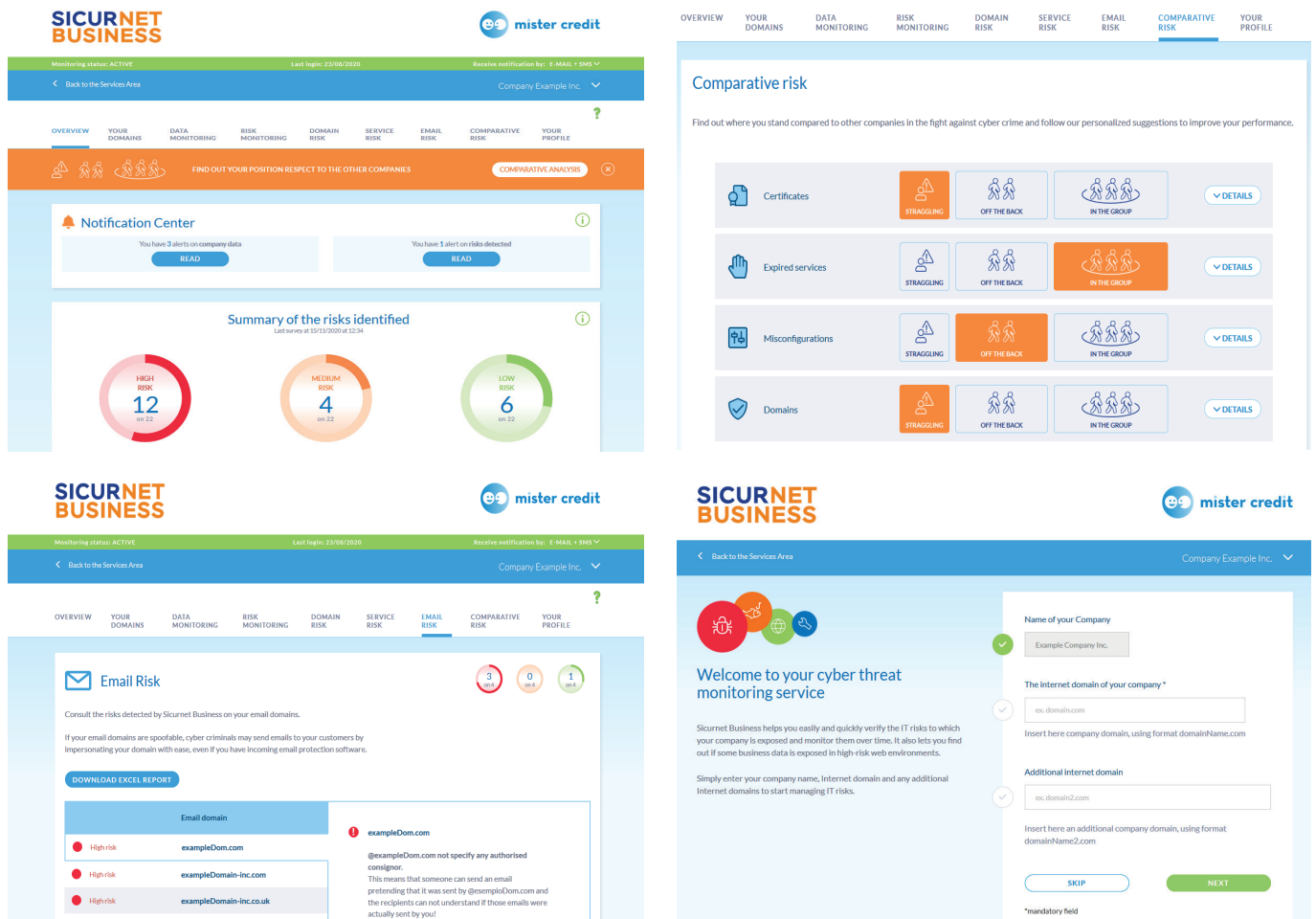


Fig. 16 – Sicurnet Business interfaces

CRIF works for and supports a variety of banks which, mindful of the technology and internet risk exposure of their customers, deploy SICURNET BUSINESS solutions to mitigate the exposure of their customers. Fig. 16 offers some views of this solution, which is designed to assess and enable the management and mitigation of online risks for small organisations.

07

CONCLUSIONS

SMEs, and in particular micro and small companies, are an important part of the European economy and include over 25 million companies, with a total turnover of over € 10bn, contributing to 26% of the total European GDP and employing just under 43% of the total number of employees in the European private sector.

The total size of this business segment is quite significant.

Nonetheless, up to now these companies have been challenging for banks to serve due to their small size.

At the same time, these businesses operate with some limitations in terms of capabilities, including accounting and financial management, access to finance, and digitalization and e-commerce, which means that they would benefit even more from specialist, professional advisory support.

This has left an untapped white space opportunity that is being leveraged by a growing number of new entrants focused on very small business customers and building propositions based on the most recent technological and regulatory developments.

Is this a segment and an opportunity lost to banks? Not at all.

On the contrary, this is a new space that banks can address profitably based on the same technology and solutions that are being leveraged by new entrants. CRIF supports a number of banks and incumbents within the financial services industry to tailor their offering to the needs of this business segment at scale and profitably.

Propositions like BFM help micro and small enterprises manage their businesses by addressing their lack of financial management capabilities, while creating new service opportunities for financial services providers. The further integration with analytical solutions for the matching of transactions and invoices enables the provision of cash forecasting solutions, automated payment reconciliation and better working capital management through a view of the receivable payment status. This provides advanced alerts for specific liquidity positions, further helping entrepreneurs and small business owners to better manage their business finances while providing lenders a way to offer funds and manage risk without needing to rely on financial guarantees. Finally, solutions such as CRIF's Sicurnet Business help both owners and their stakeholders to monitor and manage the risks connected to the deployment of digital technologies and to expand sales and customer interaction to online channels.

By leveraging the right technological capabilities, banks can now profitably address the needs of micro and small businesses and expand into a new line of business that is no longer just within the reach and to the exclusive benefit of new entrants.

08

ABOUT CRIF DIGITAL



Over 700 bank implementations, over 100 million consumer and business customers served by banks leveraging CRIF solutions, over 35 million transactions processed daily.

CRIF Digital – a brand of CRIF Group – is a platform with solutions exploiting the powerful opportunities generated by Digital transformation on top of Open Banking.

CRIF Digital solutions speed up the business digital transformation, better performances and offer a smooth user experience to final customers.

Ensuring a memorable digital journey for customers.

We help customers who want to consciously manage their finances and have a smart, safe and personalized relationship with the financial institution, so that they can **save time and effortlessly find an answer to all their needs,** even from a distance. The solutions we provide make them feel safe when online, receive truly personalized offers and perform tasks in a pleasant and easy way.

Leveraging customer data-driven approach to increase long-term value for Financial Institutions.

We help Financial Institutions to build long-lasting and meaningful relationships with their clients, designing digital experiences and services. Customer experience is an important aspect to consider, but it is part of a more integrated strategy based on digital solutions we can provide to generate value for businesses.

Increase the client value unlocking a better and deeper knowledge of the customer base to establish a new paradigm of relationship: not pushing products but foreseeing and matching the customer's needs.










09





APPENDIX

01 Appendix 1 - World Bank SME Financial Literacy Questionnaire.

SECTION	PURPOSE	NUMBER OF QUESTIONS
Screenener section	<ul style="list-style-type: none"> Provide information on the types of enterprises interviewed. This data will allow establishment of various topologies based on SME size, main economic activities, level of sales, type of location (country income classification), main source of financing, maturity of the company, registration status, managing of business and household finances, and characterization of the main financial decision maker 	16
Accounting	<ul style="list-style-type: none"> Understand SMEs' knowledge of accounting concepts (including assets, liabilities, and profits) and business aspects, including financial management, marketing management, and business strategies Obtain a broad indication of the preparation of and adherence to a written budget, the setting and revision of specific goals in terms of gross profit margins, debt relative to equity, or other financial aspects Collect information on the preparation, content, update, and computerization of financial statements and capture the usage of records in order to evaluate cash-flow and/or sales variation 	10
Cash and cash management	<ul style="list-style-type: none"> Understand SMEs' global cash-flow situation in the last fiscal year and if the companies keep cash reserves beyond what is needed for their regular operations Obtain indication of the strategies used by SMEs when they are in need of cash flow Understand how the companies assess risks or reasons that prevent them from doing so 	6
Expansion	<ul style="list-style-type: none"> Understand if the companies have expanded the size or scope of their business. This includes capturing business aspects (plan creation, competitive analysis, budget, research of new technologies, analysis of new or alternative opportunities) considered for the expansion or new project Identify companies that started with a business plan and establishments that have a structured financial plan (term and aspects included in this plan) 	4
Choosing and using Financial products and services	<ul style="list-style-type: none"> Understand if the companies have expanded the size or scope of their business. This includes capturing business aspects (plan creation, competitive analysis, budget, research of new technologies, analysis of new or alternative opportunities) considered for the expansion or new project Identify companies that started with a business plan and establishments that have a structured financial plan (term and aspects included in this plan) 	8
Financial knowledge	<ul style="list-style-type: none"> Obtain a broad indication of companies' level of financial knowledge by asking the main interviewed decision makers to solve a quiz covering basic computation and financial concepts Understand companies' willingness to learn financial-management skills 	13
Financial attitudes	<ul style="list-style-type: none"> Capture underlying attitudes toward risk, making investments, making decisions, action orientation, learning from mistakes, and reviewing goals 	5

02 Appendix 2 – New players focused on SM's business opportunity.

COMPANY	TYPE	FOUNDED	ORIGIN	MARKET	OFFERED SERVICES ¹⁾				CUSTOMER SEGMENTS			
 IdeaBank	Bank	1991	PL	PL					Sole	Micro	Small	Mid
 PayPal	Payment service	1998	US	Global					Sole	Micro	Small	Mid
 mollie	Payment provider	2004	NL	Europe					Sole	Micro	Small	Mid
 Klarna.	Payment service	2005	SWE	Global						Micro	Small	Mid
 xero	Accounting tool	2006	NZ	Global					Sole	Micro	Small	Mid
 ondeck	Lending platform	2006	US	Global						Micro	Small	Mid
 Square	Payment provider	2009	US	Global					Sole	Micro	Small	
 wise	Payment service	2010	UK	Global					Sole	Micro	Small	Mid
 Zettle	Payment provider	2010	SWE	Global					Sole	Micro	Small	
 stripe	Payment provider	2010	US	Global					Sole	Micro	Small	Mid
 Funding Circle	Lending platform	2010	UK	Global					Sole	Micro	Small	Mid
 HOLVI	Banking service	2011	FIN	Europe					Sole	Micro		
 iwoca	Lending platform	2011	UK	DE, UK					Sole	Micro		
 anytime	Banking service	2012	FR	FR					Sole	Micro	Small	Mid
 bunq	Bank	2012	NL	Europe					Sole	Micro		
 sumup	Payment provider	2012	UK	Global					Sole	Micro	Small	
 N26	Bank	2013	DE	Europe					Sole			
 monese	Banking service	2013	UK	UK					Sole			
 LENDICO	Lending platform	2013	DE	Global					Sole	Micro	Small	
 Starling Bank	Bank	2014	UK	UK					Sole	Micro	Small	
 soldo	Spend mgmt.	2014	UK	Europe						Micro	Small	Mid
 october	Lending platform	2014	FR	Europe						Micro	Small	Mid
 Revolut	Bank	2015	UK	Europe					Sole	Micro	Small	Mid
 LUNAR	Bank	2015	DK	DK					Sole	Micro		
 Kontist	Banking service	2015	DE	DE					Sole			
 monzo	Bank	2015	UK	UK					Sole	Micro		

1)  Lending  Payment services  Financial management  Accounting functions

 European origin  Global origin

COMPANY	TYPE	FOUNDED	ORIGIN	MARKET	OFFERED SERVICES ¹⁾		CUSTOMER SEGMENTS		
	Financial platform	2015	EST	Europe		 	Sole		
	Banking service	2015	UK	UK		 	Sole	Micro	Small
	Lending platform	2015	UK	Global				Small	Mid
	Spend mgmt.	2015	DK	Europe		 		Micro	Small
	Lending platform	2015	SWE	SWE			Sole		
	Banking service	2016	FR	FR, IT, DE		 	Sole	Micro	Small
	Banking service	2016	DE	DE		 	Sole	Micro	Small
	Accounting tool	2016	UK	UK		 	Sole	Micro	
	Lending platform	2016	NOR	NOR			Sole	Micro	Small
	Invoicing platform	2016	DE	DE			Sole	Micro	Small
	Lending platform	2016	NL	NL			Sole	Micro	
	Spend mgmt.	2016	FR	Europe		 		Micro	Small
	Banking service	2017	FR	FR		 	Sole	Micro	
	Banking service	2017	UK	UK		  	Sole	Micro	
	Banking service	2017	UK	UK		 	Sole	Micro	
	Bank	2017	FR	FR				Micro	Small
	Banking service	2017	UK	Global				Small	Mid
	Banking service	2018	UK	UK		 	Sole	Micro	
	Banking service	2019	DE	Global		 	Sole	Micro	
	Banking service	2019	NL	Europe		  	Sole	Micro	Small
	Bank	2019	UK	Europe		 	Sole	Micro	Small
	Bank	2019	UK	UK			Sole	Micro	Small
	Financial platform	2019	DE	DE		 		Micro	Small
	Lending platform	2019	FR	FR			Sole		
	Lending platform	2020	IT	IT				Micro	Small
	Financial platform	2020	DE	DE		 	Sole	Micro	Small
	Financial platform	2020	FR	FR		 		Micro	Small
1)  Lending  Payment services  Financial management  Accounting functions									



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