FinTech waves

Italian FinTech ecosystem

2020

EY
Building a better working world

Fintech District

Contents

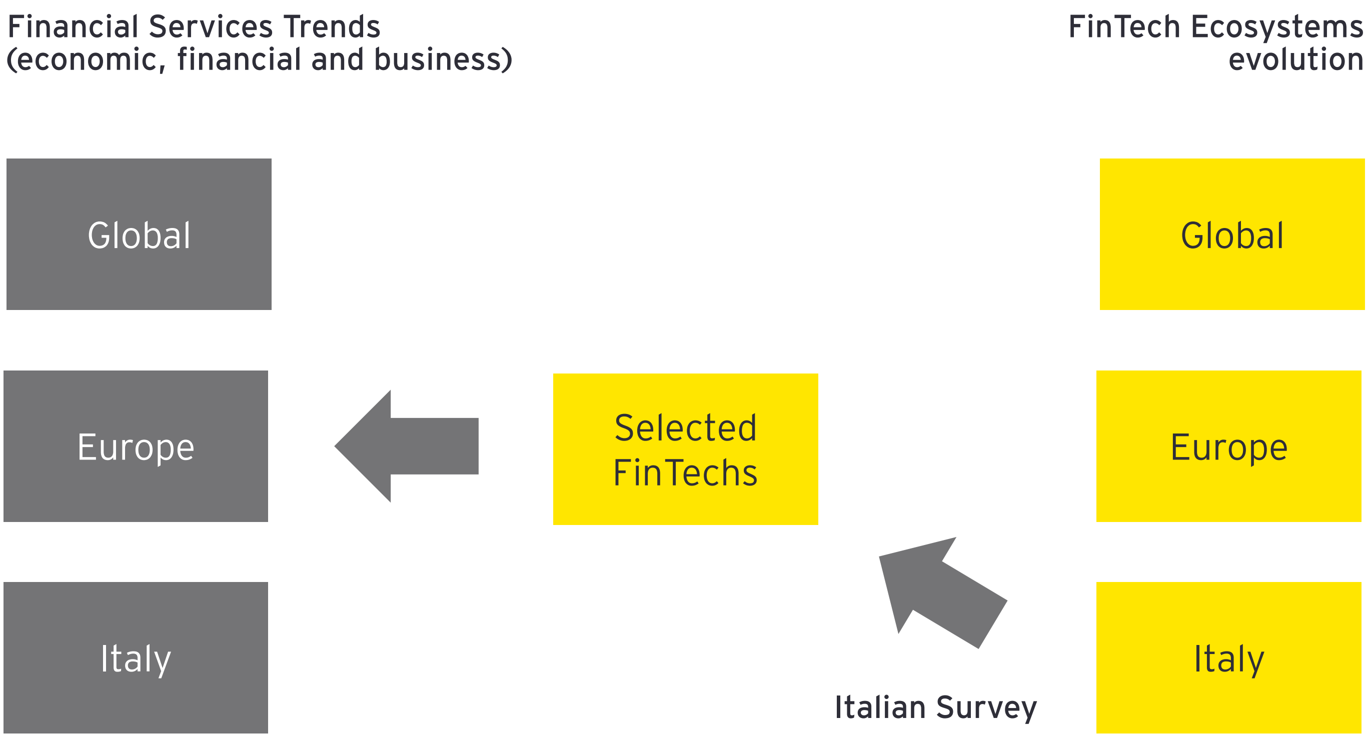
Research goals and methods

FinTech's gaining momentum. Let's start with two simple facts about FinTech growth. First, if we look at the number of FinTech startups in Italy, there were 16 startups in 2011, 199 in 2015 and a total of 345 startups in 2019. Second, looking at the academic relevance, if we had searched the term *«FinTech»* on Google Scholar, we would have obtained 2,060 results in 2011, 4,630 results in 2015 and 18,300 results in 2020.

Our goals. First of all, the aim of our research is to clarify the definitions of *"FinTech"* provided by different players over time. Our purpose is to provide a unique internal point of view on the Italian FinTech ecosystem by analyzing three different areas: Corporate Finance, People and Skills, Risk and Compliance. Moreover, at the end of this research, we will present our point of view on the current state of the Italian FinTech ecosystem and how it connects with the market trends of the Financial Services sectors.

A complete and exhaustive research. Our research starts with the analysis of the Financial Services trends from a Global and European perspective, followed by an analysis of the Italian market. Further on, an analysis of the FinTech market, both as a world-wide phenomenon and with an emphasis on what distinguishes the Italian FinTechs, is provided. Additionally, our research presents a focus on the investor market, analyzing M&A and FinTech. Finally, we conducted a specific survey of the Italian FinTechs started between 2011 and 2019, in order to explore and navigate this emerging ecosystem.

Scope of FinTech report



Setting the trends and giving our point of view. The outcome of our survey is based on the information provided by our analysis of Financial Services, the FinTech environment and M&A, in order to find out and explore the future trends of FinTech in Italy. Moreover, our survey provides insights about the Italian FinTech ecosystem, its current situation and what we expect for the future.

Unity is strength. This research has been made by combining the knowledge of the EY teams dedicated to Financial Services and FinTech industries with the FinTech District's presence in the FinTech community and its unique viewpoint of the ecosystem. Furthermore, our research and analysis are based on several reliable sources from the market and academics.

Responses from the FinTechs. Plenty of research about the Italian FinTech ecosystem are available in the market, but very few of them have included a survey with responses directly from the FinTech startups. Consequently, one of the most distinctive elements of our research is our questionnaire submitted to the Italian FinTechs, from which we obtained precious insights about three different areas - Corporate Finance, People and Skills, Risk and Compliance. This is the added value of this publication which makes it unique in the market.

COVID-19 out of a clear blue sky. The Coronavirus pandemic has shocked the entire financial ecosystem. It has forced businesses to rethink their operating models, and even the companies that were reluctant to change had to act fast to face the challenge of COVID-19. Process digitization has suddenly accelerated. FinTech services such as digital payments and alternative lending have had a remarkable boost. The Coronavirus pandemic has represented both a challenge and an opportunity for FinTech. In this document, we dive into the impact that the COVID-19 outbreak has had on the FinTech ecosystem.

Executive summary

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The FinTech ecosystem will have room for relevant growth only by applying a coopetition approach within Financial Services to leverage on open finance models with all players.

Andrea Ferretti,

EY Partner, Markets & Business Development Leader for Financial Services and FinTech Leader in Italy

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The quick recent growth of the Italian Fintech ecosystem should put it on the radar of investors who wish to get the best opportunities early. Entrepreneurs with experience and track records are attracting talents, and it is just a matter of time for investments to follow.

Alessandro Longoni,

Head of Fintech District

Financial Services are focusing on cost optimization and operational efficiency... and the digital transformation?

Financial players are facing new challenges from an array of non-traditional competitors, all while meeting greater demands for trust and transparency. Customers are changing; their needs and expectations are evolving, needing more customized and user-friendly services. Banks are consolidating, merging together to help reduce overcapacity, to enhance profitability and create synergies. The insurance industry remains stuck in low-growth mode because of low interest rates and weak economic indicators. Wealth Asset Management is rapidly changing because customers require holistically managed services. In this context, digital transformation could be a strategic lever to enable change.

Italian trends are almost aligned with other European countries facing the major issues of Non-Performing Loans (NPL) management, recovery of profitability and IT system evolution

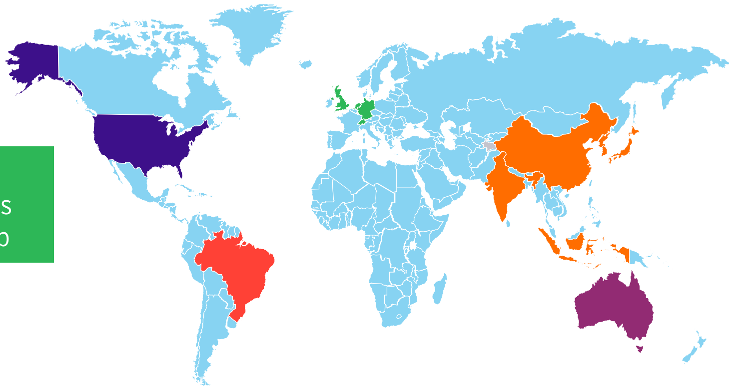
The banking sector in Italy is in a rationalization and consolidation phase, mostly created by regulators. Banks are focusing on increasing efficiencies and revenues by renewing their operating model, reducing NPL exposition and digitalizing processes. However, modernization of legacy systems remains the first constraint in digital transformation activities. Insurers and Wealth and Asset Managers continue to grapple with low interest rates, rising competition, technological innovation and regulatory shifts.

FinTech, the new phenomenon disrupting Financial Services

The FinTech industry is characterized by organizations that combine innovative business models and technology to enable, enhance and disrupt Financial Services. Through digital innovation FinTech companies can offer services that are transparent, accessible, effortless and cost-cutting, tailoring products to the evolving expectations of new customers. New regulations such as the European PSD2 allow FinTech startups to flourish, boosted by their API-driven architectures which facilitate the compliance to the emerging Open Banking system.

Global investments in FinTech firms (2016-2019) reach US$110b

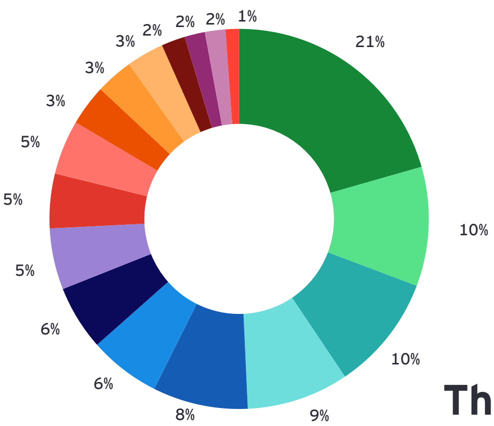
North America	South America	Europe	Asia	Oceania
43 unicorns	3 unicorns	14 unicorns	15 unicorns	2 unicorns
US$156.8b	US$12b	US$32.65b	US$223.5b	US$2.4b



According to our analysis, the Italian FinTech ecosystem is heterogenous, small in size but with high potential

From the survey we have conducted, most startups are in the intermediate stages of growth and have raised less than €1m. Analysis does not show a positive correlation between the year of foundation and the growth stage. FinTechs usually have small teams, with a median of 8.5 employees per startup. The top 20 FinTechs by funds raised have on average 1.8 founders per startup with an average age of 46 years per founder and that they are 100% male. 56% of the team members have an average age of under 32 years. From the hiring perspective, the most requested profiles, software and business developers, are also those considered as scarce in the market. With regards to the Risk and Compliance function, 74% of the startups fill the role and 51% spend less than €50k annually. The Regulatory Sandbox in Italy is considered important but it is not considered fundamental for foreign startups willing to enter the market.

Break-down of Italian FinTechs by classification



The 5 largest segments represent **58%** of Italian **startups**

Italian landscape:

74% FinTech

TechFin **26%**

€700k

median funding per startup

Main investment sources:

Business Angels

Personal resources

Company value multiplier*:

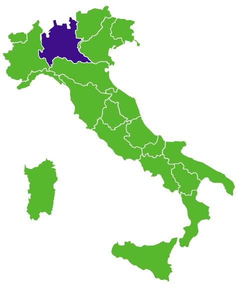
FinTech → **6.73 x**

TechFin → **4.34 x**

B2B → **9.37 x**

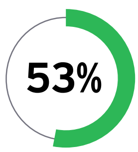
B2C → **4.10 x**

* Ratio between post money valuation and funds raised



Lombardy has the highest presence of startups

For **81%** of startups, male employees account for more than **50%** of the whole team



of startups have less than 10 employees

GDPR and **PSD2** are the regulations with the highest impact.

92% are in favor of a Regulatory Sandbox

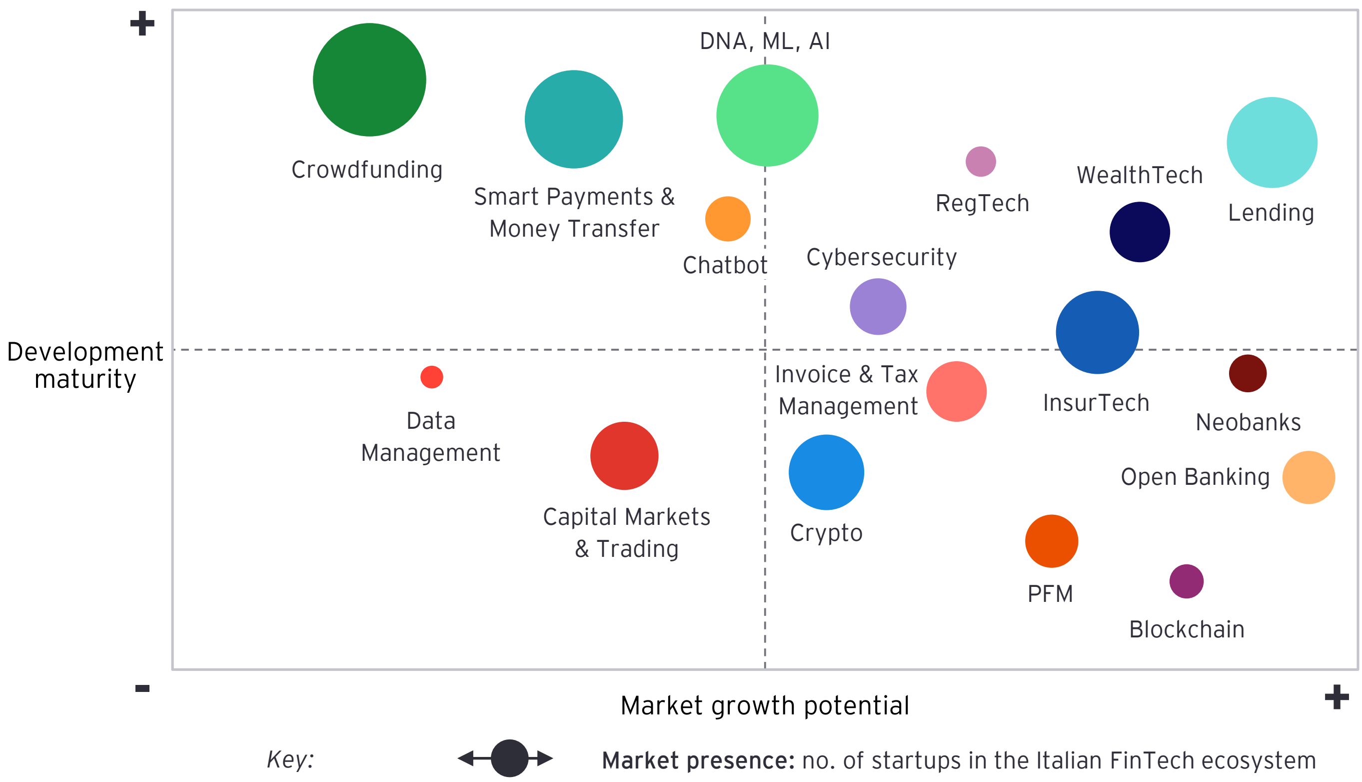
FinTech received most of the investment across Europe. The Italian gap is narrowing

Trends showed that investors' interest on early-stage startups shifted towards mid- and late-stage companies. In 2019, investments in later stage FinTechs reached the highest annual share of deals of the period 2016-2019, while early stage financing declined to a 12-quarter low in 4Q19. The FinTech industry received most of the investments across Europe over the period 2016-2019, collecting 20% of the capital invested in the region. Although investments in the Italian FinTech ecosystem still lag behind other European and global environments, that gap started to narrow in recent years. Funding to Italian FinTech startups grew at a CAGR of over 60% from 2016 to 2019. From our survey of the Italian landscape it emerges that the median funding per startup is €700k, FinTechs have collected more than TechFins and have, on average, a higher annual turnover than TechFins. The main investment sources are business angels and personal resources. Institutional Investors mostly invest in B2B business model (startups offering products/services to businesses, e.g., lending for SMEs) and they prefer investing in FinTech rather than TechFin. M&A and IPO are the most targeted exit strategies.

SMEs' services, Cybersecurity, RegTech. WealthTech, Open Banking and collaboration with financial institutions are the future of FinTech.

The Italian FinTech ecosystem is rapidly growing and it is attracting increasing investments. SMEs, the backbone of the Italian economy, must be better served by banks by leveraging FinTech solutions. Cybersecurity and Cyber Insurance are capturing attention boosted by digital transformation. Compliance will continue to play a primary role in Financial Services, so RegTech will have a fundamental role in the digitalization process. WealthTech, enabled by AI, is the revolution in the Wealth and Asset Management sector. Open Banking must be considered as an active opportunity for banks, and collaboration between FinTech and Financial Institutions will be fundamental for mutual success.

Italian FinTech ecosystem matrix



Update post COVID-19

COVID-19 pandemic. During the editing phase of this research, the COVID-19 (Coronavirus) pandemic changed the world: governments have imposed lockdowns, working from home has become the norm and people must "socially-distance". Almost every sector has been strongly impacted by the COVID-19 outbreak with severe consequences. Financial Services sectors are definitely included.

Radical changes and concerns in the Financial Services sectors. The banking sector, due to the Coronavirus, has experienced rapid and unexpected changes. Because of the imposed social-distancing and the lockdowns, bank branches lost their strategic function of being close to clients and the trend of decreasing the number of branches has surged. Moreover, the outbreak has strongly impacted SMEs and their revenue, in creating an increased risk of Non-Performing Loans (NPLs). On the other hand, bureaucracy in getting credit has been streamlined, governments have offered state aid to SMEs through financial institutions and digitalization initiatives had a significative boost. For the insurance sector, Coronavirus can be considered a "black swan", a totally unexpected and unpredictable event. Travel, event, business interruption, credit and health coverage have been the areas most affected, although underwritings in these categories are expected to rise in the future because of a greater attention and sensibility to these risks. Wealth and Asset management companies experienced turbulent times with clients' concerns about their investment portfolios. Despite an initial phase of strong uncertainty, economic recession brings new investments and opportunities. Wealth and Asset Managers are rebalancing their portfolios to better address this situation and seize new opportunities.

Resiliency. Despite the great changes in Financial Services due to the COVID-19 pandemic, the sector macro-trends that have been identified in this research will remain relevant. Moreover, the increase of digital transformation processes and initiatives will continue to rise, riding the trend that has already started. The COVID-19 situation has being a catalyst, giving a boost to the entire renewal process.

Seize the opportunities. The COVID-19 pandemic has re-shuffled the market, accelerating digital transformation, innovation and remote services. FinTech solutions typically leverage on these three elements. And so this pandemic on the one hand has put the FinTech startups under economic pressure while, on the other hand, has boosted the adoption of their services. The FinTech market, and in particular the Italian landscape, therefore has not been strongly negatively impacted by COVID-19. Some segments have even increased their operativity, adoption and revenues. According to a survey conducted by the FinTech and InsurTech Observatory of the Politecnico di Milano, 54% of the Italian FinTech startups have not been adversely affected and 19% have been positively impacted by the COVID-19 situation. These trends are confirmed by the survey made by the FinTech District. The survey shows that in some segments such as smart payment and money transfer, lending, insurtech and e-commerce related, the pandemic has brought a positive impact on business.

Agility and flexibility are the keys. Governments' actions to contain the outbreak of COVID-19 has forced companies and their employees to adopt work from home policies and to rethink their operating models and their products. FinTech, and more broadly speaking, startups, make agility and flexibility their hallmark. Innovative startups, such as FinTechs, are used to leverage digital technologies and capabilities to address their daily jobs. Moreover, their business and operating models are based on agility and flexibility in terms of product/service offerings. Because of their intrinsic characteristics, FinTechs are ready to better address the new challenges and difficulties that the pandemic brought.

Our results and identified trends do not change. COVID-19 has had a big impact on the overall economy and on the FinTech ecosystem. However, we do not see any relevant changes in the survey's outcome and on what we expect for the future. In the short-term though, some shifts may occur, especially from the investor side. We have observed a slowdown of new transactions and a conservative tendency on the investor side. Investors are generally more focused on monitoring their existing portfolios instead of seeking new opportunities. In the medium-term, we expect a boost of investments in FinTech, due to the new digitalization challenges and the potential higher liquidity available for institutional investors. With respect to crisis management, we foresee a review of business plans involving adjusted predictions of cash flow and funding necessities. And, at least for the short-term, a potential stronger appetite to buy in terms of collaboration models between incumbents and FinTech, temporarily setting aside more strategic and comprehensive approaches such as partnership or acceleration programs.

Chapter 1

Financial services trend

Global / European / Italian

Global trends

Amid sweeping regulatory changes, today's Financial Services institutions are focusing on digital transformation, convergence and disruption from an array of non traditional competitors - all while meeting greater demands for trust and transparency.

Banking and Capital Markets

The global banking sector is considerably healthier now than it was 10 years ago at the start of the global financial crisis, even though 2019 had the lowest growth in a decade.

In the BCM sector we see the following trends:

- Customer **expectations** and behaviors are changing and constantly **evolving.**
- Banks are facing an **increase in competition** from new market entrants such as FinTech and TechFin.
- Banks are **investing in new technologies** to strengthen their competitive positioning and build market share over the coming three years and to mitigate cyber threats.
- **Digital disruption is unevenly distributed.** China, for example, passed directly from a rural economy to a digital economy, skipping the stages experienced in other developed countries.
- **Neo-banks** such as Kakao Bank, Monzo and Revolut **are winning over the millennials** by offering easy and userfriendly banking applications.
- **Big tech players** such as Google, Amazon, Facebook and Apple **are taking the first steps into Financial Services** by acquiring banking licenses.
- **Banks are offering additional services** and forging external alliances in order to build an ecosystem and therefore strengthen customer engagement.
- Banks are **leveraging data** to give a more customized and effective offer to their customers.
- Banks are **focusing on risk management** activities in order to strengthen resilience. The most feared risks are **cybersecurity, credit and transition to digital strategies.**

2020 CRO's top risk priorities over the next 12 months

1. Cybersecurity
2. Credit
3. Transition to digital strategies
4. Conduct
5. Regulatory implementation
6. Operational
7. Culture
8. Data privacy
9. Operational resilience
10. Model

Source: EY 2020 Global Banking Outlook Report

Insurance

Low interest rates, stagnant growth and the growing likelihood of a global recession define the challenging economic reality for insurers around the world.

In the Insurance sector we are observing the following trends:

- **Populations are aging in more developed countries** and birthrates can even have a negative trend - insurance products are following.
- **Customer expectations are rising** and will only get higher in the near future. Creating unique and personalized customer experience has been a priority for many years.
- **Asian insurers have shown the way forward**, by quickly delivering innovation to consumers with the highest expectations for anything concerning digital and mobile.
- **Insurers need** to deeply understand how customer expectations are changing and **leverage** the relevant **technologies** to deliver products, services and experiences that match those expectations.
- **AI and blockchain will have a profound impact on the industry**, though the full force of these technologies is a few years out.
- Internet of Things (IoT) is already starting to enable opportunities for **connected insurance** and on-demand products (e.g., smart sensors installed on cars).

Wealth and Asset Management

From tech-enabled innovation and new market entrants to intense cost pressures and rising customer expectations, wealth and asset management companies will likely change more in the next five years than they have in the last 25.

The most important trends in the Wealth and Asset Management sector globally are:

- Demographics among aging populations in some countries result in a **greater need for income in retirement.** Responsibility is falling on individuals as it is shifting away from the institutions.
- **Regulations are changing the landscape** – MiFID and similar regulations around transparency and fairness are forcing players to re-think their associated strategies, risks and costs.
- Many Wealth and Asset Management players are developing **new capabilities** to provide investors with digital, simple and personalized access to savings and investment.
- **Cost reduction and efficiency** – the ability to automate processes and reduce costs as well as to streamline and simplify them has enabled players to maintain acceptable margins, but has required significant investment.
- **Evolution and innovation is needed** to meet customer needs. This includes digital engagement and customer interest in companies making a difference beyond financial ones (i.e., Environmental, Social and Governance (ESG)). Data and analytics will have a key role in enabling the personalization of solutions to retail and institutional customers.

A brief recap of Global Financial Services' trends

- Customers are changing, their needs and expectations are evolving needing more customized and user-friendly services.
- Financial Services will aggregate its ecosystem and platforms.
- Financial Services must innovate and adopt technological solutions in order to better meet customer needs.
- Regulation is rapidly changing the market, protecting customers and enhancing transparency.
- Cost reduction and efficiency will still be top priorities.

Sources

- EY Market Intelligence
- McKinsey
- Oliver Wyman
- EY - IIF global bank risk management survey
- EY 2020 Global Banking Outlook Report

European trends

European financial institutions are turning from regulation to growth and innovation, especially in the cybersecurity and digital transformation programs. Nevertheless, financial institutions are consolidating and reducing costs due to political uncertainty.

Banking and Capital Markets

Business priorities for European banks are turning from regulation to growth and innovation, especially in the cybersecurity and digital transformation programs.

The trend:

- We are witnessing a **downward trend in the number of EU-28 credit institutions**, which now has fallen to 6,088.
- According to the European Banking Federation (EBF), the countries that experienced the largest decreases in 2018 were:

-48 -38 -28 -20

- Nonetheless, some countries registered an increase:

+20 +4 +1 +1

- We are experiencing a **rationalization era where banks are consolidating**, merging together helping to reduce overcapacity and **aiming for enhancing profitability and creating synergies.** The rationalization also involves bank branches as, according to the EBF, the number of branches continues to shrink, falling to about 174,000 branches by the end of 2018.
- From a political point of view, **Brexit is a hot topic.** The UK's exit from the EU is creating political and economic uncertainty and this is reflected in the BCM sector.

-10,000 branches in Europe in 2018

From a regulatory perspective, **from March 2019 the Basel III capital standards have become effective**, with the aim of strengthening bank capital requirements, but also possibly impacting the profitability of corporate banks. Moreover, **in 2018 PSD2 and GDPR both were introduced** as comprehensive sets of legislation focusing on consumer data.

- When properly implemented in harmony, **PSD2 and GDPR** enable banks to better protect and serve consumers, move beyond compliance and seize new opportunities for growth. PSD2 and more broadly speaking Open Banking **are offering a fertile landscape for FinTech disruptors.**

Open Banking

Open Banking is fast becoming a global phenomenon. Fueled by regulatory action, changing consumer behavior and the innovation and collaboration inspired by FinTech, Open Banking is bringing new benefits to customers' lives and fresh opportunities for Financial Services.

In the EU, PSD2 mandates banks to share data with third-party providers (TPPs), once consumers consent. Financial Services, leveraging on consumers' data, can offer new and tailored products to their clients, increasing customer engagement and satisfaction.

The path towards Open Banking varies across geographies and markets, but the goals are shared. Open Banking drives improved collaboration between financial services providers, greater innovation and better products and services for customers.

Insurance

The European insurance industry remains stuck in low-growth mode because of low interest rates and weak economic indicators. Even the top-performing European countries, such as Germany, are now struggling. **Geopolitical uncertainty**, especially related to Brexit, **further complicates strategic planning**. On a more positive note, pricing has improved in most European commercial markets and in some motor markets, most notably France and Italy.
Against this challenging backdrop, there is still much insurers can do to improve financial results – such as enhancing the types of products they sell and engaging customers more effectively – even as they await better overall market conditions.

Top trends non-life: highest impact, greatest likelihood

1. Digitalize sales and distribution
2. Win the war for talent
3. Achieve better cost efficiency
4. Manage persistent regulatory pressures
5. Environmental, Social and Governance (ESG)

Imperatives for non-life/P&C insurers

- Rethink the sales process and enable the agent of the future.
- Focus on the workforce identifying the specific skill sets and talent necessary for future success.
- Find the intersection of compliance, cost efficiency and competitive advantage.
- Invest for cost efficiency and innovation.
- Set the strategy for sustainability and climate change.

Top trends life: highest impact, greatest likelihood

1. Manage persistent regulatory pressures
2. Digitalize sales and distribution
3. Achieve cost efficiency
4. Leverage IoT and connected insurance
5. Promote financial wellbeing

Imperatives for life insurers

- Rethink the value proposition in terms of new technologies.
- Strategize the optimal role and structure of the finance and actuarial functions.
- Digitize distribution as part of a seamless omni-channel experience.
- Take a holistic view of cost optimization.

Wealth and Asset Management

The years following the financial crisis have seen significant developments in Financial Services. European wealth managers now face the challenge of adapting to a market environment that is evolving quickly, if not revolutionizing itself. Client needs, shareholder expectations, stricter new regulations and milestone developments in technology are driving future business models and shaping their requirements.

Forces impacting wealth and asset managers:

- **Customer:** complex customer needs, higher expectations and private wealth to be viewed and managed holistically.
- **Digitalization:** digitalization enables a more accurate fulfillment of customer needs and new types of customers relationships,
- **Transparency:** regulation means transparency, customer protection and higher entry barriers for aspiring participants.
- **Shareholders:** shareholders seek profitable growth. On the cost side, rapidly growing cost centers, like legal counsel, compliance, risk governance and management, are squeezing margins due to legal issues.

In the Wealth and Asset Management sector we are witnessing the following trends:

- **Increase of sustainable investment**: European Sustainable Investments rose 17% to US$14.1t in 2018. **Demand** for sustainable investment **is driven by improved long-term returns** but there are various barriers in adopting the ESG strategy. Inconsistent quality of data across asset classes, costs required to invest in smart/emerging technologies, lack of advanced analytical tools/skills (internal and external), and conflicting ESG ratings/indices are the key barriers in adoption of the ESG.
- **Fee and commissions compression** and stagnation in Exchange Traded Funds (ETFs).
- **Customers are demanding** more and more **seamless, integrated and tailored solutions** that leverage technology.
- **FinTech solutions**, such as robo-advisors, **are taking the stage** and growing in popularity, especially for millennials.
- **Regulation is evolving** and is **offering** both **challenges and opportunities.**
- Alternatives and new client segments are creating **opportunities to upscale offerings and to diversify portfolios** across alternative investments (i.e., real estate, infrastructure, hedge funds, private equity).

A brief recap of European Financial Services trends

- Banks are consolidating to help reduce overcapacity and aim to enhance profitability and create synergies.
- Europe is under economic and geopolitical uncertainty due to Brexit.
- New regulations have been issued:
  - Basel III strengthens bank capital requirements
  - GDPR protects customer data
  - PSD2 promotes Open Banking
- The Insurance industry remains stuck in low-growth mode because of low interest rates and weak economic indicators and even the top-performing European countries, such as Germany, are now struggling.
- Wealth Asset Management is rapidly changing because customers require a service managed more holistically.

Sources

- EY Market Intelligence
- European Banking Federation

Italian trends

Italian financial institutions are increasing efficiencies and revenues while, at the same time, reducing costs. Digitalization of processes is a top priority. However, legacy systems remain the first constraint in digital transformation activities.

Banking and Capital Markets

The banking sector is an important pillar of the Italian economy. In the last ten years, the banking **system has passed through several critical changes: fluctuation of interest rates, increase of non-performing loans, complex macroeconomic context, structure rationalization and restructuring, needs of capitalization imposed by regulators and technology disruption.**

According to the 2018 Annual Report from the Bank of Italy, the Italian economy grew 0.9%. In 2018 bank loans to households continued to increase considerably as well as lending to companies reaching the highest level recorded since the start of the sovereign debt crisis.

Increase revenues and decrease costs

Banks are focusing on increasing efficiencies and revenues in their operating models while, at the same time, reducing costs.

The reduction in costs is driven by the **efficiency initiatives** of banks, which include **reducing employee numbers** (focus on streamlining support functions) and **optimizing the branch network.**

Following the European trend, the **banking sector in Italy is in a rationalization phase** in which the number of banks is decreasing with a CAGR of -5,45% with the number branches also decreasing (-3,92%).

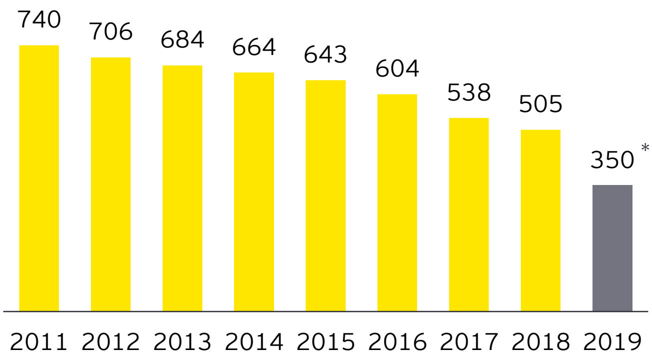
The bank with the greatest number of branches in Italy in 2019 was Intesa Sanpaolo with 3,527 branches, followed by UniCredit with 2,769 branches and Banco BPM with 1,758.

At the end of 2019, UniCredit announced the closing of more than 450 branches between 2019 and 2023.

Consequently, despite Intesa Sanpaolo having the greatest number of branches, the lead in branch closures is Unicredit, followed by Intesa Sanpaolo and, at much smaller levels, Banco BPM, Banca Monte dei Paschi di Siena and Unione Banche Italiane (UBI).

The downward trend is also affecting the number of bank employees which in 2018 reached 278,233 down from 322,345 in 2011 with a CAGR of -2,08%.

Number of banks in Italy from 2010 to 2019



*estimated value

Sources: Bank of Italy 2018 Annual Report + EY Analysis

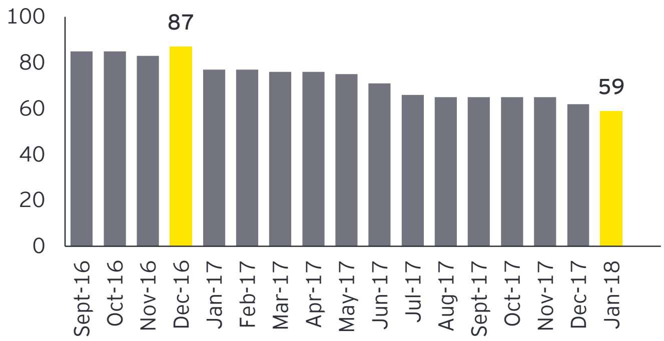
Market consolidation

The Italian banking sector has been historically fragmented. In the last few years, **we have witnessed a restructuring and consolidation inducted by regulators in order to gain competitiveness and profitability.** In 2018, the Italian Government has approved a law decree called the "Riforma Banche Credito Cooperativo ("BCCs") which states that BCCs must become affiliated to one of the three authorized co-operative banking groups. An individual BCC may remain independent only if it becomes a limited liability company and ceases to be a mutual.

Non-performing exposures management

Non-performing exposures are one of the top priorities because of regulatory pressure. Banks are investing and focusing on risk monitoring activities and exposures selling. The **NPL ratio declined from post-crisis** highs, falling below the levels recorded between 2006-2007, **but continues to remain higher compared to the European average.** Banks continued to reduce their NPL stockpile and are pushing through by selling their NPL portfolios. Further asset quality pressures are likely to be introduced as new ECB regulation comes into force. It is important to take into account the potential impact on the banks' balance sheets of a mass sale of NPLs and the consequent price devaluation.

Trend in net NPL at Italian banks (€b)



Source: EY 2018 Global Banking Outlook – European Result

Digital and IT transformation

Despite digital and IT transformation having been a priority for several years, **banks are** still **making huge investments in this area**. Key digital initiatives of Italian banks span modernization of IT platforms through **"reshaping" legacy systems**, **integrating cloud technologies, customer journey digitization, end-to-end process redesign**, leveraging big data analytics and the launch of digital platforms.

Corporate Social Responsibility (CSR)

As underlined in the industrial plans of the top Italian banks, **CSR is one of the top priorities**. Respecting the ESG criteria is fundamental to be considered a sustainable bank. Therefore, banks are investing in the Circular Economy financing projects that aim to recycle resources to create new products. Moreover, banks are digitalizing their branches in order to become paperless.

SMEs

Banks are offering tailored solutions for SMEs, which are the heart of the Italian economy. SMEs have customized needs and peculiarities that need to be addressed with specific and tailored products/services.

See the **focus box** on the Italian SMEs market at the end of this chapter.

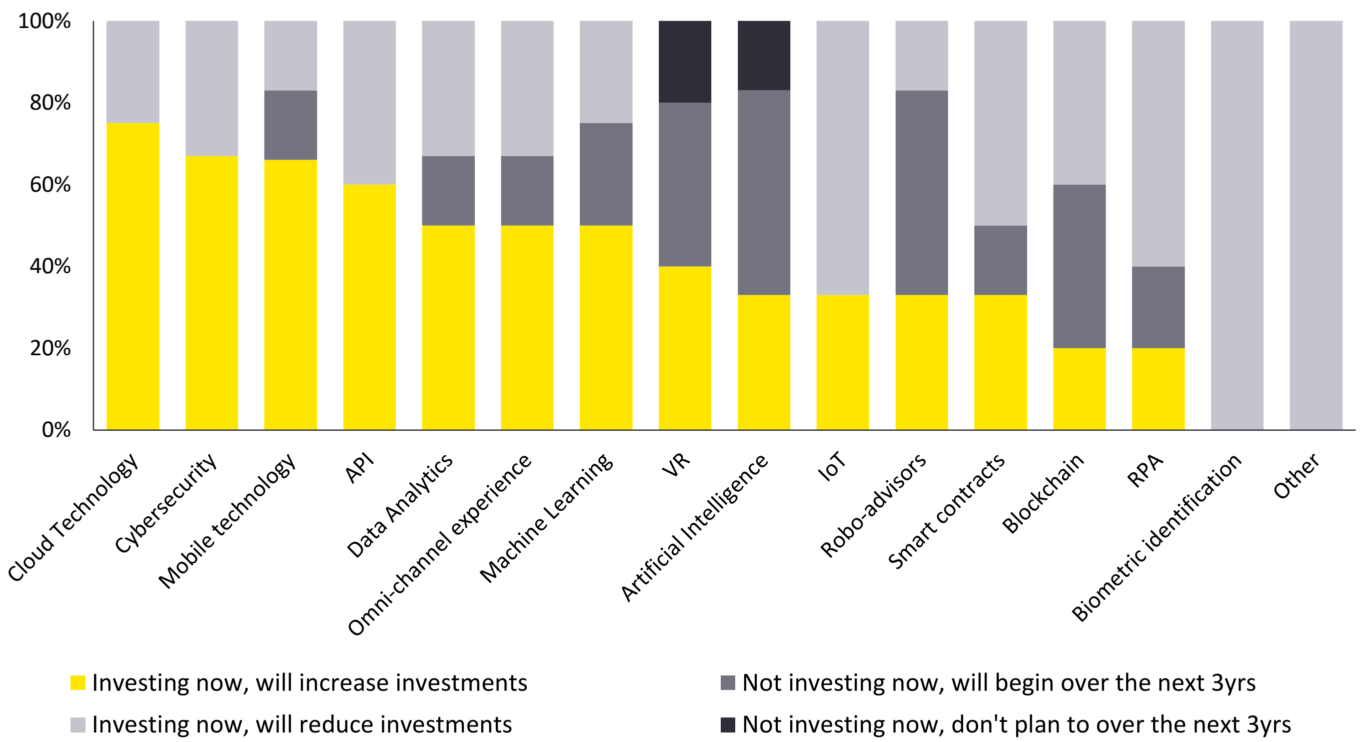
5 tech trends in banking in 2020

If 2019 was the year of the Open Banking, 2020 is expected to be the year of 5 new disruptive techs: cybersecurity, hybrid cloud, voice revolution, blockchain and 5G/Wifi6.

- **Cybersecurity:** if the growing trend in the adoption of innovative technologies like IoT, cloud computing and AI leads to enormous potential and the overall facilitation of internal processes and customer interaction, it also poses new challenges for the IT cybersecurity teams because of the exponential increase of risk.
- **Hybrid Cloud:** there are two things pushing towards what will be the most adopted operational configuration – distributed or hybrid cloud. Firstly, the speed of the evolution of cloud systems and, secondly, the diffusion of a cloud-oriented culture amongst banks and financial institutions (including Italian ones). By 2022, according to Gartner analysts, 75% of corporate data will be created and processed outside the proprietary data center or a centralized cloud. According to IBM, the hybrid cloud represents a US$1.2t market opportunity and almost 80% of IT decision makers see it in their future.
- **Voice revolution:** in 2019 US$210m of smart speakers were sold, 82.4% more than 2018. Vocal assistants such as Alexa, Siri, Cortana and Google Home are gaining success and as the adoption of these systems become habits, the possibilities for companies, including banks, to exploit this technology could make the bank one of the daily "voices" of user interaction. Consumers will take more and more for granted as long as the vocal technology is perfectly integrated with the entire path of the customer experience.

- **Blockchain:** there are still several questions on the adoption of blockchain solutions for banks and the financial world, due to regulatory and compliance, scalability and interoperability issues. Nevertheless, blockchain solutions in the retail and corporate banking sector are emerging from the test phase, confirming how this technology represents real advantages such as the improvement of trust, transparency and potentially lower costs, reducing transaction times and improving cash flows. An Italian case study in which blockchain was applied to the banking world is already a reality. Spunta Project2, the project promoted by ABI and coordinated by ABI Lab, applied DLT (Distributed Ledger Technology) to the interbank check.
- 5G/WiFI6: after several industrial experiments, especially in the healthcare sector, 5G connection is becoming mainstream. Smartphone manufacturers are producing and commercializing 5G devices and Telco companies are offering customized offers. The 5G connection, 10x the connection speed of 4G, will enable multiple digital connectivity, including VR (Virtual Reality) and AR (Augmented Reality) experiences and smarter IoT implementation. IoT will give substantial improvements in customer experiences: for example, virtual assistants and biometric recognition will have faster data processing. WiFi6, the new standard for WiFi connection, will be 3x faster than the previous WiFi generation, offering similar benefit to 5G.

Technologies/technology-enabled solutions in which Italian banks are planning to begin, reduce, or increase investing over next three years



Source: EY Global Banking Outlook

Insurance

Italian Insurance continues to grapple with macroeconomic and political uncertainty, low interest rates, rising competition, technological innovation, and regulatory shifts, above all IFRS 17. **Insurers are therefore rethinking existing strategies, rationalizing their businesses**, seeking to dispose of underperforming assets, and looking to expand into new markets and products.

Insurers are still focused on strengthening capital under the Solvency II reporting regime, as well as on meeting the requirements of rating agencies. Disposing of non-core businesses, rationalizing asset allocation, and continuing to focus on capital management are among the key steps insurers are taking. **Technological innovation is about to drive change across the insurance value chain**, from product development to underwriting and back-office operations to online distribution. A few insurers are considering whether to pilot blockchain technology, while most continue to invest in enhancing their digital capabilities and increasing their strategic and financial investments in InsurTechs.

Life:

The life business dominates the Italian market. In 2018, life premiums were €103.5b — up 3.3% from 2017 after two years of negative growth. The life business accounts for 75% of total gross written premium.

Key trends:

- **Life insurers continue to shift toward capital-light products** and realign investment strategies to cope with the low-interest-rate environment.
- They are **increasing exposure to higher-yielding, long-dated investments, overseas investments, and alternative asset classes.**
- **New players**, mainly private equity funds, **are entering the life market** through direct acquisition of existing insurance companies and closed books.
- The **banking channel leads distribution**, representing 61% of the 2018 life business.

Non-life:

Non-life premiums in 2018 amounted to €35.1b, up 2.3% from 2017 and **extending the positive trend** that began in the last quarter of 2016. Combined ratios improved slightly in 2018, reaching 90.2% from 91.1% in 2017.

Key trends:

- The automotive business is by far the most important non-life subsector.
- To differentiate themselves, many insurers have launched specialized products, such as cyber insurance, to boost sales.
- Health insurance offerings are one of the most important growth opportunities.
- The agency channel leads non-life distribution, representing 79% of the 2018 non-life business.

Imperatives for Italian insurers

- **Dispose of non-core businesses** and underperforming business lines, while streamlining operations for simplicity and efficiency.
- **Exploit opportunities** related to the entry of new players into the life business, mainly private equity funds acquiring existing insurance companies and closed books.
- **Emphasize customer centricity** and promote innovation via investments in InsurTechs and incubators.
- **Review product portfolios** and prioritize innovation in digital health, home insurance, instant insurance, and cyber risk.
- **Leverage partnerships and strategic acquisitions** in mature markets to pursue profitable growth opportunities in emerging markets.

Wealth and Asset Management

The demand for Wealth and Asset Management services is growing. At unprecedented levels private clients are more open to change. This is demonstrated through their demand for innovative services and their willingness to change their intermediary.

The Wealth and Asset Management sector is in fact going through all the trends we are seeing in other financial sectors. This is a challenge and an opportunity for all the parties involved, from traditional operators to market leaders such as emerging FinTechs, whose aim is to change the sector. Now is the time for market operators to evolve their value proposition.

- **Client switching:** more than 40% of Italian clients are looking to move money from traditional wealth management companies in the next three years.
- **Product and service:** Clients are considering more pro-active management products and services. Access to lending and non-wealth services still have a prominent place in the relationship.
- **Digital and voice-enabled technology:** 40% of Italian clients are evaluating access to FinTech enabled investment activities. More than 50% of services will be delivered via mobile applications by 2022.
- **Rethinking pricing models:** Many clients do not think they are charged fairly; companies must better demonstrate value with greater transparency and choice. Only 1/3 of clients believes that their intermediary applies fair fees.

The asset management industry has exceeded €2b of assets under management and the gathering flows are constantly growing.

50.5% of assets, approximately €1,034b, are invested in collective asset management funds. And, of these almost half are in open funds managed by local Asset Management Companies.

We identified the following trends that are shaping the Italian market:

- **Demographics:** changing demographics will have a profound impact on asset allocation. In the coming years, asset managers must find new ways of providing investment advice, use technology to communicate with the new investors, and focus on alternative investments to attract a larger client base.
- **Sustainable Investment:** as in the European trends, the demand for sustainable investments is driven by improved long-term returns, but there are various barriers to adopting the ESG strategy such as inconsistent data quality, costs required to invest in smart/emerging technologies, lack of advanced analytical tools/skills (internal and external), and conflicting ESG ratings/indices.
- **Regulations are changing the landscape:** with investment products growing in complexity, asset managers should make good use of RegTech solutions, and provide greater transparency around asset valuation and process monitoring in order to satisfy both regulators and clients.
- **Fee compression:** pressure to lower fees will further impact asset managers' profit margins and fixed income. Passive funds may keep gaining market share in the long-term due to their low fees.
- **Technology:** demand for seamless, integrated and tailored solutions for investors will drive demand for more technology in Wealth and Asset Management. Asset managers must continue to harness technology to enhance client service by delivering customizable global services that meet investors' complex needs and to develop more sophisticated distribution strategies.

A brief recap of Italian Financial Services trends

- Banks are focusing on increasing efficiencies and revenues by renewing the operating model while, at the same time, reducing costs in a relevant way.
- Following the European trend, the banking sector in Italy is in a rationalization and consolidation phase, mostly inducted by regulators.
- Thanks to the regulatory pressure, banks since 2018 have been reducing their exposure to Non-Performing Loans (NPLs). They have needed to take into account the potential impact on their balance sheet of a massive sale of NPLs and the consequent price devaluation.
- Digitalization of processes and IT reshaping still remain a top priority for Italian banks. However, modernization of legacy systems remain the first constraint in digital transformation activities.
- Banks are financing CSR initiatives and are making investments in circular economy.
- SME market is now seen as a target market and banks are starting to create tailored products/services.
- The Italian insurance market continues to grapple with macroeconomic and political uncertainty, low interest rates, rising competition, technological innovation and regulatory shifts, above all IFRS 17.
- The life business dominates the Italian insurance market and accounts for 75% of total gross written premium.
- The insurance non-life, automotive business is by far the most important non-life subsector. Agency channel still leads the distribution, representing 79% of the 2018 non-life business.
- **The demand for Wealth and Asset Management services is growing.** At unprecedented levels private clients are more open to change. This is demonstrated through their demand for innovative services and their willingness to change their intermediary.
- Demographic changes, sustainable investments, new regulations, fee compression and new disruptive technologies are the main trends in the Wealth and Asset Management sector.

Sources

- EY Market Intelligence
- Bank of Italy
- Cerved
- European Banking Federation
- ABI
- Banca Forte
- EY Analysis of Italian leading banks' industrial plan
- EY 2018 Global Banking Outlook – European Result

Focus box

The Italian SMEs market

In Italy, in 2019 there were over 160,000 small and medium-sized enterprises (SMEs). **The role played by these companies within the Italian economy is much more important than the European Union average.** This was also recently confirmed by an analysis made by the European Commission; according to the report Italian SMEs provide 79% of the jobs in the non-financial production sector (against a European average of around 67%) and are responsible for creating 68% of added value (against a European average of 57%).

Italian SMEs have historically been characterized by a high bank debt, a low net worth and by the use of personal guarantees towards banks.

After the financial crisis, the change in national and international economics, market competitiveness and the geo-political instability, have brought Italian SMEs to start questioning their financing model and to start a de-leveraging process. Therefore, **the financing structure of Italian SMEs is changing compared to the past.** According to the Cerved 2019 report on SMEs, **there are more sources of equity in the financing choices of SMEs**, in particular, the Report indicates a positive trend of risk capital increasing with growth rates above 8% per year.

Overall, SMEs level of capitalization in 2018 was much higher than in 2007 (pre financial crisis).

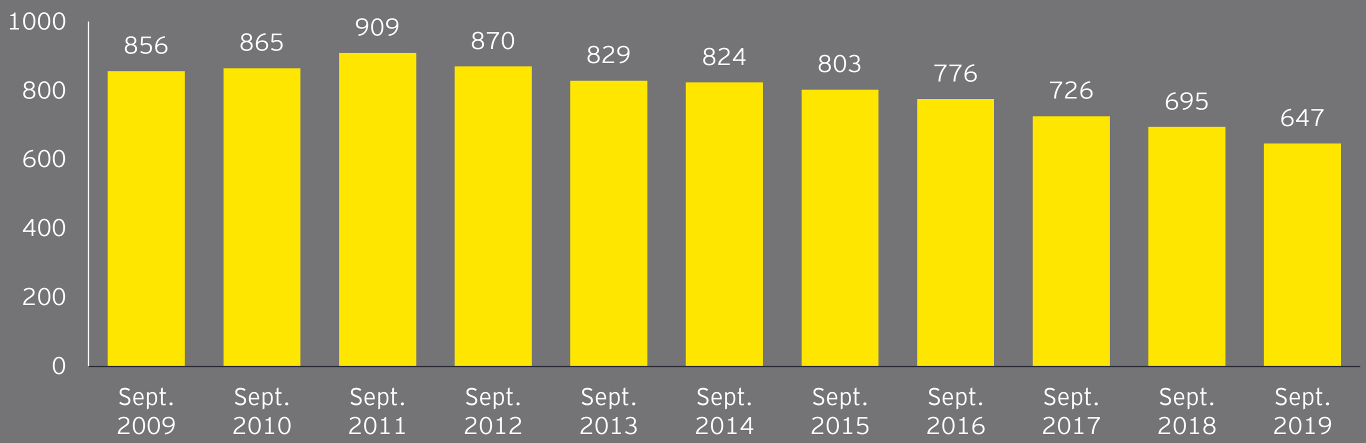
It is therefore clear that SMEs are seeking a greater balance in their financial sources compared to the pre-crisis values where the use of debt was the main source of financing. This trend is noticeable in SMEs and, even more, in small enterprises which are beginning to also use debt as a source of financing.

In addition, according to the Bank of Italy's monthly report on Banks and Money of December 2019, loans to non-financial companies were €647b in September 2019, €726b in 2017 and €776b in 2016. 10 years before, in September 2009, the amount was €856b.

There are also other trends we are witnessing in the Italian banking system: **banks are offering negative rates to their depositors** and this means that banks no longer offer interest to depositors, but rather set a price to keep their money.

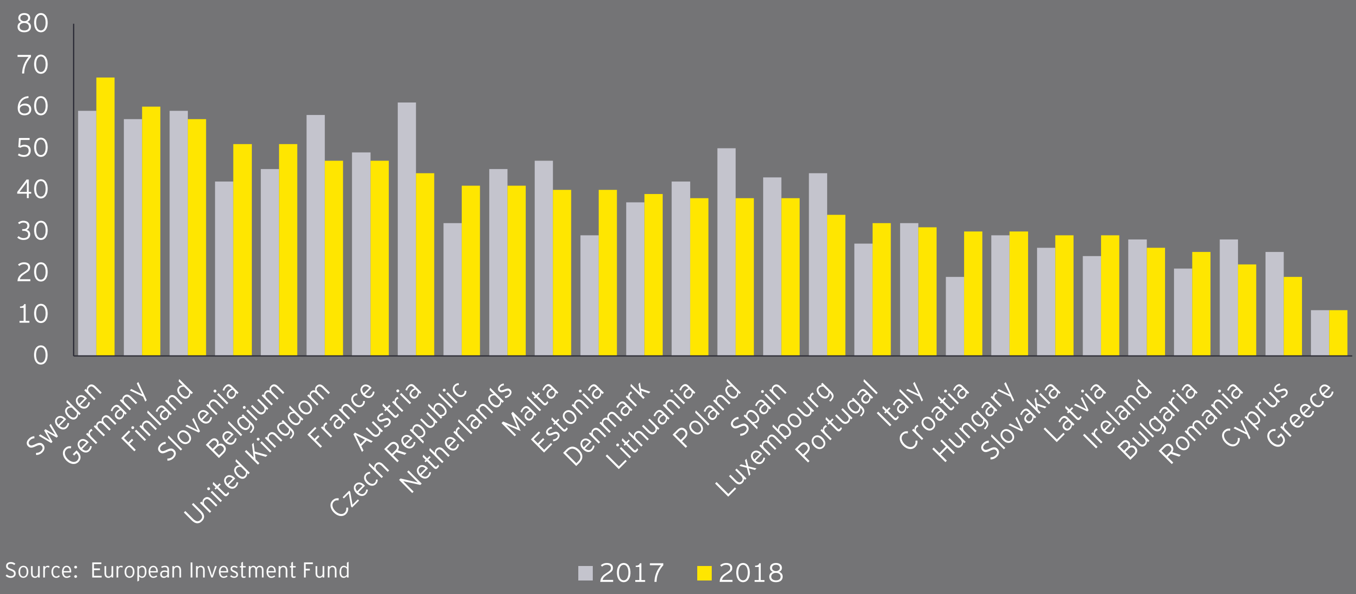
According to the annual survey conducted **by the European Investment Fund (EIF) (which measures,** through the SME Access to Finance Index, **the ease of access to capital for SMEs in the EU) Italy in 2018 moved from the 17th to 19th place** and it has been overtaken by Estonia and Portugal. Moreover, according to the European Central Bank, the percentage of Italian SMEs which are financially vulnerable (i.e., with revenues and profits in downtrend and, at the same time, debt and interest growing) is above 7% while the continental average is 3%. According to the same survey, Italian SMEs have become more pessimistic regarding access to banks' credit.

Loans to non-financial corporations from 2009 to 2019



Source: Banca d'Italia

The 2018 European International Fund SME Finance Index (score 1-100)



Source: European Investment Fund

The percentage of those that declare greater availability by banks compared to the previous year fell from 17% to 12%. Politic instability also influences the cost of capital: 27% of the Italian SMEs reported an increase of the interest rate paid, while, in the previous report, in the same period the percentage was 14%.

This data makes financial analysts believe that **banks are no longer interested in lending money, but instead they prefer to provide other services, with less risk and greater profitability.**

It therefore seems that we are witnessing a **phenomenon of disintermediation of bank credit and the emergence of forms of "alternative finance" and "shadow banking".**

According to a report conducted by the School of Management of the Politecnico di Milano, **alternative finance is classified in the following areas:**

1. **Minibond**
2. **Crowdfunding**
3. **Invoice Trading**
4. **Direct Lending**
5. **ICOs and token offering**
6. **Private Equity and Venture Capital**

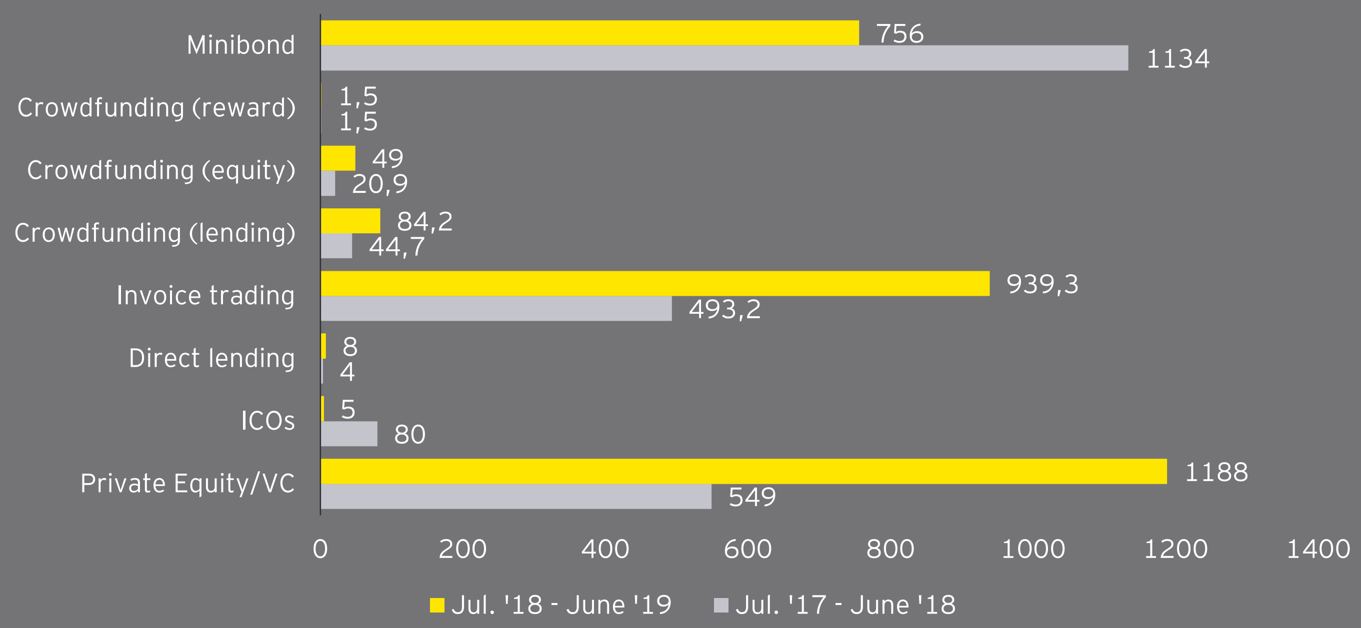
These types of financing do not represent most funding in Italy but are experiencing a period of great growth and notoriety.

According to the Bank of Italy, banking commitments in the corporate sector were around €650b in 2019, while, according to the report of **the Politecnico di Milano, the new forms of alternative financing between July 2018 and June 2019 amounted to almost €3b.**

This phenomenon captures a historic moment of great interest for alternative finance, especially because of legislative innovations. In the future, new market operators will be able to guide SMEs throughout their entire life cycle, from the launch to the IPO.

In addition, banks need to use capital effectively to increase their profitability which is compressed by low interest rates. However, **banks have serious difficulties in correctly assessing creditworthiness:** investments in innovation are particularly risky and difficult to measure by a traditional financial intermediary in a market subject to big changes.

Amount of financing from alternative channels to bank credit for Italian SMEs (€m)



Source: Osservatori Entrepreneurship & Finance, 2° Quaderno di Ricerca - La Finanza Alternativa per le PMI in Italia

Using Data and Technology to better serve SMEs

In serving SMEs, banks face robust competition from big tech companies and FinTech. According to EY's 2019 Global FinTech Adoption Index, 25% of SMEs worldwide have used services in the past six months provided by FinTech in all of these four categories: banking and payments, financial management, financing and insurance. **FinTech and big tech** companies have raised the bar for all providers.

They **have delivered innovative solutions and richer user experiences to SMEs for basic financial services, such as customer payments, foreign exchange hedging and cash flow management, while also providing vertical functionalities more efficiently like know-your-customer (KYC) and anti-money-laundering (AML) reviews.**

Helped by open-banking trends that encourage financial providers to use open application programming interfaces, **FinTechs have made customer onboarding and credit decisioning for SMEs fast and frictionless.**

To retain their dominance, **banks need to be at the heart of the SME business, using technology to better understand the needs and context of the business**, which in turn, will enable banks to better serve their customers.

Banks have responded to the innovation challenge in three ways: by starting neo-banks focused on serving SMEs, partnering with FinTechs and big techs, and building their own technology in-house. These developments coincide with a move away from the traditional product-push approach to one focused on partnership, to enable SMEs to succeed. A first key step has been made to integrate additional services, such as accounting and human resources software, into their core value propositions—as part of customers' monthly fees.

Given the magnitude of the need, size of the opportunity, and growing competition from FinTech, banks should move quickly to retain current SME customers and attract new ones.

Clearly, **with increased competition, banks must get the basics right**. At the most fundamental level, **SMEs need access to working capital.**

Financing their operations can be a time-consuming chore. In developed markets, the gap between the capital SMEs need and the amount they actually received is equivalent to about 3% of GDP, according to Allianz. In developing markets, the gulf is 18% of GDP, which adds up to US$4.8t in underfunding, according to the International Finance Corporation. Meeting this need could generate significant potential revenues—as large as US$25b by 2024 across the 12 countries in three regions analyzed by EY research.

Banks can take advantage of tools that make effective, automated credit decisioning possible during the critical early stages of the SME lifecycle. In response, **banks can share this information with SMEs to deliver greater transparency in their working capital** needs and business performance, enabling them to make more informed decisions.

Drawing on existing and new sources of data, banks can provide technology-enabled services, such as all-in-one electronic payment platforms that allow merchants to use a single device to accept payments by credit cards, e-checks and quick response (QR) codes. **These types of solutions enable SMEs to digitize invoices**, speed up payments, accelerate the cash conversion cycle and automatically associate orders, invoices and payments with one another.

As they serve their clients, banks can use AI to provide round-the-clock assistance through virtual relationship managers and chatbots — and help their human relationship managers better understand and respond to the needs of the business. Such augmentation could also be provided to SMEs through AI-driven business advisors.

To be successful in this market and develop long-term customer loyalty, banks need to develop a clear value proposition and strategy to partner with their SME customers. They also need to offer them a broad range of solutions to run, control and grow their businesses, including:

- Helping SMEs connect with an ecosystem of suppliers, distributors and other SMEs.
- Using their expertise across industries, channels and regions, to offer growth opportunities and insights.
- Supporting business productivity by offering solutions, such as cash flow management, HR, talent and tax; and keeping their businesses safe through education on regulatory compliance.

By enhancing traditional relationship banking with the latest advances in technology and data management, banks can more effectively offer SMEs with the support and capital they need to thrive and achieve higher survival rates. This gives them a better chance for small businesses to grow—and for their banks to prosper alongside them.

Sources

- EY Market Intelligence
- Cerved
- 2019 SBA Fact Sheet - Italy
- Banca d'Italia
- European Investment Fund
- Osservatorio Fintech & Insurtech, Politecnico di Milano

Chapter 2

The FinTech market

Global / European / Italian trends

FinTech environment

> We stand on the brink of a technological revolution that will fundamentally alter the way we live, work and relate to one another. In its scale, scope and complexity, the transformation will be unlike anything humankind has experienced before.

World Economic Forum, 2016

The FinTech industry is characterized by organizations that combine innovative business models and technology to enable, enhance and disrupt financial services[1]. The word "FinTech", results from the linguistic alloy of "Financial" and "Technology" and describes the innovative sector that aims to enhance Financial Services through technology.

Financial + Technology
=
FinTech

Financial systems are rapidly integrating and restructuring process under the influence of different economic, legislative, social and technological factors. The revolutionary movement is characterized by both international events, like globalization, structural deregulation and concomitant supervisory re-regulation in banking, improvements in technology, data processing and telecommunications. These changes have dramatically impacted the competitive trends in financial systems.

The majority of customers today rarely go to a bank branch to do banking: nowadays and even more in the future, it will be the bank (or better, banking) that follows the needs of its clients.

The resulting increased level of competition has improved the quality of financial services. It has prompted a reduction in prices, a general contraction of banks' margins and has put more pressure on banks' performance by squeezing profitability and helping to incentivize efficiency.

The financial crash, the expanded level of mobile phones, tablet usage and the easier and faster access to innovations enabled more and more new avant-garde methodologies that are threatening incumbents' business models.

The companies leading this revolution are known as FinTechs and they are disrupting one of the most traditional sectors of our economy. From finance professionals to consumers, **FinTech startups aim to bring people to a new, more simple, transparent and easier way to manage their finances.**

The last few years have been a record-breaking period for the FinTech market. Globally, there were 1,210 FinTech startups created after 2013 with at least US$1m in funding over the period 2016-2018, increasing 66% compared to 2016. These companies were able to collect almost US$43.7b in 2018, increasing 70% compared to the year before. The United States led the growth with US$13.9b, followed by China with US$13.4b. As a result, the average financing to FinTechs was around US$36.1m in 2018, increasing by 3% compared to US$35.1m in 2016.

(1) Definition coined by EY (EY FinTech Adoption Index 2015)

1,210 FinTechs started after 2013 that had at least US$1m in funding over the period 2016-2018

US$43.7b of funding in 2018

US$13.9b of funding in the US

US$13.4b of funding in China

US$36.1m average financing for each FinTech in 2018

According to CB Insights, in 2019, US$34.5b were raised by venture capital companies in FinTech investments through 1,913 deals, recording a decrease of about 15% against 2018.

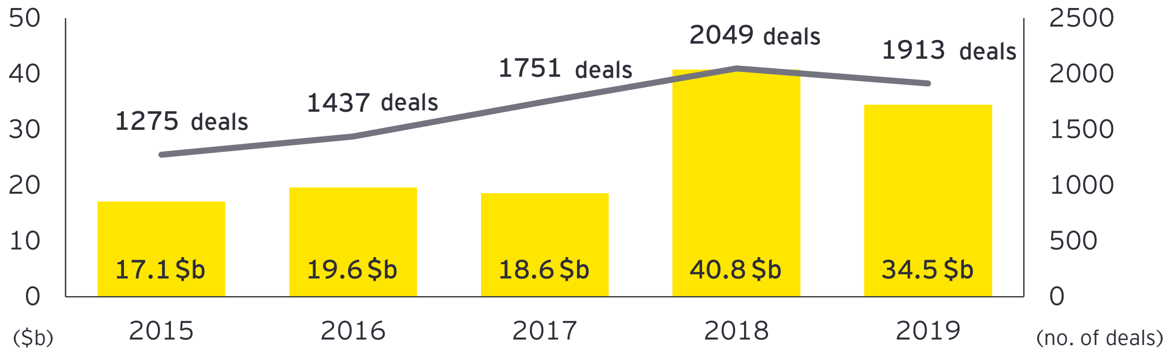
FinTech transactions thrived particularly in India, China and Latin America.

2019 gave rise to 77 FinTech and TechFin unicorns globally*, companies valued over US$1b, for a combined valuation of US$427.35b.

43 of these unicorns are headquartered in North America, while 14 of them are found in Europe, 15 in Asia, two in Australia and three in South America.

More generally, a shift from the traditional paradigm can be detected, as user-friendly and technologically-advanced products and services are expected to grow in popularity.

Annual global FinTech deals and financing 2015 - 2019



Source: CB Insights

See the **"Investor market"** chapter to find more details

Despite the 2019 decrease, FinTech financing is still far greater than 2017's funding. Moreover, deals involving FinTech startups in 2019 decreased by 6.6% in comparison with 2018, dragged down by early-stage transactions that fell to a 12-quarter low. As a result, 1913 deals run by venture capital companies were observed in 2019, less than the 2049 deals registered in 2018.

42.8% of the total Fintech funding reported in 2019 has been in North America, followed by Asia with 27.7%, Europe with 23%, South America with 3.4%, Africa with 1.7% and lastly Africa with 1.4%. The market has benefited from a period of great turmoil during the second quarter of the year.

Sources

- EY Market Intelligence
- Osservatorio Fintech & Insurtech, Politecnico di Milano
- CB Insights

* EY Analysis based on CB Insights and Crunchbase sources considering only companies created after 2010

Global trends

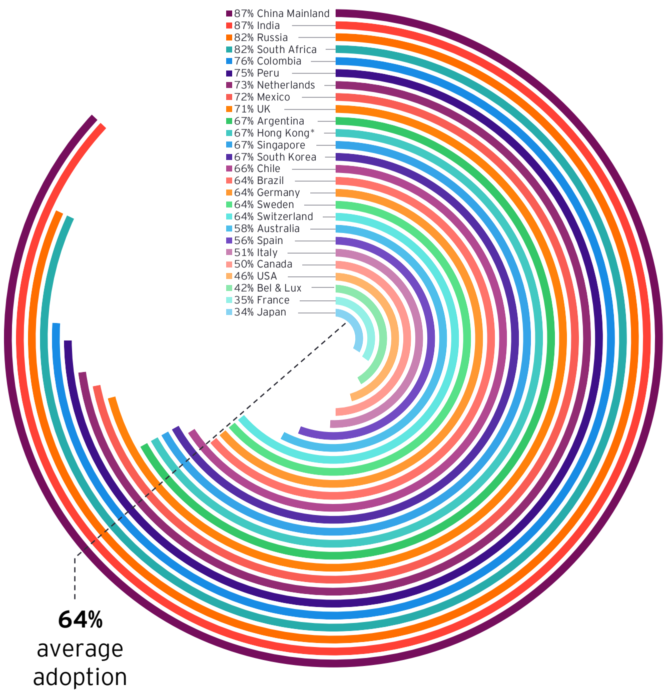
FinTech are beginning to gain exposure to markets and customers underserved by traditional financial institutions thanks to services that are transparent, accessible, effortless and cost-cutting and that are tailoring products to the evolving expectations of new customers. Moreover, new regulations such as the European PSD2 and Open Banking allow FinTech startups to flourish.

The digital innovation allowed FinTechs to gain market share against incumbents.

Digitalization has changed the way people interact with Financial Services. Whereas historically individuals approached financial institutions in local branches, today most activities can be made digitally through a smartphone. **Through digital innovation FinTech companies can offer services that are transparent, accessible, effortless and cost-cutting and that are tailoring products to the evolving expectations of new customers.** As such, FinTechs represent a disruptive phenomenon for traditional institutions. Also with regard to SMEs, which are the backbone of local economies, behind the company there is an entrepreneur, and this entrepreneur is also a private consumer who has been accustomed in recent years to a very high level of user experience on many services: think of Amazon, Netflix, Spotify. Unconsciously they start to expect the same level in all services, including banking. Banks have been and are struggling to align themselves with this type of model and have left a whole under-served segment where FinTech are leading.

The digital revolution and the rise of FinTech startups are concepts that seem to be increasingly recognized by the public. In an online survey conducted by EY teams in 2019 on 27,000 consumers in 27 markets including UK, USA and China Mainland, 96% of global consumers stated that they are aware of at least one FinTech startup offering alternative services for payments and money management. The sample's average adoption rate of FinTech products and services reached 64%. More specifically, FinTech reached substantial recognition in markets whose framework passed directly from a rural economy to a digital economy, skipping the brick-and-mortar model typical of more developed markets: therefore, it is no coincidence that countries/regions such as India and China Mainland recorded a FinTech adoption of 87%, with Russia arriving at 82%.

Consumer FinTech adoption across 27 markets



Source: EY FinTech Adoption Index

*Hong Kong is a SAR of China

As a result of digitalization, **FinTechs have acquired several competitive advantages against traditional financial institutions.** In fact, they are able to both enhance the customer experience, making the interaction easier and more effective, and respond to clients' financial needs. By operating through an open and innovative infrastructure, **FinTech startups also compete on costs against incumbents**. In fact, **they usually have low installation and operating costs, have slender structures, are composed of a contained but specialized workforce and are often not subject to regulatory supervision**. Conversely, incumbents are traditionally characterized by high structural expenses, especially when it comes to technological development plans.

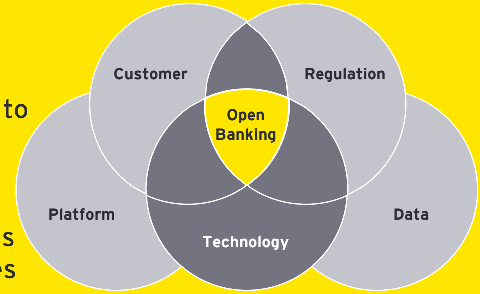
FinTech companies are moving away from their initial business model towards new horizons.

After successful funding rounds and the consolidation of the customer base in their core activities, **many FinTech companies, especially unicorns, are looking to transform their organization from a single service line to a multi-line business model to achieve greater returns.** FinTech startups are looking to outperform the market thanks to a softened approach from regulators in entry barriers, in an effort to promote competition and disrupt banking monopolies. **New regulations such as the European PSD2 allow FinTechs to flourish, boosted by their API-driven (Application Programming Interface) architecture which facilitates the compliance to the emerging Open Banking system.** The PSD2 Directive may affect informational assets owned by financial institutions to the advantage of FinTech companies, as they will be able to connect soft information tied to banks' current accounts with big data on customers they already retain. Therefore, new services and asset classes are about to be introduced by FinTechs.

Alternative asset classes became available to be targeted, and FinTech startups reviewed their product and service offering to mutate alongside the transformation of the customer base and its needs.

As an example, Revolut, created as a digital wallet provider, currently offers traditional and innovative solutions such as bank accounts, brokerage services and cryptocurrencies. This feature corresponds to one of the foundations of the agile and customizable FinTech infrastructure, as companies can now provide clients with ancillary products such as home insurance and alternative lending such as real estate, further strengthening their visibility as well as increasing their margins.

Open Banking allows FinTech startups to solidly position themselves in Financial Services, pushing incumbents to align their structures in seeking new business opportunities

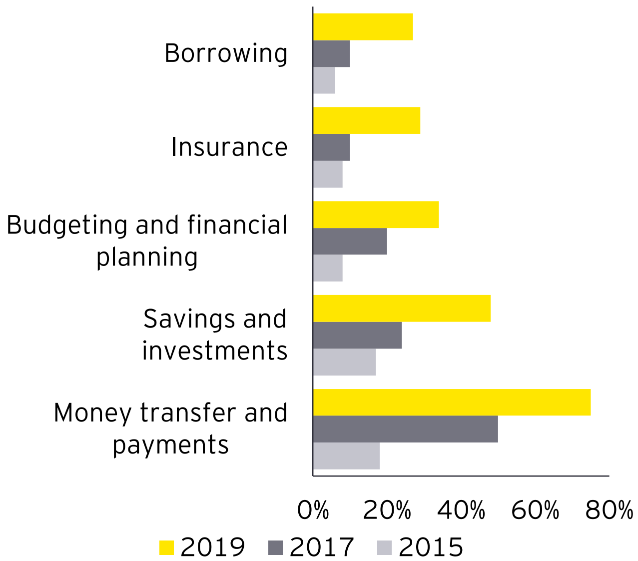


New dynamics arise from the global financial market, propelled by ever-changing regulations and FinTech expansion around the globe. As a matter of fact, FinTechs are gaining consensus among customers, leveraging on APIs that grant the possibility to provide personalized offerings and omni-channel interactions to the clientele through low costs models. As EY's FinTech Adoption Index suggests, FinTech recognition among global customers passed from 16% to 64% from 2015 to 2019, recording a flabbergasting growth.

As the 2019 report illustrates, 73% of consumers expect companies to understand their needs, while 41% of them are less reliant on established banks for their finances and would change for a better digital offering. They are therefore ready for the next wave of financial business models, for which Open Banking is the workhorse. It will provide consumers with more choices, conceiving a system of frictionless, consensual and standardized regime for customer data sharing, fostering the entire economic ecosystem.

Hence, **the unbundling of financial services has fueled competition from new entrants and adjacent industries, also sponsored by regulators.** Consequently, revenues from incumbents are at risk, with margins squeezed by the proliferation of cloud and mobile technologies unleashed by disruptors in the market.

Comparison of FinTech categories by adoption rate from 2015 to 2019



Source: EY FinTech Adoption Index

Open Banking generated an environment where consumers are empowered to integrate digital banking into their everyday lives, and the resulting pressure on traditional financial institutions pushed them to adapt their businesses to avoid losing ground. **The opportunities for incumbents originating from Open Banking are endless, from the pursuit of new revenue models through API offerings to the development of new governance frameworks and the determination of data-led partnerships with adjacent industries' companies.** Several incumbents are therefore moving in this direction. As an example, HSBC, through the Connected Money app, supplies personal finance management tools to customers, giving insights on spending patterns as well as peculiar budgeting intelligence. Banca Sella, for its part, launched the Open Banking platform Fabrick, a financial and open ecosystem providing access to competencies, technologies and services to integrate different systems and develop new strategies and business models.

FinTechs are beginning to gain exposure on markets and customers underserved by traditional financial institutions.

FinTech startups are looking to expand in other markets and use their flexibility to offer services that traditional financial institutions cannot. Through their unique positioning and infrastructures, they can take advantage of untapped customer groups such as, the middle class in emerging markets. As a matter of fact, **incumbents prosper in developed countries with long-established financial infrastructures where FinTech startups, even though winning market shares, are still perceived as alternatives.** Providing services to the emerging markets' middle class could often be uneconomic for traditional financial players, considering the high costs and low revenues deriving from their onboarding.

However, most developing economies have less sophisticated set-ups, leaving a plethora of opportunities for FinTechs to launch their products and services and marginalize on the middle class because of their scalable and cost-free platforms. To put that into perspective, FinTech financing in Asia peaked at US$22.8b across 609 deals in 2018, while in 2019 it recorded a decrease of about 69% compared to 2018, with US$7.1b. A few examples would be OVO and Kakao Bank.

The OVO and Kakao Bank case studies

OVO, an Indonesian digital payment platform, enabled transactions to almost the entire local ecosystem. Available on more than 115 million devices, present in 319 cities and used by over 500,000 merchants, the startup became the preferred payment tool for Indonesians. The key success element for OVO was the promotion of Indonesia's financial inclusion, from little served people to local retailers and convenience stores.

Kakao Bank, a South Korean digital financial institution, has capitalized on an IT-accustomed population and the popularity of its chat app, Kakao Talk, used by 94% of South Koreans. Compared to peers or competitors Kakao Bank's strong point is the convenience of its mobile app. Setting aside the integration with its social companion, Kakao Bank represents a user-friendly mobile service that reduces the hassle of having to go through burdensome procedures typical of incumbents to open accounts and borrow or transfer money.

In addition, **small and medium enterprises (SMEs) are increasingly looking at FinTechs as well**. Historically underserved by traditional financial institutions, **SMEs are constantly searching for solutions to increase the efficiency and lower the cost of their businesses**. The biggest advantage for FinTech companies when it comes to SMEs is the possibility to offer a diversified and integrated set of services, providing a value proposition that, in most of the cases, is scattered between incumbents and non-financial institutions.

Millennial customers are fueling the growth of the FinTech industry.
As of 2018, millennials own US$4.5t of total financial assets. This number is likely to increase in the future, with millennials expected to hold US$20t of total financial assets by 2030.

$4.5t Total financial assets owned by millenials in 2018

Total financial assets expected to be owned by millenials in 2030 **$20t**

In this context, it is crucial to assemble infrastructures capable of meeting the demand of this generation. As a demographic shift in the labor market is taking place, where millennials are increasingly present, insurgent FinTech startups are taking advantage of this by creating avant-garde financial platforms. This trend is validated by EY's Global FinTech Adoption Index, indicating that 67% and 76% of people aged 18-24 and 25-34 respectively are adopters of technologically-led financial solutions.

Learning from incumbents' mistakes and introducing trendsetting technologies, FinTechs are built on lean setups to reduce costs. As a result, part of their margin is "invested" into the clientele, introducing systems based on low prices and fees making them even more competitive compared to traditional players. This fits perfectly with the spending habits typical of millennials. As a survey conducted from the mobile banking startup Revolut emphasizes, 64% of millennials in Europe are saving money, whether it be on a weekly or monthly basis.

The next generation of investors grew up in a challenging context, bombarded by phenomenon such as low average wages, insecure employment, rising house prices and shaky debt management. For them, saving for retirement or for future projects has therefore become a predominant topic. So, it should not be surprising if this generation is constantly looking for low fees and quality services, even more appreciated if designed through innovative technologies and channels. This means that millennials are even keener to approach FinTech companies.

Online and mobile channels, innovative point-of-sales and alternative financial systems is what next-gen customers are looking for at this point of time. FinTechs are also leveraging ground-breaking business models to attract them. An example could be cryptocurrencies, widely requested among millennials, new communication channels and methods to connect with them such as gamification, chatbots and cloud platforms. Finally, thanks to their agile nature, FinTechs are also managing to line up to the resounding transformation in ethical values driven by millennials, increasingly attentive to social and environmental issues, by investing into ESG topics.

The need arises for incumbents to modify their business model and seek synergies with FinTech operators.

Macroeconomic trends suggest the necessity for incumbents to identify efficient solutions to renovate their business model. As the innovation wave strikes the market, opportunities powered by digital development are revealed. Traditional players need to integrate technologies such as AI in to their structure to generate additional revenue streams and avoid losing ground against competition. AI applications are improving swiftly, fostered by the fact that they can be used in all aspects of the financial service industry. They can prompt, together with blockchain systems, the automation revolution to which incumbents should participate, allowing companies to maintain more efficient structures and reduce overhead costs.

For example, AI technologies could leverage selling from incumbents' added revenue streams, as well as increase the use of proprietary tools from the clientele through friendly interface, or even improve the customer acquisition rate. An example is the AI-powered automated savings tool NOMI Find and Save designed by the Royal Bank of Scotland in partnership with Personetics. NOMI maximizes savings by analyzing spending habits and customers' behaviors while delivering financial guidance. Another example is represented by Cora, the AI-powered chatbot developed by NatWest and able to answer most customer questions, thus limiting human involvement for high-impact and intricate inquiries.

As a result, incumbents who will be less affected by this turmoil will be those willing to change their value proposition, aligning with new dynamics influencing the market by adopting technologies organically or through partnerships and M&A acquisitions. The collaboration between incumbents and FinTechs could be beneficial for both entities.

As a matter of fact, FinTech startups would profit from this collaboration by raising capital and gaining access to an additional customer base, while traditional financial institutions would earn agility and digital know-how. Incumbents would also benefit extensively on the partnership by gaining access to new market segments, previously untapped, thanks to cost-effective technologies, able to overcome entry barriers, and provide a variety of services to new customers. Nevertheless, incumbents have not acquired a significant number of FinTechs directly in 2013-2018, preferring different methods of collaboration.

The advent of Big Tech companies into Financial Services is threatening both FinTechs and incumbents.

FinTechs and incumbents both face new competition from non-financial companies, Big Techs are building their success on existing customers to offer a holistic proposition of products and services. Big Techs have been able to design platforms and infrastructures, which extend to a worldwide customer base and boost customer loyalty through brand recognition. By doing so, they have conquered a preferential channel in entering the Financial Services market.

Furthermore, they can extensively count on their huge data network. Customers' databases, rich in personal and commercial data, are generated from customers by analyzing their interests, needs, wishes and purchases. Data harvesting allows Big Tech to design smart products and services. By doing so, they acquire clientele and newcomers which, in turn, provide more data and insights to be processed.

Examples of newcomers storming the financial services industry are Zhong An and Ant Financial.

The Zhong An and Ant Financial case studies

Zhong An is an online insurance company founded by the Big Tech Alibaba, the entertainment company Tencent and the insurance firm Ping An. Being the first online-only insurance company in China and providing low fee services to the clientele, Zhong An services were adopted by 413 million users in 2017, underwriting about 5 billion policies.

Similarly, Ant Financial, formerly known as Alipay and an affiliate company of Alibaba Group, has revolutionized the Chinese payment industry. As of its latest financing round, the company was valued at US$150b, more than traditional financial institutions such as RBC or Santander. Taking advantage of the growth of Chinese mobile Internet users (increased from 118 to 772 million from 2008 to 2017), the rise of e-commerce and the trending cashless economy, Ant Financial attracts more than 1 billion users across several services, going from payments to wealth management, insurance and lending.

Finally, a Big Tech company such as Amazon, using proprietary platforms, can provide lending solutions (Amazon Lending), credit card options (Amazon Prime VISA), payment solutions (Amazon Pay) and even insurance policies (Amazon Protect) among others to consumers and SMEs. Particularly, the company's workhorse Amazon Lending proved to be a market success, with the firm's announcement that it made more than US$1b in seller loans alone in 2018. Amazon Lending is an exclusive program offering short-term loans to help sellers cover the costs of restocking or purchasing new inventory. The peculiarity of Amazon Lending consists in an invitation program, engaging only established sellers and brands active on the platform to harness the opportunity for the unique purpose of purchasing more inventory to sell on the marketplace. It will therefore be Amazon who decide, based on data relating to sales, inventory, maintenance and customer service, if the customer can get a loan. The loan payment will be automatic; every month the installment amount will be taken directly from the account the sellers have on Amazon.

A brief recap of Global FinTech trends

- Through digital innovation, FinTech companies can offer services that are transparent, accessible, effortless and cost-cutting and, that can tailor products to the evolving expectations of new customers.
- Regarding SMEs, they are central to their local economy and even if they are not very digital, the entrepreneurs behind them are also private consumers who have been accustomed to a very high level of user experience and start to expect the same level in all services, including banking. Moreover, SMEs are constantly searching for solutions to increase the efficiency and lower the cost of their businesses. FinTech can offer a diversified and integrated set of services, providing a value proposition that, in most of the cases, is scattered between incumbents and non-financial institutions.
- After successful funding rounds and the consolidation of the customer base in their core activities, many FinTechs, especially unicorns, are looking to transform their organization from a single service to a multi-line business model to achieve greater returns.
- New regulations such as the European PSD2 allow FinTechs to flourish, boosted by their API-driven architectures which facilitate compliance to the emerging Open Banking system.
- Open Banking generated an environment where consumers are empowered to integrate digital banking to their everyday lives, and the resulting pressure on traditional financial institutions pushes them to adapt their businesses to avoid losing ground.
- FinTechs are beginning to gain exposure on markets and customers underserved by traditional financial institutions.
- FinTechs and incumbents both face new competition from non-financial companies, Big Techs that are building their success on existing bonds with customers to offer a holistic proposition of products and services.

Sources

- EY Market Intelligence
- Bloomberg
- The Economist
- Osservatorio Fintech & Insurtech, Politecnico di Milano
- CB Insights
- Nikkei Asian Review
- CNBC

Focus box

FinTech and Sustainability

In recent years, both public and private companies, regardless of sector, have started to consider sustainability as a priority.

In 1992 the UNEP FI (United Nations Environment Programme Finance Initiative) was started, made up of 215 financial institutions and 41 supporting institutions. In September 2019 they defined the **"Principles for Responsible Banking"** which offer a framework for a sustainable banking system and help banks to demonstrate the positive contribution they can make to society.

The 6 principles are:

1. **Alignment**
2. **Impact and target setting**
3. **Clients and Customers**
4. **Stakeholders**
5. **Governance and Culture**
6. **Transparency and accountability**

These Principles are designed to guide a bank to strategically align its business with the development and sustainability goals that the world has set for itself - internationally, regionally and nationally.

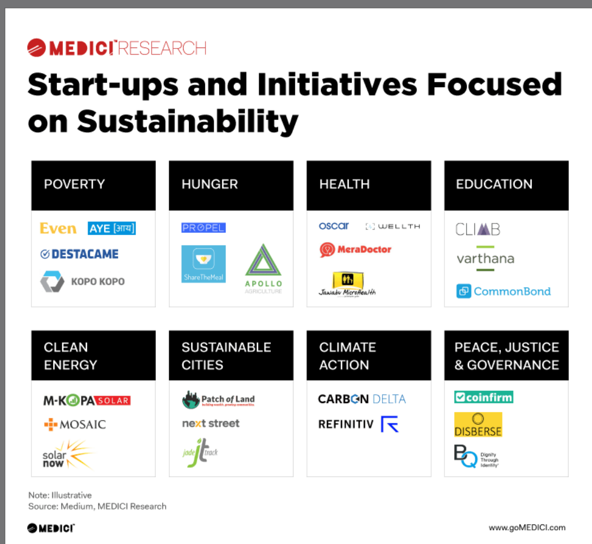
Moreover, Environmental, Social and Governance (ESG) criteria have been established as standards for companies' operations and for sustainable finance operators. Sustainable finance is the process of taking into account environmental and social impact when making investment decisions, leading to increased investment in longer-term and sustainable activities.

Within sustainable finance, it is important to highlight the role played by digital technology innovation and FinTech.

According to MEDICI, FinTech and associated digital financial tools can be crucial to mobilize green finance initiatives and the creation of greater financial inclusion, allowing a fair distribution of information resulting in improved decision-making and risk management.

New technologies such as cloud computing platforms, learning machines and tools such as distributed books of account can be crucial to achieving financial sustainability, reducing overall costs, creating intelligent datasets and streamlining complex processes in readily available analysis for better deployment of financial sustainability initiatives. In addition to **providing easy financial services to regions and sub-bank communities**, one of FinTechs' crucial roles in the area of sustainable finance has been to create partnerships between FinTechs' various service providers both within and between geographic areas.

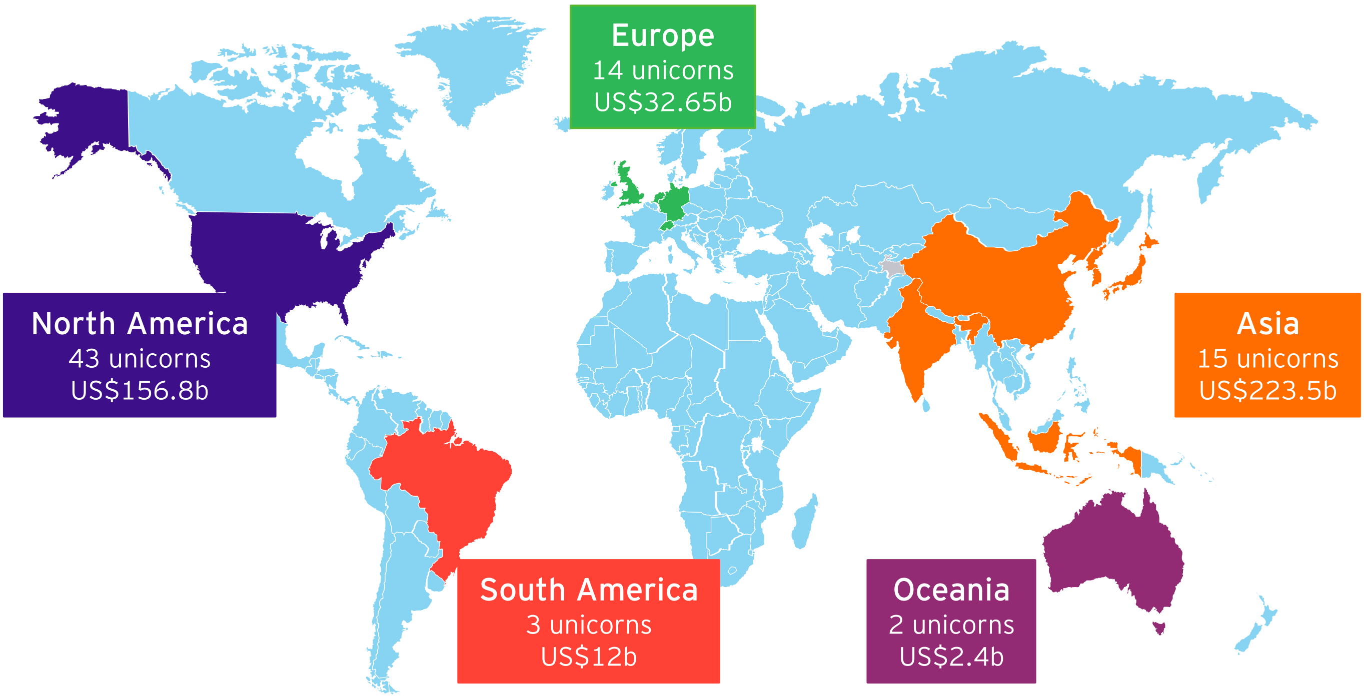
Historically, **FinTech has been closely linked to sustainability**. By o**ffering easy access to financial services**, FinTech has directly contributed to social, economic and environmental sustainability in various regions of the world, supporting small and large companies closely linked to regional and international contexts. While unbridled technological expansion and uncontrolled industrial development may have proved unsustainable in the long run, FinTech can provide a powerful basis for sustainable finance to achieve urgent social, economic and environmental goals, while creating business opportunities for all.



Sources

- EY Intelligence
- MEDICI

Global Non-listed FinTech* and TechFin* Unicorns Map



* EY Analysis based on CB Insights and Crunchbase sources considering only companies created after 2010

Top Unicorns* per region

North America	South America	Europe
stripe	nubank	Revolut
US$35.3b	US$10b	US$5.5b

Asia	Oceania
蚂蚁金服 ANT FINANCIAL	judo bank
US$150b	US$1.4b

Non-listed FinTech and TechFin Unicorns

North America

stripe	snowflake	ripple	coinbase	Robinhood	databricks	chime	toast
US$35.3b	US$12.4b	US$10b	US$8b	US$7.6b	US$6.2b	US$5.8b	US$4.9b
SoFi	MARQETA	gusto	ROOT	rubrik	oscar	CIRCLE	affirm
US$4.8b	US$4.3b	US$3.8b	US$3.5b	US$3.3b	US$3.2b	US$3b	US$2.9b
PLAID	BREX	confluent	zenefits	Lemonade	AVANT	DevotedHealth	carta
US$2.7b	US$2.6b	US$2.5b	US$2.1b	US$2b	US$1.9b	US$1.8b	US$1.7b
cybereason	SYMPHONY	Clover	fair	FIGURE	Auth0	bright HEALTH	DataRobot
US$1.5b	US$1.4b	US$1.2b	US$1.2b	US$1.2b	US$1b	US$1b	US$1b
dave	flywire	Hippo	ibotta	illumio	netskope	NEXT INSURANCE	riskified
US$1b	US$1b	US$1b	US$1b	US$1b	US$1b	US$1b	US$1b
SHAPE	sumo logic	tresata					
US$1b	US$1b	US$1b					

Europe

Revolut	Greensill	N26	TransferWise	OakNorth	monzo	checkout.com	BINANCE
US$5.5b	US$3.5b	US$3.5b	US$3.5b	US$2.8b	US$2.6b	US$2b	US$2b
wefox	Atom bank	Rapyd	BITFURY	celonis	DEPOSIT SOLUTIONS		
US$1.8b	US$1.25b	US$1.2b	US$1b	US$1b	US$1b		

Asia

蚂蚁金服 ANT FINANCIAL	陆金所 Lufax.com	Paytm one97	OVO	toss	block.one	同盾科技 www.tongdun.cn	团贷网 www.tdw.cn
$150b	$39.4b	$16b	$2.9b	$2.2b	US$2b	US$2b	US$1.5b
草根投资 CGTZ.COM	TIGER BROKERS	百望云 baiwang.com	JIMU	Liquid	融360 RONG360.COM	WeLab	
US$1.4b	US$1.1b	US$1b	US$1b	US$1b	US$1b	US$1b	

South America

nu bank	EBANX	QUINTOANDAR
$10b	$1b	$1b

Oceania

judo bank	Airwallex
US$1.4b	US$1b

* EY Analysis based on CB Insights and Crunchbase sources considering only companies created after 2010

From zero to hero: the road to become a US$1b company

	Average Unicorn Valuation	Time to become a US$1b company
NeoBanks	$4.24 billion	4.2 years
InsurTech	$1.93 billion	3.5 years
Crypto	$3.7 billion	4.6 years
Smart Payments & Money Transfer	$5.34 billion	5 years
Lending	$2.01 billion	3.7 years
TechFin	$2.4 billion	5.5 years

European trends

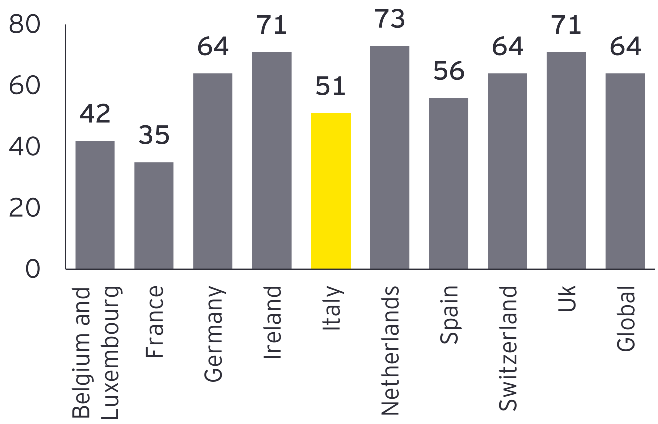
The interest towards FinTech services in major European countries is mainly focused on money transfer and payments. The United Kingdom is leading the FinTech wave in Europe while other countries are starting to develop and integrate FinTech services. FinTech solutions in Europe have a particularly high adoption rate among millennials.

Between challenger banks and reshaped traditional institutions, **digital transformation of financial services is flourishing in Europe.** As a matter of fact, online banking penetration in European markets hit an average of 54%, spanning between 93% recorded in Norway and 7% registered in both Bulgaria and Romania (Eurostat). The median value of mergers and acquisitions involving FinTech companies in the EU shifted from 33 deals in 2014 to 59 deals in 2018, with the first half of 2019 recording 41 transactions.

In 2019 EY teams published an annual FinTech survey, "*Global FinTech Adoption Index 2019*", based on 27,103 online interviews with digitally active adults across 27 markets between February and March. The aim of the report was to obtain a global understanding of trends regarding FinTech adoption across markets and demographic groups. EY teams used samples reflecting current age and gender distribution for each analyzed market. The Netherlands, Ireland and the United Kingdom all exceeded 70%, followed by Germany, Sweden and Switzerland with an adoption index of 64%, in line with the global figure. Spain and Italy are behind, recording a 56% and 51% level respectively. Belgium and Luxembourg (42%) and France (35%) report a significant delay in FinTech growth.

The interest in FinTech services in major European countries, except for Italy, is mainly focused on money transfer and payments, registering an average adoption of about 67%. Italy leans towards insurance FinTech services (61% adoption rate) compared to its European peers' average of 53%. The path towards other kinds of technological financial services has yet to blossom, with financial planning, borrowing and savings and investments recording an average adoption of 19%, 18% and 20% respectively.

European Countries and Global Adoption (%)



Source: EY FinTech Adoption Index

A strong regulatory framework allows most European countries to be less concerned about topics such as data protection compared to their overseas peers.

FinTech solutions in Europe have a particularly high adoption rate among millennials. The 25 to 34 and the 35 to 44 age brackets display an average rate of 72% and 66% respectively, certifying a stronger digital readiness of such age groups and simultaneously confirming the tendencies observed in the global trends. **In general, the market is embracing digital and technological initiatives now more than ever, with the sole exception of the over 65 age group failing to reach 50%.**

Use of Different types of FinTech Categories and Services (%)

	Money transfer and payments	Financial planning	Savings and investments	Borrowing	Insurance
	68%	13%	17%	10%	17%
	53%	10%	8%	12%	32%
	72%	14%	21%	22%	60%
	85%	21%	15%	21%	63%
	42%	23%	21%	29%	61%
	79%	43%	19%	23%	47%
	61%	21%	21%	17%	57%
	68%	13%	23%	31%	67%
	79%	16%	20%	19%	77%
	75%	29%	34%	27%	48%

Source: EY FinTech Adoption Index

In Europe, the wealthiest people (those in the highest income quartile) **record an average FinTech adoption rate of 70%**, while the lowest quartile stops at 54%. This shows that a general feeling persists that innovative and digitalized financial tools entail risks and a lack of security. **Nonetheless, individuals with substantial financial resources may be more prone to utilize FinTech solutions compared to people with moderate-to-low incomes.**

The predominant reason for adopting digital and technological solutions according to Europeans is the attractiveness of FinTech operators from the point of view of rates and fees that they offer services (average of 33% across the respondents). This confirms the findings made on the global market study carried out previously: in fact, FinTechs enjoy their lack of legacy infrastructures and associated costs. Thus, they can build their business models on lean frameworks, without the need to overcharge their customers to refinance.

However, digital solutions and the role of FinTech operators are still received with skepticism by some, whereas incumbents retain their central role with regards to Financial Services. As the survey demonstrates, on average 60% of the respondents would prefer to rely on their existing bank or insurance company when buying new financial products or policies, while only 4% would rely on FinTech. Such preference rests on the concept of security: as a matter of fact, an average of 63% of the respondents affirm that they worry about security of their personal data when dealing, among others, with online companies.

60% would prefer to rely on their existing bank/insurance

63% worry about security of their personal data when dealing with online companies

Venture Capital, CVCs, Private Equity and Business Angels backed investments in European FinTechs have registered an outstanding growth in 2019 compared to previous years. Indeed, funding surged from US$3b in 2017 to US$6.5b in 2019, a rise of about 116%.

VC investments in European FinTech

US$3b in 2017

US$6.5b in 2019

In analyzing the last four years, **FinTech investments in Europe increased at a compound annual growth rate of about 34% in the period 2015-2019.** 2019 saw 15 FinTech mega rounds (or rounds of funding to a FinTech company of more than US$100m).

The fourth quarter of 2019 registered a slight rise, 5.26%, in deals compared to Q3 2019 although the Q4 2019 number of deals is 26.5% less than Q4 2018. The trend has been dragged down by a decrease in deals in the UK.

European FinTechs have registered outstanding growth in 2019, comparing Q4 2019 over Q3 2019 (-23%) with the growth over the same period in 2018. This is in spite of a decline in total investments in FinTech by VC, CVCs, Private Equity and Business Angels in European FinTechs. As a matter of fact, funding passed from US$900m to US$1,234m, an increase of 37% in one year.

2019 had 14 FinTech and TechFin unicorns in Europe, for a combined valuation of US$32.65b. Eight of these unicorns are headquartered in the United Kingdom (representing 57% of the total valuation), while four of them are found in Germany, one in Switzerland, one in the Netherlands and one in Malta.

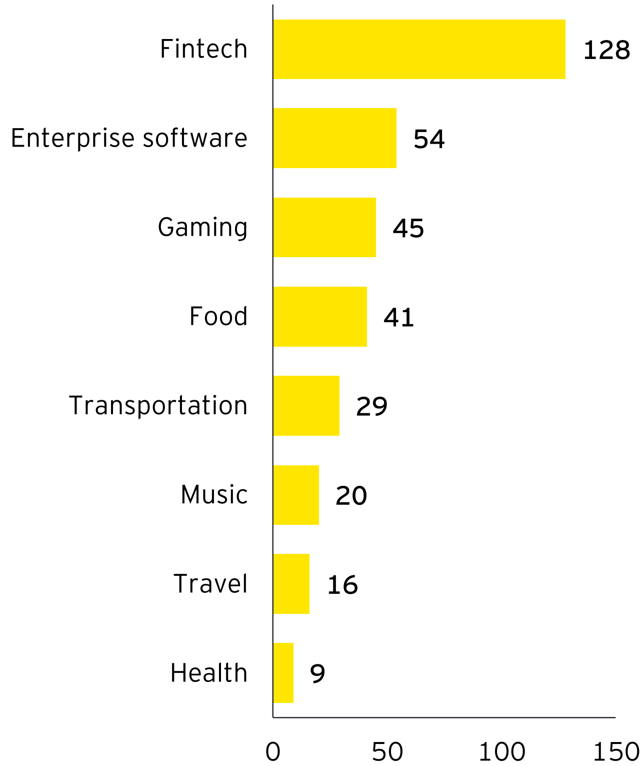
14 unicorns in Europe

In 2018 the United Kingdom has raised US$5.1b in FinTech and InsurTech investments altogether, recording the biggest collection among European countries.

European FinTechs have generated, since 2013, around more than twice the value created by any other technological sector in the region. As a matter of fact, between realized and expected value, FinTech companies have created €128b, which are €74b, €87b and €99b more than other subsectors such as enterprise software, food and transportation respectively.

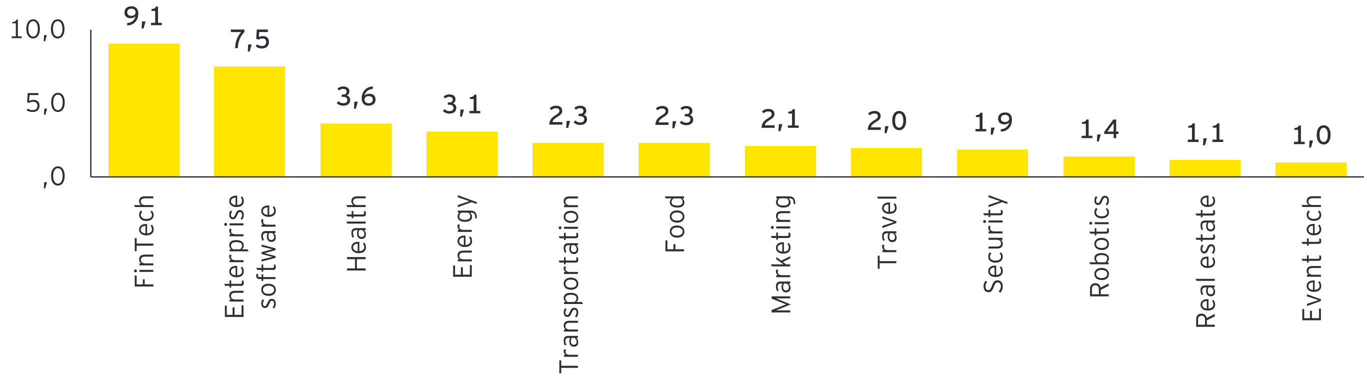
FinTech is the sector attracting venture capitalists the most in Europe. As a matter of fact, it attracted 20% of all venture capital investments in the region in the period 2017-Q3 2019, thus recording a higher rates than both the USA and Asia.

Value created by Tech sector in Europe from 2013 to 2019 (b€)



Source: The State of European FinTech - Finch Capital and Dealroom.co

Top 12 VC investments in Europe by industry, September 2019 YTD (US$b)



Source: CB Insights

Europe's spending on digital transformation is expected to rise substantially in the forthcoming years. In 2018, investments accounted for almost US$228b, and such number is projected to reach US$484b in 2023, thus more than doubling with a compound annual growth rate of about 16% over the period 2018-2023.

In Europe, **the need to provide an impressive and integrated customer experience through technological tools is growing**. As a matter of fact, the clientele, increasingly interested in efficient and secure models, expects a trend change, with an expanding immersive and personalized offer both from incumbents and newcomers. Thus, companies are extensively looking to hire specialized figures and organizing training practices to innovate in product design and branding.

The improvement of the user experience for customers is at the core of every FinTech. As such, during a survey forwarded by the European Parliament in 2016, 36% of Europeans expressed their willingness to switch providers should it not offer services and products through advanced technologies. Thus, it is understood that incumbents must revise the way they interact with their clients in order to avoid being negatively affected by FinTech operators.

In the past, financial data consisted mainly of paper documents physically stored on companies' shelves. Nowadays, data is managed entirely digitally, and needs to be stored securely on servers or even in more technological solutions such as cloud storage. Thus, the role of data management in an environment embedded in constant digital evolution has become pivotal.

Moreover, companies are increasingly seizing the opportunities deriving from the management of customers' personal data. As a matter of fact, client data allows companies to better understand consumption habits and preferences, thus providing the possibility to tailor products and services to the client. In this sense, **financial services' businesses are embracing data scientists and data management FinTechs to exploit advanced technological tools. These tools include** cloud computing and AI, both to store data safely and to efficiently organize and analyze it in such a way as to generate precise commercial strategies. In fact, the value of personal data by the end of 2020 will be €1t, or 8% of all Europe's Gross Domestic Product, and comprehensibly companies are setting the ground to take advantage of all the opportunities that will eventually arise.

As society is pursuing its digital transformation, cybersecurity is becoming predominant, to identify cyber threats as the prevalent financial risk to financial services today. Thus, heavy investments to protect against cyberattacks are predisposed by financial companies, and in this context collaborations with TechFin cybersecurity startups are acquiring a crucial role. As a matter of fact, recent studies from the International Monetary Found (IMF) indicate that the average annual losses from cyberattacks for the financial industry is estimated around US$100b, with possible losses up to US$350b for the most severe scenarios.

Blockchain is burgeoning in Financial Services, as it ensures the possibility to share data, more specifically transaction information, across a network and transfer it in a fast and safe way. Indeed, such technology gained the consensus of major financial institutions, especially when it comes to the transmission of sensitive data in large quantities. It is therefore not surprising to note that global spending in blockchain reached €1.8b in 2018 and is expected to increase towards the €2t mark by 2030.

As for the AI-enabled digital transformation, there are several ways in which banks can benefit from the application of AI, with a prediction of aggregated cost savings estimated at US$447b by 2023, according to Business Insider. The main case studies include customer assistance and chatbots for the front-office, anti-fraud along with anti money laundering analysis and evaluation of credit underwriting for middle and back-office. Moreover, the ability to analyze and extract meaningful patterns from large amounts of data can significantly enhance risk management, decision making and compliance capabilities. Examples of successful cases include Quantexa, a United Kingdom-based FinTech supporting HSBC with the identification of money laundering activity and financial crime.

FinTech has been the most appealing sector for venture capital investments in Europe from September 2018 to September 2019. FinTech attracted US$9.1b in that period, US$1.6b more than enterprise software and more than double the amount of investments in the health industry.

Between challenger banks and reshaped traditional institutions, digital transformation of financial services is flourishing in Europe. In fact, online banking penetration in European markets hit an average of 54% overall, spanning between 93% recorded in Norway and 7% registered in both Bulgaria and Romania (Eurostat).

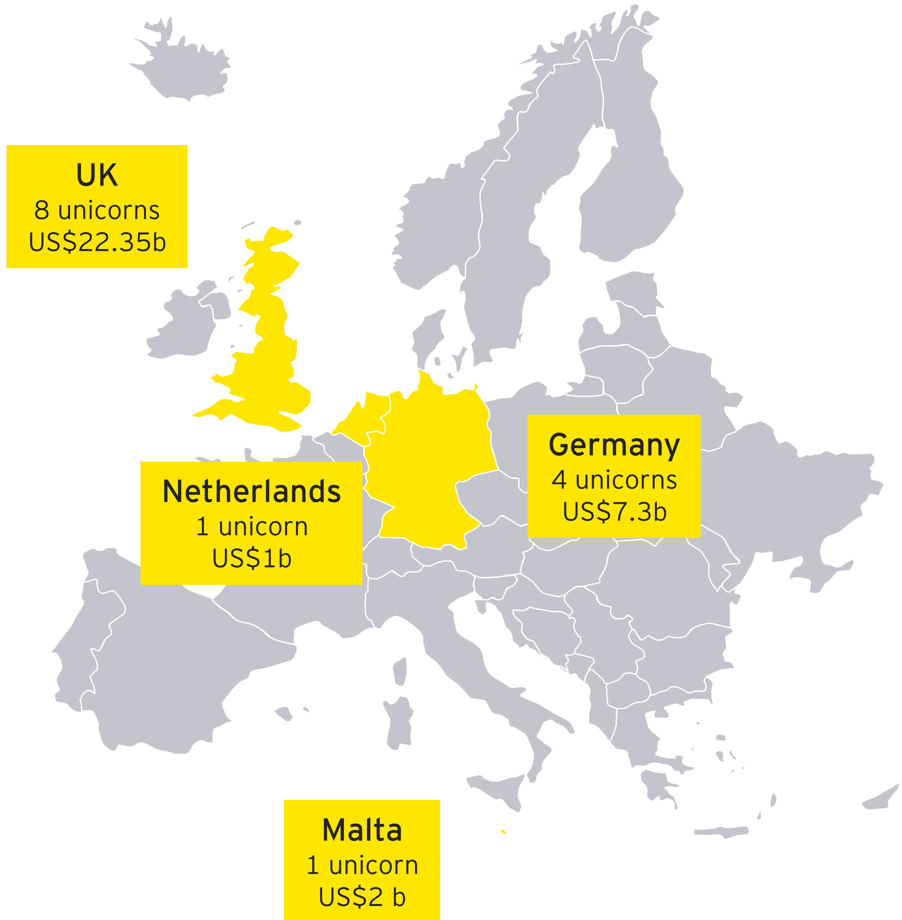
A brief recap of European FinTech trends

- Most of Europe is focused on money transfer and payments FinTech services.
- Italians show a substantial propension towards insurance FinTech services.
- FinTech solutions in Europe have a particularly high adoption rate among millennials.
- Digital solutions and the role of FinTech operators are still received with skepticism by some, whereas incumbents retain their central role with regards to financial services.
- Venture capital, CVCs, Private Equity and Business Angels backed investments in European FinTechs have registered an outstanding growth in 2019 compared to the previous years.
- Q4 2019 saw the presence of 14 FinTech and TechFin unicorns in Europe, for a combined valuation of US$32.65b.
- In 2018, investments on digital transformation accounted for almost US$228b, and are even projected to reach US$484b in 2023.
- Companies are seizing the opportunities deriving from the management of customers' personal data, mainly to tailor products and services according to consumption habits and preferences.
- As society is pursuing its digital transformation, cybersecurity is becoming predominant.
- The United Kingdom FinTech landscape is very different from other European countries. In UK, FinTech are in a more mature stage with many scaleups. Other European countries are far from the United Kingdom FinTech situation.

Sources

- EY Market Intelligence
- CB Insights
- Nikkei Asian Review
- CNBC
- FinTech Capital and Deal Room

European non-listed FinTech* and TechFin* Unicorns Map



* EY Analysis based on CB Insights and Crunchbase sources considering only companies created after 2010

United Kingdom

Revolut	Greensill	TransferWise	OakNorth	monzo	checkout.com	Atom bank	Rapyd
US$5.5 b	US$3.5 b	US$3.5 b	US$2.8 b	US$2.6 b	US$2 b	US$1.25 b	US$1.2 b

Germany

N26	wefox	Deposit Solutions	celonis
US$3.5 b	US$1.8 b	US$1 b	US$1 b

Netherlands

BITFURY
US$1 b

Malta

BINANCE
US$2 b

Italian trends

FinTech in Italy is a fast-growing sector. Interest in innovative financial services is growing, especially for retail customers. In the last few years the Italian ecosystem developed a series of initiatives such as favorable regulations and incentives to promote the growth of the FinTech community.

The Italian FinTech ecosystem is rapidly changing. As technology continues to play a dominant role in Financial Services, fueled by the growth of the cashless economy and the digital transformation, the capability to provide a rapid, transparent and efficient commercial strategy through tech components became essential also for traditional players. FinTech startups found fertile ground as the demand for easy-to-access financial services flourished among consumers.

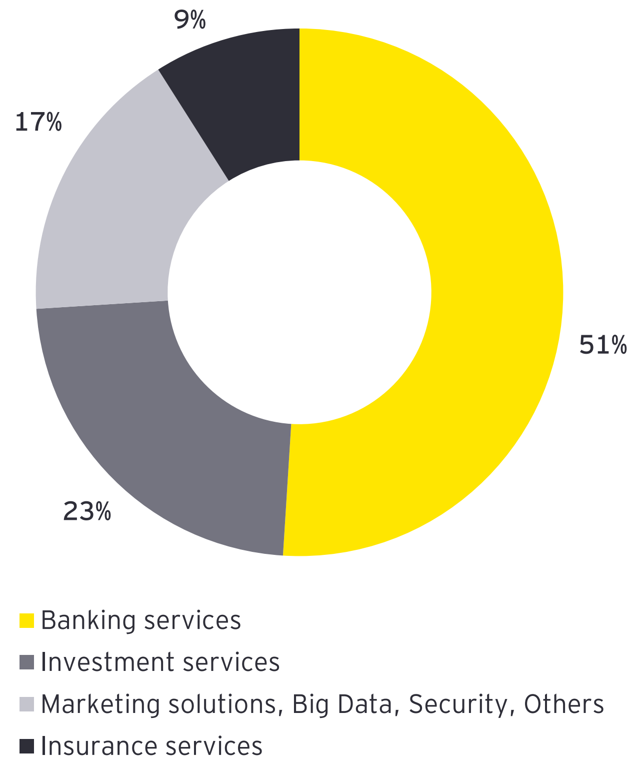
Also incentivized by the introduction of new regulations such as the European PSD2, FinTech startups are looking likely to gain an edge upon incumbents. This is because of their characteristics, such as agility and efficiency, allowing them to offer services in exchange for non-existent or contained fees.

In 2019, around €261m were collected from Italian FinTech startups (about five times higher than the amount observed in 2017), underlining a remarkable improvement both in their ability to attract capital through compelling business models and in the investors' attention towards Italy.

Italian FinTech or FinTechs founded by Italian teams have collected more than €600m since their creation. By diving into Italy's FinTech trends it is possible to ascertain that 51% of the startups offer banking services, 23% extend investment services, 17% provide marketing solutions, big data, security and other services, and 9% deliver insurance services. 72% of the funding received from venture capital companies and other investors goes to the banking services sector, distributed between lending and financing, payments and bank accounts startups.

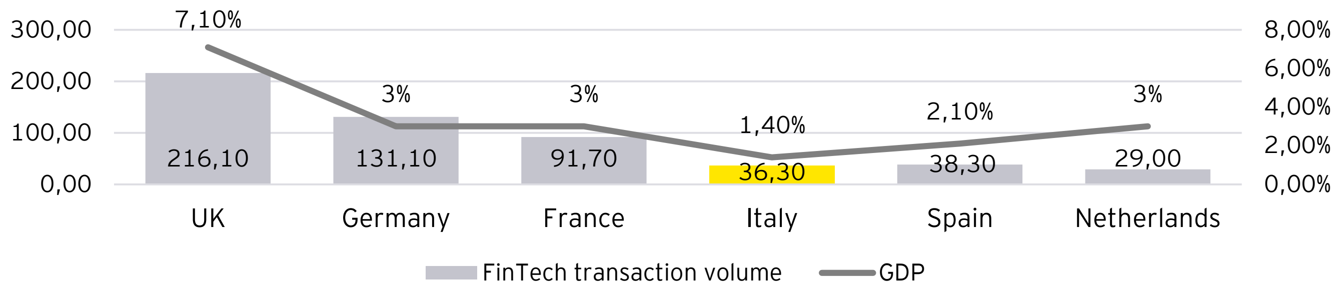
Despite having a lower size than other European peers, the FinTech industry in Italy is growing.

Italian FinTech trends, offering



Source: Osservatorio Fintech & Insurtech, Politecnico di Milano: l'Italia spiega le vele, 2018

FinTech-to-GDP ratio (% transaction volume on GDP)



Source: Statista, FinTech in Italy, 2018

Some Italian key players, such as Satispay who collected about €42m, or Prima Assicurazioni who gathered an outstanding €100m in funding from Blackstone and Goldman Sachs, embody the mounting interest towards Italian FinTech companies. **The potential growth of the sector is therefore very broad.** The Italian digital transformation process started later than other countries, thus the development of the FinTech industry is still in in its early days, with most of the companies still in their startup phase and in their first rounds of investment.

As to the European FinTech trends according to the Statista report, the United Kingdom dominates the market with a digital payments' transaction volume of US$216,1m. Italy lags behind its peers both in terms of digital payments' transaction volume (US$36.2m) and GDP-to-FinTech ratio (1,4%). Interestingly, the Netherlands' GDP-to-FinTech ratio is larger than that the one observed for Italy and Spain, reaching the same size as France at 3%.

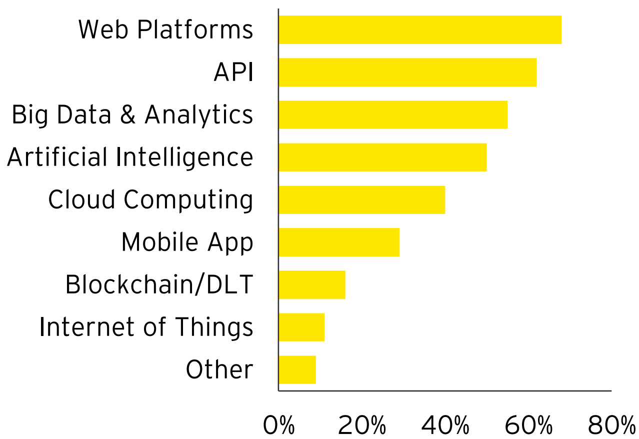
Nonetheless, there is no lack of managerial skills in a country which has always been prone to entrepreneurship as Italy. This contributed to generate a quality ecosystem, and a fertile ground for the growth of FinTech companies.

As a result, the amount of financial resources managed by FinTech continues to grow: for example, the market for loans to Italian SMEs reached €1.2b in 2018, thanks above all to innovative products and services introduced by emerging crowdfunding and invoice trading platforms such as Credimi.

In line with the global trend that foresees synergetic activities between traditional and FinTech players, in Italy around 24% of FinTech startups have a collaborative business model aimed at helping incumbents in their digital transformation, and 8% see "traditional actors" as intermediaries to offer their services. Nonetheless, most startups intend to replace banks and insurance companies instead, placing themselves as competitors on a limited number of services (70%) or even claiming to offer a full range of banking and insurance services (6%).

An emblematic symbol of the evolving Italian market is the FinTech District, a project launched in 2017 by Banca Sella. The FinTech District acts as a facilitator for innovation and growth of financial startups. The participating FinTech and InsurTechs gather physically in the Milan HQ comprising offices, coworking spaces, cafes and a rooftop terrace, where they are encouraged to collaborate and share new business ideas to foster open innovation, but also to create synergies when facing common problems via knowledge sharing.

Mostly used technologies by Italian FinTech & InsurTech



Source: Osservatorio Fintech & Insurtech, Politecnico di Milano: è tempo di alleanze, 2019

Italian FinTech trends

Italian consumers have yet to fully understand and embrace FinTech, even though important steps forward are happening.

Despite the growing trend in the adoption of FinTech products and services both at a global and European level, it is crucial that FinTech takes into consideration the financial and social fabric of the local market in order to be successful. This is especially true when analyzing hierarchical markets such as Italy characterized by a strong and cumbersome presence of traditional companies and institutions. Italian consumers are more concerned about the disintermediation of traditional channels than their peers, especially regarding financial products and services. This is reflected in the sentiment of Italian consumers towards data sharing and online companies: 69% of Italians worry about the security of personal data when dealing with companies online.

Italians still see incumbents as the first point of contact for financial services. In fact, 55% of them would typically first turn to their existing bank or insurance company when buying a new financial policy or product. For loan applications, 73% of Italians see traditional banks as the preferred channel through which to send the request. Similarly, the management of savings remains, for the moment, an activity limited to traditional managers: 65% and 56% of Italian consumers entrust such responsibility to banks and postal companies respectively. These statistics are also reflected in the sentiment of incumbents towards the country's competitiveness. Although a considerable 82% of Italian banks feel threatened by FinTech operators, it is 7% less than the European average.

Nevertheless, the statistics show a growing trend in the development of the digital Financial Services market in Italy. In fact, in 2018, 11 million users, or 25% of the population aged between 18 and 74, used one or more FinTech or InsurTech services, also recording a high satisfaction with the delivery of such services on average.

This figure is higher than the one recorded in 2017, which totaled 16% of Italians, or 7.1 million users. Moreover, **it is possible to note that the attitude of Italian towards the provision of financial services is changing, pushing more and more towards delivery methods and characteristics belonging to the FinTech world.** As an example, 45% of Italian users would prefer to view all their financial products in one place through an online or app-based tool. They identify as main features of the bank of the future: services free of costs (rating of 8.8 out of 10), greater transparency (8.5) and speed in performing operations (8.3). These are all essential components of FinTechs' business models. As a matter of fact, the population is struggling to understand the value proposition of traditional operators, as some of them are still reluctant to change. In this context, FinTech companies are exploiting their knowledge of big data and their ability to offer high value-added technological solutions in order to develop client-centric service models and, consequently, boost their attractiveness.

25%

of the population between 18 and 74 in 2018 have used one or more FinTech or InsurTech services

Sources

- Osservatorio Fintech & Insurtech, Politecnico di Milano

Digital as a new value creation opportunity that meets customers' needs

Digital innovation is slowly modelling the Financial Services in Italy. **Distribution channels are currently undergoing a costs' rationalization and optimization**: on one hand, the number of branches is declining (around 20% in the last 10 years); on the other hand, digital access to banking services such as mobile applications is increasing (66% of households use this methodology). Generally, the number of financial institutions implementing digital distribution and communication channels is growing, however such improvement is often hampered by pre-existing infrastructures unable to integrate with new technologies. To further illustrate this argument, it is possible to observe that although most SMEs use smartphone apps (55%) to interact with their bank, there are still some companies that do not even use computers (8%).

In order to satisfy the growing tech eagerness, banks boosted their proposal of highly developed tech branches (from 7% to 11%) and advanced or multi-functional ATMs (76% to 80%) from 2017 to 2018. Nonetheless, only a few incumbents are currently delivering a full range of innovative services to their clientele, while the rest of the industry is missing all the consequent benefits. As an example, the Italian market of robo-advisor platforms at the end of 2018 had more than 20,000 subscribers, with active customers investing between €20k and €30k on average, thus resulting in a fertile ground for traditional players to develop new digital offerings and enhance their margins.

As reflected in their increasing interest towards ground-breaking products and services, Italy's traditional financial institutions are reviewing their business models in an effort to get closer to consumers and their wishes. As perceived in recent years, financial disintermediation represents a significant challenge that incumbents need to counter by offering user-friendly, efficient and more transparent tools.

By doing so, they need to consider innovation as the keystone to create value.

Italy is embracing the demand for new service platforms

Incumbents are currently developing service platforms, which imply an integrated management of processes and services in a multi-channel perspective. Italian financial institutions are also starting to invest in innovative solutions such as blockchain and distributed ledger technologies through the participation in international or Italian projects or the development of in-house tools.

As such, Intesa Sanpaolo and Mediolanum cooperated with the blockchain company R3 to develop Corda, an open source platform designed to allow businesses to transact in a secure, cost-effective and efficient way. UniCredit undertook a similar path by introducing We.trade, a digital platform focused on the creation of a trusted network involving SMEs and European banks that intends to generate a suitable environment for new business opportunities. Furthermore, ABI Lab, the banking research and innovation center promoted by the Italian Banking Association (ABI), set up Spunta Project. This initiative proposes to implement a blockchain, or rather a distributed ledger technology (DLT), into interbank processes. The project's objective is to provide greater data transparency and visibility, faster execution and the possibility to perform transactions directly within the application. Spunta Project includes NTT Data and Sia as technical partners, as well collaborating with R3's Corda platform.

It is relevant to stress how Financial Services want to accelerate technological innovation processes by using incubators and joint research-and-development activities to develop the FinTech industry in Italy. For instance, the Italian banking sector turned out to be a key supporter for the development of a competitive and innovative digital market, becoming an integral proactive part of a new and well-structured ecosystem.

Italian initiatives encouraging the expansion of the FinTech industry

In the last few years the Italian ecosystem developed initiatives such as favorable regulations and incentives to promote the growth of the digital landscape. Particularly, the Digital Agenda presented by the European Commission pushed Italy to develop its own Digital Agenda, in an effort to modernize the country and reach the objectives designated at Community level. This aligned with the aim of the Digital Agenda - fostering innovation and economic growth in the region by leveraging technology to create a single digital market and representing one of the seven pillars of the "Europe 2020" strategy. In this sense, a Digital Transformation Team was formed with the purpose of carrying forward the guidelines drawn up in the Agenda. Moreover, the Presidency of the Council of Ministers has developed a Digital Growth Strategy 2014-2020 to adapt Italy to the new challenges imposed by the looming technological evolution, in order to develop adequate socio-economic conditions. The Agenzia per l'Italia Digitale (AgID) has also been established, with the mission to promote the spread of new technologies, especially in the public sector.

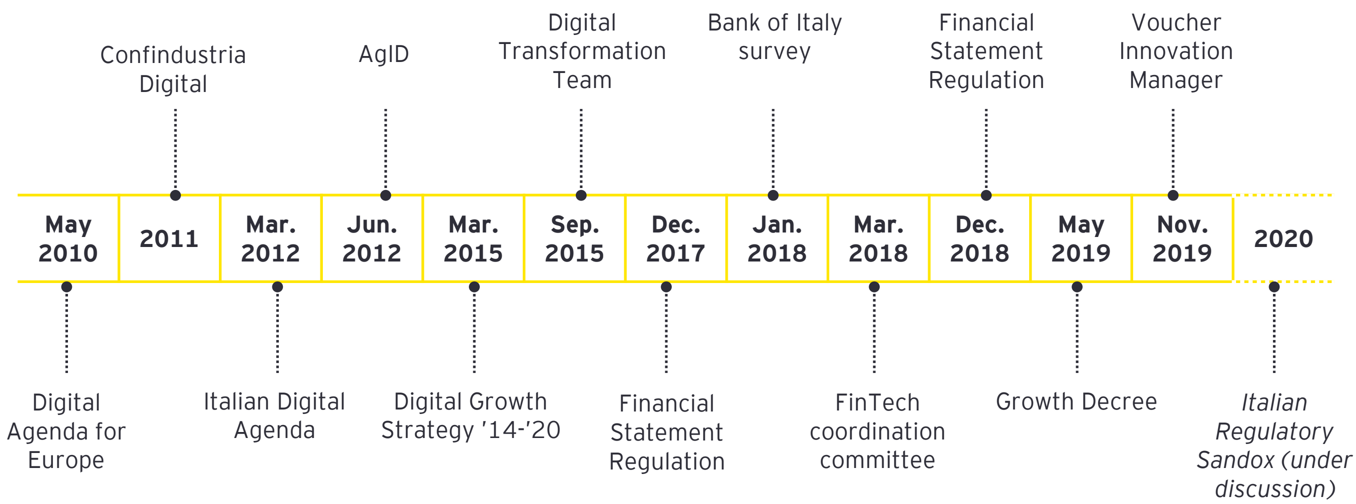
The Financial Statement Regulation of 30 December 2018 provided important measures that positively impacted the FinTech sector. Among the main points of interest, the regulation gave the opportunity to receive the so-called "innovation manager" voucher. Such contribution, totaling €50m for 2019-2020, helps SMEs purchase consulting services aimed at the development of high-tech and digital transformation processes, as well as the modernization of the company's managerial and organizational structures by enabling technologies included in the national 4.0 Business Plan. More specifically, the voucher covers 50% of the costs for micro and small companies with a maximum limit of €40k, and 30% of the expenses for medium-sized companies up to a maximum of €25k.

The regulation also foresees an increase of tax deductions, applicable only to 2019, for people and legal entities investing in innovation. As such, 30% to 40% of the capital invested in innovative startups can be deducted. Moreover, a 50% tax deduction is provided to companies acquiring the entire share capital of an innovative startup and holding the stake for at least three years.

Moreover, the Italian Financial Statement Law allowed crowdfunding portals authorized by Consob to host campaigns for equity and debt investments in SMEs. This allows small and medium-sized enterprises, FinTech startups included, to finance themselves in a faster and less expensive way compared to traditional lending channels. Likewise, the regulator established a fund investing €15m per year until 2021 to support the development of blockchain, AI and IoT technologies, thus potentially fueling the expansion of the FinTech landscape.

Finally, the article 36.3 from Italian Decreto Legge n.34/2019 ("Decreto Crescita", literally "Growth Decree") implemented the concept of a Sandbox in Italy. The Sandbox acts as a catalyst for innovation, generating a permanent communication channel between supervisory authorities, the government and innovative companies. The development of a Sandbox program guarantees, coordinates and monitors initiatives, hence sharing parameters to identify innovative solutions. The objective of this initiative is to propel the creation of a regulatory framework capable of encouraging the development of the entire Italian FinTech ecosystem.

Italian FinTech regulatory timeline



Source: EY Analysis

A brief recap of Italian FinTech trends

- In 2019 around €250m was collected from Italian FinTech startups, about four times higher than in 2017.
- Italian FinTech or FinTech founded by Italian teams has collected more than €600m since their creation.
- 51% of the Italian startups offer banking services, 23% extend investment services, 17% provide marketing solutions, big data, security and other services, and 9% deliver insurance services.
- In Italy, retail customers are showing an increasing interest towards innovative financial services. In fact, 11 million Italians, representing 25% of the population between 18 and 74, have benefited from at least one FinTech or InsurTech service in 2018.
- Italians still see incumbents as the first point of contact for financial services. In fact, 55% of them would typically first turn to their existing bank or insurance company when buying a new financial product.
- Digital innovation is slowly modelling the financial, banking and insurance sectors in Italy. In order to satisfy the growing tech eagerness, banks boosted their proposal of highly developed tech branches (from 7% to 11%) and advanced or multi-functional ATMs (76% to 80%) from 2017 to 2018.
- In the last few years the Italian ecosystem developed a series of initiatives such as favorable regulations and incentives to promote the growth of the digital landscape in general.

Sources

- EY Market Intelligence
- CB Insights
- Specialisti del Web
- Osservatorio Fintech & Insurtech, Politecnico di Milano
- CeTIF
- Statista
- OECD 2018
- Gazzetta Ufficiale Repubblica Italiana

Focus box

Artificial Intelligence (AI)

AI applications are widespread in several industries and there are several examples where different AI technology has been implemented in daily life.

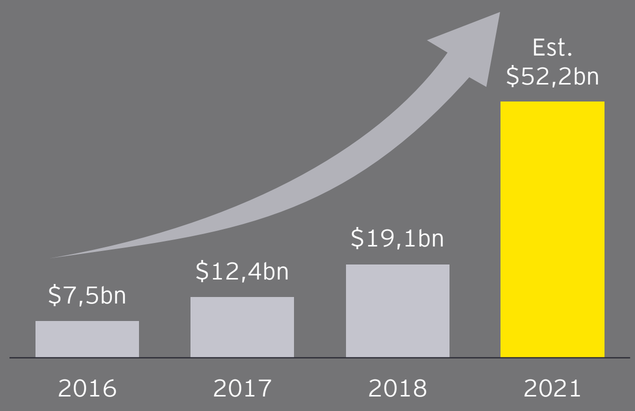
AI technologies enable computers to analyze and understand information and apply it to making decisions. This can be applied to making production faster and more efficient, while providing critical information to help companies make more informed decisions. All this implies a collection of large volumes of data both from the production environment and from the back office environment.

According to Tractica, the three most profitable case studies of AI application in the next five years will be (in descending order): (3) static image recognition, classification and tagging, (2) algorithmic trading strategy improvement and (1) efficient, scalable processing of patient data.

AI in Italy: the AI market in Italy, according to the AI 2020 Observatory of Politecnico of Milan, is still taking its first steps: in 2019 the market was valued at €200m: 78% commissioned by Italian companies and 22% as exports of projects, products and services, a sign of the value that foreign companies give to Italian AI capabilities.

In particular, the Intelligent Data Processing initiatives constitute the main type of AI projects, collecting 33% of the total expenditure. Natural Language Processing and Chatbot / Virtual Assistant development projects follow, which considered together, represent 28% of the market. The following four sectors have led in seizing the opportunities offered by AI: banking / financial (25%), manufacturing (13%), utility (13%) and insurance (12%).

Global AI-focus spending ($ billion)



Source: Fintech District - Fintech Night Artificial Intelligence

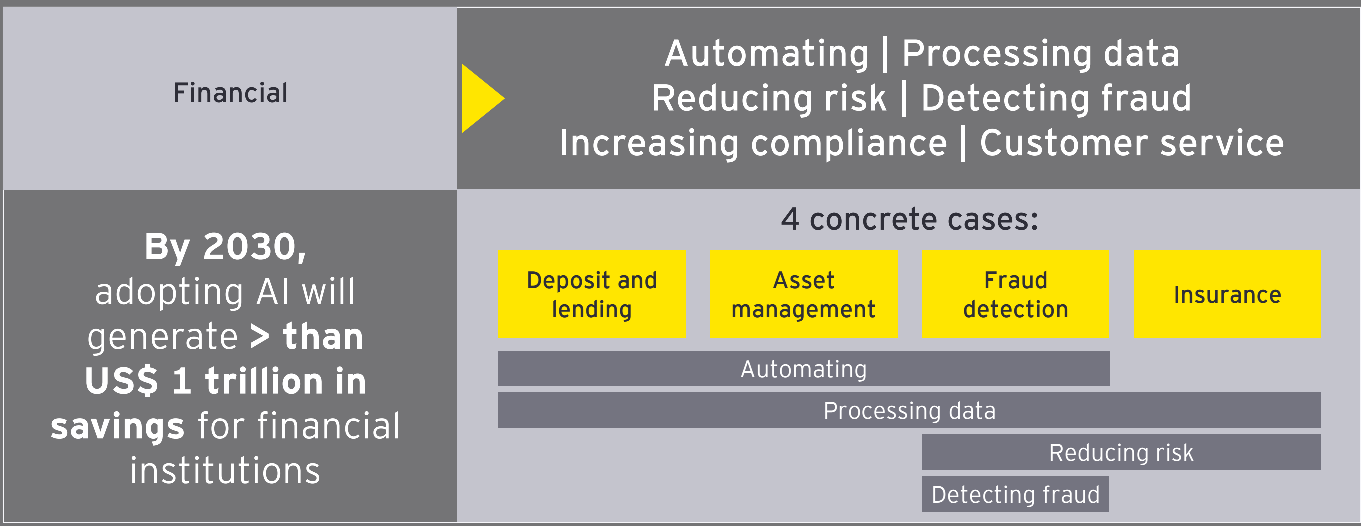
AI impact on several industries

Financial	Fraud, compliance, risk, process data
Insurance	Process data to reduce risk (how am I driving?)
Marketing	Match brands with influencers, custom Adv
Automotive	Autonomous cars, safely features
Health care	Assisted surgery, Ad personam medicine
Manufacturing	Quality testing, preventive machines maintenance
Agriculture	Identifying plant diseases, automating equipment
Retail	Demand forecasting, pricing, digital racks
Robotics	Physical customer service, packaging machines

Source: Fintech District - Fintech Night Artificial Intelligence

Artificial Intelligence and the Financial Services industry

AI impact on the Financial Services Industry



Source: Fintech District - Fintech Night Artificial Intelligence

Technological innovation and the world of finance continue to work closely together in the past few years. This accelerates with AI. The goal is always the same: to earn money faster, generate savings and risk less. To do this, it is necessary to integrate big data analysis software, machine learning algorithms and particular specialized models.

By 2030, adopting AI will generate more than US$1t in savings for Financial Institutions. This will be possible through the use of the main four applications of AI in the financial industry: automating, processing data, reducing risk and detecting fraud. There are clear success stories of AI in Financial Services under these four applications.

Lending: Fintech unicorns such as Kabbage and OakNorth leverage machine learning, decades of credit expertise and massive data sets (including unconventional and previously unavailable data) to model a forward-looking view of a borrower's financial situation, that's informed by industry benchmarks, macroeconomic drivers, and scenario analysis specific to that business.

Asset Management: according to Tractica estimations, AI will generate cumulatively more than US$7b in revenue for Financial Services by 2025 thanks to algorithmic trading strategy performance improvement. The US based company Sentient is an example of this AI use.

Fraud Detection: the Portugal FinTech Fedzai uses AI to detect transaction fraud. Feedzai's machine learning technology will automatically adjust controls to monitor discrepancies and changes in client payment behavior, allowing the identification of potential anomalies in affected payments before they are sent for clearing.

Insurance: Cytora is an Insurtech that uses AI and open source data to improve the way insurers quantify, select and price risk. Cytora's Risk Engine captures the online footprint of risks that clients are continuously facing by mining data from company websites, news articles and datasets, and processes it using AI algorithms in order to predict future claims, attractive risk profiles and quality of risks.

Sources

- EY World Economic Forum – Transforming Paradigms, A Global AI in Financial Services
- Fintech District - Fintech Night AI
- Tractica 2019
- Osservatorio Artificial Intelligence 2020, Politecnico di Milano
- McKinsey

Chapter 3

Italian FinTech ecosystem

Methodology

In order to explore and dive into the Italian FinTech ecosystem, we used a hybrid research methodology. Criteria that go beyond the usual patterns have guided the approach used in this research conducted by EY teams together with the FinTech District on the FinTech ecosystem in Italy.

Starting with market data and existing studies, we identified the **market trends of traditional financial services operators and FinTech**, and **compared** global and European needs with the ones of financial operators in the **Italian market.**

The reasons, and the benefits, are multiple. In particular, linking the trends of traditional financial sectors with those of the FinTech market has allowed us to understand if the FinTech ecosystem is moving in the same direction, or if it is mainly occupying market niches not covered by traditional players.

A first objective pursued in this research consisted of clarifying the nature of FinTech, a preliminary aspect considering that this term identified many different types of companies. As such, a new taxonomy has been created where FinTech, according to the type of services they can offer, are first divided into two areas and then further detailed in clusters and sub-clusters. Thus, **startups have been primarily classified into two categories:**

- **Pure FinTech:** offering new digital financial solutions
- **TechFin:** offering new technological solutions serving the financial industry

After classifying the startups according to the two categories FinTech or TechFin, we classified them in **17 microsegments**.

In the following pages, a detailed description of the categories and microsegments is presented.

Categories	Microsegments
FinTech	Crowdfunding
FinTech	Neo Banks
FinTech	Smart Payments & Money Transfers
FinTech	Capital Markets & Trading
FinTech	Crypto
FinTech	WealthTech
FinTech	Lending
FinTech	InsurTech
FinTech	PFM
FinTech	Invoice & Tax Management
TechFin	Cybersecurity
TechFin	Open Banking Services/API
TechFin	Chatbot
TechFin	Data Management
TechFin	RegTech
TechFin	Blockchain
TechFin	DNA, ML, AI

Crowdfunding

Fundraising for a new project from a large number of individuals ("the crowd") through online platforms that match entrepreneurs and supporters.

Real Estate Crowdfunding

FinTech offering an alternative way of financing and enabling the interaction between the fundraiser and the "crowd". Real Estate crowdfunding platforms in particular enable fundraisers to raise funds in order to finance real estate investment projects.

Donation based crowdfunding

FinTech offering an alternative way of donating, enabling the interaction between the fundraiser and its supporters. Donation based crowdfunding platforms usually relate to charity projects and do not provide any return for the "donator". Usually, donation based crowdfunding platforms do not apply any fee on amounts donated.

Reward based crowdfunding

FinTech offering an alternative way of supporting a project, enabling the interaction between the fundraiser and its supporters. Reward based crowdfunding platforms involve individuals contributing money to projects in return for a "reward", which is usually a reflection of the amount contributed (i.e., gadget, pre-sale of a product, event participation).

Equity based crowdfunding

Equity based crowdfunding platforms include all FinTech which offer, to a group of people, the opportunity to invest in private company securities through online platforms in return for equity.

NeoBanks

Startups offering banking services through mobile/ online services that can be managed entirely through the app. Not necessarily having a banking license.

Challenger banks for businesses

Innovative digital banks for SMEs and professionals.

Challenger banks for retails

Innovative digital banks for the retail market.

Challenger banks for both businesses and retail customers

Innovative digital banks for both SMEs and professionals and the retail market.

Smart Payments & Money Transfer

Online and offline payment and transfer management.

Mobile Wallets

Virtual wallets offer the possibility to store payment card information, credit card, debit card, ID, Driver license and other cards/ documents on a mobile device.

Payments

Payments services offer account-to-account instant payments both for merchants and retail consumers.

Money Transfer

FinTech which offer money transfer services enable customers to internationally transfer funds (remittances) account-to-account through mobile or digital channels.

Capital Markets & Trading

Online platforms for financial instruments trading.

Insights providers

Platforms or software that provide insights (market trends, data and analysis) on the financial market.

Alternative finance

Platforms providing alternative (structured and non structured) financing services through intermediation activities.

Trading

Platforms/ Softwares that enable customers to open, close and manage market positions through a financial intermediary such as an online broker.

Crypto

Crypto includes all the FinTech which offer products and/or services relating to Crypto Currencies (i.e., Crypto transfers, Crowdfunding, Investments).

WealthTech

Online platforms that facilitate investment management both in terms of processes and performances.

Retail

Online platforms that focus on enhancing wealth management through the offering of micro-investments, portfolio management tools or robo advisory to retail customers. Robo-advisory services refer to automated services that use machine-learning algorithms to offer users advice based on the most profitable investment options in the market, yield targets, the user's risk aversion profile and other variables such as age and income.

For financial advisors

Online platforms that offer WealthTech technical support to Financial Advisors.

Lending

Alternative lending and credit scoring solutions through innovative channels.

P2P Lending/ Lending based Crowdfunding

Platforms that connect private borrowers directly to investors and allow individuals to lend/borrow money through online services, cutting out financial institutions. The platforms set the rate and terms and enable the transaction as an alternative from traditional lending. Lending based crowdfunding platforms offer an alternative financing channel through which a multitude of investors have the option to finance a project in return for interest.

Invoice Trading

Invoice trading FinTech offer a way for businesses to borrow money based on the amounts due from customers. Invoice trading platforms allow businesses to sell individual invoices to an online community of investors in order to free up cash. Invoice trading includes both invoice factoring and invoice discounting, both services providing finance against unpaid approved submitted invoices.

Traditional

Online traditional lending. Forms of business financing that act as alternatives to traditional bank loans.

Credit Scoring

Credit scoring FinTech help consumer finance businesses to automatically evaluate their credit worthiness and that of their potential clients through innovative methods. Credit Scoring platforms allow the assessment of the solvency and risk of a subject through more efficient and non traditional models.

InsurTech

Startups operating in the insurance sector, utilizing technological solutions in order to improve customers value proposition or to offer innovative insurance products competing with traditional insurance services.

Digital Insurers

InsurTech platforms offering insurance policies exclusively available online (a proper online insurance company).

Digital brokers

Insurance brokers distributing online policies of other Insurance Companies (intermediaries).

Enablers

Innovative services which, through new technologies, help insurers and customers to enhance traditional insurance services such as claims management, policies comparison, customized offer and/or others.

Social and P2P Insurance

Risk-sharing network where a group of individuals pool their premiums together to insure against risk.

Personal Finance Management (PFM)

Account aggregator

PFM Startups helping customers to view different bank accounts under a unique and open point of view.

Other

PFM services including data visualization such as spending trends, budget and any other services that will allow customers to better manage their finances.

Invoice & Tax Management

Invoice and Tax Management services help clients to simplify and automatize management of taxes and invoices.

RegTech

RegTechs offer B2B compliance services through technologies.

Cybersecurity

Cybersecurity Startups offer technologies, processes, and practices designed to protect networks, devices, programs and data from the risk of criminal or unauthorized use of electronic data.This catergory includes ID Management, KYC & Authentication programs.

Blockchain

TechFin Startups offering blockchain technology solutions serving the financial industry.

Open Banking Services/API

API Providers and Startups furnishing payment initiation services, bank account information services and others through open platforms.

DNA, ML, AI

TechFin Startups offering Data&Analytics, Machine Learning and AI technology.

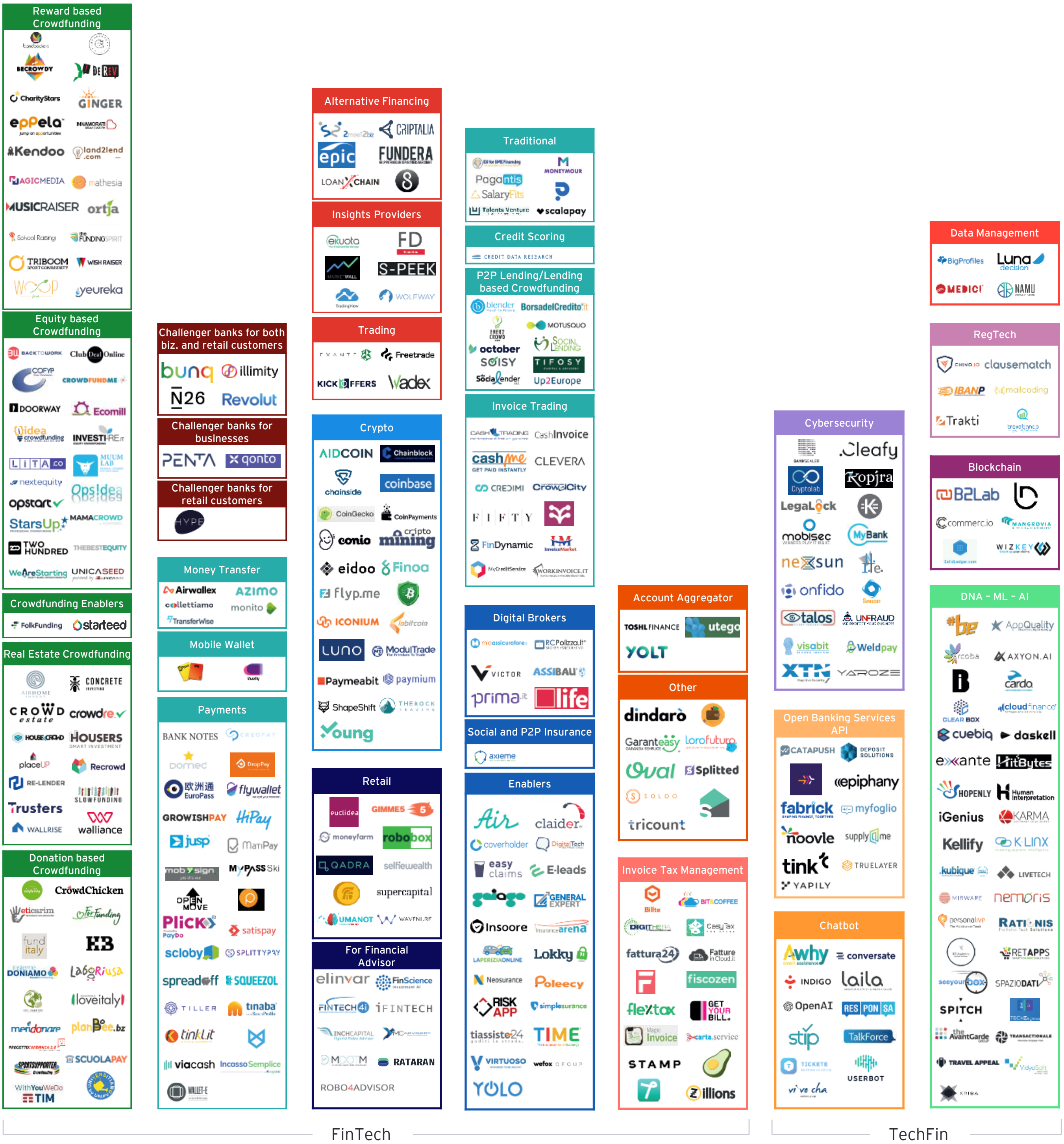
Chatbot

Computer programs that simulate human conversations via auditory or textual methods through AI.

Data Management

Data Management TechFin offer data administration and storage services.

FinTech and TechFin
EY and Fintech District Taxonomy



- Crowdfunding (71)
- Lending (30)
- WealthTech (19)
- Invoice & Tax Management (16)
- Open Banking Services/API (11)
- RegTech (6)
- DNA, ML, AI (35)
- InsurTech (28)
- Cybersecurity (18)
- PFM (12)
- Neo Banks (7)
- Data Management (4)
- Smart Payments & Money Transfers (34)
- Crypto (21)
- Capital Markets & Trading (16)
- Chatbot (11)
- Blockchain (6)

In order to provide an overview of the Italian FinTech market **we conducted a survey on a selected sample of FinTech startups operating in Italy.**

The survey conducted by EY teams and the FinTech District **from December 2019 to March 2020 encompasses responses from a sample of 345 startups selected among a database of about 1.200 FinTech from different sources,** with questions concerning corporate finance, people, skills, compliance, risk and startup stage of growth. Our database is continuously evolving and some new companies may have not been included in the survey at the date of this report.

We considered "Italian FinTechs" as all the identified startups headquartered in Italy or operating in Italy, a third of them belonging to the Italian FinTech community of the FinTech District. **Only startups created from 2011 onwards are included in the panel.**

Based on the survey, we have made an overview of the Italian FinTech trends dividing FinTech into clusters. Based on the clusters obtained, we analyzed the Italian market trends, described the sample and provided predictions.

Predictions made about the evolution of the FinTech industry trends were compared with the created clusters in order to predict tomorrow's winners.

In this way we obtained a clear picture of the value of FinTech in the Italian market, ready to be represented to the business community and investors- both national and international.

Why have we excluded PropTech?

In recent years the real-estate sector has undergone a large transformation including the development of PropTech (Property Technology).

PropTech includes new solutions, services, technologies and tools that bring innovation to the real estate market.

Generally PropTech is divided into two different segments:

1. Smart solutions for real estate management
2. Digital real estate buying and selling enabler

In Italy, PropTech is rapidly growing. Among the main Italian players we must mention Casavo.

Founded in Milan in 2017, Casavo currently has about 100 employees and, since its foundation, has raised about €100m in debt and equity. This funding makes it the most funded Italian startup in 2019.

At the beginning of the year the startup expanded its business in Spain. Casavo offers a real estate instant-buying service, i.e., using large amounts of data and technological tools, assesses the value of the property in a short time and presents an offer to purchase, greatly reducing the traditional time needed to purchase a home.

More broadly speaking, PropTech startups do not offer financial products or services but they offer services exclusively dedicated to the real estate sector. Sticking to our definitions of FinTech and TechFin, therefore, since PropTechs do not offer financial services or technological solutions serving the financial industry, we do not consider PropTech and its startups, such as Casavo, in our taxonomy.

If PropTech startups start offering products/services that are integrated in the financial value-chain, then they will be included in our FinTech and TechFin taxonomy.

Sources

- Il Sole 24 ore
- www.Casavo.com

Our sample

Our sample is composed of 345 FinTech and TechFin startups of which the majority were founded between 2014 and 2016. It is interesting to see how the number of new FinTechs doubled from 2013 to 2014 followed by a slight decrease year per year.

Regarding the geographical presence, **Italian FinTechs are mostly concentrated in northern Italy**, in particular almost half (48.8%) of the startups are located in the Lombardy region. The region of Lazio follows at a safe distance with 8.4% presence. The other Italian FinTechs are scattered across the country. The massive concentration of FinTechs in Lombardy is probably because Lombardy also has most of the startup incubators, accelerators and community builders such as the FinTech District.

The presence of this supporting community offers a fertile environment for startup development and connections with potential partners and customers.

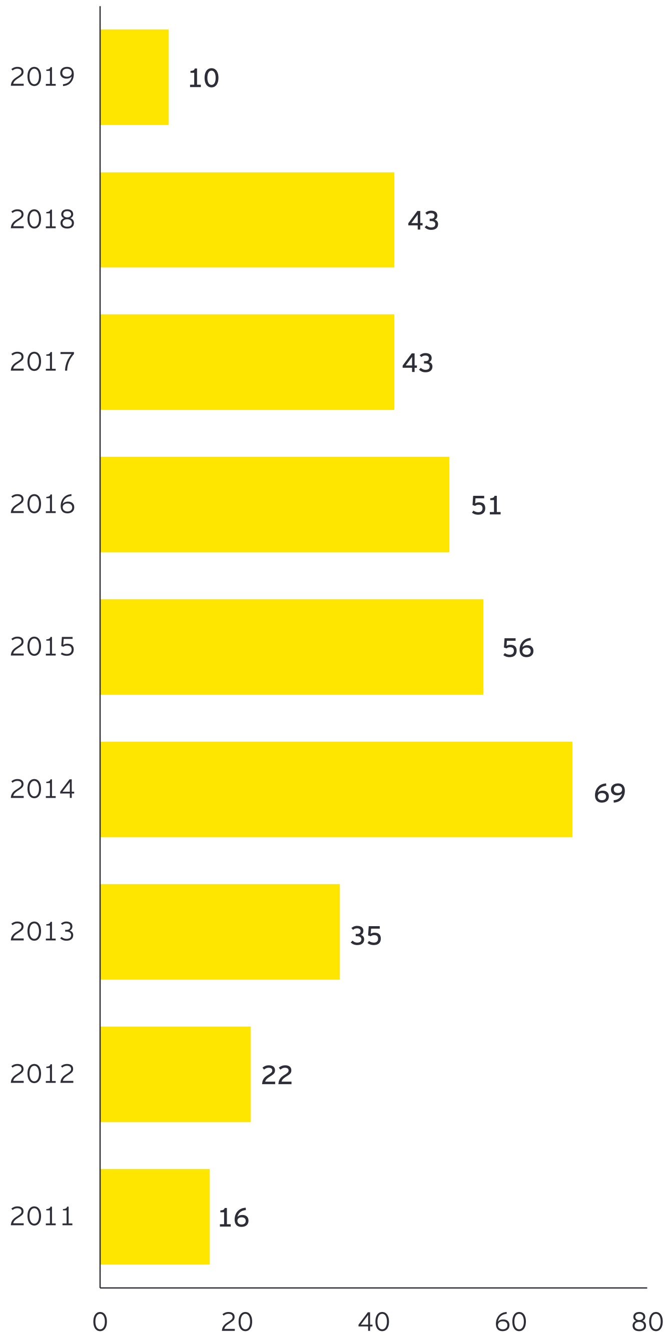
The remaining 14% of 345 startups surveyed are located in foreign countries. In particular, 26 FinTechs are headquartered in the UK, nine in the US and nine in Switzerland.

According to our classification, 21% of the startups surveyed have been classified as Crowdfunding FinTech, 10% as Data Analytics/ML/AI and 10% as smart payments. The remaining 13 clusters are each below the 10% threshold. Blockchain, RegTech and Data Management FinTech clusters close the ranking.

In the Italian FinTech trends there is not a leading cluster. The trends seems quite fragmented with a diversification of products and services offered by Italian FinTechs.

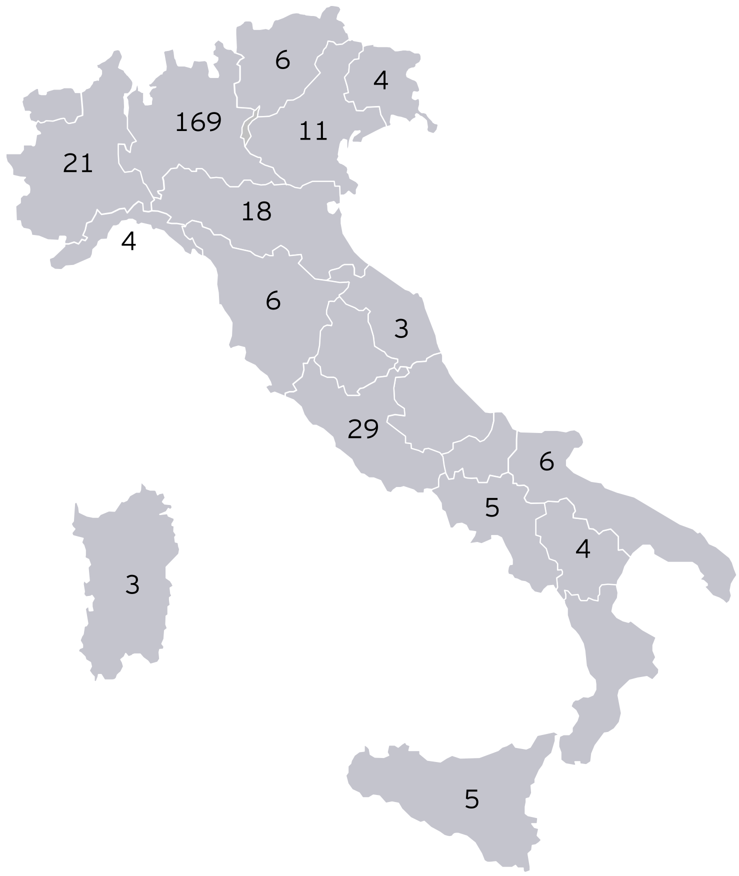
74% of the startups we have surveyed have been classified as FinTech, companies offering new digital financial solutions, while 26% has been classified as TechFin, companies offering new technological solutions serving the financial industry.

No. of Startups founded annually



In the **Appendix** you can find the **complete list of the startups we surveyed**

Italian FinTechs* by region (#)

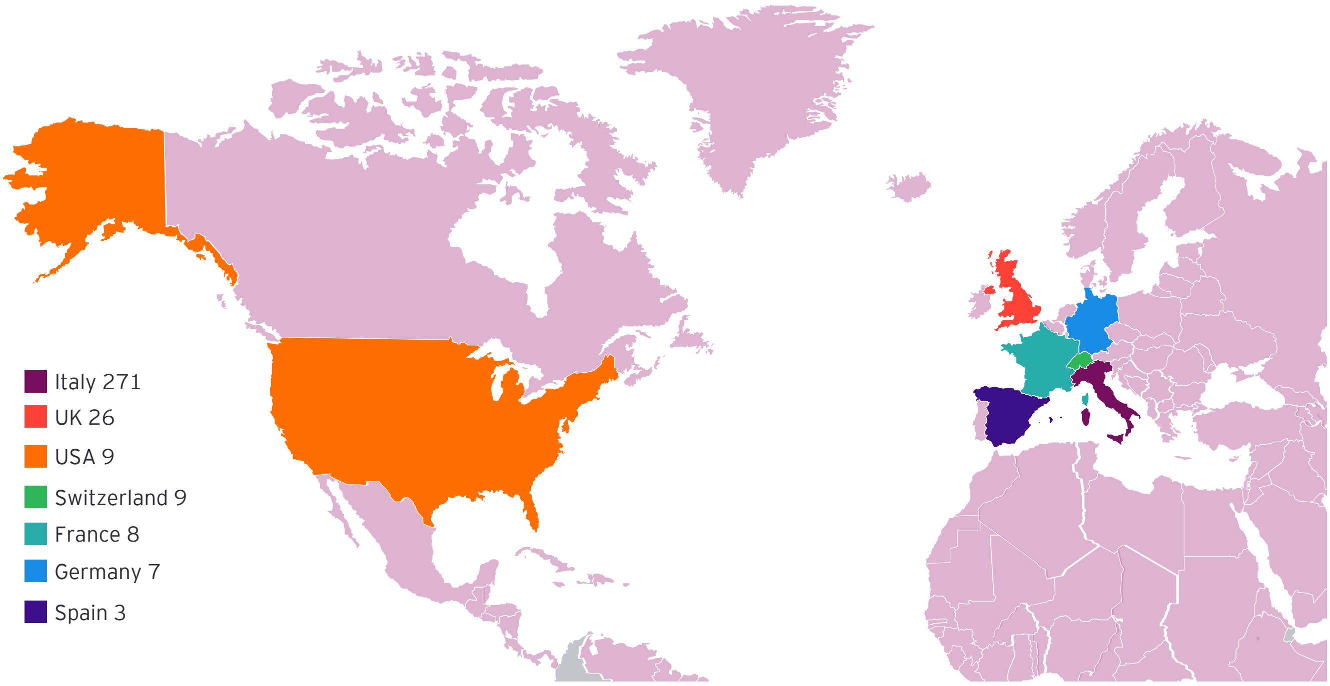


Italian FinTechs by region (%)

Lombardy	48.8%	Campania	1.5%
Lazio	8.4%	Sicily	1.5%
Piedmont	6.1%	Basilicata	1.2%
Emilia Romagna	5.2%	Friuli	1.2%
Veneto	3.2%	Liguria	1.2%
Puglia	1.7%	Marche	0.9%
Tuscany	1.7%	Sardinia	0.9%
Trentino	1.7%	Foreign countries	14.8%

** according to our census*

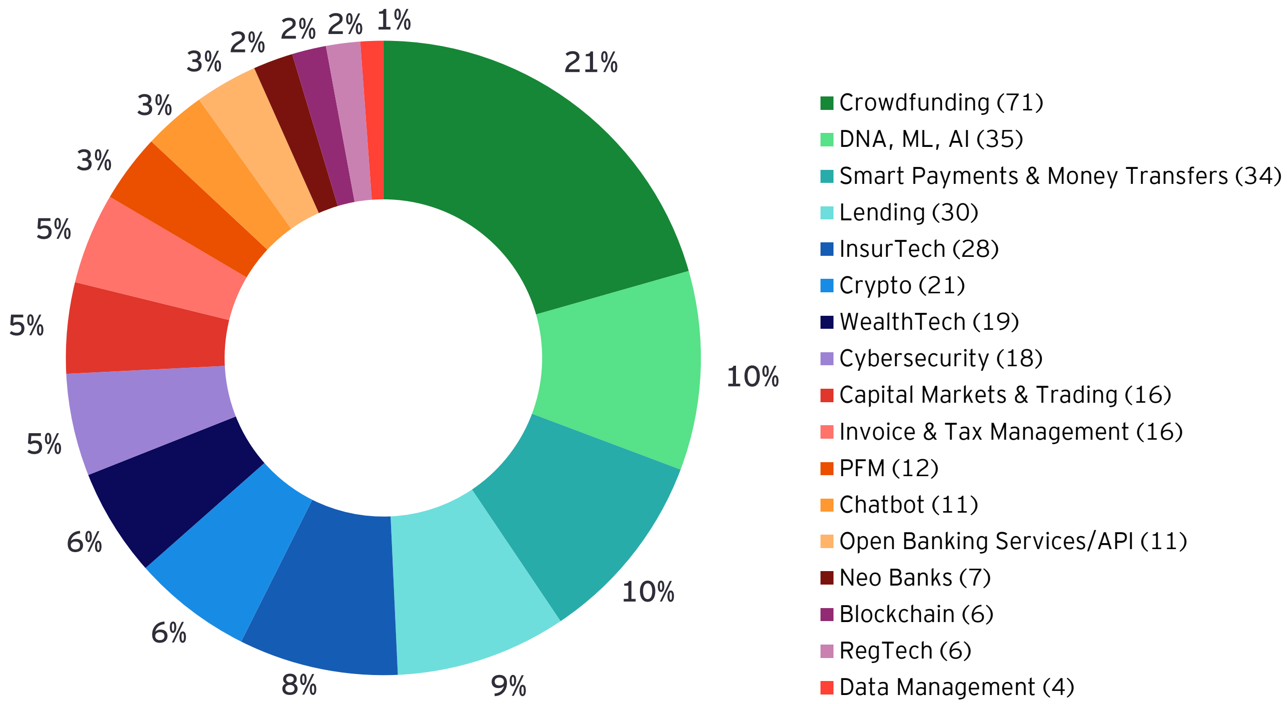
No. of Italian* FinTechs based on the location of the FinTech's headquarters



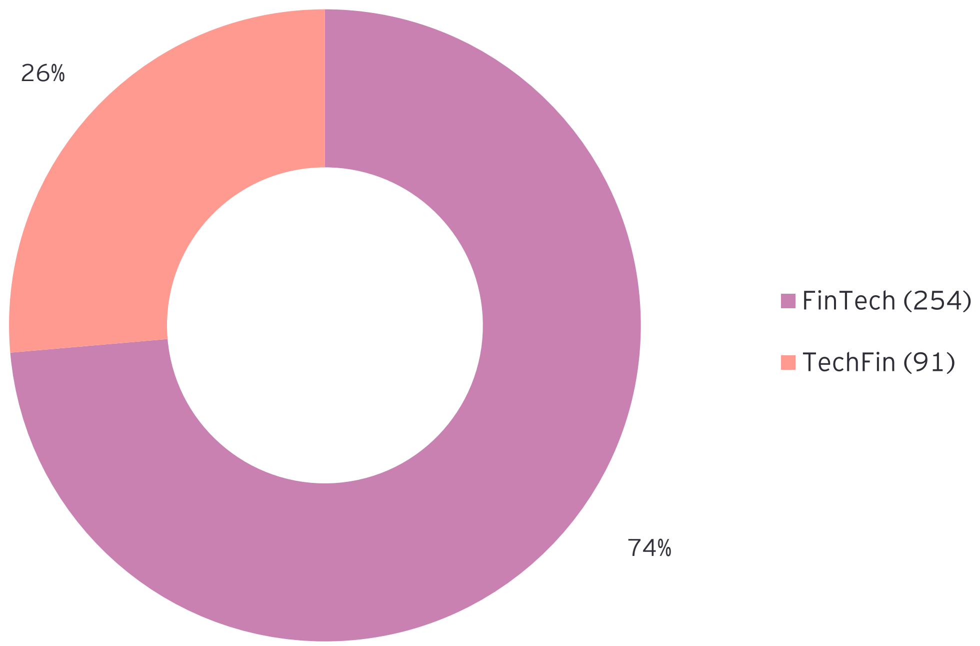
Italy	78.6%	Israel	0.3%
UK	7.5%	Netherlands	0.3%
Switzerland	2.6%	Singapore	0.3%
USA	2.6%	Cayman Islands	0.3%
France	2.3%	Luxembourg	0.3%
Germany	2.0%	Estonia	0.3%
Spain	0.9%	Liechtenstein	0.3%
Malta	0.6%	Sweden	0.3%
Hong Kong, China	0.3%	Belgium	0.3%

**We considered "Italian FinTechs" as all the identified startups headquartered in Italy or operating in Italy*

Break-down of Italian FinTechs by classification



Classification FinTech or TechFin



Survey structure

Our survey is comprised of 22 questions, divided into the following sections with the aim of providing an exhaustive overview on the selected sample:

1. Introduction
2. Corporate Finance
3. People and Skills
4. Compliance and Risk

No question was mandatory. We chose to leave the option to skip questions in order to avoid a high churn rate if a respondent considered a question sensitive.

Introduction

The introduction section contains a brief description of the startup and the current growth state of the company.

Corporate Finance

The Corporate Finance section contains details on the amount of raised funds, main investment sources and the exit strategy.

People and Skills

The People and Skills section contains questions about the composition of the team based on age, diversity and background. It has specific questions on recruitment plans, talent scouting and employees remuneration.

Compliance and Risk

The Compliance and Risk section offers a focus on compliance efforts and risk management activities as well as the regulatory impact and perspective.

In the **Appendix** chapter you can find the survey's questions in detail.

EY teams and FinTech District have administered the survey to the selected 345 startups via a specific template leveraging the networking partnerships in place as well as direct social media contacts.

The survey:

22 questions

4 sections

Administered to

345 startups

116 answers

Survey results

The survey was administered to 345 startups between December 2019 and March 2020. We obtained a total of **116 answers.**

Of the 116 startups that have answered the questionnaire, **86 have been classified as FinTech and 30 as TechFin.** The percentage of FinTech and TechFin we obtained from the responses, coincides perfectly with the share of the Italian FinTech population we have tracked. In these terms, the sample obtained can be considered a representative proxy of the Italian population.

Our sample:

76% FinTech

24% TechFin

The FinTech District has relationships across Europe with several FinTech hubs and discovered that the percentage of FinTech and TechFin startups is evenly distributed in other European countries. We have reason to believe that the **Italian landscape is in line with the other European countries and the trends observed are similar across Europe.**

Micro-segments	Responses
Crowdfunding	15
DNA, ML, AI	15
Lending	14
Smart Payments & Money Transfers	12
InsurTech	11
WealthTech	10
Capital Markets & Trading	6
Cybersecurity	6
Invoice & Tax Management	5
PFM	5
Crypto	4
Neo Banks	4
RegTech	2
Chatbot	2
Data Management	2
Blockchain	2
Open Banking Services/API	1

In our sample, we have seventeen micro-segments that cover the following number of startups:

The answers we got are a good proxy for the FinTech population census we carried out. In particular, the distribution percentages are very similar for 11 out of 17 startups. With regard to the six startups that differ in terms of representation compared to the population, Crowdfunding is less present in our response sample than we observed in the population. Also the microsegments of Crypto and Open Banking/API are less represented. Lending, WealthTech and DNA, on the other hand, are more present in the sample of responses than in the population.

Analyzing the startup business model, **46% (53) of startups have a B2B business model, 18% (21) B2C, 25% (29) B2B2C and 11% (13) have multiple business models, i.e., a combination of B2B, B2C and B2B2C.**

Startups Business Model:

46% B2B

25% B2B2C

18% B2C

11% Multiple

B2B business to business model is used by startups offering products/services to businesses, i.e., lending for SMEs

B2C business to customer model is used by startups offering products/services to retail customers, i.e., smart payment solutions

B2B2C business to business to customer model is used by startups offering products/services to retail customers but through the intermediation of a third party instead of a direct channel with the final customer. i.e., an installment service for retail customer provided through a third-party e-commerce

It is very interesting to note that startups classified as **FinTech have a more homogeneous distribution in the various types of business models while for TechFin there is a clear prevalence of B2B models.**

This result is in line with what is expected because TechFin, by their nature - being tech enablers - offer support services to business entities and not to end customers and therefore the clear prevalence of B2B models is explained.

At the microsegment level, it emerges that the main B2B sectors are Data Analytics, Cybersecurity, Invoice & Tax Management, Data Management, Smart Payments & Money Transfer.

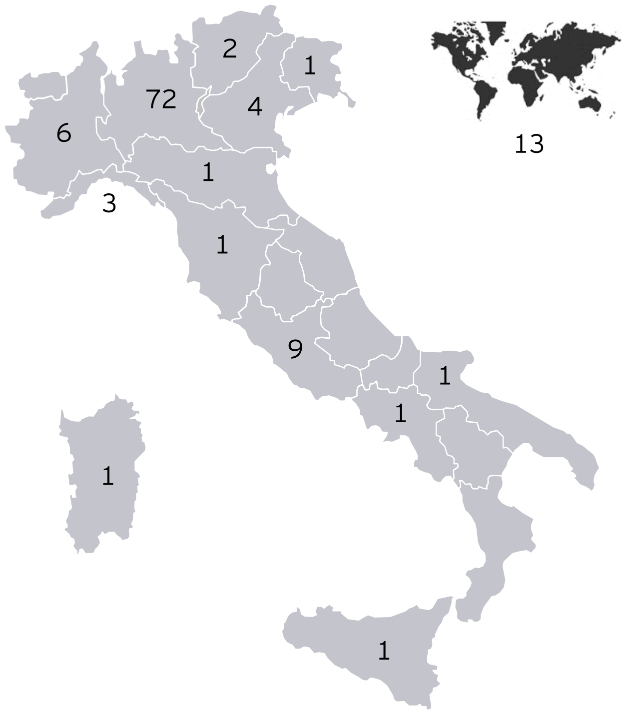
On the other side, the microsegments that mostly offer B2C products are Crypto, PFM and NeoBanks. B2B2C (business to business to customer) models are typical in the Open Banking, Capital Market & Trading and Blockchain microsectors.

From the point of view of the geographical presence of the startups in the Italian peninsula, of the **116 responses, 62% (72) of the startups are headquartered in Lombardy, 7.7% in Lazio (9) and 5.1% in Piedmont (6). 13 startups, 11.1% of the sample, are headquartered abroad.**

Lombardy is the region with the highest presence of startups

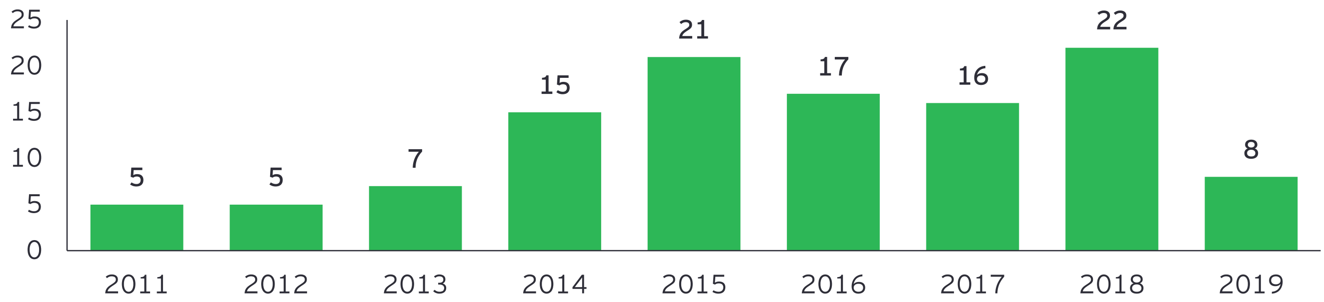
This is because Lombardy has the majority of the startups accelerators and incubators and Milan has always been considered as Italy's financial capital where all the major financial institutions are headquartered. **The presence of financial institutions, the concentration of investment players makes Milan, and more broadly speaking Lombardy, the perfect location for startups to carry out networking, business development and fundraising activities.**

Startups geographical distribution



Region	N. of responses
Lombardy	72
Emilia Romagna	1
Piedmont	6
Campania	1
Veneto	4
Lazio	9
Liguria	3
Friuli Venezia Giulia	1
Sicily	1
Tuscany	1
Trentino-Alto Adige	2
Puglia	1
Sardinia	1
Foreign	**13**

No. of startups per foundation year

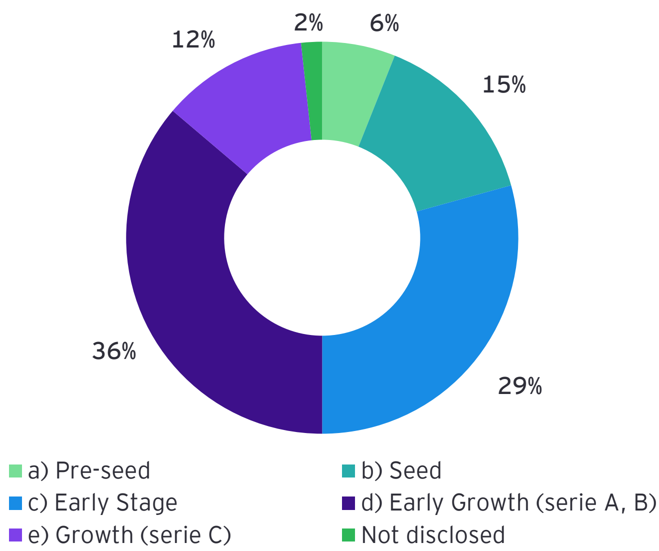


Foundation date: the largest number of startups in the sample were founded between 2014 and 2018. Specifically 15 startups were founded in 2014, 21 in 2015, 17 in 2016, 16 in 2017 and 22 in 2018. We can, therefore, state that **FinTech is a new phenomenon that has gained momentum in the last few years.** We can also affirm that there was not a sudden boom in the FinTech but has been **steadily growing.**

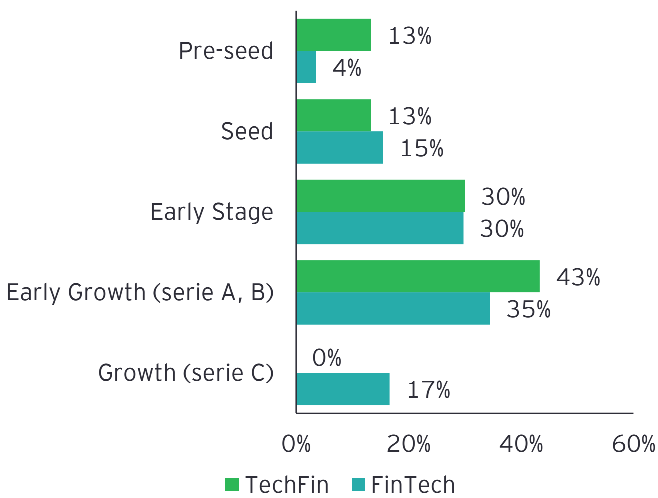
Growth Stage (116 responses): most startups are in the intermediate stages of growth; **88% of the startups said they have not yet passed the "early growth" stage.** In detail, 29,8% of the startups are in "Early Stage" and 36,8% in "Early Growth". Only 6.1% are in the first "pre-seed" phase while 12.3% are in the "Growth" scale-up phase. **Analyses do not show a positive correlation between the year of foundation and the growth stage**; it is not certain, therefore, that startups created earlier are in a more advanced development stage and, vice versa, younger startups in terms of age are at an earlier development stage.

The startups classified as **FinTech are mostly in** the two growth stages "**Early Stage" and "Early Growth**" with a fair number in the last stage of development "Growth". Regarding the **TechFins** we interviewed, many are **in the "Early Growth"** stage but none have yet made the scale-up to the "Growth" stage.

Stage of development



Stage of development, FinTech and TechFin



Corporate Finance

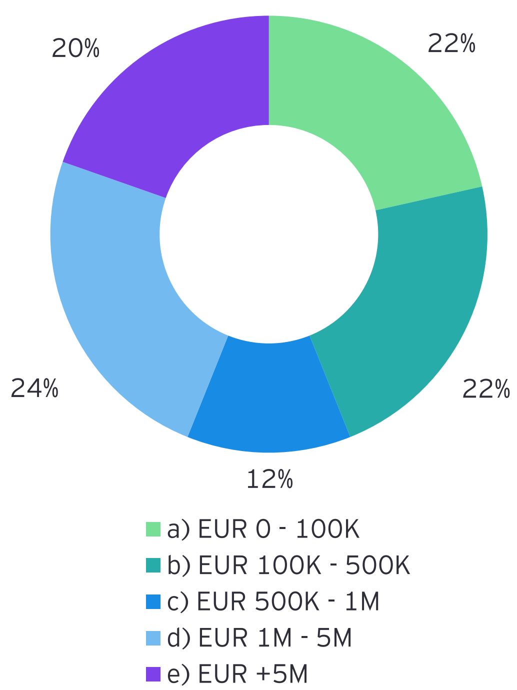
Funds raised (107 responses): Overall, the startups surveyed have raised a total of €1.2b.

€1.2b raised

Classifying the funds raised by startups into five groups, the distribution of responses is quite homogeneous, with fewer responses in the intermediate range between €500k and €1m. From the analysis, we can see that **80% of the startups have raised less than €5m and 60% less than €1m.**

Almost 20% of the startups have collected between €1M and €5M and were started between 2014 and 2017. **The median value of the investments raised is €700k per startup.** If we compare the funds raised and the stage of growth, we see that 15% of the startups that have raised between €1m and €5m are currently in an Early Growth stage.

Funds raised

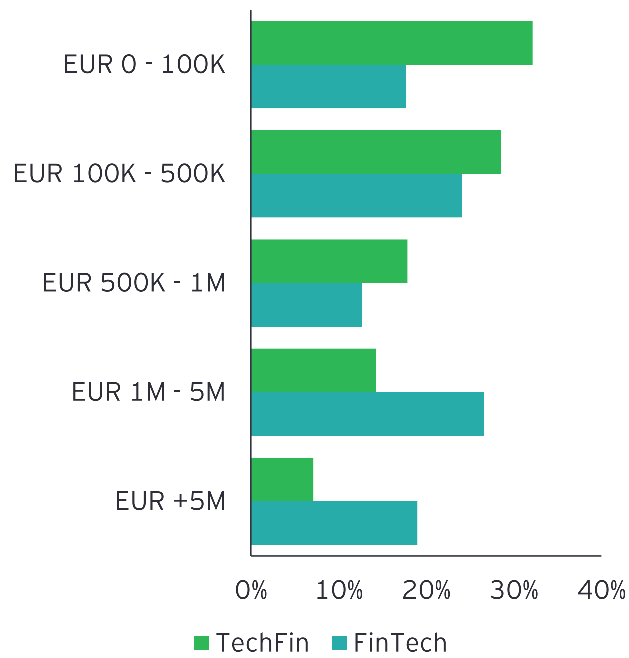


The average fundraising amount for FinTech startups with a **B2B2C business model is** about **€5.5m** while the average funding of startups with a **B2B business model** is approximately **€3.8m.** The outperformers, and probably also outliers, in terms of fundraising are represented by B2C (business to customer) entities. Excluding them, the startups that collect the most have a B2B2C business model.

FinTechs have collected more than TechFins. 46% of FinTechs have raised more than €1m and TechFins only 21%.

NeoBanks is the microsegment which has **collected the most. Data Management has collected the least.**

Funds raised, FinTech and TechFin



Turnover (109 responses): analyzing the annual turnover of startups, **62.4% of startups (68) have an annual turnover of less than €500k.** Only 9.17% (10) of the sample has a turnover exceeding €5m. Comparing the funds raised and the annual turnover, it emerges that **80% of startups have collected less than €5m and have an annual turnover less than €5m.**

If we look at the stage of growth and the turnover:

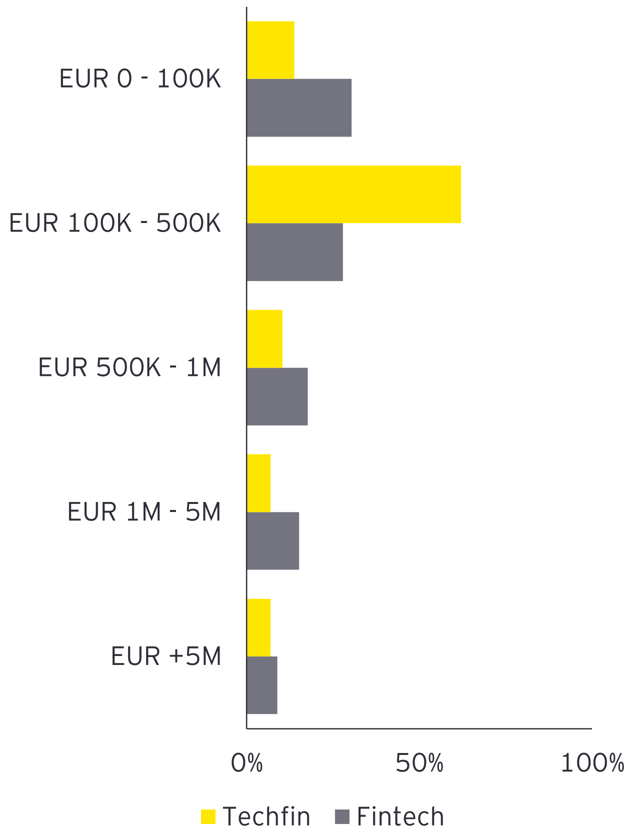
- **100%** of startups currently in a "seed" growth stage have a maximum annual turnover of €500k.
- about **85%** of the startups currently in "early stage" growth have a maximum annual turnover of €500k.
- about **60%** of startups currently in "early growth" have an annual turnover of between €100k and €1m.
- approximately **82%** of start-ups in "growth" have a turnover of more than €1m.

FinTechs have on average a higher annual turnover than TechFins.

The microsegment with the **highest turnover** are **Neobanks, Open Banking and Lending.**

WealthTech, despite being the second micro-segment in order of funds raised, **has for 50% of startups a turnover of less than €100k.**

Annual turnover, FinTech and TechFin



Post-money valuation (41 responses): about 95% (39) of startups have a post-money rating of over €1m. About 30% of startups with an evaluation between €1m and €5m have collected between €100k and €500k.

95% have a post-money valuation **>1m €**

60% of the startups were rated over €1m even though they have a turnover less than €500k.

For those startups which provide a post-money valuation (36% of the total respondents), the median fund raised is €965k, while **the median valuation is €5k.** To go in depth with the analysis, **we introduce an index - the value multiplier - computed as the ratio between post-money valuation and fund raised.** It allows us to point out how many times a startup is worth its funding. The higher the multiplier, the higher is the startup's ability to increase its value.

Value multiplier:

FinTech → **6.73 x**

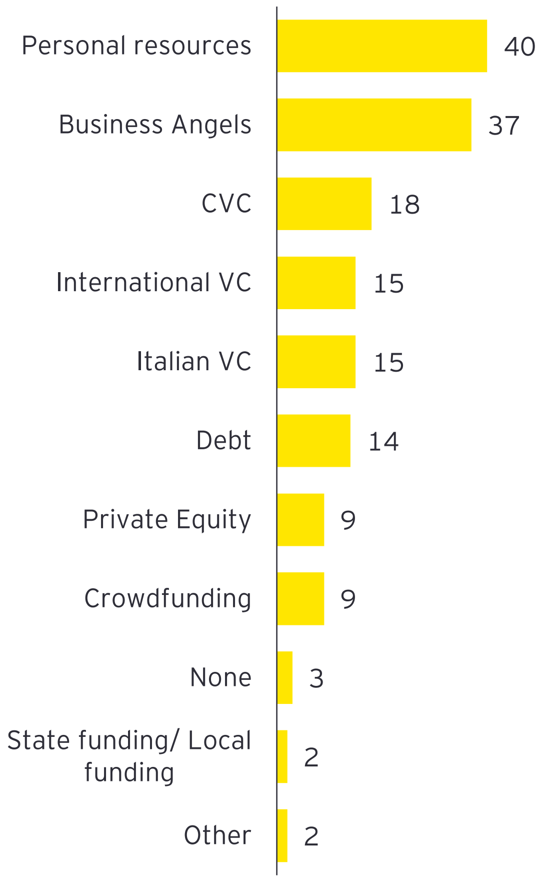
TechFin → **4.34 x**

B2B → **9.37 x**

B2C → **4.10 x**

Main Investment Source: The **main startup financing sources are "Personal resources" and "Business Angels", including for almost all the the micro-segments.**

Main investment sources
(# of responses)



Other sources of financing are corporate venture capital, Italian and international venture capital funds.

Among the **startups** that claim to **have passed** the "**early growth**" phase, the **most** common funding comes from **VCs** (Italian and international).

In addition, 8% of startups in this phase have also started to use debt as a source of financing.
It is interesting to note that the use of crowdfunding, private equity and government funding is particularly low.

For **54%** of startups with

turnover < €1m

Business Angels **Personal resources**

are the main investment sources

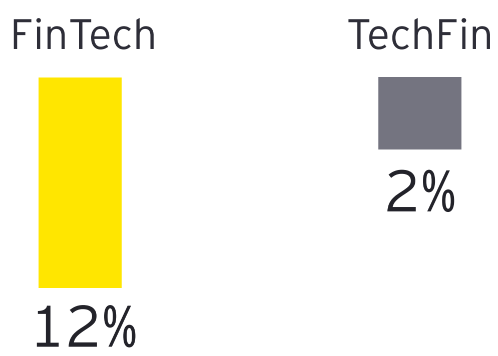
Among the startups with turnover above €1m, about 68% have appeared in the cap table of an institutional investor.

Investments made by institutional investors:

B2C	B2B
16%	**51%**

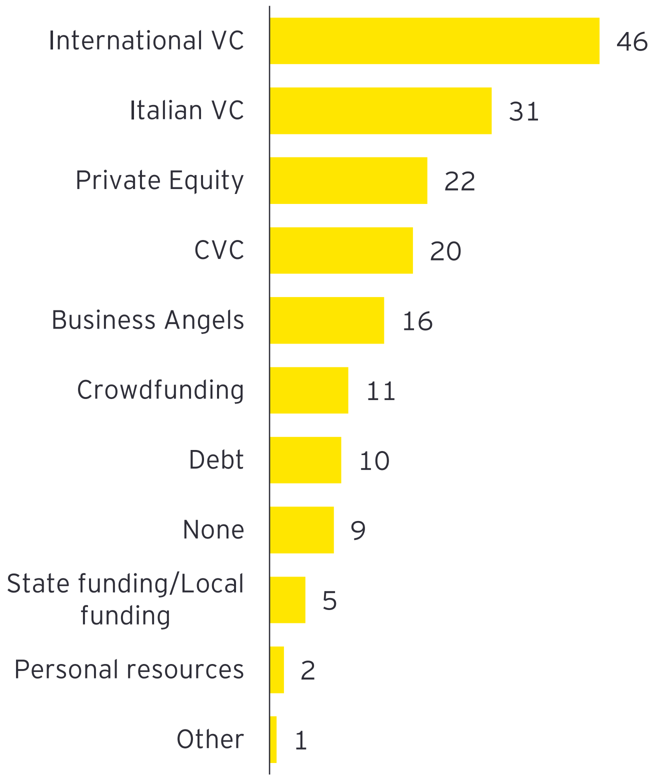
FinTech make greater use of international venture capital funds than TechFin.

Use of International Venture Capital funds, FinTech and TechFin



Investors for the next investment round: 70% of start-ups want an institutional investor as their next source of financing, in particular from international VC funds.

Next investors
(# of responses)



Approximately, 11% of companies looking to international VCs as future investors are currently in an "early growth" phase. Moreover, 83% of start-ups financed by business angels would like access to an institutional and especially an international VC in the next round.

83% of startups financed by business angels are looking for **institutional investors**

This can be read as a **desire for international expansion and business scale-up.** The second type of investors sought are Italian VC funds, followed by Private Equity funds and CVC. Of the startups looking to Italian VCs as future investors, about 32% are currently in an "early stage" phase.

Personal Resources, which are the primary source of funding used until now by startups, is at the bottom of the list of the sources sought, thus **demonstrating the willingness of startups to progress in their growth phase by seeking institutional investors.**

87% of startups created < 2014 are looking for **institutional investors**

58% of startups created > 2017 are looking for **institutional investors**

About 16% of startups looking to international VCs as future investors were started between 2014 and 2017 while about 21% of startups created in 2018 want to receive investments from Italian VC.

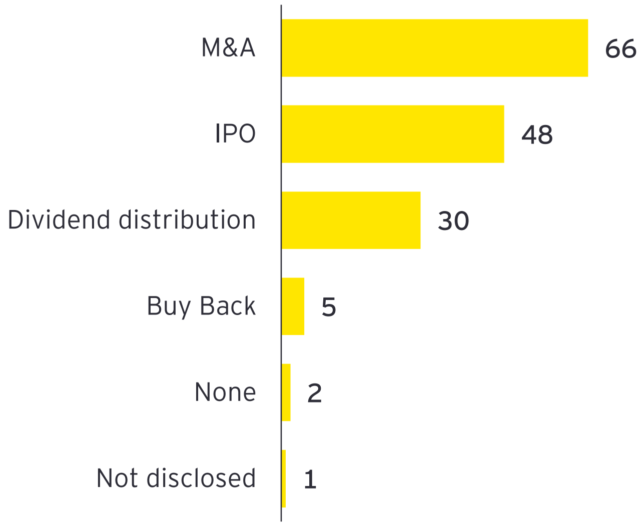
TechFin, which received few funds from VC's international funds during the fundraising phase, still **want to attempt an international expansion of their business** by seeking financing from these types of investors.

Long-term exit strategy: M&A and IPO are the most targeted exit strategies. Startups want to be acquired by other companies or industrial groups to capitalize and exit from their investment. It is interesting to note that, **although** M&A and IPO are the preferred exit strategies, **in Italy historically there has been a low number of these types of operations.**

FinTech and TechFin slightly differ in terms of exit strategies**. FinTech aim for M&A and IPO while TechFin aims for M&A and Dividend Distribution.**

Buy-back strategy is **present only in the Crowdfunding, Lending, InsurTech and Smart Payment micro-sectors.**

Exit strategies *(# of responses)*



Corporate Finance Microsegments details

Categories	Microsegments	Total Funds Raised (€)	Median Funds Raised (€)	N. of startups
FinTech	Crowdfunding	45.796.773,00	1.000.000,00	15
FinTech	Lending	104.900.000,00	1.775.000,00	14
FinTech	Smart Payments & Money Transfers	30.810.000,00	1.180.000,00	12
FinTech	InsurTech	10.290.000,00	640.000,00	11
FinTech	WealthTech	125.450.000,00	350.000,00	10
FinTech	Capital Markets & Trading	47.357.000,00	1.000.000,00	6
FinTech	PFM	11.825.000,00	700.000,00	5
FinTech	Invoice & Tax Management	202.000,00	40.000,00	5
FinTech	Crypto	10.930.000,00	1.990.000,00	4
FinTech	Neo Banks	823.000.000,00	136.000.000,00	4
TechFin	DNA, ML, AI	22.075.000,00	350.000,00	15
TechFin	Cybersecurity	1.145.000,00	145.000,00	6
TechFin	RegTech	9.400.000,00	4.700.000,00	2
TechFin	Chatbot	1.000.000,00	500.000,00	2
TechFin	Data Management	100.000,00	50.000,00	2
TechFin	Blockchain	5.350.000,00	2.675.000,00	2
TechFin	Open Banking Services/API	550.000,00	550.000,00	1

People and Skills

Employees per startup (114 responses): the **median** value of the number of **employees per startup is 8.5.** data shows that 21% of startups (24) have less than five employees, 32% (36) between five and 10, 24% (27) between 10 and 20, 14% (16) between 20 and 50 and only 9% (11) have more than 50 employees.

53% of startups have less than 10 employees

Analyzing the founders of the **Italian top 20 FinTechs by funds raised we see an average 1.8 founders per startup.**

1.8 founders per startups

Analyzing FinTechs and TechFins, no particular differences emerge between the two categories. Moreover, both are mostly composed by teams with less than 10 people.

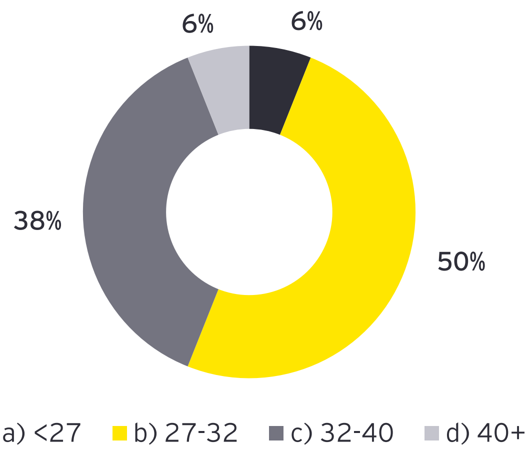
Neobanks

76 employees per startup

PFM also have an above-average sizing team with 30 employees per startup. **Cybersecurity teams are the smallest.**

Average age (116 responses): 50% of startups have a team with an **average age between 27 and 32**, 37.9% between 32 and 40. Only 6% of startups have a team with an average age of less than 27 and 6% over 40.

Team members average age range



FinTech startups are mostly founded by senior people with almost 20 years of experience. Thus, we must debunk the myth that FinTech startups are founded by boomers.

Top 20 Italian FinTech by funds raised*:

Team members: **56%** average age **< 32**

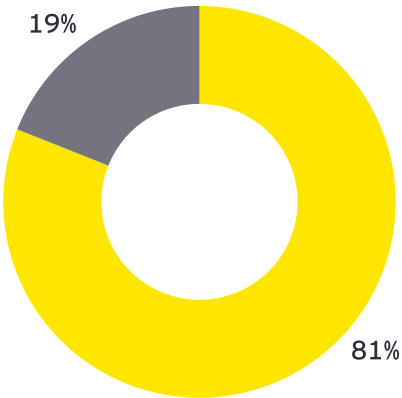
Founders: on average **46** Years Old

Cryptocurrency is the one with the **lowest average age** while **Chatbot, Invoice & Tax Management, Cybersecurity and Capitals Market & Trading** are the categories with the **highest average age.**

*The top 20 italian FinTech by funds raised references those who have answered the survey

Gender Gap: male employees in 81% of start-ups account for more than 50% of the whole team. Within the Italian FinTech ecosystem there is still a **fairly marked gender gap.**

Presence of women in teams



The **gender gap is also strongly marked** if we look at the **startups' founders**

Gender Gap in the top 20 Italian FinTech by funds raised*:

100% men

If we look at the differences between FinTech and TechFin, it emerges that there is **a lower percentage of women in TechFin teams.** The gender gap is not only an Italian issue.

*The top 20 italian FinTech by funds raised references those who have answered the survey

External sources:

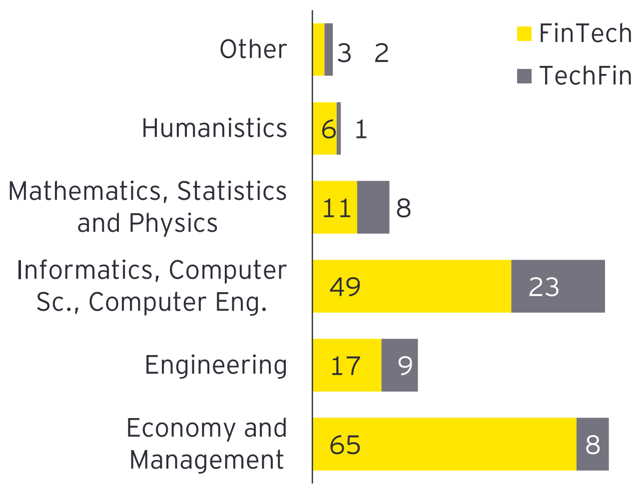
The gender gap is not only an Italian issue. Looking at a report made by the United Kingdom Government (United Kingdom FinTech state of the nation), the gender balance in FinTech in the United Kingdom is particularly low: 83% of all FinTech executives are male and women make up just 29% of the employee base of the FinTechs. According to the Oliver Wyman Report "Women in Financial Services 2020", in FinTech, the gender gap is mostly a consequence of the male predominance in financial services companies. According to the report, in global major financial services companies, women account for 20% in executive committees and for 23% on boards. Most roles occupied by women on executive committees continue to be within corporate functions such as HR, Marketing and Legal.

6% of global FS companies' CEOs are women

If we look at the Italy, women on executive committees is substantially lower with a percentage of 13%.

Academic background: business and IT are the most common academic pathways among startup teams.

Academic backgrounds, FinTech and TechFin
(# of responses)

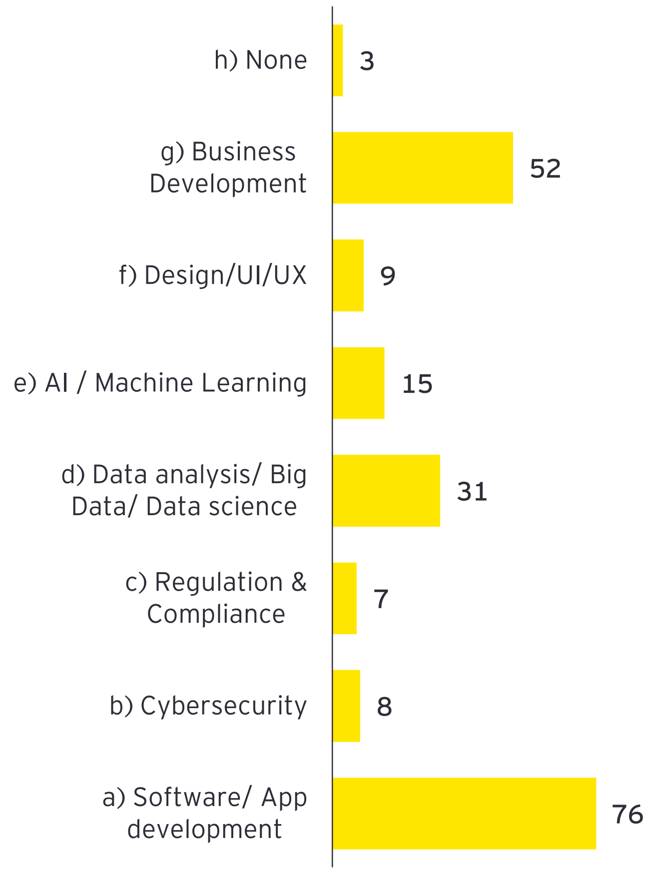


43% of FinTech employees have business / economics backgrounds

45% of TechFin employees have an IT/Computer Science background

Hiring new talent in the next 12-24 months: Our data shows that most startups **in the next 12-24 months are planning to hire software and app development experts and business developers.**

Hiring new talent
(# of responses)



In general the startups intend to work and develop their product and, at the same time, find an experienced salesforce to expand their relationships and sales opportunities. In addition, data analysis figures such as data scientists and AI experts are sought.

Comparing the stage of development of startups and the professional figures that startups have in their hiring pipeline over the next 12-24 months:

88% of Business Developers are sought by startups from Early Stage onwards

This evidence is due to the fact that business development activities are activities to be carried out once the startup has already created a product that can be sold on the market and therefore the need for the startup moves from product/service development to marketing activities.

It is very interesting to note that the figures of the **software development and user experience experts are** also **sought in advanced stages of development.** This confirms the fact that **FinTech and Techfin**, given their intrinsic characteristic of technological pioneering, **need development and improvement of their software constantly**, which is the most valuable asset.

61% of Data Analysis experts are sought by Early Growth startups

One explanation is that big data analysis requires a large amount of data to be effective and to deliver reliable and useful results. **Startups at a more advanced stage can rely on a much larger amount of data** and information from their clients while new startups usually have a very small client base or, sometimes, they are even not yet present in the market.

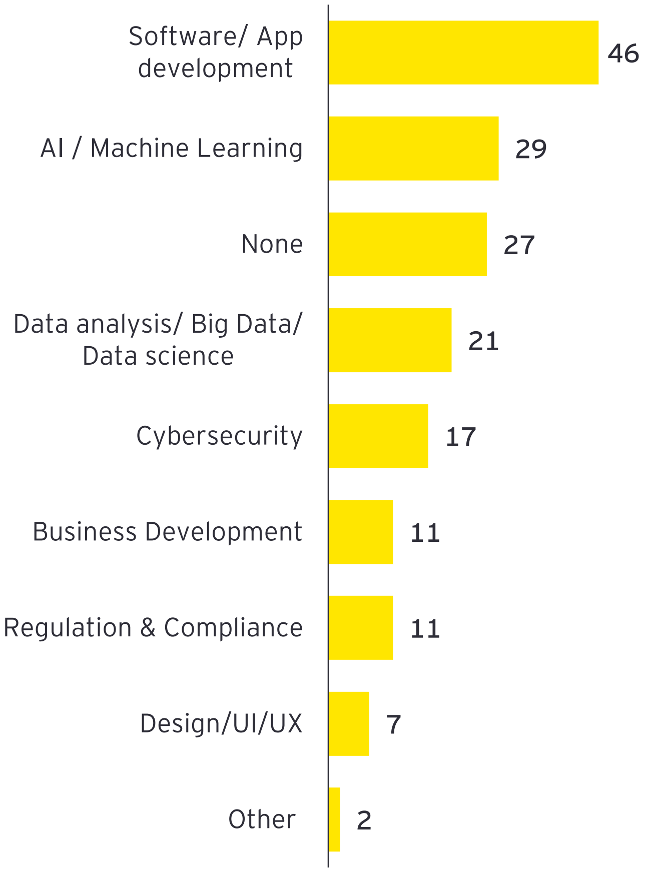
Most requested profiles are also those considered as scarce in the market

Generally during the scale-up phases, startups decide to further narrow their business and use the funds to start regulatory and compliance activities.

Lack of talent: startups say that there is a lack of professionals in the market for app development and data analysis experts (data scientists and AI experts).

71% of Regulation and compliance experts are sought in a more mature stage

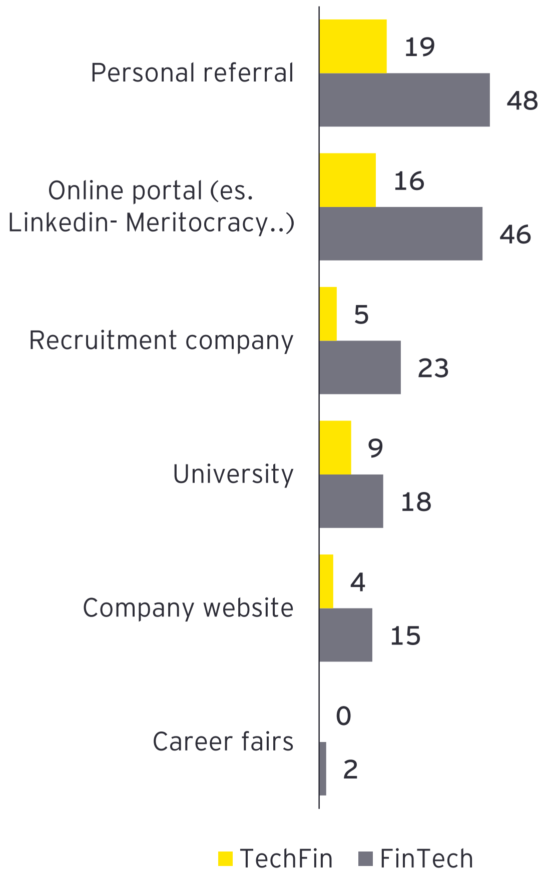
Lack of talents
(# of responses)



Another important fact to highlight is that **business developers, although in demand** by startups and in the pipeline of hiring in the immediate future, **are not perceived as scarce on the market.** At first glance, it could be due to the fact that business developers, being evaluated on sales data, generally prefer not to go to startups where the amount of sales services is lower and therefore their variable compensation will be lower than the other jobs.

Main recruitment channel: the most used recruitment channel is "personal referral" followed closely by "online portals". The use of personal referrals is probably due to the fact that very often **FinTech founders come from a career in the financial world and therefore founders prefer to hire people with whom they have already had the opportunity to work together.**

Recruiting channels, FinTech and TechFin
(# of responses)

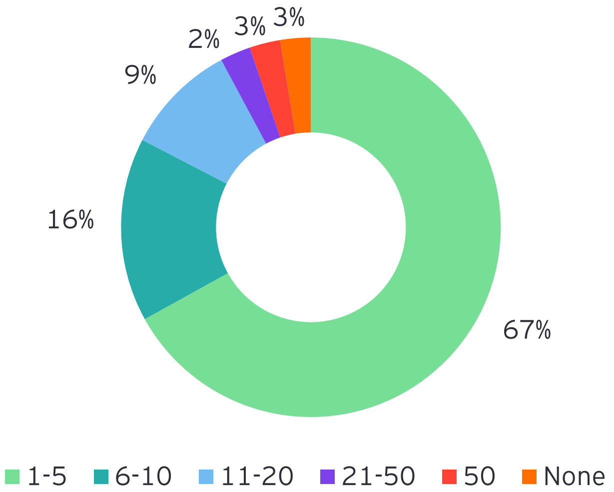


FinTechs use more recruitment companies than TechFins

TechFins use more University channels than FinTechs

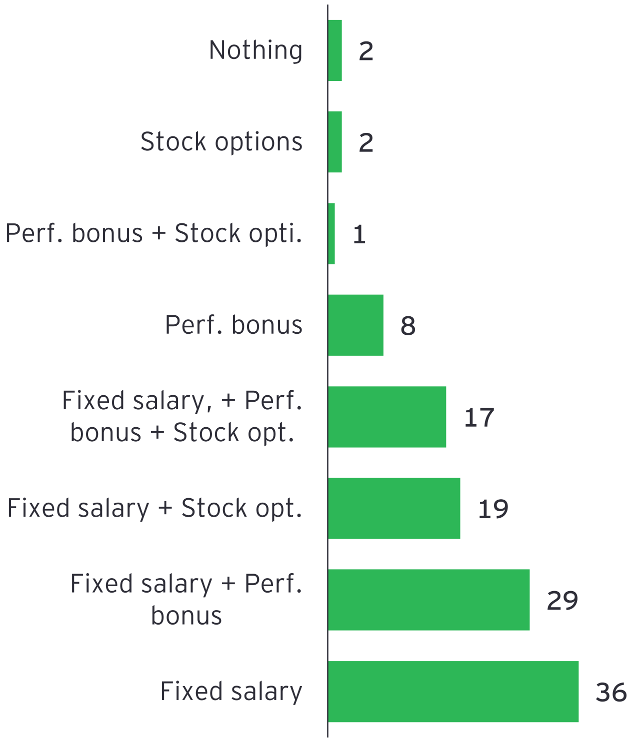
The number of hirings in the next 12 months (116 responses): almost 67% of startups (77) want to hire from one to five people in the next 12 months. The 16% (18) have in the pipeline the hiring of six-10 new people.

Number of hirings in next 12 months



Kind of remuneration (116 responses): from the point of view of the type of salary that startups offer their employees, 31% offer a fixed salary, 25% fixed salary plus performance bonuses, 16% fixed salary and stock options, 15% fixed salary plus performance bonuses and stock options. Thus, **87% of startups offer a fixed salary** as part of their compensation package, combined with performance bonuses or stock options as appropriate. **Only 7% of startups offer performance bonuses.** It is interesting to note that two startups do not offer any remuneration.

Kind of remuneration
(# of responses)



External sources:

According to JobLift, a United Kingdom online job posting portal, FinTechs in the United Kingdom offer a higher average salary (+US$10k) than traditional financial institutions. In addition, the total number of FinTech job offers is much lower than the ones made by financial institutions and the type of job positions offered by Financial Services are much wider than the ones offered by FinTech and generally require less specific skills.
Analyzing the remuneration packages of FinTechs at an international level, it emerges that stock options plans in other countries are much more relevant than in Italy. ESOPs (Equity Stock Option Plans) are widespread in the most advanced FinTech countries such as USA, UK and Israel. Germany, despite being one of the FinTech's pioneers, are facing difficulties in developing stock option plans linked to issues of lack of specific legislation and taxation. Offering stock options is a very effective type of remuneration, especially to attract young talent and to create commitment to the company.

Compliance and Risk

The Financial Service industry is strongly regulated all over the world. Because of that, when we analyze the FinTech ecosystem, it **is important to distinguish between companies that are regulated entities and those that are not.** In our sample, 26 startups out of 116 between FinTech and TechFin are regulated.

22% startups are regulated entities

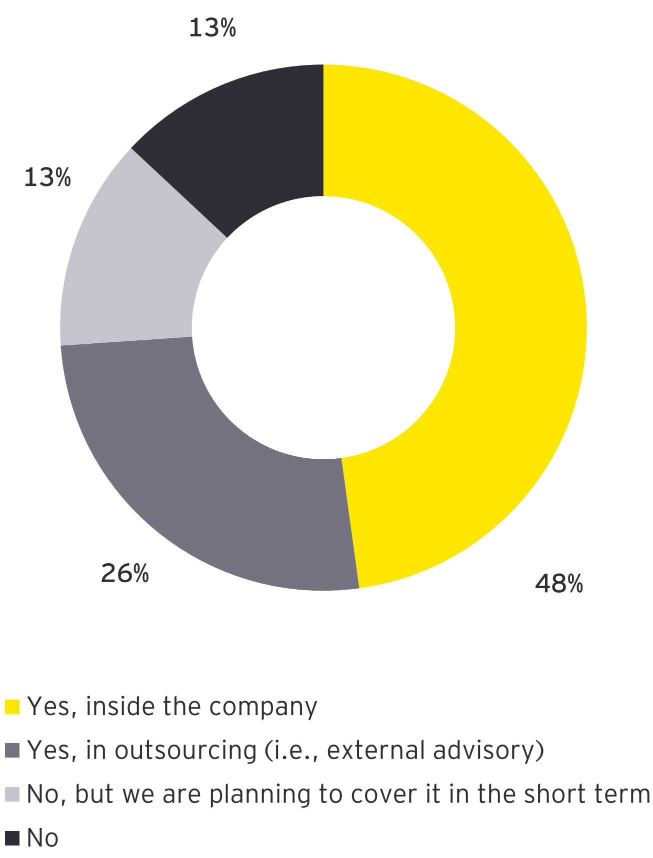
The most regulated sector is Crowdfunding as, according to the Italian law, companies that offer Equity Crowdfunding services must be regulated and supervised by Consob. Still in the Crowdfunding microsegment, seven FinTech are Lemonway's agents.

Only three out of the 26 regulated startups are InsurTechs. The Insurance industry, from the point of view of regulation, is at a less advanced stage than the banking sector. In recent years, the Insurance Distribution Directive (IDD) was introduced by EU regulators, which follow banking regulations such as MiFID. **We** therefore **expect new types of insurtech-specific regulations** to be introduced in the insurance industry in the coming years and consequently more efforts in Compliance and Risk.

Compliance and Risk roles in the company (115 responses): Almost half, 48% (55), **of the startups state that they cover the Compliance and Risk function within the company.** 26% (30) of the companies cover the role by using external consultants.

The remaining **26%** (30) state that **no one currently holds the role covering Compliance and Risk,** however, half of these companies (13) state that they plan to do so in the short-term. **13% of the sample (15) state that they are not interested in covering the Compliance and Risk function.**

Covering the Compliance and Risk role



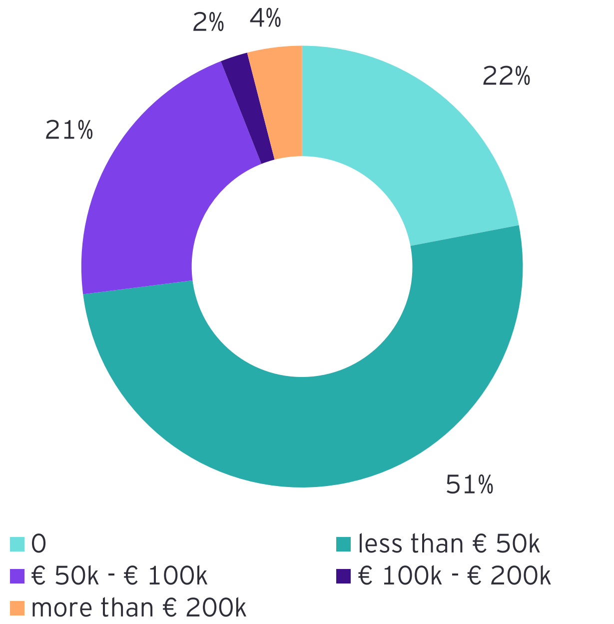
80% of FinTech cover Compliance and Risk role

60% of TechFin cover Compliance and Risk role

If we look at the individual micro-segments, **Cybersecurity, RegTech, Blockchain, Capital Markets & Trading and Smart Payments & Money Transfer are the microsegments which mostly cover the role internally** within the company. **Data Management startups**, on the other hand, are the segment that **is the least interested** in Compliance & Risk issues as two out of three startups aren't currently either internally or externally involved in Compliance and Risk.

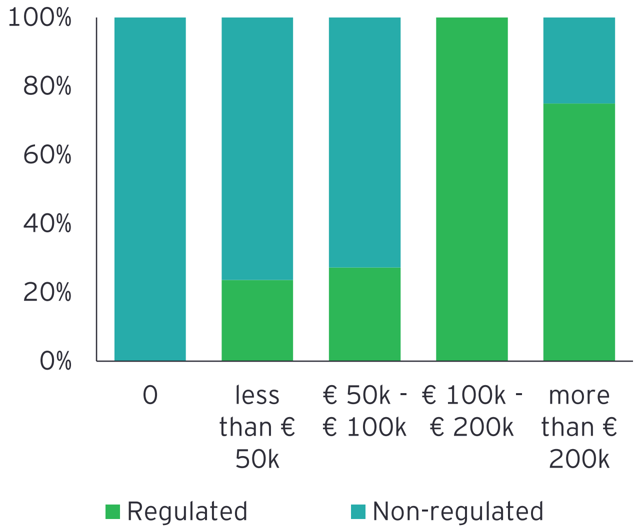
Spend in compliance last year (105 responses): 51% of respondents (54) say they **annually spend less than €50k in compliance**, 21% (22) spend between €50k and €100k, only six companies spend annually more than €100k. Of all respondents, 22% (23) said they do not spend any money on compliance.

Annual expenditure on Compliance and Risk



If we distinguish between regulated and non-regulated startups, it emerges that **regulated startups annually spend more than non-regulated startups.**

Annual expenditure on Compliance and Risk, regulated and non-regulated



Startups regulated by CONSOB Commissione Nazionale per le Società e la Borsa

all spend an annual amount of **<100k €**

The **least economically burdensome regulations** are registration in the **Register of Credit Brokers and the RUI**, Register of Intermediaries.

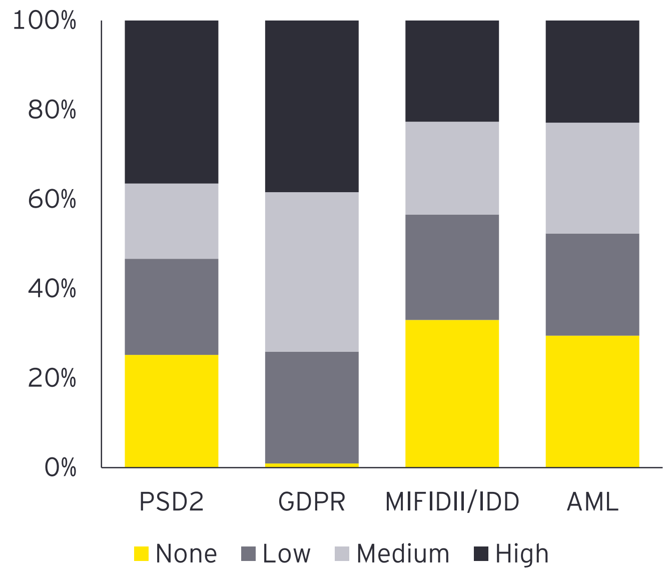
Lending and NeoBanks are the ones that **annually spend the most** on compliance while **Blockchain, Data Management and Cybersecurity** are the ones that **spend the least.**

Impact of regulation: the regulation with the greatest impact on their business **is** definitely **GDPR:** for 74% of respondents (83) GDPR has a medium-high impact on their business. Only for one company out of the 112 respondents, the GDPR has no impact on its business.

The second regulation with the highest impact on FinTech business **is PSD2**, where 53% (57 out of 107) have a medium-high impact on their business.

The **regulation that has the lowest impact** on business **is MiFidII/IDD** because for 33% of respondents (35 out of 106) this regulation, depending on whether in banking or insurance, has no impact on business.

Impact of regulations



While **GDPR** is confirmed to be the regulation with the **greatest impact on all of the microsegments**, **PSD2 is particularly important for** the microsegments of **Lending, Invoice & Tax Management, PFM and NeoBanks.**

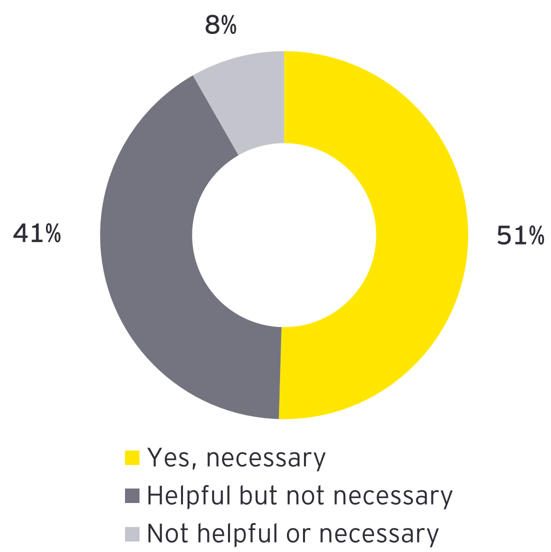
MiFID/IDD, on the other hand, **is** particularly **important for** investment microsegments such as **Crowdfunding, Crypto, and WealthTech.**

The **AML** regulation is very important **for RegTech, Crypto and NeoBanks.**

Regulatory Sandbox (109 responses): for almost a half, 51%, of the startups a **regulatory sandbox in Italy is necessary**, for **41%** it **would be useful** but not strictly necessary while **only 8% believe it would not be neither useful nor necessary.**

92% are in favor of the introduction of a Regulatory Sandbox in Italy

Regulatory Sandbox in Italy



Comparing the geographical location of the startups and the need for a regulatory sandbox, it emerges that:

Regulatory Sandbox in Italy is not an entry barrier in the market **for foreign startups**

A brief recap of the Italian FinTech ecosystem:

The Italian FinTech ecosystem is made up of 76% FinTechs and 24% TechFins, particularly in Lombardy, there is the highest presence of startups.

Corporate Finance:

- The median value of the investments raised is €700k per startup. FinTechs collect more than TechFins.
- 95% of the startup ecosystem has a post-money valuation greater than €1m.
- Main Investment Source is "Personal Resources" and "Business Angels“.
- 87% of startups were created before 2014 and they are looking for institutional investors.
- The most used business model is B2B and the Italian FinTechs are mostly in the early growth stage.
- FinTechs and TechFins B2B have a 9.37x value multiplier higher than the B2C that has 4.10x: B2Bs are more profitable than B2C.

People and Skills:

- 53% of startups have less than 10 employees and 50% of the startups have teams with an average age under 32 years old.
- Startups have an average of 1.8 founders with an average age of 46 years old.
- Males make up 81% of start-ups showing a fairly marked gender gap.
- In FinTech's teams, 43% of people have business/economics backgrounds and in TechFin's team 45% of people have an IT/Computer Science backgrounds.
- Most startups in the next 12-24 months are planning to hire software and app development experts and business developers.
- Most requested profiles are also those considered as scarce in the market: it’s important to think of ways to attract talent (i.e., reskilling, new internal educational path, offshoring).

Compliance and Risk:

- 26 startups are regulated entities and the most regulated sector is Crowdfunding.
- 80% of FinTech and 60% of TechFin teams are covering the Compliance and Risk role.
- Startup regulated by Consob annually spend less than €100k: Lending and NeoBanks are the ones that annually spend the most on compliance while Blockchain, Data Management and Cybersecurity are the ones that spend the least.
- The regulation with the greatest impact on the business is GDPR.
- PSD2 is particularly important for the microsegments of Lending, Invoice and Tax Management, PFM and NeoBanks.
- 92% of startups are in favor of the introduction of a Regulatory Sandbox.

Chapter 4

The Investor market

Investors' market, a global overview

Over the last few years, financial systems have been involved in a restructuring process under the influence of several economic, legislative and social/behavioral factors, as well as digital developments. Among these elements, technology represents one of the most relevant factors and deserves an in-depth analysis.

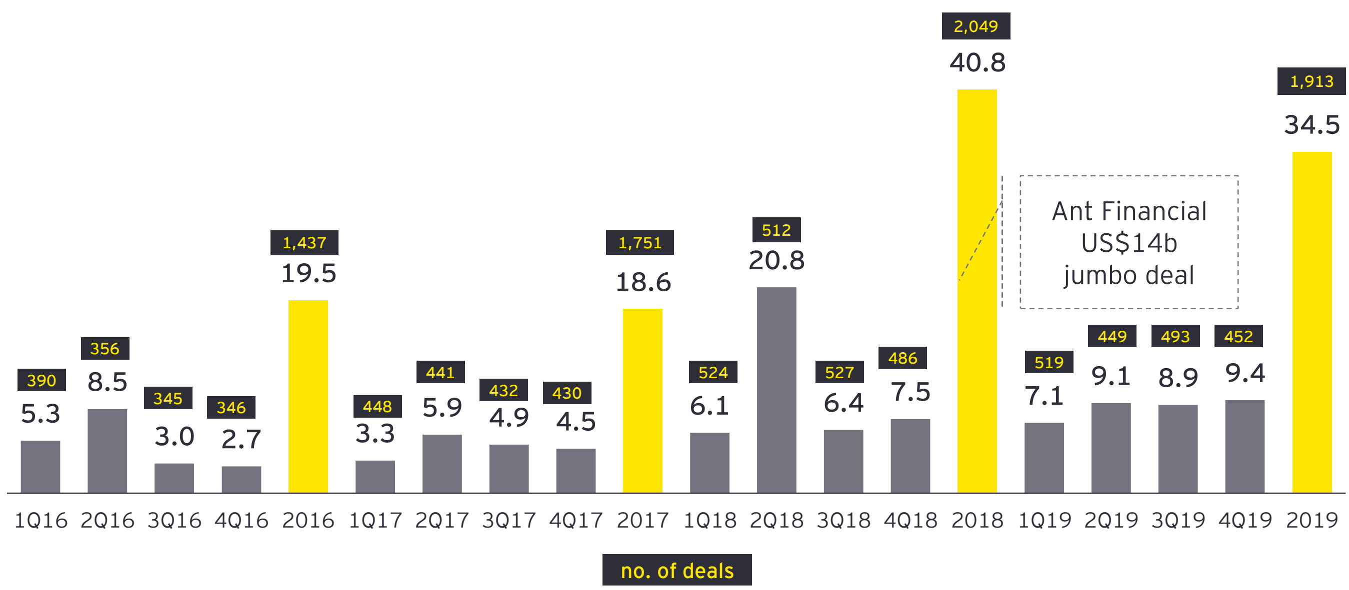
In fact, the revolutionary financial technology movement, which caused a profound transformation in doing business as well as the approach towards internal processes and tools utilized, have re-shaped financial trends. FinTech companies have been attracting investors from all over the world based on the globalization of markets, and other structural dynamics such as the progressive deregulation of the financial system – excluding banking, which instead underwent a new supervisory regulation – and enhancements in the technological field.

The interest in FinTech companies has been mainly originated by the advantage obtained in digitalized business models, allowing for greater accessibility, enhanced personalization and cost-cutting innovations. In fact, FinTech startups operate through light structures pursuing efficiency and diversification of integrated services, and have increasingly enabled the transformation of traditional organizations towards more sustainable businesses. Companies of all sizes question their business models because of FinTechs' innovation and the growing competition with new technological players. This will make a long-term benefit for the industry as a whole.

In this chapter we will focus on how these elements "materialized" on investors' agendas, influencing their financing activities and appetite towards FinTechs, both globally and locally, with a special focus on the Italian market. In particular, we will consider the main investor categories (ie. venture capitalists, corporate venture capitalists, private equity vehicles and business angels) that more often provide funding to FinTech startups.

Globally between **2016-2019, more than US$110b was invested in FinTechs**, with 2018 reporting the highest figures, both in terms of volumes (US$40.8b, +119% YoY) and transactions (#2,049, +17% YoY). The investment flow was very strong in 2019; in fact, if we exclude the jumbo deal on Ant Financial conducted in 2018 (worth US$14b alone), 2019 could be seen as a record year in terms of money raised (US$34.5b) and average deal value.

Global FinTech deals and financing by quarter, 2016 - 2019 (US$b)



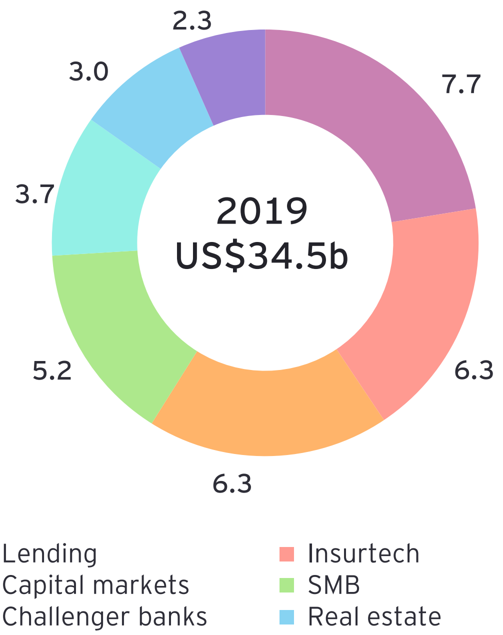
Source: CB Insights Q4, 2019

Taking a closer look at the deal activity trend by quarter, 4Q19 reached US$9.4b in terms of investments in FinTech startups, a growth of 6% compared to 3Q19 and an even higher growth of 25% compared to 4Q18.

With regards to global FinTech funding activity by sector, **Lending attracted US$7.7b (22% of the total) in one year**. InsurTech and Capital Market startups also attracted a substantial amount of investments, reaching US$6.3b (18% of the total) each. Another US$5.2b were destined for startups offering financial and payment services to SMEs, while Challenger Banks accounted for US$3.7b of total capital. Real Estate and Wealth Management financial technology companies raised US$3b and US$2.3b respectively.

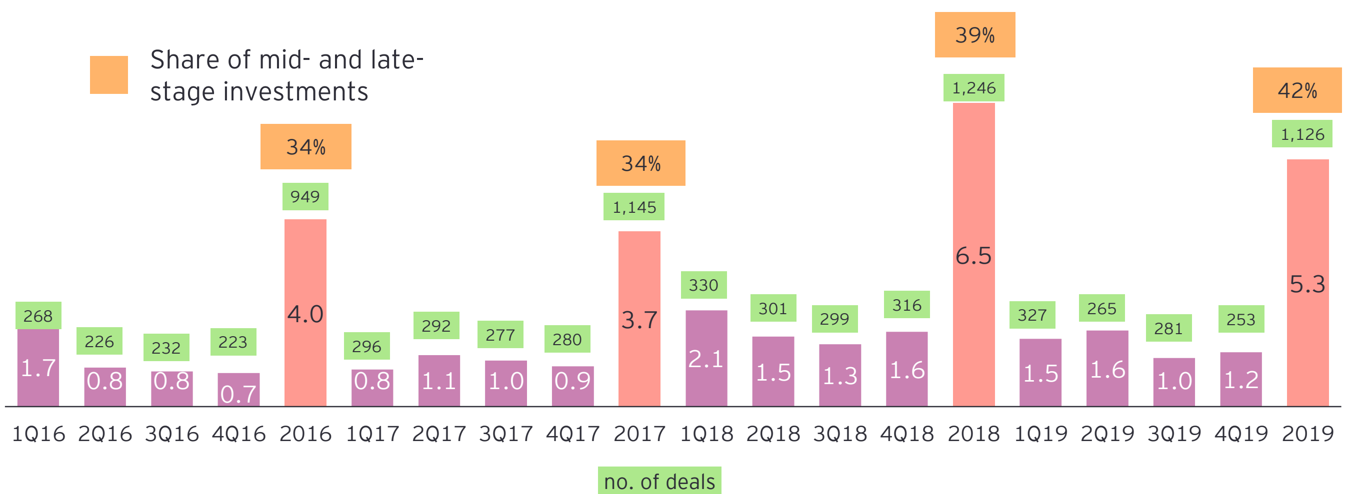
By analyzing the relationship between funding activity and the stage of development of target companies, we note that **financing to early stage FinTech startups recorded a slowdown in 2019**, decreasing to US$5.3b (from US$6.5b in 2018). More specifically, the total number of deals involving early stage financing declined to a 12-quarter low in 4Q19, at levels seen only in 4Q16. Such results could be seen as a turnaround in target FinTech companies from investors, as the **interest towards early-stage startups decreased to make room for greater investments in mid/late-stage companies.** In fact, deals involving later stage FinTech (namely, Series B, Series C, Series D, Series E, etc.) hit the highest share of annual deals in the period 2016-2019, following an inverse trend compared to Series A, seed and angel investments.

Global FinTech financing by sector, 2019 (US$b, %)



Source: CB Insights Q4, 2019

Global early stage FinTech deals and financing by quarter, 2016 – 2019 (US$b)

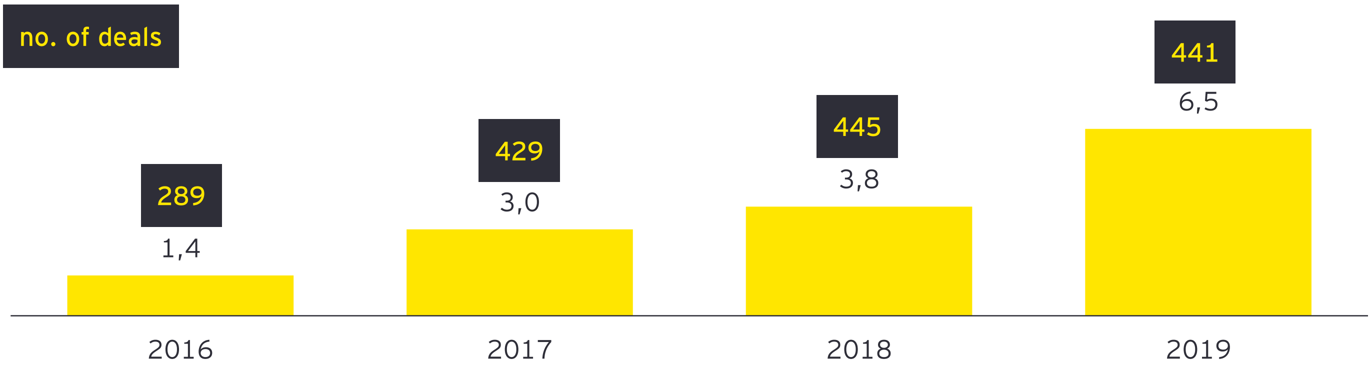


Source: CB Insights Q4, 2019

Investors market in Europe

Focusing our attention at a European level, incumbent financial institutions have materially shifted their perception of FinTech innovators: from a general threat, to a source of disruptive opportunities to capture and internalize the innovation wave at a faster pace and, potentially, with more efficiency.

Annual European FinTech deals and financing, 2016 - 2019 (US$b)



Source: CB Insights Q4, 2019

2019 was a **growth year** for European FinTech investments. While the number of deals was broadly in line with the previous year, the total amount of funding peaked at **US$6.5b**, a 71% increase over 2018. In particular, investments grew at a CAGR of 67% over the period 2016-2019. Furthermore, 2019 witnessed 15 mega-rounds of funding (or financing of more than US$100m) to European FinTech startups compared to just seven in 2018, thus making the region the number two for number of mega-rounds worldwide, overtaking even Asia (14).

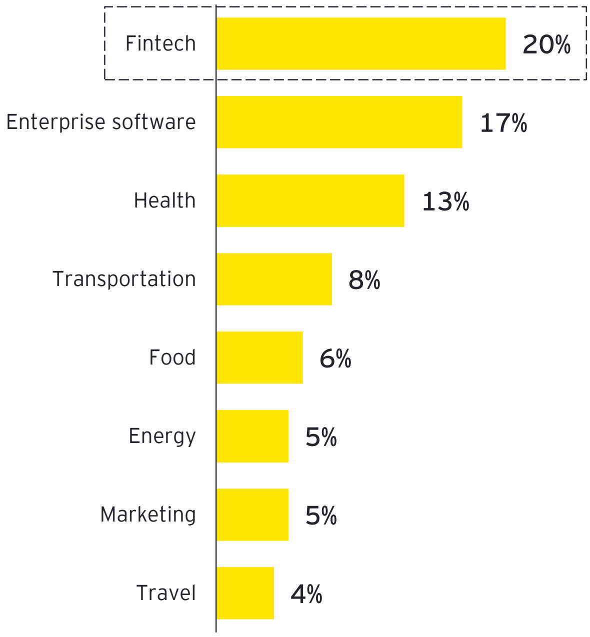
Taking a closer look at how 2019's investment activity progressed as a whole, we highlight a weak Q4, both in terms of number of deals and volumes, with just US$1.2b financing flow, a quarter on quarter drop of about 23% and the lowest level since Q418. Concerns over the Brexit process and a general lack of confidence towards financial and political stability could have potentially played a role.

At a country level, even though the **United Kingdom maintained the lead** as the best-performing FinTech hub in the European trends, **Germany** saw an **impressive increase in mega-rounds** during 2019, mainly thanks to unicorns such as the challenger bank N26 (Series D funding of US$470m), the Open Banking platform Deposit Solutions and the insurTech Wefox Group (Series B funding of US$235m). As a result, Germany's FinTech financing surged more than 100% in 2019 compared to 2018, registering an outstanding US$1.8b of funding compared to the US$0.8b in the previous year.

By analyzing investors' activities and the attractiveness by industry, an interesting study showed that **FinTech emerged as the sector attracting most investments across Europe** over the period Q318–Q319 with 20% of the overall capital invested in the region, 3% more than Enterprise Software. At a country level, the United Kingdom came first, attracting approximately half of the capital invested in the region, followed by Germany with 19%.

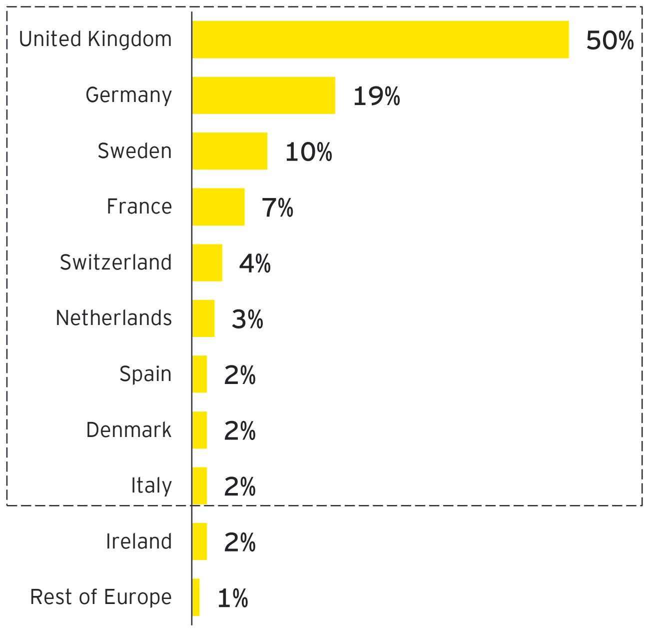
With regards to Italy (the focus of our next section), its FinTech ecosystem could still be considered as "early stage" when compared to other European countries, especially from an investment point of view. In fact, over the same period, the country attracted only 2% of the total capital invested in FinTech across the continent.

Capital invested in Europe by sector, 2019 annualized (Q318 – Q319) (%)(1)(2)



Sources: The State of European Tech 2019, Atomico and Dealroom.co report, 2019

Capital invested in FinTech in Europe by country, 2019 annualized (Q318 – Q319) (%)(1)(3)



Sources: The State of European Tech 2019, Atomico and Dealroom.co report, 2019

Among some of the most active investors in the European FinTech trends in 2019: the North American **Accel Partners**, which invested in startups such as Monzo (£113m Series F round with Y Combinator), WorldRemit (US$175m Series D round with TCV and Leapfrog Investments), GoCardless (US$75m Series E round with lead investors Adams Street Partners, Google Ventures and Salesforce Ventures), PayFit (US$79m Series C round with Bpifrance and Eurazeo) and Luko (US$20m Series A round with Founders Fund and Speedinvest), as well as **Insight Venture Partners**, which provided capital to unicorns such as N26 (US$300m Series D round with GIC) and Checkout.com (US$230m Series A round with GIC and DST Global). The venture capital **Global Founders Capital** has heavily invested in the "Old Continent", in particular through seed and Series A rounds, including companies such as AnyFin (c. €8m in a Series A round with Accel, Northzone and FinTech Collective), Modifi (c. €5.5m Series A round with Picus Capital and Maersk Growth) and Uncapped (£10m Seed round with White Star Capital and Seedcamp) in its portfolio.

(1) Capital invested excluding biotech, secondary transactions, debt, lending capital and grants
(2) Dataset representing industries that received capital for a total greater than US$2b
(3) Rounded percentages, excludes Israel

The following table reports some of the main financial technology startups in Europe created in the last decade by total funding raised over the years, thanks to multiple rounds.

More specifically, startups selected in the panel are known as **unicorns**, meaning privately held startups which obtained market valuations equal or above US$1b in the context of their most recent rounds[1].

Based on the startups below, the United Kingdom leads the table again with nine unicorns, followed by Germany with four unicorns. Smart payments & money transfers and neo banks are the most represented categories.

Startup	Sector	Foundation	Country	Total Money Raised (US$m)	Main Investors
Greensill	Lending	2011	UK	1,738	Softbank Vision Fund, General Atlantic
OakNorth	Lending	2015	UK	1,000	Indiabulls Housing Finance, Future Fifty, GIC, EDBI, NIBC Bank N.V., Softbank Vision Fund
Revolut	Neo Banks	2015	UK	830	Balderton Capital, Index Ventures, DST Global, TCV, Future Fifty, TriplePoint Capital, Mastercard Start Path
TransferWise	Smart Payments & Money Transfers	2011	UK	770	Seedcamp, IA Ventures, Index Ventures, Valar Ventures, Andreessen Horowitz, Baillie Gifford, IVP, Merian Global Investors, JP Morgan, LHV Ventures, NatWest Bank, Lead Edge Capital, Lone Pine Capital, Vitruvian Partners
N26	Neo Banks	2013	Germany	680	Earlybird Venture Capital, Valar Ventures, Horizons Ventures, Allianz X, Tencent Holdings, Insight Partners
Atom Bank	Neo Banks	2014	UK	532	BBVA, British Business Bank Investments, Anthemis Group, RBS, Toscafund, Polar Capital, Woodford Investment Management
Monzo	Neo Banks	2015	UK	440	Passion Capital, Thrive Capital, Goodwater Capital, Accel, General Catalyst, Y Combinator, Blue Wire Capital, Orange Digital Ventures
SumUp	Smart Payments & Money Transfers	2011	UK	426	BBVA Ventures, Bain Capital Credit, Goldman Sachs Private Capital Investing, Groupon, Life.SREDA, Venture Incubator, American Express
Celonis	DNA, ML, AI	2011	Germany	368	Accel, 83North, Arena Holdings, Startup Autobahn, individual investors
Wefox Group	InsurTech	2015	Germany	270	Salesforce Ventures, Horizon Ventures, Target Global, Mudabala Capital, OMERS Ventures
eToro[1]	Capital Markets & Trading	2010	Israel	237	CommerzVentures, China Minsheng Financial, Spark Capital, Silicon Valley Bank, Social Leverage, Korea Investment Partners, World Wide Invest, SBI Group, Future Fifty, BRM Capital, Cubit Investments
Checkout.com	Smart Payments & Money Transfers	2012	UK	230	DST Global, Insight Partners
Deposit Solutions	Open Banking Services/ API	2011	Germany	210	e.ventures, FinLab, Greycroft Partners, Vitruvian Partners, Deutsche Bank

[1] From 2010 eToro operates on innovative business models that moves away from the traditional foreign exchange trading platform (source: EY analysis)
Note: total money raised by selected unicorns is a rounded figure subject to fluctuations in currency exchange rates, thus may vary
Note: only FinTech startups created from 2010 onwards have been considered

Startup	Sector	Foundation	Country	Total Money Raised (US$m)	Main Investors
Numbrs	PFM	2012	Switzerland	201	Centralway Ventures, SevenVentures, ICD, Saidler & Co, individual investors
Rapyd	Smart Payments & Money Transfers	2016	UK	170	Oak HC/FT, General Catalyst, Stripe, Durable Capital Partners
Bitfury	Blockchain	2011	Netherlands	170	Credit China FinTech, Korelya Capital, iTech Capital, Macquarie Group, Naver Group, Dentsu, Armat Group, Jabre, Lian Group
Binance	Crypto	2017	Malta	10	Sequoia Capital, Black Hole Capital, Funcity Capital, individual investors
Total				8,282	

A brief recap of the Global and European FinTech investor market

- International investors were attracted to FinTech startups over the last decade, led by the transformation caused by the introduction of innovative technologies and the advantages related to digitalized business models, as well as external factors such as globalization and the progressive deregulation of the financial system.
- Over 2016-2019, more than US$110b was invested in FinTech startups, with 2018 representing the record-breaking year with c. US$41b of funding to financial technology startups, driven by Ant Financial's jumbo deal worth US$14b.
- In 2019, lending FinTechs attracted c. US$8b of capital, followed by Capital Markets and InsurTech startups (US$6.3b).
- These trends showed that the investors' interest on early-stage startups shifted towards mid- and late-stage companies. In 2019 investments in more developed FinTechs reached the highest annual share of deals of the period 2016-2019, while early stage financing declined to a 12-quarter low in 4Q19.
- Funding to European FinTech startups peaked to US$6.5b in 2019, led by substantial investments in the United Kingdom and Germany, showing a 71% increase compared to 2018 and a compound annual growth rate of 67% over the period 2016-2019.
- The FinTech industry received most of the investments across Europe over the period 2016-2019, collecting 20% of the capital invested in the region.
- In the last decade, several FinTech unicorns managed to secure financing from international investors, with Grensill (US$1,738m), OakNorth (US$1,000m) and Revolut (US$830m) representing the top three startups by funding received.

Sources

- EY Market Intelligence
- CB Insights
- Dealroom.co
- Atomico database
- Crunchbase

Note: total money raised by selected unicorns is a rounded figure subject to fluctuations in currency exchange rates, thus may vary
Note: only FinTech startups created from 2010 onwards have been considered

Investors Market in Italy, an introduction

Although FinTech investment volumes in Italy have historically been lower than in other European countries, the gap has recently started to narrow in light of multiple factors.

International investors have been showing an increasing interest in the Italian FinTech ecosystem. In fact, the country displays several interesting social and demographic conditions – such as the increasing adoption of mobile payments, especially among younger generations, as well as the growing need to change the way of conducting financial business and integrating tech components.

The potential further development of FinTech in Italy is also driven by the increasing degree of collaboration between incumbents and digital startups, both through strategic partnerships and/or direct investments. In fact, while it is observable that in the last decade incumbents started to perceive FinTech companies as a threat, as some of them started losing market positions in favor of new startups, new forms of cooperation and collaboration have proved to be an interesting way to increase profitability and efficiency. Thus, this change of mindset could potentially represent a trigger for a new wave of M&A deals and partnerships in the Italian market.

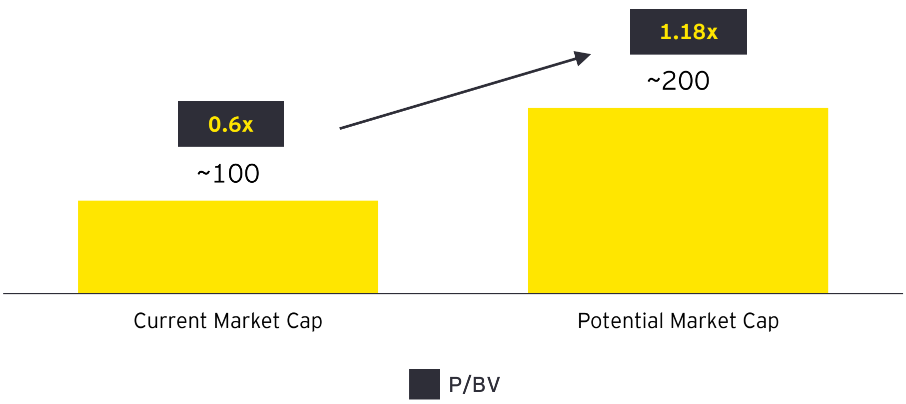
In order to understand how the FinTech space can contribute to the development of the financial environment in Italy, it is important to consider how this system can benefit from a transformation of business models, with the simultaneous focus of the operators, mainly incumbent banks, in generating value in a sustainable and innovative way forward.

A well-known study from Milano Finanza quantified these benefits, stating that Italian banks could have the opportunity to realize about **€100b of potential incremental value** by investing in technological transformation (assuming the potential alignment of traditional banking players' P/BV - price on book value – multiples towards those observed for more "digital focused" banking players).

An acceleration in innovating processes is even more important since the competitive trends have changed, with the entry of more agile operators such as challenger banks, as well as new players from different industries driven by the PSD2 regulation. The potential inability to manage such transformational processes could lead, over time, to lose relevant market portions.

By trying to formulate an assessment of implications for the financial sector, it is possible to ascertain that more and more Italian banks and insurance companies are willing to cooperate and master new technologies, and very few of them see new startups as competitors.

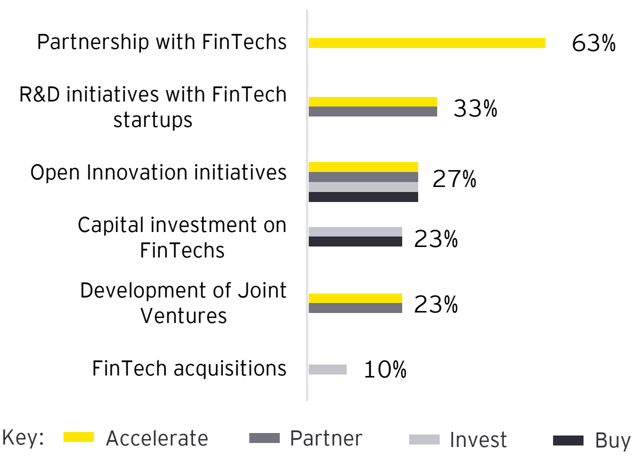
Banking in Italy, current vs potential market cap (€b), 2019



Source: Banche Leader, L'Atlante 2019, Milano Finanza

In this sense, a study conducted by ABI Lab in 2018 on information and communications priorities for Italian banks, which was based on results provided by a survey completed by 27 banks or banking groups and three interbank outsourcers, revealed that **63% of Italian banks were leveraging on strategic partnerships with FinTech startups**, while others were implementing R&D (33%) and open innovation (27%) initiatives with them. Surprisingly, at that point in time, only 10% of the respondents indicated pure M&A acquisition deals as a viable option to interact with new players.

Italian Banks: different ways of interaction with new players



Source: 6 banche su 10 lavorano per una partnership con FinTech, ABI Lab, 2018

These results show that the interest towards FinTech is not purely financial, at least in the Italian context. As a matter of fact, Italy is attempting to undertake a transformational path on how it manages finances, led by digitalization and, most of all, customer-centric infrastructures, which are among the main focus of FinTech startups' business models.

As a result, the competitive challenge between FinTech and banks has slowly faded: both have realized that stealing each other's customers benefits no one. The way ahead for both FinTech and traditional actors is **"co-opetition"** – meaning the cooperation between companies that are perceived to be in competition with one another – which is shown by the increasing number of partnerships and investments between major Italian banks and FinTech startups.

Regarding the possible collaboration models between Financial Institutions and FinTech, we have distinguished four different types:

1. Accelerate
2. Partner
3. Invest
4. Buy

How they can collaborate?

Accelerate

Advance early-stage startups with a structured program. Provide them with internal expertise and resources.

- Long-term
- Incremental
- Broad

Partner

Launch new products and businesses on a revenue share basis (bundle, white label, co-brand).

- Medium-term
- Adjacent
- Narrow

Invest

Invest establishing an own in-house VC fund or participating in already established FinTech VCs.

- Medium-term
- Adjacent
- Narrow

Buy

Acquire startups and merge it with your company. Internalize talents, technology, products and IP.

- Short-term
- Transformative
- Narrow

The “**Accelerate**” model fits for advanced early-stage startups with a structured program. Financial Institutions can provide FinTech with internal expertise and resources, helping them in their development with a long-term strategy. Within this model, corporate or financial institutions can collaborate with FinTech from the initial stage of the development, aligning their goals and expectations for the future. FinTech can benefit from corporates assets and expertise to better develop their business while corporations can benefit from startups’ cutting-edge technologies. This approach requires time and resources to invest in the product, since the target companies are in their early-stage. On the long-term, the acceleration allows corporations to have more control on their goals and the future roadmap of the startup. For the “Acceleration” technique the goal is broad because at this phase it is not clear how the company will monetize the investment, and if would be best to put in place an exit strategy or to directly acquire the startup.

The “**Partner**” model fits for early-growth and growth startups that already have a presence in the market. Making partnership and launching new products and businesses on a revenue share basis (bundle, white label, co-brand) can allow financial institutions to target new clients and to better address new and tailored needs that, with standard products offered by incumbents, are unserved. On the other hand, FinTech can leverage on the customer base of financial institutions to scale their business rapidly and to adapt their product/service using the substantial amount of data provided by incumbents. Investors require a clear goal to scout the startups that best fit their requirements or their customer needs. The types of collaboration, when it comes to the "partner" approach, depend on the nature of the target startups and, in general, may be classified as:

- Corporate acting as a distribution and communication channel, enlarging the FinTechs’ customer base.
- Corporation acting as a resources/tech-provider for the FinTech.
- FinTech acting as a service provider for the Corporation.
- Corporation and startup jointly developing a product/service.

The “**Invest**” model fits for startups in every stage of development. It allows financial institutions to invest, using their Corporate Venture Capital funds, in FinTechs while for the latter it enables them to raise funds from strategic investors. Investments made by financial Institutions' CVCs generally lead to a partnership between the incumbent and the FinTech. In this case the goal of the investors is to make an exit in the future, thus the startup's industry may be far from the business nature of the investor as long as it responds to its rationale. In the “Invest” approach, the startup is evaluated on its performance metrics and capability to scale in the future. It is fundamentally different from the “Partner” approach for which, in contrast, the startup is required to answer a corporate need.

The “**Buy**” model fits for advanced early-stage startups with valuable assets. Financial institutions can acquire startups and merge them with the company, thus internalizing talents, technology, products and intellectual properties. This approach needs a clear goal by the acquirer, and the integration between the corporation and the target's IT infrastructure and business units is preferred. In several cases, the target startup continues to operate as a stand-alone business under the new property. This model often allows FinTech entrepreneurs to exit and capitalize on their business ideas.

In general, the risk of being disrupted is higher for those incumbents that are still wedded to a very traditional structure and are less used to pursuing changing processes, while the most dynamic players are embracing the revolution. In-house innovations, outsourcing and acquiring processes are possible keys to open a "second life" for traditional banks. On the one hand, acquiring disrupting technologies allows incumbents to bring talented professionals internally, ensuring the scalability of innovative models and accelerating the change. On the other hand, adopting collaborative strategies with new digital players can also be an interesting option to anticipate potential threats and maximize synergies. However, in order to generate successful collaboration schemes, improvements in the approach to partnerships are needed, resulting from several factors: the creation of independent and dedicated teams, the investment in new technologies, the focus on innovation and data analysis and the centricity of customers are among these factors.

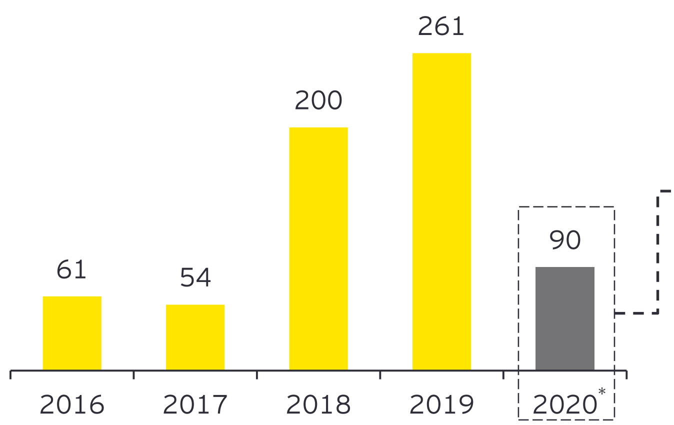
As previously mentioned, Italy is still lagging behind compared to other European FinTech hubs such as the United Kingdom and Germany. However, the Italian investors market has been growing at a fast pace in recent years.

As a matter of fact, **funding to Italian FinTech companies grew at a CAGR of over 60% over the period 2016 – 2019** (almost +330% in absolute terms). The year 2018 marked a "watershed" in this respect, with investments suddenly rising to €200m after a weaker 2017. This positive trend persisted also in 2019, with funding reaching an all time record high of €261m.

Funding collection from FinTech in Italy, even though scattered between newcomers and established startups, has been propelled by few investors in the last year, with startups capable of gathering financing within multiples rounds.

Among the most remarkable examples, in October 2018 the InsurTech Prima Assicurazioni became the Italian digital startup raising the highest amount of money in one single round, gathering €100m from Goldman Sachs Private Capital Investing and Blackstone's Tactical Opportunities fund.

Funding to Italian FinTech by year, 2016 – 2019 (€m) (1)



Source: EY Intelligence based on BeBeez Private Data, Crunchbase, Dealroom.co and public data

* First 8 months of 2020

The digital wealth manager Moneyfarm holds the record in the Italian FinTech trends in terms of total funding amount, with over €115m raised since its inception. The latest round of €40m was closed in September 2019 and saw Poste Italiane, the Italian postal service provider, as lead investor together with Allianz. Soldo, a FinTech offering multi-user spending account for businesses, raised €55m in July 2019 with Battery Ventures and Dawn Capital as lead investors. Oval Money, after receiving c. €4.6m in October 2019 from Eurizon SGR (the asset manager of Intesa Sanpaolo Group), launched an equity crowdfunding campaign on the British platform Seedrs.

The table shown in the following pages shows the top players in the Italian FinTech market for funds raised since their inception. The numbers illustrate a high degree of concentration of total funds raised towards more renowned companies placed at the top of the board. More specifically, the **top #13 FinTech**, or startups raising more than €10m, **account for about 80% of the total.**

- Despite the great challenges brought by the **COVID-19 pandemic**, the Italian FinTech market proved to be resilient, also thanks to the increase of digital transformation processes.
- The total amount of **funds raised** by main Italian FinTech Startups over the first 8 months of 2020 amounted approximately to **€ 90m.**
- Among the success stories that is worth mentioning, there is the fundraising announced in June 2020 by **Progetto Banca Idea**: the newly-created Italian digital bank focused on SMEs managed to gather € 45m among a panel of both strategic investors, business angels and VC funds, including: Gruppo Generali, Banca Sella, Banca IFIS, ISA, Banca Agricola Popolare di Ragusa and 360 Capital Partners.

(1) The total money raised is a rounded figure subject to fluctuations in currency exchange rates, thus may vary

Main selected players in the Italian FinTech trends by money raised

Startup	Sector	Foundation	Total money raised (€m)	Main investors
Moneyfarm	WealthTech	2011	115	Allianz X, Allianz, Cabot Square Capital, Poste Italiane, Endeavor Catalyst, United Ventures
Prima Assicurazioni	InsurTech	2014	100	Blackstone Tactical Opportunities, Goldman Sachs Private Capital Investing
Soldo	PFM	2015	76	Accel, Battery Ventures, Connect Ventures, Dawn Capital, Silicon Valley Bank
Satispay	Smart Payments & Money Transfers	2013	46	Copper Street Capital, Iccrea Banca, 3LB Seed Capital, Banca Etica, Endeavor Catalyst, Gruppo Bertoldi
Progetto Banca Idea (PBI)	Neo Banks	2020	45	Gruppo Generali, Banca Sella, Banca IFIS, ISA, 360 Capital Partners, Bertoldi Holding, Banca Agricola Popolare di Ragusa, La Scogliera S.p.A. FB5 Investments, CloseToMedia, individual investors
Truelayer	Open Banking Services/API	2016	43	Anthemis Group, Tencent Holdings, Connect Ventures, Northzone, individual investors, Visa, Temasek
Tinaba	Smart Payments & Money Transfers	2015	30	Sator Private Equity Fund
Credimi	Lending	2015	25	iStarter, United Ventures, Vertis SGR, Tikehau Capital
iGenius	DNA, ML, AI	2016	23	Fbstart, individual investors
Yapily	Open Banking Services/API	2017	17	HV Holtzbrinck Ventures, LocalGlobe, Lakestar, individual investors
Oval Money	PFM	2016	13	Eurizon Capital, Gruppo Bertoldi, b-ventures, Intesa Sanpaolo, Neva Finventures, CheBanca
Yolo	InsurTech	2017	10	Neva Finventures, Intesa Sanpaolo Assicura, Mansutti, Net Insurance, CRIF, Be Shaping The Future, Miro Ventures, Banca di Piacenza
Euclidea	WealthTech	2015	c.10	Redpill, Luchi Fiduciaria, individual investors
Sardex	Smart Payments & Money Transfers	2009	9	Banca Sella Holding, Fondazione di Sardegna, Innogest Capital, Invitalia Ventures
Soisy	Lending	2015	c.8	Startupbootcamp FinTech & CyberSecurity
DFLabs	Cybersecurity	2004	8	Evolution Equity Partners
Smartika	Lending	2007	8	Hamilton Venture Capital, TP&P Partners, Gruppo Sella, individual investors
Borsa del Credito	Lending	2013	8	Azimut Group, GC Holdings, P101, iStarter, Banca Popolare di Fondi
MatiPay	Smart Payments & Money Transfers	2016	7	Neva Finventures

Sources: EY analysis based on Crunchbase, Dealroom.co, Pitchbook, BeBeez Private Data, Milano Finanza, Cerved and public data
Note: this table summarizes the main publicly disclosed transactions and is not intended to be an exhaustive list of startup funding rounds in Italy
Note: only startups that raised more than €1m were considered
Note: the ratio of such table differs from the one used to select startups for our survey, in that it takes into account companies with a foundation date older than 2011 to represent entities that continue to succeed on the Italian scene
Note: amounts are rounded

Startup	Sector	Foundation	Total money raised (€m)	Main investors
Conio	Crypto	2015	6	Italian Angels for Growth, Fabrick, David Capital, Boost Heroes, Banca Finanziaria Internazionale, Poste italiane
BacktoWork24	Crowdfunding	2012	5	Neva Finventures, Equinvest
Prestiamoci	Lending	2009	5	Banca Sella Group, Digital Magics, Innogest Capital , individual investors
Iconium	Crypto	2018	5	Individual investors
Epic SIM	Capital Markets & Trading	2014	5	Digital Magics, individual investors
Travel Appeal	DNA, ML, AI	2013	5	Airbridge Equity Partners, Indaco Venture Partners, H-Farm Ventures
Datrix	DNA, ML, AI	2010	c.4	Gellify, United Ventures
WorkInvoice	Lending	2013	4	Crif, Oak Tree, Spafid, Lab 1, Finrise, Salue, Infin, IAX, Fin.P.O. individual investors
Epiphany	Open Banking Services/API	2016	4	Individual investors
Tifosy	Crowdfunding	2014	3	Individual investors, Airbridge Equity Partners
Insoore	InsurTech	2015	3	FocusFuturo, Proximity Capital, LVenture Group
Crowdfundme	Crowdfunding	2013	3	Gruppo Bertoldi
Fiscozen	Invoice & Tax Management	2017	3	United Ventures
Growish Pay	Smart Payments & Money Transfers	2011	2	Banca Sella, Club degli Investitori, R-301 Capital, Boost Heroes, SisalPay, Digital Magics, individua investors
Big Profiles	Data Management	2018	2	Invitalia Ventures, Lventure Group, LUISS Enlabs, individual investors
Neosurance	InsurTech	2016	2	Mezzetti Advisory Group, individual investors, Net Insurance, Luiss Alumni 4 Growth
Finscience	WealthTech	2017	2	Individual investors, Datrix
MDOTM	WealthTech	2015	2	Banca Profilo, Boost Heroes, Bi.Effe, individual investors
Cashme	Lending	2015	2	Gruppo Finservice, S.F. Consulting, individual investors

Sources: EY analysis based on Crunchbase, Dealroom.co, Pitchbook, BeBeez Private Data, Milano Finanza, Cerved and public data
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Note: amounts are rounded

Startup	Sector	Foundation	Total money raised (€m)	Main investors
Mio Assicuratore	InsurTech	2016	2	H-FARM Ventures, Innogest Capital, Pi Campus
Walliance	Crowdfunding	2016	2	Gruppo Bertoldi, MAK Invest, Trentino Invest Srl
Axyon.AI	DNA, ML, AI	2016	2	ING Ventures, UniCredit Group, EASME - EU Executive Agency for SMEs
Kellify	DNA, ML, AI	2017	2	Individual investors
Chino.io	RegTech	2014	2	EIT Digital, EASME - EU Executive Agency for SMEs
Modefinance	Lending	2009	1	Gruppo Corvallis, EASME - EU Executive Agency for SMEs
Stamp	Invoice & Tax Management	2017	1	ZhenFund
SiamoSoci | Mamacrowd	Crowdfunding	2011	1	Individual investors, Azimut
Axieme	InsurTech	2016	1	Digital Magics, Invitalia Ventures, Banco BPM
Userbot	Chatbot	2017	1	EASME - EU Executive Agency for SMEs, Mamacrowd
Fido	Lending	2020	1	Ithaca Investments, Gruppo MutuiOnline, Italian Angels for Growt, individual investors
LoanXChain	Capital Markets & Trading	2017	1	Individual investors
Utego	PFM	2018	1	Smart&Start Italia, Two Hundred, individual investors
Young Platform	Crypto	2018	1	Seedrs, I3P
Mathesia	Crowdfunding	2014	1	Ban-Up, Polihub
Lokky	InsurTech	2018	1	Individual investors, Simonfid, Archigen
Unfraud	Cybersecurity	2014	1	TIM Ventures, EASME - EU Executive Agency for SMEs

Sources: EY analysis based on Crunchbase, Dealroom.co, Pitchbook, BeBeez Private Data, Milano Finanza, Cerved and public data
Note: this table summarizes the main publicly disclosed transactions and is not intended to be an exhaustive list of startup funding rounds in Italy
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Note: the ratio of such table differs from the one used to select startups for our survey, in that it takes into account companies with a foundation date older than 2011 to represent entities that continue to succeed on the Italian scene
Note: amounts are rounded

Considerations on main deals involving Italian FinTechs

The table on the previous pages shows trends observable in the Italian FinTech market and characterize the major deals. Even though FinTech in Italy is still in an embryonic stage with only recent growth, the startups included in the table managed to attract investors and raised funds for an amount greater than €680m.

Analyzing the 55 FinTech Startups portrayed in the table presented in the previous pages, almost 65% of them were involved in early stage funding rounds, once again strengthening the concept of acerbity that can be found within the Italian FinTech market. 7% of the startups received angel investments, 6% were engaged in pre-seed financing and as much as 60% of them collected money from seed investors.

65% of startups collected money from early stage funding rounds

70% of the startups founded in the period 2016-2018 experienced funding through seed investments, with only 35% of them accessing Series A financing. Conversely, around 55% of the FinTech founded between 2011 and 2015 - thus more mature than the ones analyzed above - achieved early growth funding (Series A, Series B and Series C). Generally, **only 45%** of the startups received funding from **Series A onwards**, showing that the more the company matures, the more difficult it becomes to find investors. This argument is strengthened by a similar percentage found in our survey, which showed that 48% of the financial technology startups interviewed are currently in the early growth or growth phase, therefore having received or being in the process of receiving funding through Series A, Series B and Series C rounds. 59% of the most seasoned FinTech (created from 2004 to 2015), accessed early growth capital.

45% of the startups portrayed obtained funding from Series A onwards

Regarding the type of funding received, while the majority of the financing has been provided through venture capital and private equity vehicles, **9% of the startups** raised money through equity crowdfunding. This percentage drops considering the results deriving from our survey. In fact, only 5% of the respondents indicated crowdfunding platforms as their main investors, and only 6% are interested in fundraising through crowdfunding in the next investment rounds.

By changing the scope of the analysis, and investigating the sample at a subsector level, it is observable that 86% of the InsurTech startups succeeded in finalizing at least a seed round, a figure in line with what was observed for lending companies. 57% of crowdfunding companies succeeded in finalizing Series A rounds. InsurTech, lending and crowdfunding are the categories more represented in the sample (seven startups), followed by smart payments & money transfers and DNA, ML, AI (five startups).

As already expressed in our previous chapters, Italy is undertaking an important transformational process in the way of conducting business, more importantly in the model used to respond to clients' needs, to interact with them, to make processes more efficient and to lighten their cost structure, without compromising revenues. In this context, not only FinTech and TechFin players embody companies which are worth investing in, but they also represent **"product houses"** able to transfer knowledge and technologies to incumbents. In this context, investing in startups with expertise in the design of data analytics, machine learning and AI solutions are increasingly relevant in the market.

FinTech investments by financial institutions in Italy, an overview

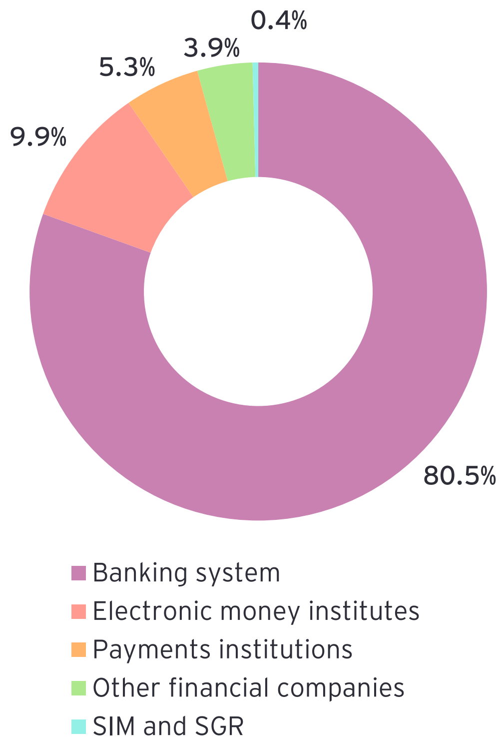
In order to accompany the content highlighted in the previous pages, it is interesting to also focus on FinTech investments made by Italian financial institutions. During the period between 2017-2019, FinTech investments produced by players belonging to the Italian financial industry (thus excluding other investors such as funds and venture capitalists) amounted to **€624m.** This included not only the acquisition of FinTech startups and collaborations between players, but also **direct investments into incumbents' internal divisions** for the development of technologies, processes and business models. The number of this type of investors passed from 51 in 2017 to 77 in 2019, an increase of 51%.

The growing interest of financial institutions in FinTech has also been stimulated by the introduction of new regulations such as the European PSD2 and the Italian Sandbox. In fact, FinTech investments in Italy aim mainly at leading structural changes in the ecosystem, by improving business processes and functions, refining the interaction with the clientele as well as between market players, cutting costs and widening the profit margin. Thus, partnerships between incumbents and companies specialized in financial technologies flourished. Investments in **collaborative schemes** between incumbents and FinTech companies amount to about **15%** of the total. Among those, partnerships between investors and FinTechs are the preferred mode of interaction, followed by collaboration with accelerators, incubators and FinTech districts, the acquisition of shares in financial technology startups and other, more complex, collaboration schemes.

Focusing on the macro categories among the various financial institutions that finalized the above mentioned FinTech investments, the Italian banking system accounted for 80.5% of the total €624m reported in the period 2017-2019.

Most of the investments target APIs, the exploitation of big data information, integration technologies, cloud computing, robotics and AI. It is worth mentioning that there is a decided imbalance towards investments in API, enabling the generation of an Open Banking financial infrastructure also favored by the new regulation, allowing efficient cooperation between players and effective provision of services able to respond to the clients' needs.

Breakdown of FinTech investments made by financial institutions per financial industry, 2017 - 2019 (%)



Source: Indagine FinTech nel Sistema Finanziario Italiano, Banca d'Italia, 2019

A brief recap of the Italian FinTech investor market

- Although investments in the Italian FinTech ecosystem still lag behind other European and global markets, that gap started to narrow in recent years, fueled by favorable development conditions and increasing collaborations between incumbents and financial technology startups.
- The Italian financial system as a whole can take advantage from a restructuring of the business models, with that benefit being calculated as an opportunity for financial institutions to realize about US$100b of total potential incremental value by investing in a technological transformation.
- An alteration of the competitive trends, led by regulatory changes and the advent of agile challenger banks, is pushing banks and insurance companies to cooperate with FinTech competitors, engaging in a co-opetition rather then simply buying innovative startups.
- For the collaboration models between FinTech startups and incumbents, we have identified four possible models. The first, the "Accelerate" model, provides early-stage FinTechs with investments and expertise of financial institutions, while the latter can leverage on cutting-edge technologies to integrate their offerings. The "Partner" model, allows early-growth and growth FinTech and incumbents to generate several types of partnerships with the objective to launch new products and services addressed to specific customer needs.
  The "Invest" model, targeting FinTech at all stages of development, looks at investments made by incumbents – often through their CVC vehicles – into selected financial technology startups with the aim of producing financially-viable exits in the future. Finally, the "Buy" model, directed at FinTechs with valuable assets, allow financial institutions to integrate technologies and products in their internal divisions, allowing entrepreneurs to capitalize on their business ideas.
- Funding to Italian FinTech startups grew at a compound annual growth rate of over 60% from 2016 to 2019, with 2019 following the trend observed in 2018 (€200m, a growth of more than 100% compared to 2017) and recording an all time record of €261m.
- Among the FinTech startups that collected substantial investments, the InsurTech company Prima Assicurazioni secured a €100m Series A funding round from Goldman Sachs and Blackstone, thus recording the first three-digit mega round within the Italian FinTech trends. Furthermore, the digital wealth startup Moneyfarm holds the record of total funding received, with over €110m raised over multiple rounds. More recently, Progetto Banca Idea, a digital bank focused on SMEs, managed to gather €45m in its very first round.
- The startups we selected collected over €680m, with the top #13 FinTech accounting for 80% of the total, thus signaling a relevant concentration of investments.
- The sharpness of the Italian FinTech trend is strengthened by the numbers that emerge from the analysis of the startups we review, with more than half of them involved in early stage funding rounds, and only 45% of them obtaining funding from Series A rounds onwards.
- During the period 2017-2019, FinTech investments made by financial institutions – including acquisition of innovative startups, partnerships and direct investments into internal divisions – amounted to €624m, with most of these investments targeting APIs and other revolutionary technologies such as cloud computing and AI.

Sources

- EY Market Intelligence
- Milano Finanza
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- Crunchbase
- Dealroom.co
- Pitchbook
- Cerved
- Bloomberg
- FinTech District

Characteristics of target FinTech startups and considerations on development stages and investors' investment strategies

A startup is by definition "a human institution designed to deliver a new product or service under conditions of extreme uncertainty" (Eric Ries), and FinTech startups are included in this description. Even though FinTech deals are flourishing worldwide, it is still difficult to fully understand which characteristics a FinTech startup must have to convince investors to take the leap and satisfy funding requests. However, below are the most important factors that investors analyze while deciding if they are willing to invest in a FinTech startup, whether they are driven by a strategic or a financial rationale.

Market potential: in the selection phase of their target, equity investors analyze the overall market in order to understand growth opportunities for the startups, their competitors and implicitly its actual and potential market share. Moreover, the size of the addressable market of the startups is evaluated, as well as latent entry barriers, to be able to fully understand the environment and produce a thorough SWOT analysis.

The **products and/or services delivered**: both financial and strategic equity investors are interested in knowing and valuing the market's needs that the company satisfies, thus what it produces. Investors typically look at how products and services are priced, where they are positioned compared to competitors' production, and which are the major distribution channels used. In this sense, startups that provide consolidated products that respond to specific necessities – even more if they are pioneering and able to provide a competitive advantage – are well received by investors.

A **scalable business model**: reflects the potential growth of the target's business. In fact, investors are strongly focused on how much a FinTech startup can grow its business both nationally and internationally.

The potential for internationalization is a crucial factor in attracting investors, as new market shares could be seized, possibly leading to organic revenue growth.

Proprietary technology: when assessing the value of a startup, equity investors look at the IT infrastructure and its ownership. In fact, they tend to prefer startups which do not outsource the IT services to a third-party provider (as they believe that a third-party provider will be discouraged to improve the startup's services to excel in the market and will just perform the necessary improvements to be in line with the market). An initial outsourcing could be positive as a cost-cutting strategy, especially for investors with a financial rationale behind the deal, but preference towards internal IT infrastructures is shown in the long run.

Founders and/or top managers: the previous work experience of FinTech startups' founders and top managers is analyzed, and an outstanding cv as well as knowledge of figures is appreciated, especially from equity investors willing to invest for strategic reasons. As a matter of fact, especially in complex financial sectors, investors might be keen to keep the current management team to face complexities.

The **funding round:** the characteristics of the funding round to which investors are called to participate is an important element to be considered in order to understand if it is worth it to target a specific FinTech startup. As a matter of fact, excluding pre-seed investments that are often covered by an entrepreneur's personal resources or family and friends, every funding stage from seed to early stage and mid- to late-stage rounds have gone through a funding round. Thus, target startups must show the characteristics suitable to the funding round they are undertaking.

A **well structured and efficient business plan**: equity investors are keen to look at the latest business plan produced by FinTech startups. Through such reports they are likely to understand what are the growth guidelines that management wants to pursue, and consequently how the capital raised in the next funding round will be used. A startup with clear and intriguing perspective, as well as transparent communication and viable solutions on how to employ capital would be privileged over others.

The **growth rate of the startup**: investors would be attentive towards the growth curve of FinTech. As a matter of fact, startups showing an upward trend in their development, respecting the growth steps (ie. from early stage to later stage development) and the related times generally observed on the market would be preferred compared to companies struggling to get out from the seed stage.

Revenues recurrence and earnings quality: investors are careful with financial figures revealed by FinTech startups, especially if the investment is made for financial purposes. One of the most important characteristics that investors focus on concerns recurring revenues. Startups that tend to show recurrence of revenues are considered more solid and attractive. Such characteristics allow investors to generate credible economic forecasts, de-risking investment opportunities and anticipating market downsides. Startups that show earnings easily convertible into cash flows and related to the core business, a factor that creates considerable value for the shareholders, are targeted more frequently by investors.

Prior fundraising history: investors also put a strong emphasis on previous fundraising processes, if any, in order to recognize eventual issues that emerged and discern the efficacy with which the startup used the fundraised capital.

The **existing shareholder structure**: the current capitalization table is extremely important, especially for equity investors, as well as the presence of strategic stakeholders on the board. These people alter the value that an investor is willing to recognize, because of the risk of potentially different views that specialized investors have with respect to strategic financiers. If new investors target FinTech companies for strategic purposes, such presence could enhance synergies and, consequently, their interest towards the target. Conversely, in case investors are financially attracted to the FinTech and are willing to fulfill a satisfactory exit strategy at the target's later stage of development, the existence of strategic stakeholders could be detrimental upon reaching an agreement.

Regulated/Non-regulated entity: most FinTech startups are non-regulated entities. On the one hand, regulated startups could potentially be considered more attractive for investors, as being regulated implies stronger attention in terms of reporting, AML and internal audit processes, governance, etc. On the other hand, other investors could be attracted from more flexible structures, also in terms of costs, depending on their investment criteria and risk aversion.

Main features of the different funding rounds

Shifting our focus towards generally observable characteristics of the different funding rounds, the probability of succeeding in raising capital, finalizing an exit or failing, changes over time. Competition in the industry is fierce, and selected target FinTech startups have to overcome an impressive process in order to receive the necessary funding to maintain their market share.

In analyzing the investor market from the founders point of view, as shown in a study tracking over 1,100 tech companies capable of raising seed capital in the period 2008-2010 in the US, and following their growth trends and subsequent financing, **only 48% of them succeeded in their intent to raise money in a second funding round**, while 38% of them failed. An exit – in such context, defined as the transition of the business from entrepreneurs to investors under the achievement of certain strategic and financial objectives, allowing the monetization of company shares and therefore an economic return for the founder(s) – happens in only 14% of the cases.

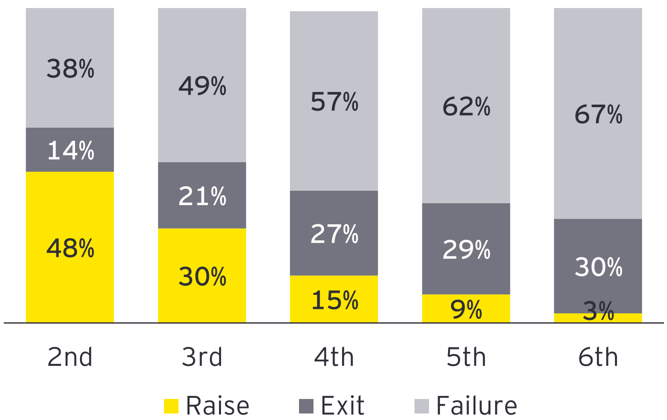
In later-stage rounds, the probability to raise capital thinned, passing from 30% in the 3rd round to 3% in the 6th round. Conversely, the probability that an **exit is realized reached 30%** in the 6th round, doubling the figures shown in the 2nd round. In this sense, the study specified that the preferred exit strategies for the startups analyzed were IPO and M&A transactions. This trend could be explained by the fact that over time, successful FinTech startups attain revenue margins, at least more than the profits they are able to make in early stages.

Only 48% of early-stage startups succeed in raising money in the 2nd round, while **38% face failures**

Thus, investors look to make an exit in the mid- to late-stages in order to increase their earnings, which is especially true for those investing in startups mainly for financial reasons.

There is a substantial **probability of failures** observed from the **4th round onwards (57%, 62% and 67%)**, reaching more than two-thirds of FinTech startups in the 6th round, meaning that most companies fail to reach sustainable models and only those capable to transform into financially and strategically viable businesses survive. To give even more perspective of how difficult is to be successful and affirm the idea behind a startup, only around 1% of the sample investigated became a unicorn (12 companies), some of them being well-known tech companies at this point such as Stripe and Docker.

Probability of capital raise, exit and failure for early-stage tech startups by funding round, (%)

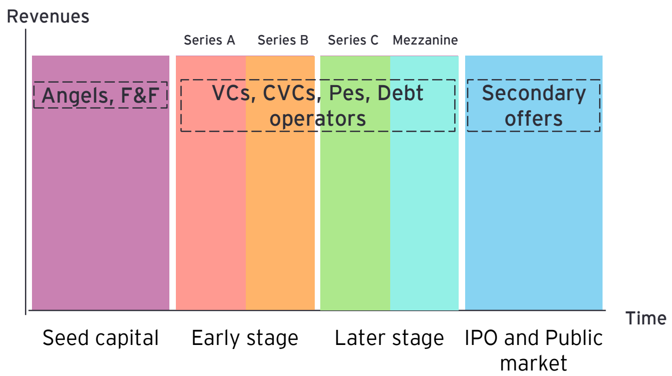


Source: EY Intelligence based on FinTech Valuation: improvements for better decision making, EY and Venture Capital Funnel Shows Odds Of Becoming a Unicorn Are About 1%, CB Insights, 2018

Valuation methods for FinTech startups

In order to properly understand the main characteristics of the startup valuation activity, it is crucial to consider that the investment is heavily related to the **stage of development** of FinTech startups, as most type of equity investors are specialized in different phases of the growth process.

Type of investors by startup's stage of development(1)



Source: Corso Startup Transaction Academy, EY, 2020

As shown in the above diagram, business angels invest in startups that are looking for funds to grow and consolidate their business concepts. It is not surprising that the other type of investor indicated above for this phase is Friends & Families (F&F), one of the first sources of financing for entrepreneurs. Venture capitalists typically invest in early stages, when companies reach proven revenue models have a sizeable market to capture and a rapidly-growing customer base. Instead, private equity and private debt funds usually finance FinTech that have developed profitable revenue margins, attained stable cash flows and reached, or foresee to conquer, a relevant market share.

Moving on to the identification of the different assessment methodologies employed in FinTech, it is possible to assert that startup valuation is a relative science, and not an exact one. Different approaches are used for valuing startups primarily based on their phase (seed capital, early stage and late stage). In fact, what has been observed is that based on the startup's stage of development, investors tend to implement different valuation approaches.

Late stages show a higher reliability, as they consist of techniques that are internationally recognized and implemented when valuing an investment (e.g., discounted cash flow). However, it is worth mentioning that the estimated value of a FinTech company presents multiple complications. FinTech is a fairly new market, with different facets which investors are not entirely familiar with, and is often subject to periods of intense volatility in deals and prices. Furthermore, FinTech startups usually have complex models, not only technologically speaking but also in the shareholder structure, often fragmented in various investors of different kinds.

Before the actual valuation of the startup, investors are advised to perform a careful analysis of the markets in which their activities are carried out. In fact, most FinTechs operate in niche markets with specific characteristics. Thus, **market considerations** are made when examining them, such as:

1. Market size
2. Potential available market
3. Growth prospects
4. Market value
5. Existing competitors and related market shares
6. Potential earnings, derived by both market specificities and technological availability
7. Regulatory and compliance environment
8. Market dynamics and how prices are influenced by exogenous and endogenous variables
9. Country-based or regional-based stability and volatility

Another important aspect to underline in a startup's valuation is the **type of Investor** valuing the investment. Venture capitalists are more focused on the business plan and the potential exit value that they can obtain in a given year. However, strategic investors and corporate venture capitalists are more focused on the value added that the startup can bring. For this reason, most of the times a strategic investor and a CVC are inclined to recognize a higher value.

For the above reasons and features, when startups are valued in their seed and early stages the valuation tends to show a higher degree of subjectivity. That is because in those stages the startup does not have a sufficient track record that can be used to predict its future performances, and the analysis is made on current data.

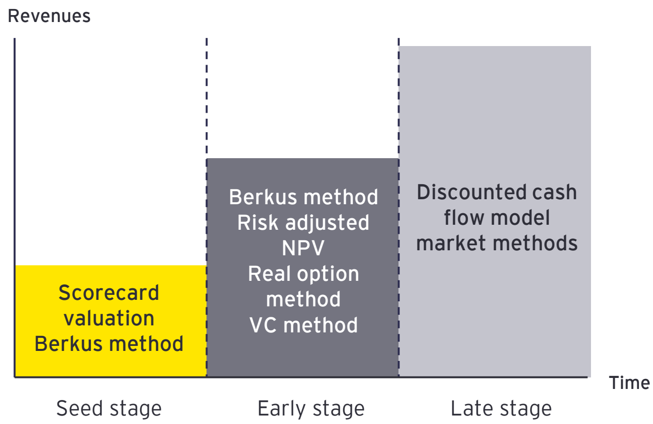
The most challenging stage for valuation is the seed stage, as the startup is surrounded by uncertainty. In fact, at this stage investors do not have enough information to perform a detailed valuation through consolidated methods. One of the most popular techniques is called the "**scorecard valuation**", using angel-funded peers of the same region and business type of the startup under consideration ("Target") to value it by comparison to the companies analyzed. Such value is derived by (i) identifying a panel of comparable companies ("Peers") that are in the same stage of development and operate in the same region and business sector of the Target; (ii) figuring out the median pre-money valuation of the Peers; (iii) breaking down the Target into different key success factors, each of them with different weight, and using them to compare it with the Peers, by appointing a score for each factor (score that should be greater than 100% in case the Target outperforms its Peers, and conversely less than 100% in case it underperforms them). The commonly used factors analyzed are the capabilities and quality of the management team, the size of the investment opportunity, the products and technologies of the company, the competitive environment, the sales made and the distribution channels, the partnerships and agreements involving the startup, the financial resources and other additional features.

The scorecard valuation is made by multiplying the sum of weighted factors obtained at point (iii) (above) for the median valuation observed at point (ii) (above) in order to obtain the pre-money valuation of the target. Using this valuation method it is crucial to consider that the characteristics used may vary depending on the available data of the startup examined by the investor.

In the early stage, when the startup reaches its break-even point, more methodologies are employed as the information available for investors is greater and more detailed. In this stage it is possible to identify several relevant different techniques.

In this framework, the first methodology analyzed is the **Berkus method**. In this case, investors look at five aspects of the company and assign a range of value to each of them (typically between US$0-US$500k). Subsequently, they appoint a monetary value, comprised in the designated range, to the target company for each of the selected factors, without examining the projected financials. The analyzed aspects are: i) the idea behind the creation of the startup; ii) the product's prototype that it intends to distribute; iii) the quality of the management team; iv) the strategic relationships involving the target; v) the initial sales made. In general, due to its qualitative nature, this method is often used also for evaluating seed stage startups.

Valuation techniques by stage of development(1)



Source: EY Intelligence

The **VC method** is also used to value early-stage startups. This method is based on the willingness of investors to determine the valuation of a target startup for which they envisage an exit within three to seven years. Through this technique they estimate the potential exit price of the investment, generally adopting an exit multiple (ie., the value that the startup is expected to reach in a given year, usually the fifth year of the analysis), and then discount such value with a proper discount rate (usually the VC's internal rate of return) to take into account variables such as risks and time to which investors are exposed. The resulting value represents the post-money valuation of the target startup.

Another technique is the **risk adjusted NPV**. Such method determines risky prospected cash flows of the target by adjusting them to the probability that each cash flow occur, and then performing a typical calculation of a net present value within a DCF model.

Finally, the **real option method** values a startup as if it was an option sold by the founders to the investors. This model is not used consistently by investors due to difficulty in finding the inputs used for the analysis (e.g., the expected startup volatility).

Early stage could be seen as a divisor between different valuation methodologies. In fact, after reaching it, startups can be valued with multiple techniques which tend to become more and more reliable as far as the startup moves away from this stage.

At its late stage, when founders and the top management can provide investors with detailed information, the startup can be valued in multiple ways.

One of the most common valuation techniques is the **comparable transaction method**. It is often utilized by venture capitalists as it provides an indication on the price investors are willing to pay for similar startups (deriving from M&A transactions or funding rounds). It basically consists of valuing a company based on transactions involving startups similar to the target one. The value is estimated based on the valuation recognized by investors to similar startups.

Another well-known market technique is the **market multiples method**, in which investors perform a comparable analysis with the objective to value similar startups using similar financial parameters.

The comparison is usually made on multiples such as Price/Earnings (P/E), Enterprise value/Sales (EV/S) and Enterprise value/EBITDA (EV/EBITDA). It should also be noted that not infrequently market methods are also used in the valuation of startups in their early stage of growth.

Another common valuation technique in late stages correspond to the **discounted cash flow model**, that intends to forecast the cash flow that the target company will produce. Such technique simply consists in discounting the startup's expected cash flow with an appropriate discount rate (usually the investor's internal rate of return or the weighted average cost of capital). The higher the risks to which the target startup is exposed, the higher is the discount rate utilized.

A brief recap of Target FinTech startups characteristics and valuation methods:

When taking into consideration a FinTech startup, investors can analyze several characteristics of the Target company in order to make a conscious and technically-driven decision:

- The market potential of the Target, in terms of related opportunities and threats
- The products and/or services delivered, the needs they satisfy and the distribution channels used
- The scalability of the business model, and whether the company can grow both locally and internationally
- The presence of relevant proprietary technologies and IT infrastructures
- The background of the startup's top management, and its capability to cope with business complexities
- The specific characteristics of the funding round in which the investors are called to participate
- The features and growth guidelines redacted in the latest business plan of the startups, and how the company plans to use the funding collected
- The growth curve of the Target, and its development in general
- The quality of the earnings and the presence of recurrent revenues
- The dynamics involved in the latest funding rounds of the Target, if any
- The existing shareholder structure of the Target and any advantages and disadvantages associated with it
- If the Target startup is a regulated or non-regulated entity.

- The likelihood of a startup to raise capital, finalize an exit or fail changes over time, depending on the growth stage of the company. The more the startup grows, the more difficult it becomes to to collect financing rather than agree on an exit or shut down the business.
- Before using different valuation methodologies, investors are advised to perform a comprehensive study of the market in which activities are carried out, and formulate opinions based on such analysis.
- The different valuation techniques used by investors interested in FinTechs are strictly correlated to the stage of development of each startup. In fact, simplistic and qualitative methods are used for early stage companies, as uncertainties and poor information do not allow for detailed analysis. Conversely, more conventional techniques such as the discounted cash flow model are employed to value late stage FinTechs, giving the possibility to access relevant data on established business models.

Sources

- EY Market Intelligence
- CB Insights

Collaboration between incumbents and FinTechs: the example of UniCredit

UniCredit, one of the two largest banks in the Italian market, has been very active in investments and collaborations with FinTech, particularly in the last decade. The rationale behind these initiatives consists in integrating UniCredit solutions and widening its offering to its clientele. More specifically, the bank collaborated with venture capital groups and other financial institutions to expand its collaborations. Among these collaborations:

- The 2016 launch of a capital venture fund that invests in FinTech startups, UniCredit EVO (Equity Venture Opportunities), together with the British Anthemis Group. Important companies are within the fund's portfolio including Meniga, Simple Assurances, Betterment, Fluidly, Project Neptune, Trov, Happy Money and Aesthetic Integration.
- The creation, in 2017, of the platform We.trade, which uses blockchain technology for digitized, automatic and secure commercial transactions. This initiative was led together with 13 other financial institutions, including Deutsche Bank, HSBC, UBS and Société Générale.

UniCredit also established partnerships directly with FinTech operators to take advantage of ground-breaking tools, such as:

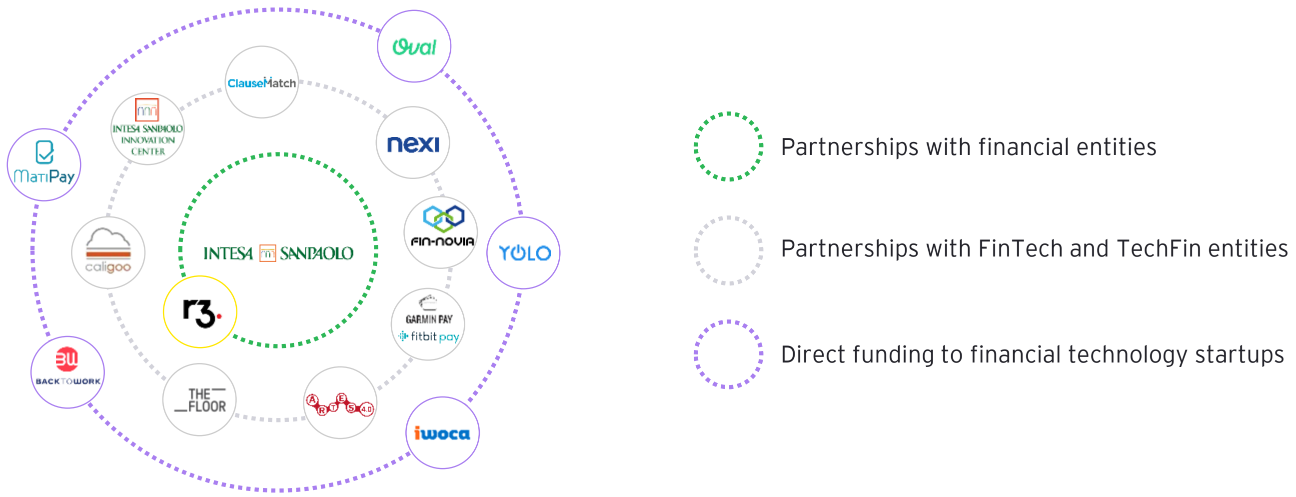
- The launch in 2009 of UniCredit Start Lab, an acceleration program to support entrepreneurs and their innovative startups, including FinTech. This initiative includes partnerships with Italian and international incubators and investors, supporting financial technology companies since the seed investment round. It also helps entrepreneurs in the business development process through training programs and access to a relevant network of people and resources.
- Collaboration with the American platform Plug and Play aimed at enabling a meeting point between startups and investors in Italy.
- The partnership with the app Alipay enables the Bank's clientele to accept payments from Chinese customers.
- The creation of the competition Appathon with Open Banking Project ensures social resonance for selected FinTech startups.
- The collaboration with First Data integrates smart mobile payments solutions.
- The launch of V-TServices in 2013 with IBM seeks to deliver high quality technologies and technical expertise to companies of all industries.
- The partnership with Piteco in 2015 adds e-signing solutions into payments.

Nonetheless, UniCredit was also involved in the acquisition of minority stakes in several FinTech startups, some relevant examples being:

- Participating in the capital of Findynamic, a startup that provides a "dynamic discounting" service by improving the liquidity management, through a early VC round in 2019.
- The acquisition of a minority stake of Axyon AI, specialized in learning solutions leveraging on AI for asset managers and trading companies, through a venture funding round in 2016.
- The financing of Travel Appeal, a company that develops business solutions for the travel industry based on data analytics, through a seed round in 2015.

Moreover, it is worth mentioning that UniCredit is also undertaking internal changes and investments aimed at taking advantage of the new digital age. In fact, in its 2019 annual report the bank specifies that it is investing into new technologies such as the AI as part of its latest business plan for the period 2020-2023 called "Team 23".

Collaboration between incumbents and FinTechs: the example of Intesa Sanpaolo



Intesa Sanpaolo, one of the leading banks in Italy, has made significant changes aimed at digital transformation. Over the years the bank has undergone restructuring to open up to the changes brought by innovation in the financial system, in order to acquire a competitive advantage and allow an effective technological transfer, influencing both processes and product offerings. Intesa Sanpaolo in involved in the following collaborations:

- The launch in 2014 of the American R3, a consortium in which companies such as Citi, Credit Suisse, BNP Paribas and HSBC participate. This initiative develops Distributed Ledger Technologies (DLTs) – basic technologies for the development, among other things, of blockchain solutions – for the financial system. R3 is based on the development of a proprietary platform, Corda, which allows the creation of applications that facilitate exchanges between financial operators.

Moreover, Intesa is involved in partnerships with financial technology including:

- The launch in 2014 of the Intesa Sanpaolo Innovation Center, business accelerator aimed at innovative solutions. Through Neva Finventures, its proprietary corporate venture capital fund founded in 2016, it makes minority stake investments in FinTech.

- The strategic agreement with Nexi in 2019, through the acquisition of a minority stake of 9.9%, for the provision of digital payment solutions.
- The collaboration with Fitbit Pay and Garmin Pay in 2019, to allow its clientele to make payments through wearables such as smartwatches.
- A partnership with Celigoo, a startup that offers products for the improvement of proximity marketing strategies through the use of Big Data.
- A collaboration with Artes 4.0 in 2020, a center of competence in advanced robotics, to support the innovation process of associated companies.
- A partnership with the British ClauseMatch RegTech startup in 2019, specialized in integrated solutions for the optimization of various business processes.
- The alliance with The Floor Hong Kong in 2019, an acceleration platform for startups, to back the Intesa Sanpaolo Innovation Center in supporting the international scale-up of Italian companies in Asia.
- The support provided in 2020 to Fin-Novia – a corporate vehicle dedicated to raising capital for e-Novia, an enterprise factory that invests in industrial innovation in Italy – in sponsoring its crowdfunding campaign at the subsidiary BacktoWork24, proposing it to its network of high net worth individuals.

Intesa is also involved in direct financing through Neva Finventures, such as:

- A Series A financing in MatiPay in 2019, an AI-powered payment startup allowing the creation of a digital wallet for the purchase of online products through vending machines.
- A Series A funding in BacktoWork24 in 2019, operator in the equity crowdfunding sector specialized in investments in SMEs and startups.
- A Series A round in the capital of Yolo in 2019, a digital insurance services startup that provides instant and pay per use products through an app.
- A Series A financing in Oval Money in 2018, a digital piggy bank that operates through a free mobile app, allowing customers to efficiently manage their cash inflows and outflows.
- A Series C funding round in the British Iwoca in 2017, a platform offering financing to SMEs.

The bank is undertaking several internal initiatives to transform its infrastructure and embrace innovation. Among these, the most relevant are the "Innovative Funnel" for the analysis of challenges and responses required by the advent of new technologies, and the service design Methodology for the realization of innovative end-to-end projects. Also, its "Piano di Impresa 2018-2021" Business Plan seeks to consolidate a network promoting innovation, as well as the readiness to make new investments through Neva Finventures.

Example of collaborations between financial institutions and FinTech

illimity CREDIMI

Deal structure: partnership
Deal amount: not disclosed
Rationale: providing digital factoring services to customers

Description of the Target

Credimi, a FinTech company created in 2015 and authorized as a Financial Intermediary from the Bank of Italy, representing the most important player in the European panorama in terms of digital lending services, has engaged in a collaboration with Illimity, an innovative bank dedicated to SMEs. The startup provides fast and innovative solutions to companies through financing against commercial receivables at a moderate price, through a digital channel free of costs related to physical infrastructures. Against certain requirements necessary to be eligible, Credimi mobilizes financial resources to SMEs upon receipt of a trade invoice within a few days, halving the funding times proposed by more traditional financial institutions, essentially providing an invoice advance service for even large amounts. It has also developed a supply chain credit service, through which the startup anticipates invoices related to suppliers of industrial partner groups of medium and large sizes.

Rationale of the investment

The partnership allows Illimity Bank to access Credimi's platform and provide customers with digital factoring services, with a view to fostering solutions dedicated to enterprise businesses. Illimity will integrate this service into its proprietary IT platform, in order to deliver solutions to companies working in the supply chain business by offering diverse forms of factoring and providing a concrete alternative to traditional finance. Credimi's tools will therefore be made available to Illimity's clientele and their suppliers, based on advanced technologies and modular interfaces.

Banca Sella fabrick Fintech District HYPE

Deal structure: "waterfall" creation of innovative structures from incumbent
Deal amount: not disclosed
Rationale: contribute to the generation of an innovative ecosystem

Description of the Target

In 2018 Banca Sella, one of the major incumbents in Italian banking, constantly attentive to innovation and new ways of doing business in its field, launched Fabrick. It is an API-based platform, which aims to make available to companies, financial institutions and FinTech an ecosystem of cutting-edge services, skills and technologies, based on digital transformation. In fact, thanks to the innovations made available by Open Banking and the reliability and modularity of the APIs, it supports operators in the path towards ground-breaking business models. Fabrick is also proposed as a meeting point between pioneering structures and personalities, promoting sharing ideas. It is thanks to the constant research for innovation that Fabrick has expanded its offering through the opening of new business lines and new acquisitions, as is the case for the startup Hype and the FinTech District community. Hype is a fully digital challenger bank which integrates tools for simple and all-inclusive money management in the everyday life, favoring transparent communication with customers. The FinTech District is proposed as a gateway to the Italian FinTech trends, enticing local and international stakeholders and generating co-creating environments with startups.

Rationale of the investment

The rationale for the creation of such an integrated ecosystem of innovative infrastructures is to generate a co-opetition model for Italians to follow, putting together financial institutions, FinTechs and third parties, where the sharing of ideas, technologies and services places itself at the center. The technology will be enriched as a consequence of this sharing.

Posteitaliane moneyfarm

Deal structure: minority stake investment
Deal amount: £36m (€40m)
Rationale: providing digital asset management services to its clients

Description of the Target

Moneyfarm, a FinTech company founded in 2011 by Italian entrepreneurs and based in London, is a digital wealth management service provider. Officially launched in Italy in 2012 and authorized by Consob, it represents the most financed Italian-based startup with over €110m of funding received since inception. Moneyfarm offers highly specialized investment services, appropriate to the achievement of each client's objectives. Through a totally digital approach, which originates from the registration on the website or on the dedicated mobile app and the completion of a behavioral economics questionnaire aimed at identifying the profile of each individual investor, the startup creates highly diversified investment portfolios based on cost optimization and long-term management and monitoring. In particular, the investment strategies proposed by the robo-advisor use exchange traded funds (ETF), as they are transparent, more liquid than other financial instruments and cost-efficient. In 2019, Moneyfarm received Series C funding – in the form of a capital increase – of about €40m from Poste Italiane, with the collaboration of Allianz Asset Management.

Rationale of the investment

Such investment allowed Poste to integrate the digital advice services provided by Moneyfarm, including fully managed and diversified portfolio origination strategies, to its own digital platform. This operation intends to extend Poste's innovative managed savings products for a potential audience of 35 million customers, in line with the objectives set out in the Deliver 2022 Strategic Plan. Furthermore, this strategic partnership introduces Poste to solutions developed in the logic of open innovation through APIs, with the aim of generating new services such as Postefuturo Investimenti.

Iccrea Banca satispay

Deal structure: minority stake investment
Deal amount: c.€5m (disclosed)
Rationale: providing digital and innovative payment solutions to clients

Description of the Target

Satispay is an Italian FinTech startup founded in 2013 which claims to be the "WhatsApp of payment services". It is an independent, mobile-based app available to any clients with a bank account, and to all merchants using POS or any similar device to accept payments. Satispay rides the wave of the cashless economy, in vogue especially in recent years, allowing you to make micropayments, purchase services and exchange money with your smartphone through a free app, all in the name of safety and easy-to-use solutions. The service offered by the startup, directly connecting customer and merchant bank accounts, allows the user to process cost-effective payments, free of extra charges. Furthermore, it also allows the creation of a digital piggy bank through different options (such as cashback), providing an innovative personal finance management service. Satispay also allows commercial operators of different types to align themselves with the digital economy, accepting payments with structural cost advantages. Iccrea Banca has supported the Satispay project since its inception, and more recently it has participated, first for €3m and then for €2m, in two consecutive capital increases, now owning 16% of the startup.

Rationale of the investment

By investing in Satispay, Iccrea Banca has allowed its customers to access smart payment solutions, which allow both payments addressed by customers to businesses ("Customer-to-Business") and money transfers between customers themselves ("Customer-to- Customer") through digital platforms such as smartphones and tablets. Furthermore, collaborations are active between the two players also as regards to services offered to Iccrea's commercial customers, such as the launch of the startup on the Ingenico POS, used by over 80,000 merchants in the bank's network.

Example of collaborations and investments between incumbents and InsurTechs

Deal structure: partnership
Deal amount: not disclosed
Rationale: digitalization of the company's product offering

Description of the Target

Yolo, an InsurTech company created in 2017, has engaged in a collaboration with Reale Mutua, one of the biggest insurance companies active in Italy. Yolo is one of the first fully and exclusively digital insurance intermediaries, offering various types of on-demand, pay-per-use and customizable insurance policies in collaboration with some of the most structured companies on the Italian and international scene. More specifically, on-demand products represent a highly innovative concept in the insurance world as, thanks to the use of different technologies including chatbots and AI, it is possible to structure "temporary" policies that are suitable for the customer and that respond to an insurance need at the moment in which this necessity arises, and only for the time necessary. Yolo is also a technological enabler for insurance companies thanks to its platform, which allows the digital distribution of products and the management of data through technologies such as APIs.

Rationale of the investment

The agreement ratified between Yolo and Reale Mutua has allowed the startup's customers to have access to the *Mynet* Blue Assistance service, an online contact portal with various affiliated healthcare structures throughout the country. As regards Reale Mutua, the partnership has allowed the company to work alongside one of the new protagonists of the change taking place in the main financial markets. In fact, the insurance company, with the support of Yolo's technologies and know-how, aims to transform and integrate its offer of products through digital solutions, easily accessible and customizable for customers.

Deal structure: investment through a Series A funding round
Deal amount: €100m

Description of the Investment

In 2018 Goldman Sachs, through its proprietary platform Goldman Sachs Private Capital Investing, and Blackstone, through its Tactical Opportunities fund, invested in Prima Assicurazioni through a Series A funding round. The InsurTech startup has thus been awarded with the first triple-digit mega-round of investments in Italian FinTech.

Prima, an InsurTech startup created in 2014, is an online insurance agency specializing in the distribution of third-party liability policies for cars, motorcycles and vans. What makes Prima a unique example of an InsurTech company hides behind its business model and the way it uses data to enhance its offer. In fact, through digitalization, the interaction between the customer and the insurance company is simpler and more immediate. The startup bases its model on innovation, through the development of in-house platforms deriving from cutting-edge technologies such as cloud systems. Another of Prima's strengths is the attention they place on customers, providing efficient services leveraging on a satisfactory customer experience.

As proof of the success obtained by Prima and its insurance model, the startup has already signed multi-year agreements with renowned partners such as Munich RE, boasts a customer base of over 250 thousand customers and, by the end of 2019, collected over €131m in insurance premiums.

The capital raised by Prima will allow the startup to finance its growth plan, focused on investing in new innovative technologies, on marketing and communication activities and on the hiring of new resources.

Chapter 5

EY and Fintech District Point of View - Conclusion

FinTech and SMEs

In Italy, in 2019 there were over 160,000 SMEs. The role played by these companies within the Italian economy is much more important than the European Union average, in fact Italian SMEs are responsible for creating 68% of the Italian added value against a European average of 57%.

As we have seen in the chapter of the financial services trend in Italy, the **banking system is facing different challenges and difficulties in addressing SMEs needs** and looking at the annual report of the European Investment Fund, Italy is losing year on year position in the SME access to finance index ranking. Italy in 2018 moved from 17th to 19th place and it has been overtaken by Estonia and Portugal.

Because of the difficulty of access to bank credit, SMEs are increasing their recourse to equity as sources of financing and are using alternative credit sources such as minibonds, private equity, crowdfunding and invoice trading. According to the report of the Politecnico di Milano, the new forms of alternative financing between July 2018 and June 2019 amounted to almost €3b.

One of the most important pain points for banks in serving SMEs is the credit scoring assessment. Banks have serious difficulties in correctly assessing the creditworthiness of SMEs because of the lack of information. **Incorrect creditworthiness of SMEs leads to a higher NPLs risk.**

Another important pain point is the lack of tailored products for SMEs. SMEs are very different in terms of type of business and financial needs. Banks face difficulties in launching products/services customized for different kinds of SMEs.

EY teams and FinTech District Point of View:

We think the trend of **alternative sources of financing will grow at a fast pace in the next few years because of the banks' credit crunch.** FinTechs are offering several types of lending services such as P2P Lending, Invoice Trading and Crowdfunding and **SMEs will rely on these solutions to better address their financial needs, unserved by the traditional banks.**

Moreover, as we mentioned before, an **effective method of creditworthiness scoring will be fundamental for financial institutions to open up more to the SMEs market and, at the same time, reduce their NPL risk.** An example of the great impact of an advanced credit scoring solution in the SMEs market is OakNorth in the UK. OakNorth, which has raised over US$1b in funding, has issued US$4b of loans in the United Kingdom with an NPL ratio of almost 0%.

Based on these two assumptions, **we expect a rise in the use of FinTech Lending solutions enabled by AI.**

If we look at the Italian ecosystem, currently there are a total of 30 FinTechs in the Lending microsegment that account for 9% of the total Italian FinTechs. In terms of growth stage, Lending FinTechs are already at an advanced stage of development, 57% of them are in the Early Growth and Growth phases. These kinds of startups are using different types of financing sources, including several institutional investors, both Italian and non-Italian. 70% of lending FinTechs have an annual turnover greater than €500k.

From our analysis it appears that the Lending micro-segments is already a market niche with a couple of big players with important market shares.

Despite being at an advanced stage, **we believe that Lending FinTechs will increase their success and penetration in the SME market and thus they will gain more market share.** Moreover, we expect that this segment will be very attractive to institutional investors as happened in the United Kingdom and by observing growth in the current year of some digital lending platforms in Italy.

Finally, despite being a quite mature segment, **we believe there still is a space in the market for new entrants, especially in the credit scoring micro-segment.** FinTechs that want to enter in this market must strongly rely on advanced technological solutions that offer to customers a seamless and positive experience.

RegTech

Regulatory technology (RegTech) is empowering organizations with the tools required to drive efficiency and sustainability in their regulatory compliance obligations. The rise of RegTech has been driven by an increasingly complex regulatory environment, especially in financial services organizations, which in turn has created the need to find more efficient ways to comply. Since the 2008 financial crisis there have been a flood of regulations impacting the banking industry. Companies did not have time to focus on technology so manual processes were established to address the frequency of new reporting requirements. This resulted in heightened demand for talented resources and related costs to comply. Today there is a multitude of technology options for financial institutions to consider leveraging.

Companies now have the ability to step back, evaluate their manual processes and achieve automation in hopes of reducing reporting risk, reducing costs and improving overall efficiency.

In a regulatory environment with high levels of scrutiny and complexity, the EY team has observed the emergence of new approaches to risk and regulatory management practices across Financial Services globally.

The EY team has conducted a series of interviews across the Financial Services industry to better understand the market view on the flourishing RegTech sector. Our insights have identified a **notable shift in client attitudes. Instead of a 'wait and see' mind-set, our clients are now looking to join the technological evolution and actively engage in the RegTech ecosystem.**

If we narrow our view on the Italian market, according to the census we carried out, there are only six RegTech, of which two answered our questionnaire. The two RegTechs that answered the questionnaire prove to be very different from each other, one of the two was founded in Italy, it is in the early stages of development, it has been funded with personal resources and business angels and it has a small team. The other was founded abroad and also operates in Italy. It is in the last stage of growth, it has raised funds from international VC funds and it has a small team.

EY teams and FinTech District Point of View:

We believe that the **RegTech segment is a fast growing segment with high potential.** Financial Services are strongly pursuing cost reductions and process digitization.

RegTech will continue to evolve as financial institutions develop new products and services, which in turn carry the potential for new regulations and increased compliance costs. Efforts to reduce these costs in an increasingly regulated industry have driven organizations to look for new and innovative alternatives to existing technological capabilities in order to satisfy their regulatory requirements.

Furthermore, **RegTech will acquire more and more strategic importance for financial institutions enabling them to seize new opportunities that are not limited only to cost reduction.**

Artificial Intelligence and Machine Learning will enable and serve as a boost for RegTech solutions.

Observing the situation of the Italian market, we think **there is a considerable space for the birth and the growth of new RegTech solutions** that can therefore offer innovative services in the Financial Services sector.

Moreover, while much of the focus is on the adoption of RegTech within the financial industry**, many organizations across a number of different industries can potentially leverage these solutions to better drive their business** and address regulatory requirements.

In conclusion, we believe that **the future of RegTech involves more automation, standardization and simplification across organizations and industries.**

Cybersecurity and Cyber Insurance

If we look at the 2020-2021 priorities of the global Credit Risk Officers listed in the EY Global Banking Outlook 2020, **cybersecurity comes first.** In addition, according to the Conference of State Bank Supervisors (CSBS) study, more than 70% of the 571 banks surveyed in 137 countries report cybersecurity as the most significant risk for their organization.

According to the World Economic Forum, the damage caused by cyber attacks in 2021 will amount to US$6t. Financial Services, in recent years, has started various processes of digital transformation, digitizing processes, products and services. While increasing digitization brings efficiency, speed and lower costs, it also increases the risk of cyber attacks.

Customer data is one of the most important assets for a financial institution and a data breach can lead to huge losses, both economic and reputational. Two recent cases of data breaches are that of Capital One in the summer of 2019, which exposed the personal data of more than 100 million US and Canadian citizens, and that of British Airways, where a malicious attack has stolen the credit card data of almost half a million customers from the airline's website.

In addition, **the regulatory and market push towards collaboration models for sharing financial data opens up a number of valuable features that at the same time introduces significant complexities in terms of data protection.** This is something that all financial operators will have to deal with, as they are involved in an increasingly integrated ecosystem but also more exposed to the vulnerabilities potentially introduced by other participants.

Financial Services companies, in recent years, are allocating huge amounts of budget to mitigate cyber risks. On the market, for some time now, TechFin Cybersecurity solutions have emerged that offer financial institutions help in developing and integrating cybersecurity solutions.

According to our census, there are 18 TechFin Cybersecurity solutions in Italy, of which six have answered the questionnaire. The Cybersecurity segment in Italy appears to be in a growth phase even though it has not raised a lot. Also the annual turnover is relatively low compared to other segments.

EY teams and FinTech District Point of View:

Based on the assumptions made before, **we expect growth even though investments are low.**

Rather than huge investments made by institutional investors, **in the cybersecurity sector we expect several partnerships between large financial institutions and scale-up startups in order to leverage on their technology.**

Moreover, **we foresee a substantial growth for the Cyber Insurance InsurTech market in the next few years.** According to a report published by Allied Market Research, titled "Cyber Insurance Market by Company Size, and Industry Vertical: Global Opportunity Analysis and Industry Forecast, 2019-2026," in 2018 the global market was valued at US$4.8b and the cyber insurance market size is projected to reach US$28.6b by 2026, with a predicted CAGR of 24.9% from 2019 to 2026.

Cyber insurance can be used to help businesses protecting their valuable IT assets against a significant spectrum of cyber-attacks, such as malware, ransomware, phishing, distributed denial-of-service (DDoS) attacks, along with wider digital threats such as theft of sensitive data and business interruption. **We therefore believe that Cyber Insurance InsurTech will be a high potential sector and, additionally,** we think cybersecurity will evolve to be an even hotter topic and still have plenty of space for new entrants. However, at the present moment we do not consider the sector particularly attractive to investors and therefore we do not expect multi-million dollar funding raises.

Open Banking and Open Insurance

New regulations such as the European PSD2 allow FinTech startups to flourish, boosted by their API-driven architectures which facilitates the compliance to the emerging Open Banking system.

In the EU, the Revised Payment Services Directive (PSD2) mandates banks to share data with third-party providers (TPPs), once consumers consent. **Financial services, leveraging on consumers' data, can offer new and tailored products to their clients, thus they can increase customer engagement and satisfaction.**

The PSD2 Directive may effect informational assets owned by financial institutions to the advantage of FinTech companies, as they will be able to connect soft information tied to bank's current accounts with big data on customers they already retain.

The most important novelty that PSD2 brings with it is the opening of the so-called exposure APIs and access to banking information. This favors the work of new players capable of exploiting value, even in fields other than strictly banking. These are, in particular, the new data intermediaries, the AISP (account information service provider), which once authorized by the customer will be able to access the account data to develop new services, and the PISP (payment initiation service provider), which will have the right to initiate the payment process to any beneficiary by debiting directly from the customer's account.

According to our census of Italian FinTechs, in Italy there are 11 startups offering Open Banking services, of which six have been founded in Italy and five have been founded abroad.

Looking at insurers, within the sector in the last few years several regulations have been introduced as has happened in the banking sector. The Insurance regulations can be considered as the reflection, in the insurance sector, of what has been introduced in banking: on the one hand the Solvency Capital Requirements established the total amount of funds that insurance and reinsurance companies in the European Union are required to hold while on the other hand, in banking, Basel Accords established the equity structure of banks.

Another example is Insurance Instruments Directive (IDD) which can be considered as the equivalent of MiFid II for banking.

If we look at the timeline of these regulations, we can state that insurance regulations are generally introduced a few years later than banking regulations. In banking, we have witnessed the birth of FinTech specializing in offering, through technology, regulatory compliance services for PSD2. These startups were focused only on compliance and were not exploiting the enormous potential that Open Banking offered. After this initial phase, financial institutions have started implementing an active approach and begun to offer more services and to understand the full potential of Open Banking.

EY teams and FinTech District Point of View:

We believe that the passive approach to PSD2, to expose access to the data of its users-customers on a platform, is an understatement. **PSD2 will be an active opportunity for banks**, which will make Open Banking the new development paradigm.

In Italy, this is an underdeveloped sector. If we look at the players, Banca Sella Holding has launched the Open Banking platform "Fabrick", a financial and open ecosystem providing access to competencies, technologies and services to integrate different systems and develop new strategies and business models. Fabrick operates with an active approach toward PSD2, that is what we think will be the future of financial services.

The active approach goes beyond compliance and leads to the development of new business models designated on the basis of the access and interpretation of the data and of the standards that the PSD2 gives access to.

Looking at external market data, according to the report published by Allied Market Research, the global Open Banking market generated US$7.29b in 2018, and is expected to reach US$43.15b by 2026, growing at a CAGR of 24.4% from 2019 to 2026. In particular, if we look at the United Kingdom, which often moves ahead of the Italian landscape, according to the website openbanking.org.uk, the Open Banking market is proving an exponential trend. In UK, 1.9 million monthly API calls were recorded in June 2018, while just one year later, in November 2019, 215.3 million monthly API calls were registered.

We therefore believe that the **Open Banking sector will be a promising market. Today this market is mostly unserved but has strong growth potential.** We also believe that **the only winning approach in this sector is to be proactive.** Banks must go beyond regulatory obligations, developing new concrete opportunities, widening the spectrum of services.

As a minimum, **Open Banking platforms** could represent a real area of development for the **cooperation** between financial intermediaries and Fintechs within an approach of **industries convergence**, with the ultimate aim to provide increasingly **advanced services to customers**.

Regarding the insurance sector, we are confident that **a new regulation in the insurance industry will enable Open Insurance**, as PSD2 has done for the Open Banking. The **insurance version of the PSD2 would require insurance companies to open their clients' insurance positions and the data they hold to authorized third parties.** In short, the new regulation would allow insurance customers, both individuals and companies, to use third-party and noninsurance providers to manage their insurance needs. It is what we refer with the concept of "Open Insurance".

In the initial phase of the development of Open Insurance, companies that emerge will be those already operating in the Open Banking sector, thus expanding their business. We believe this **because the technical challenges of Open Insurance will be similar to those of Open Banking** and therefore, we believe that **those who have already** had **the opportunity to develop technical/IT skills** (e.g., APIs development) **for Open Banking**, **in the** early stages of the birth of **Open Insurance, can leverage on the first-mover advantage.**

WealthTech

The demand for Wealth and Asset Management services is growing. At unprecedent levels private clients are more open to change. This is demonstrated through their demand for innovative services and their willingness to change their intermediary.

From tech-enabled innovation and new market entrants to intense cost pressures and rising customer expectations, **wealth and asset management companies will likely change more in the next five years than they have in the last 25.**

In Italy, as in the Global trends, these are some trends that are shaping the Wealth and Asset Management industry.

More than 40% of Italian clients are looking to move money from wealth management companies in the next three years and those 40% of Italian clients are evaluating access to FinTech enabled investment activities. Of these, more than 50% of services will be delivered via mobile applications by 2022.

In addition, many clients do not think they are charged fairly, only 1/3 of clients believe that their intermediary applies fair fees. **Companies need to demonstrate fairness and the technology may helps asset managers in reaching greater transparency and low fees**.

On the one hand, the **technology implementation**, such as AI and ML, **helps to reduce costs** to offset continued fee pressures that impact asset managers' profit margins and fixed income. On the other hand, high tech solutions **help asset managers enhance client services by delivering customizable global services** that meet investors' complex needs and to develop more sophisticated distribution strategies.

As observed in the European trends, the demand for sustainable investments is driven by improved long term returns. But there are various barriers to adopting the ESG strategy, such as inconsistent quality of data across asset classes, costs required to invest in smart/emerging technologies, lack of advanced analytical tools/skills (internal and external), and conflicting ESG ratings/indices.

EY teams and FinTech District Point of View:

We believe that the use of high tech solutions in Wealth and Asset Management, - the so called, **WealthTech - is the only way for Asset managers to survive in the next five years.** Financial services are pursuing transparency, cost reduction and process digitization and WealthTech represents the perfect convergence of these trends.

Moreover, observing the Italian market, WealthTech is one of the segments mostly represented by our sample of analysis. Around 10% of the respondents represent a WealthTech startup and it is the second micro-segment in order of funds raised.

This demonstrates **that in Italy there is a high interest in WealthTech solutions development and investment.**

Nonetheless, despite having raised many investments, 50% of WealthTech startups have a turnover lower than €100k. We believe that the reason for this is that the segment is young in Italy, the startups are in a still quite new but thanks to the capital raised will be able to get results, we believe, in the near future.

The segment in Italy is new but there are already relevant players such as MoneyFarm and Euclidea. On the one hand, **the incumbents are starting to develop WealthTech solutions** following the steps of the first FinTech in this industry, to adapt to customer requests, such as ease of use, simplicity, transparency of the solution. On the other hand**, the most innovative startups**, which implement advanced technologies as AI, ML, **are in a more embryonic phase and they are investing in the training of technological models.** We believe that **these startups, once they have passed this development phase, represent the future of WealthTech**.

Collaboration and... Collaboration!

The need for Financial incumbents, such as Banks and Insurers, to improve their digital capabilities has become urgent with the emergence of new market entrants and services from the FinTech and technology sectors, which are attacking banks and insurers core businesses and reshaping those industries.

The digitization journey required in Financial Services is different from a few years ago, when efforts were confined largely to isolated initiatives such as division-focused big data projects, the launch of individual apps, and improvements to online and mobile channels. Today, companies **are expected to change the ways that they interact with customers** by giving them a wider range of choices and greater control over the interaction itself. Financial Services companies are also providing customers with new, value-added, digitally enabled functions, such as the rapid validation of loan approvals and the ability to quickly open new accounts.

The rapid growth of the industry has strengthened the common belief that FinTech will disrupt banking. But **cooperation – not competition – will be the primary driver of disruption**.

The biggest near-term threat to most banks comes not from FinTechs but from traditional competitors better leveraging those FinTechs

The EY FinTech Adoption Index highlights the consumers' rapid uptake in recent years of financial services offerings from new innovative companies, while EY Global Consumer Banking Survey 2018 emphasizes how the accessibility of these new technologies appeals to customers and calls on banks to innovate like FinTech. But it is not just on the front line of consumer banking that we see disruption.

Regulators see the benefits of – and, in fact, expect banks to use – regulatory technology (RegTech) to improve processes and compliance.

Meanwhile, an array of rapidly advancing technological innovations, from robotics to AI and machine learning, offer banks new ways to transform their businesses without replacing core banking systems.

Initiatives such as Open Banking, PSD2 in Europe, the EU's GDPR, as well as the development of commercial banking aggregator models – especially in the US – are giving customers more control of their data, held by banks.

At the same time, **FinTechs increasingly recognize the significant costs of customer acquisition in financial services and barriers to cross-border business that banks are well-equipped to bridge.** FinTechs recognize the opportunity to have a role as part of a broader banking ecosystem, developing technology that can help transform an industry, not just support one bank.

So why are levels of collaboration not better?

For FinTech it can be a struggle to negotiate the long procurement cycles of big banks. For financial institutions, it is a challenge to successfully implement cutting-edge technologies in large organizations based on IT legacy systems from the '70s or earlier. In our experience of working with both financial organizations and FinTech, these are commonly cited barriers to unleashing the potential of FinTech to transform financial businesses.

As financial institutions look to rebuild sustainable ROE, **they must build better ecosystems.** These will be founded on collaboration with FinTechs, industry utilities and an array of other service providers – to help reduce structural costs, enable enhanced regulatory compliance and better serve customers.

Financial Services are seeking ways to benefit from deploying FinTech across their organizations. Our analysis of data from 45 major banks over the last three years suggests that, globally, institutions remain principally focused on applications of FinTech in payments. However, **they are increasingly looking to use FinTech across the entire value chain**, from gamification of compliance training to surveillance software that can identify employees who pose the greatest organizational risk, and from using AI to improve customer service to driving greater workforce productivity.

But **picking the right FinTech to collaborate with and successfully implementing new technologies remain challenging for banks that have weak innovation cultures, IT legacy systems and long procurement cycles. FinTechs**, for their part, **need to better articulate the clear benefits of their technology and work with banks to deliver change.**

Thus, **collaboration is the key for a mutual success.** Looking below at the four collaboration models we have identified and quoted in the "Investor Market" chapter:

1. Accelerate
2. Partner
3. Invest
4. Buy

We do not see and we do not believe there is a preferred type of collaboration model that financial institutions and FinTechs must adopt. They should pursue an **holistic approach** and not focus exclusively on one model.

We strongly believe that each one of the four models can fit well in different situations.

It is not important which model financial institutions and FinTech chose and implement, **it is important to develop an Italian FinTech ecosystem which allows new startups to be created and grow in a fertile ground.**

In conclusion, the global FinTech industry is growing rapidly, driven by a powerful blend of innovative start-ups and major technology players. Financial Institutions that want to leverage this potential must act now to find ways to engage with these innovative organizations to achieve value-creating collaboration.

Unless Financial Services and FinTech companies get better at working together, neither will reap the full benefits of innovation. They must collaborate, or perish.

Key messages for Italian investors

In Italy, the interest in FinTech is rapidly growing. According to the EY FinTech Adoption Index, in 2018, 11 million users, or 25% of the population aged between 18 and 74, used one or more FinTech services. This figure is higher than the one recorded in 2017, which totaled 16% of Italians, or 7.1 million users.

In the last few years the Italian ecosystem developed a series of initiatives such as favorable regulations and incentives to promote the growth of the FinTech community.

Looking at the investor market, Italian FinTechs could be still considered in an "early stage" when compared to other European countries: over the same period, the country attracted only 2% of the total capital invested in FinTech across the continent while the United Kingdom and Germany attracted respectively 50% and 19% of the total capital.

However, although FinTech investment volumes in Italy have historically been lower than in other European countries, **the gap has recently started to narrow.**

As we have reported in the "Investor Market" chapter, funding to Italian FinTech companies grew at a CAGR of over 60% over the period 2016 – 2019.

If we consider the results of our survey, Italian FinTech startups are mostly in an initial stage of development as 50% of them are in one of the first three stage of growth. Most of Italian FinTech startups have used as sources of financing personal resources and business angels.

In addition, Italian FinTechs for their next financing rounds are looking for institutional investors such as International and Italian VCs and Private Equity companies.

Based on these market insights, considering the European trends, where FinTech is the sector attracting most investments, and considering the steady growth of Italian investments in FinTech albeit there is a lag compared to the other European countries, **we believe that the Italian investor market has great market potential.**

However, we think **Italian investors' market is lacking players that exclusively focus on FinTech** or which have launched specific funds for this purpose. If we look at France, in 2016 BlackFin Capital Partners launched BlackFin Tech, a venture fund focused on FinTech opportunities. Also in the United Kingdom and Germany, the FinTech investments are led by VC funds specializing in Financial Services and FinTech – or at least with a large vertical FinTech portfolio - namely Anthemis Group for the United Kingdom and Global Founders Capital for Germany.

The lack of sector specialist companies leads on the one hand **to disorientation for Italian FinTech startups** who do not know which investors better fit with their needs. On the other hand, the absence of industry-specific knowledge **leads to an incorrect assessment of the investment opportunities** made by backers and **therefore investors only finance FinTech in an advanced stage of growth**, which are considered far safer.

This market deficiency brings **three negative consequences: investors are missing interesting business opportunities, young FinTech startups are struggling in raising funds and international VC are not investing in Italy.**

FinTech is a global phenomenon with common characteristics but every country has its own peculiarities, especially in consumer behaviors and personal financial management. **The lack of in-depth knowledge of the Italian market, its dynamics and its consumers are a barrier to investment by foreign players.** The presence of Italian funds focused on FinTech would be a trailblazer for international VCs in making investments in Italian FinTech because they could leverage on the sector and market specific knowledge of the Italian investors.

We therefore believe that, in order **to create an Italian FinTech ecosystem** that can be a fertile ground for the birth and development of new startups, **it is necessary to launch specific investment funds on this topic.**

The potential further development of the **Italian FinTech ecosystem should also be driven by the increasing degree of collaboration between incumbents and digital startups**, both through the four collaboration models we have identified before. **This change of mindset could potentially represent a trigger for a new wave of M&A deals in the Italian market which can boost the entire ecosystem.**

Chapter 6

Appendix

Appendix 1 - Survey details

Introduction:

Please enter the name of the Startup that you are representing:

Please enter a brief description of the Startup (max 200 car.):

Please indicate the growth stage of the Start-up:
a) Pre-seed
b) Seed
c) Early Stage
d) Early Growth (serie A, B)
e) Growth (serie C)

Corporate Finance:

1. How many funds did you raised in total (EUR)?

2. What is the turnover class of your Startup (annual)?
a) EUR 0 - 100K
b) EUR 100K - 500K
c) EUR 500K - 1M
d) EUR 1M - 5M
e) EUR +5M

3. Please, if available, indicate the valuation (EUR) of your Startup at the last investment round (post-money):

4. What is your main investment source? (max 2 answers)
a) Business Angels
b) Crowdfunding
c) Italian VC
d) International VC
e) CVC
f) Private Equity
g) Debt
h) State funding/ Local funding
i) Personal resources
l) None
h) Others:

5. Which type of investors are you looking for in your next investment round? (max 2 answers)
a) Business Angels
b) Crowdfunding
c) Italian VC
d) International VC
e) CVC
f) Private Equity
g) Debt
h) State funding/ Local funding
i) Personal resources
l) None
h) Others:

6. What is your long-term exit strategy?
a) IPO
b) M&A
c) Buy Back
d) Dividend distribution
e) Other:

People and skills:

7. How many employees are in your team?

8. Please indicate the average age range of your team members:
a) <27
b) 27-32
c) 32-40
d) 40+

9. Please indicate the % of women in your team:

10. What is the main academic background of your team members? (max 2 answers)
a) Economy and Management
b) Engineering
c) Informatics, Computer Science, Computer Engineering
d) Mathematics, Statistics and Physics
e) Humanities
f) Other:

11. Are you planning to hire new talent over the next 12-24 months? If yes, please specify in which area. (max 2 answers)
a) Software/ App development
b) Cybersecurity
c) Regulation & Compliance
d) Data analysis/ Big Data/ Data science
e) AI / Machine Learning
f) Design/UI/UX
g) Business Development
h) None
i) Other:

12. Do you feel that the Italian market is lacking talent in one or more of the following competencies? (max 2 answers)
a) Software/ App development
b) Cybersecurity
c) Regulation & Compliance
d) Data analysis/ Big Data/ Data science
e) AI / Machine Learning
f) Design/UI/UX
g) Business Development
h) None
i) Other:

13. Please indicate the main recruitment channels of your Startup:

a) Personal referral
b) Online portal (i.e., Linkedin, Meritocracy..)
c) Recruitment company
d) University
e) Career fairs
f) Company website
g) Other:

14. How many people do you plan to hire over the next 12 months?

a) 1-5
b) 6-10
c) 11-20
d) 21-50
e) +50
f) None

15. Please indicate which kind of remuneration is provided in your Startup:

a) Fixed salary
b) Performance bonus
c) Stock options
d) Other:

Compliance & Risk:

16. Does someone cover a compliance & risk management role/ function in your company?

a) Yes, inside the company
b) Yes, in outsourcing (i.e., external advisory)
c) No, but we are planning to cover it in the short term
d) No

17. How much did you spend in compliance (excluding legal expenses) over the last year?

a) 0
b) less than €50k
c) €50k - €100k
d) €100k - €200k
e) more than €200k

18. Please indicate the impact of the following regulations on your activity (none/ low/ medium/ high):

	None	Low	Medium	High
PSD2	○	○	○	○
GDPR	○	○	○	○
MiFID II/IDD	○	○	○	○
AML	○	○	○	○

19. Would you consider it necessary to introduce a Regulatory Sandbox in Italy?

a) Yes, necessary
b) Helpful but not necessary
c) Not helpful either necessary

Appendix 2 - List of surveyed startups

Our Sample (A-CO)

The list of the **345** startups in the scope of the analysis with the details on the classification according to EY taxonomy and date of founding, listed in alphabetical order:

Company Name	EY Taxonomy	Date
#Be	DNA, ML, AI	2014
2meet2biz	Capital Markets & Trading	2017
AidCoin	Crypto	2013
Air	InsurTech	2014
AirHome Invest International	Crowdfunding	2017
Airwallex	Smart Payments & Money Transfers	2015
AppQuality	DNA, ML, AI	2015
Arcoba	DNA, ML, AI	2014
AssiBau	InsurTech	2017
Awhy	Chatbot	2015
Axieme	InsurTech	2016
Axyon AI	DNA, ML, AI	2016
Azimo	Smart Payments & Money Transfers	2012
B2lab	Blockchain	2015
Backtowork 24	Crowdfunding	2012
BandBackers	Crowdfunding	2015
Bank-Notes	Smart Payments & Money Transfers	2014
Banksealer	Cybersecurity	2016
Becrowdy	Crowdfunding	2014
Big Profiles	Data Management	2018
Billte	Invoice & Tax Management	2017
BitAndCoffee	Invoice & Tax Management	2017
BLender	Lending	2014
BondInsider	DNA, ML, AI	2018
Bookabook	Crowdfunding	2014

Company Name	EY Taxonomy	Date
Borsa del Credito	Lending	2015
BrightNode	Blockchain	2018
Bunq	Neo Banks	2015
Cardo	DNA, ML, AI	2018
Cash Trading	Lending	2018
Cashinvoice	Lending	2017
Cashme	Lending	2016
Catapush	Open Banking Services/API	2015
Chainblock	Crypto	2014
Chainside	Crypto	2017
Charity Stars	Crowdfunding	2013
Chino.io	RegTech	2014
Citybility	Crowdfunding	2014
Claider	InsurTech	2017
Clausematch	RegTech	2012
Cleafy	Cybersecurity	2012
Clearbox AI Solutions S.r.l.	DNA, ML, AI	2019
Clevera	Lending	2018
Cloud Finance	DNA, ML, AI	2014
Club deal online	Crowdfunding	2017
Cofyp	Crowdfunding	2016
Coinbase	Crypto	2012
CoinGecko	Crypto	2014
CoinPayments	Crypto	2013
Collettiamo	Smart Payments & Money Transfers	2011

Our Sample (CR-FI)

Company Name	EY Taxonomy	Date
Commerc.io	Blockchain	2018
Concrete	Crowdfunding	2017
Conio	Crypto	2015
Conversate	Chatbot	2016
Cover Holder	InsurTech	2016
Credimi	Lending	2015
Credit Data Research	Lending	2013
Creopay	Smart Payments & Money Transfers	2019
Criptalia	Capital Markets & Trading	2018
CriptoMining	Crypto	2018
CrowdChicken	Crowdfunding	2014
CrowdCity	Lending	2016
Crowdestate	Crowdfunding	2014
Crowdfundme	Crowdfunding	2015
CrowdRe	Crowdfunding	2015
Cryptolab	Cybersecurity	2012
Cuebiq	DNA, ML, AI	2015
Daskell	DNA, ML, AI	2019
Deposit Solutions	Open Banking Services/API	2011
DeRev	Crowdfunding	2012
Diaman Tech	DNA, ML, AI	2012
Digital Tech International	InsurTech	2015
Digithera	Invoice & Tax Management	2014
Dindarò	PFM	2017
Domec	Smart Payments & Money Transfers	2014
Doorway	Crowdfunding	2016
DropPay	Smart Payments & Money Transfers	2015

Company Name	EY Taxonomy	Date
Easy Claims	InsurTech	2017
Easy Tax Assistant	Invoice & Tax Management	2016
Ecomill	Crowdfunding	2015
Edera	Open Banking Services/API	2016
Eidoo	Crypto	2017
Ekuota	Capital Markets & Trading	2013
e-leads	InsurTech	2018
Elinvar	WealthTech	2016
Ener2Crowd	Lending	2018
Epic SIM	Capital Markets & Trading	2014
Epiphany	Open Banking Services/API	2016
Eppela	Crowdfunding	2011
Eticarim	Crowdfunding	2014
EU for SMEf	Lending	2018
Euclidea	WealthTech	2015
EuroPass	Smart Payments & Money Transfers	2016
Exante	Capital Markets & Trading	2011
Fabrick	Open Banking Services/API	2018
Fast Budget	PFM	2016
Fattura24	Invoice & Tax Management	2011
Fatture in Cloud	Invoice & Tax Management	2013
Fifty Finance	Lending	2015
FinBerry	Lending	2016
Findynamic	Lending	2014
Finoa	Crypto	2019
Finom	Invoice & Tax Management	2019
Finscience	WealthTech	2017
FinTech 4 i	WealthTech	2018
Fiscozen	Invoice & Tax management	2017

Our Sample (FL-LE)

Company Name	EY Taxonomy	Date
Flextax	Invoice & Tax Management	2017
Flyp.me	Crypto	2016
Flywallet	Smart Payments & Money Transfers	2018
Folk Funding	Crowdfunding	2013
FondiDoc	Capital Markets & Trading	2013
For Funding	Crowdfunding	2017
Freetrade	Capital Markets & Trading	2015
Fund Italy	Crowdfunding	2014
Fundera	Capital Markets & Trading	2014
Gaia Go S.r.l.	InsurTech	2018
Garanteasy	PFM	2016
General Expert	InsurTech	2015
GetYourBill	Invoice & Tax Management	2014
Gimme5	WealthTech	2015
Ginger	Crowdfunding	2013
GreenAddress	Crypto	2013
Growishpay	Smart Payments & Money Transfers	2014
Helperbit	Crowdfunding	2015
HiPay	Smart Payments & Money Transfers	2015
Hitbytes	DNA, ML, AI	2018
Hopenly	DNA, ML, AI	2014
House 4 Crowd	Crowdfunding	2018
Housers	Crowdfunding	2015
Human interpretation	DNA, ML, AI	2019
Hype	Neo Banks	2014
IBAN P (ForFirm)	RegTech	2018

Company Name	EY Taxonomy	Date
Iconium	Crypto	2018
Idea CrowdFunding	Crowdfunding	2017
iFinTech	WealthTech	2017
iGenius	DNA, ML, AI	2016
Illimity	Neo Banks	2018
inbitcoin	Crypto	2016
Inchcapital	WealthTech	2014
Indigo.ai	Chatbot	2016
Innamorati della Cultura	Crowdfunding	2013
Insieme Doniamo	Crowdfunding	2016
Insoore	InsurTech	2015
Insurance Arena	InsurTech	2013
Investi-re	Crowdfunding	2014
InvoiceMarket srl	Lending	2017
iPassMe	Smart Payments & Money Transfers	2016
Jusp	Smart Payments & Money Transfers	2011
Karma Software	DNA, ML, AI	2014
Kellify	DNA, ML, AI	2017
Kendoo	Crowdfunding	2013
Kickoffers	Capital Markets & Trading	2018
K-Linx	DNA, ML, AI	2017
Kopjra	Cybersecurity	2014
Kubique	DNA, ML, AI	2014
La Perizia Online	InsurTech	2017
Laboriusa	Crowdfunding	2014
Laila	Chatbot	2017
Land2Lend	Crowdfunding	2016
LegaLock	Cybersecurity	2014
Lets Donation	Crowdfunding	2012

Our Sample (LI-PA)

Company Name	EY Taxonomy	Date
Lita	Crowdfunding	2014
Livetech	DNA, ML, AI	2014
LoanXchain	Capital Markets & Trading	2017
Lokky	InsurTech	2018
LoroFuturo	PFM	2016
LoveItaly	Crowdfunding	2014
Luna Decision	Data Management	2013
Luno	Crypto	2013
Magic Invoice	Invoice & Tax Management	2014
Magic Media	Crowdfunding	2017
Mailcoding	RegTech	2015
Mangrovia Blockchain Solutions	Blockchain	2018
MarketWall	Capital Markets & Trading	2014
Mathesia	Crowdfunding	2014
Matipay	Smart Payments & Money Transfers	2018
MC Advisory	WealthTech	2014
MDOTM	WealthTech	2015
MEDICI	Data Management	2013
Menocarta.net	Invoice & Tax Management	2012
Meridonare	Crowdfunding	2015
Merkur.io	Cybersecurity	2016
MIOAssicuratore	InsurTech	2016
MIRWARE	DNA, ML, AI	2014
Mobisec	Cybersecurity	2015
Mobysign	Smart Payments & Money Transfers	2014
ModulTrade	Crypto	2017
Moneyfarm	WealthTech	2011
Moneymour	Lending	2018
Monito	Smart Payments & Money Transfers	2013

Company Name	EY Taxonomy	Date
Motus Quo	Lending	2014
Musicraiser	Crowdfunding	2012
Muum Lab	Crowdfunding	2015
My Credit Service	Lending	2014
MyBank	Cybersecurity	2013
Myfoglio	Open Banking Services/API	2014
MyPass	Smart Payments & Money Transfers	2014
N26	Neo banks	2013
Namu	Data Management	2016
Nemoris	DNA, ML, AI	2011
Neosurance	InsurTech	2016
Nexsun	Cybersecurity	2012
Next Equity	Crowdfunding	2014
NiTE	Cybersecurity	2012
Noovle	Open Banking Services/API	2013
October	Lending	2014
Onfido	Cybersecurity	2012
Open Move	Smart Payments & Money Transfers	2014
OpenAI	Chatbot	2018
Opsidea	Crowdfunding	2014
Opstart	Crowdfunding	2015
Ortja	Crowdfunding	2013
Oval Money	PFM	2016
Pagantis	Lending	2011
Pagita	Smart Payments & Money Transfers	2014
Paymeabit	Crypto	2014
Paymium	Crypto	2011

Our Sample (PE-SP)

Company Name	EY Taxonomy	Date
Penta	Neo Banks	2017
Personalive	DNA, ML, AI	2016
placeUP	Crowdfunding	2018
PlanBee	Crowdfunding	2015
Plick	Smart Payments & Money Transfers	2016
Poleecy	InsurTech	2018
Prestacap	Lending	2015
Prima Assicurazioni	InsurTech	2014
Progettocivibanca	Crowdfunding	2014
Qadra	WealthTech	2018
Qonto	Neo Banks	2016
Rataran	WealthTech	2015
Rationis	DNA, ML, AI	2017
RCPolizza.it	InsurTech	2012
RE Analytics	DNA, ML, AI	2015
Recrowd	Crowdfunding	2018
Re-lender	Crowdfunding	2019
Responsa	Chatbot	2011
RetApp	DNA, ML, AI	2012
Revolut	Neo Banks	2015
Riskapp	InsurTech	2015
Robo4Advisor	WealthTech	2016
Robobox	WealthTech	2016

Company Name	EY Taxonomy	Date
Salary Fits	Lending	2015
Satispay	Smart Payments & Money Transfers	2013
Scalapay	Lending	2019
School Raising	Crowdfunding	2013
Scloby	Smart Payments & Money Transfers	2013
ScuolaPay	Crowdfunding	2017
Seeyourbox	DNA, ML, AI	2013
SelfieWealth	WealthTech	2015
Sestertium	WealthTech	2015
ShapeShift	Crypto	2013
Shapps	Capital Markets & Trading	2014
SiamoSoci | Mamacrowd	Crowdfunding	2016
Simplesurance	InsurTech	2012
SlowFunding	Crowdfunding	2015
Sociallending	Lending	2015
Soisy	Lending	2015
Soldo	PFM	2014
SolidLedger	Blockchain	2018
SpazioDati	DNA, ML, AI	2012
s-peek	Capital Markets & Trading	2011
Spitch	DNA, ML, AI	2014
Splitted	PFM	2019
SplittyPay	Smart Payments & Money Transfers	2018
Splitwise	PFM	2011
SportSupporter	Crowdfunding	2015
Spreadoff	Smart Payments & Money Transfers	2016

Our Sample (SQ-U)

Company Name	EY Taxonomy	Date
Squarelife	InsurTech	2013
Squeezol	Smart Payments & Money Transfers	2013
Stamp	Invoice & Tax Management	2017
StarsUp	Crowdfunding	2013
Starteed	Crowdfunding	2013
Stip	Chatbot	2017
Supercapital	WealthTech	2019
Supply@me	Open Banking Services/API	2017
Swascan	Cybersecurity	2016
Talents Venture	Lending	2016
TalkForce	Chatbot	2016
Talos Sec	Cybersecurity	2016
TassaFacile	Invoice & Tax Management	2018
TaxMan	Invoice & Tax Management	2017
Tech Engines	DNA, ML, AI	2016
The Avantgarde Group	DNA, ML, AI	2014
The Best Equity	Crowdfunding	2017
The Funding Spirit	Crowdfunding	2016
The Rock Trading	Crypto	2013
The Social Lender	Lending	2017
Tiassisto24	InsurTech	2014
Tickete	Chatbot	2015
Tifosy	Lending	2013

Company Name	EY Taxonomy	Date
TIME - The Insurance Market Exchange	InsurTech	2015
Tiller Systems	Smart Payments & Money Transfers	2014
Tinaba	Smart Payments & Money Transfers	2015
Tink AB	Open Banking Services/API	2012
Tinkl.it	Smart Payments & Money Transfers	2018
Toshl Finance	PFM	2012
TradingView	Capital Markets & Trading	2011
Trakti	RegTech	2016
Transactionale	DNA, ML, AI	2015
TransferWise	Smart Payments & Money Transfers	2011
Travel Appeal	DNA, ML, AI	2014
Triboom	Crowdfunding	2014
Tricount	PFM	2015
Trovabando	RegTech	2014
Truelayer	Open Banking Services/API	2016
Trusters	Crowdfunding	2017
Two Hundred Crowd	Crowdfunding	2013
UmanoT	WealthTech	2015
Unfraud	Cybersecurity	2014
Unicaseed	Crowdfunding	2013
Universitiamo	Crowdfunding	2014
Up Europe	Lending	2014
Userbot	Chatbot	2017
Utego	PFM	2018

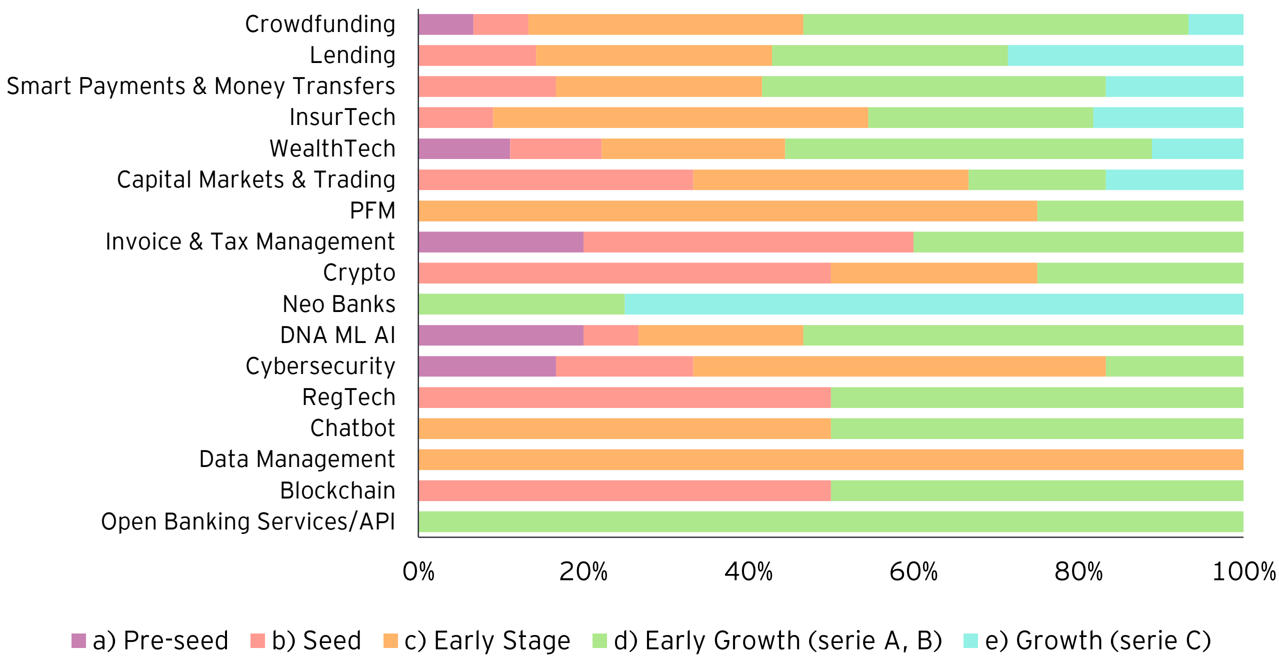
Our Sample (V-Z)

Company Name	EY Taxonomy	Date
Verse	Smart Payments & Money Transfers	2016
Viacash	Smart Payments & Money Transfers	2011
Victor Insurance	InsurTech	2018
Vidyasoft S.r.l.	DNA, ML, AI	2015
Virtual POS di incasso semplice	Smart Payments & Money Transfers	2018
VIRTUOSO	InsurTech	2017
Vis à Bit	Cybersecurity	2016
Vivocha	Chatbot	2012
Vuolly	Smart Payments & Money Transfers	2018
Wadex	Capital Markets & Trading	2016
Wallet-E	Smart Payments & Money Transfers	2012
Walliance	Crowdfunding	2016
Wallrise	Crowdfunding	2014
Wavenure	WealthTech	2016
We Are Starting	Crowdfunding	2014
Wefox Group	InsurTech	2015
Weldpay	Cybersecurity	2017
Wish Raiser	Crowdfunding	2015
WithYouWeDo	Crowdfunding	2014
WizKey	Blockchain	2018
WolfWay	Capital Markets & Trading	2015
WOOP FOOD	Crowdfunding	2015
Workinvoice	Lending	2013
Xriba	DNA, ML, AI	2018
XTN	Cybersecurity	2014

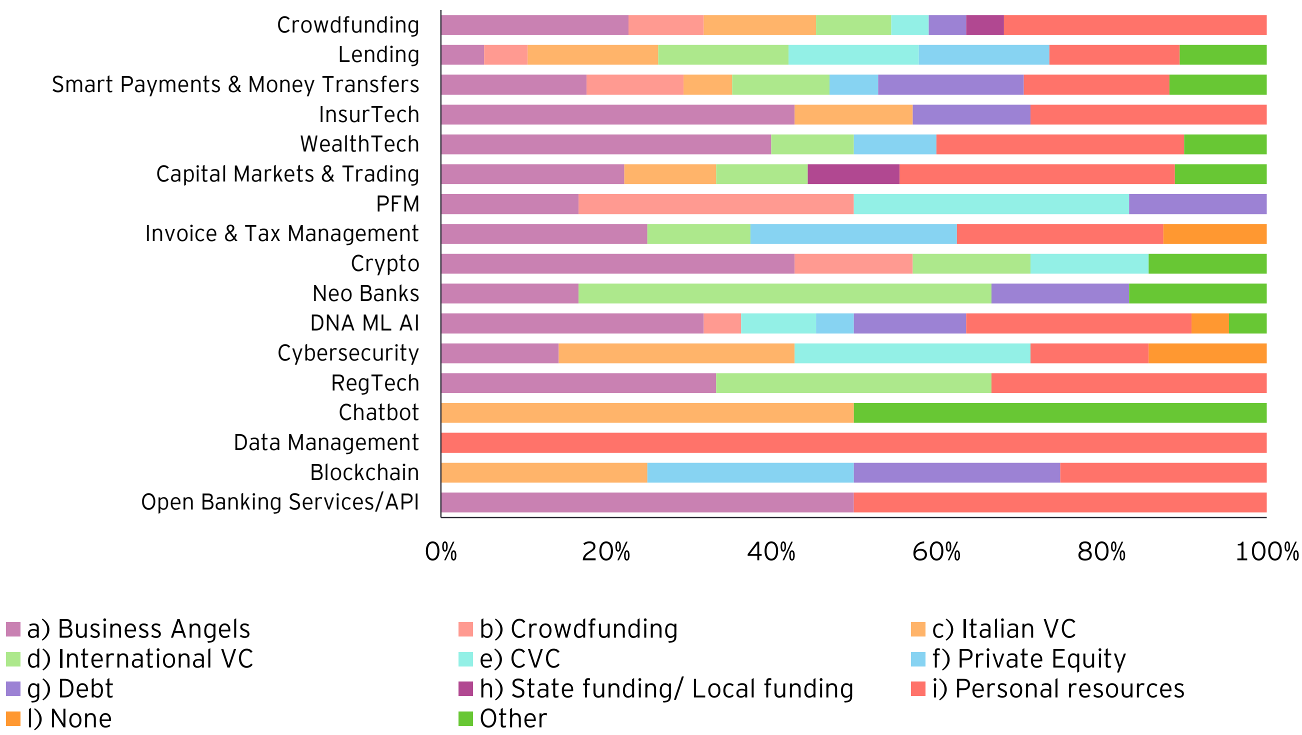
Company Name	EY Taxonomy	Date
Yapily	Open Banking Services/API	2017
Yaroze	Cybersecurity	2018
Yeureka	Crowdfunding	2015
YOLO	InsurTech	2017
Yolt	PFM	2017
Young Platform	Crypto	2018
Zillions	Invoice & Tax Management	2016

Appendix 3 - Microsegments details

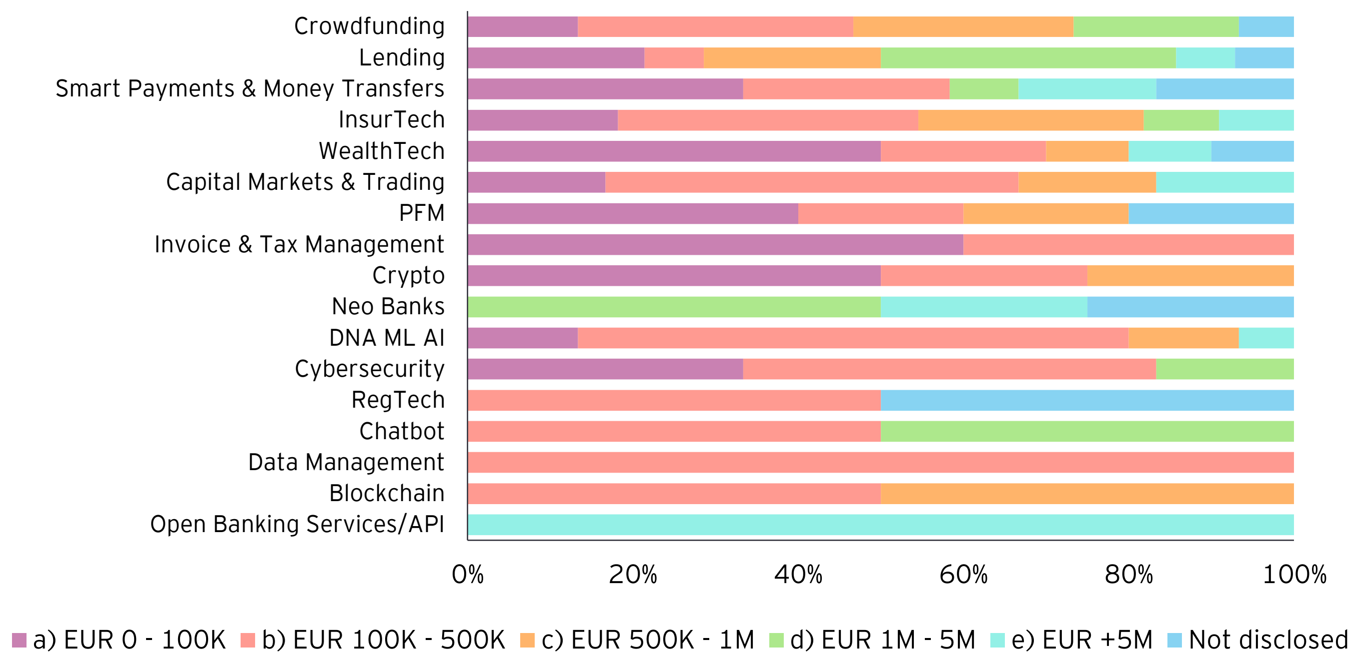
Microsegments - stage of development



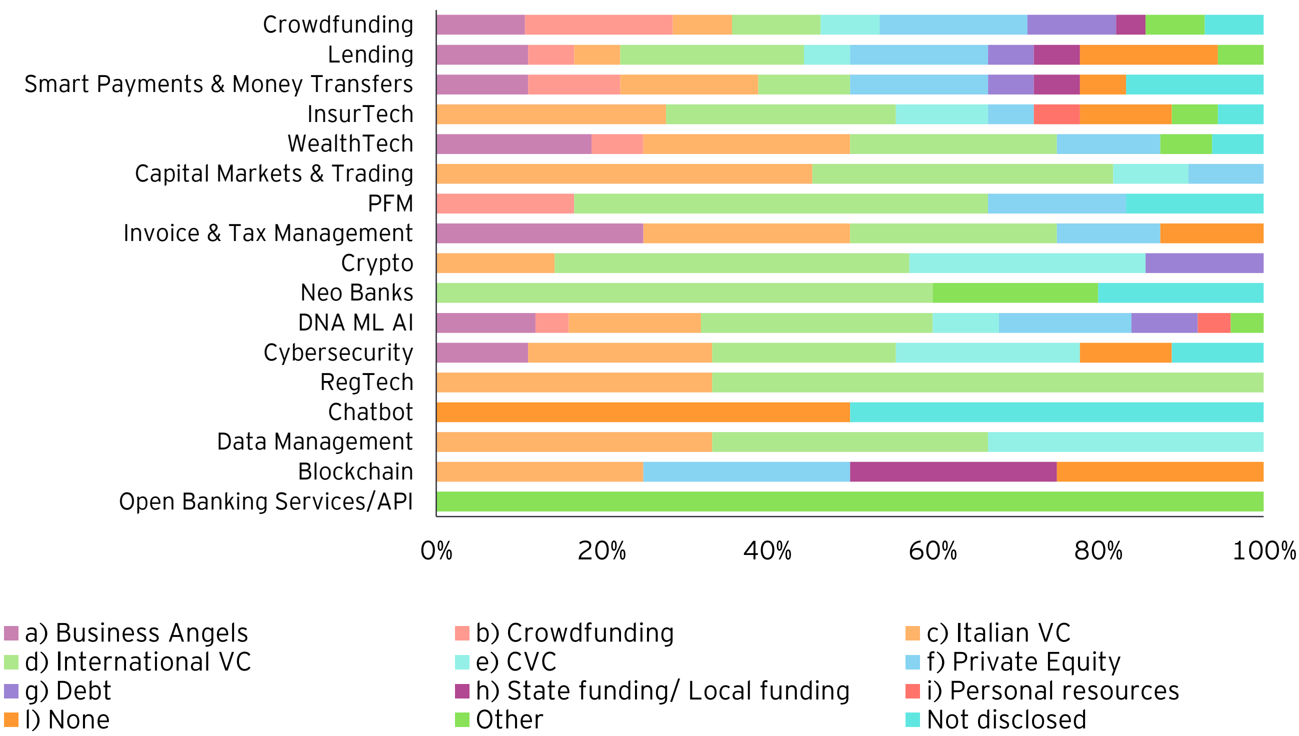
Microsegments - sources of financing



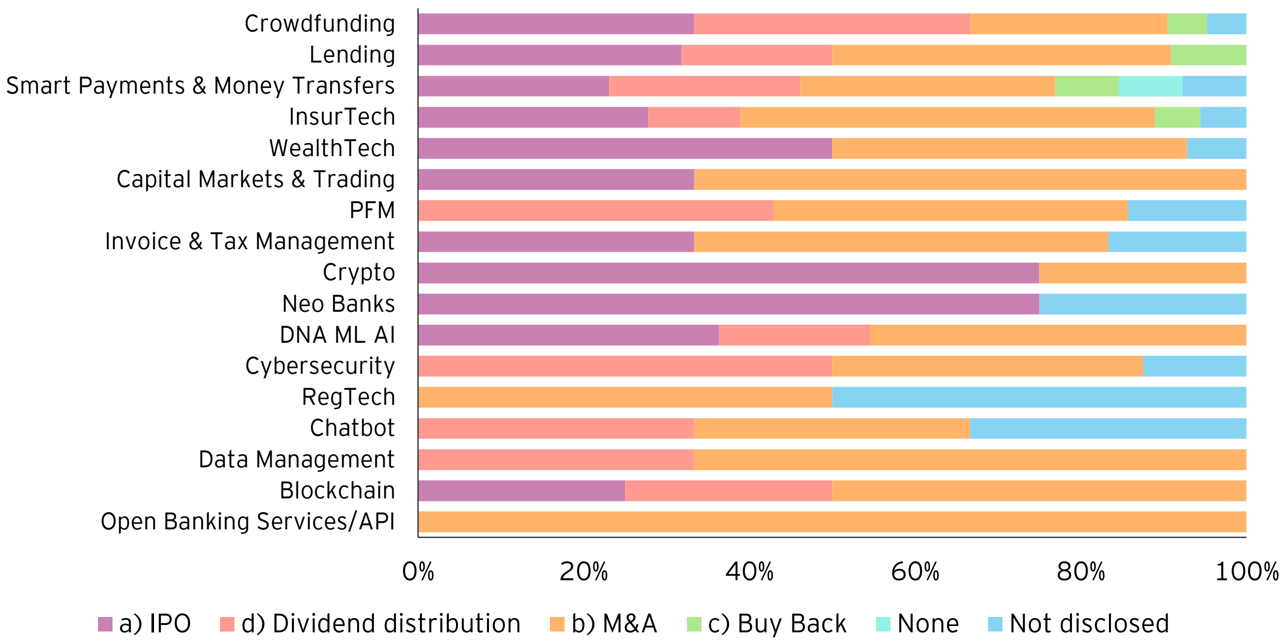
Microsegments – annual turnover



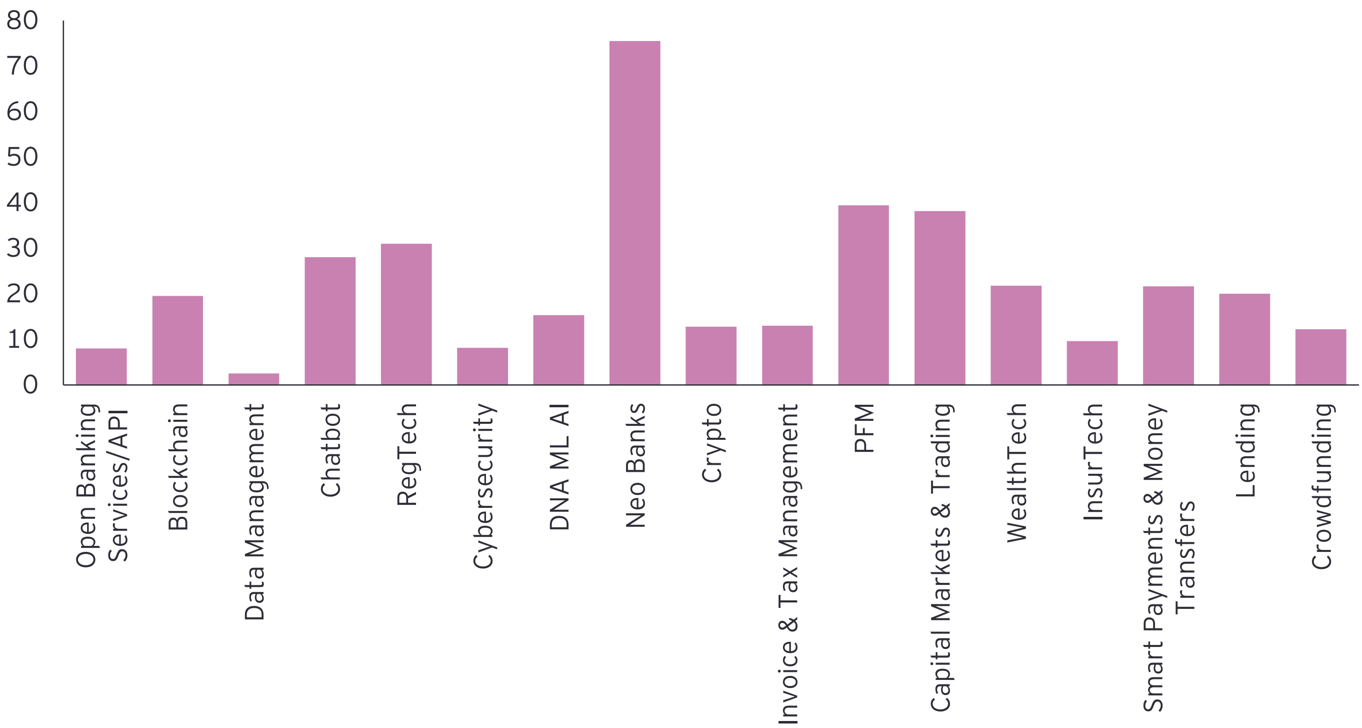
Microsegments – next investors



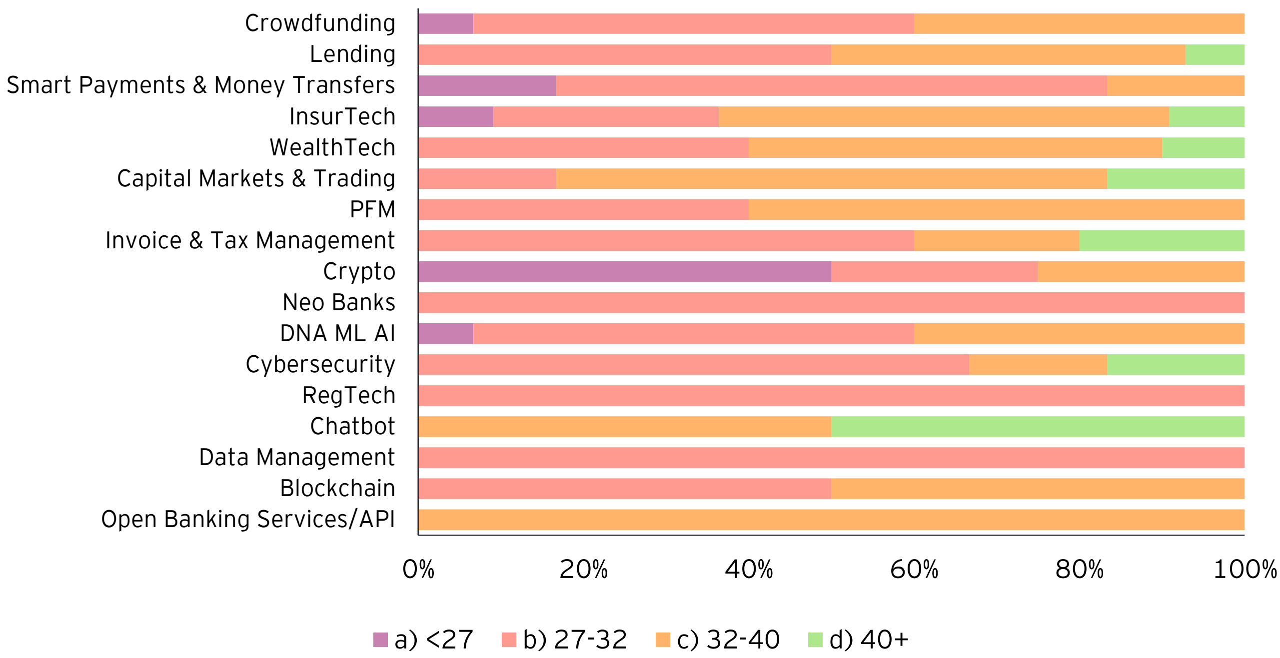
Microsegments – exit strategies



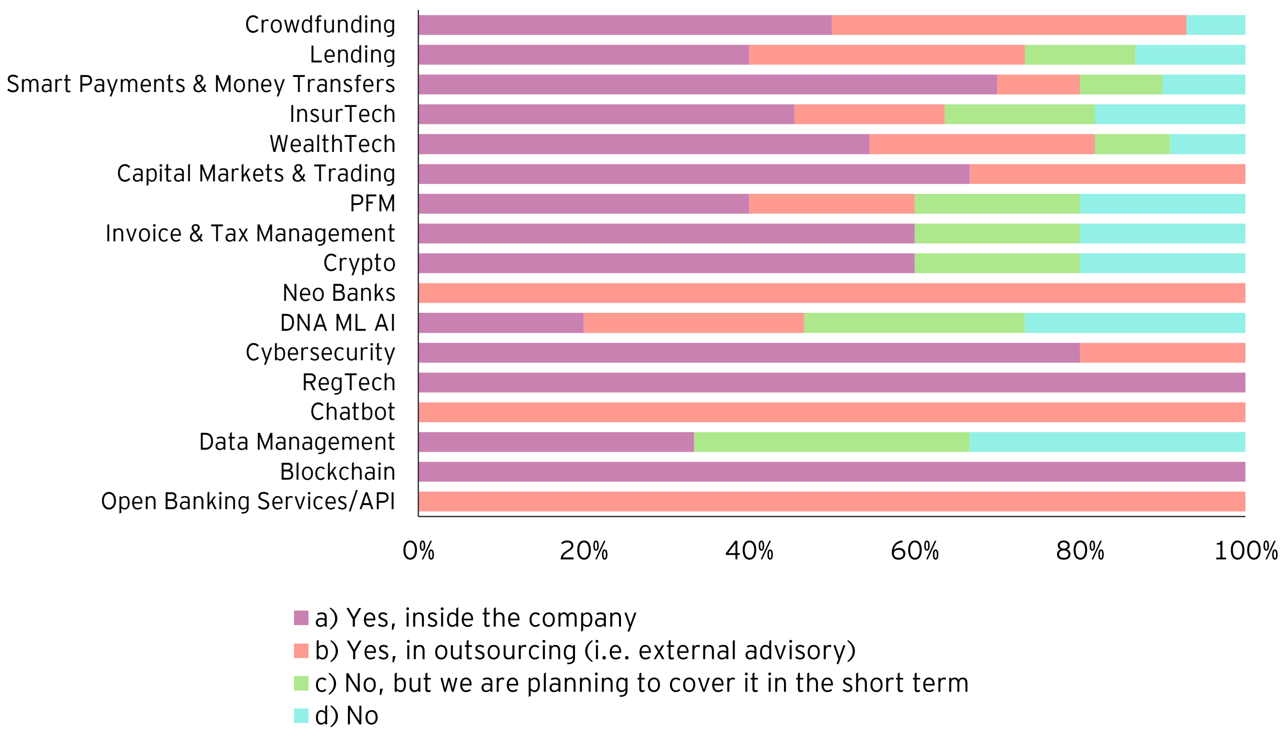
Microsegments – team members



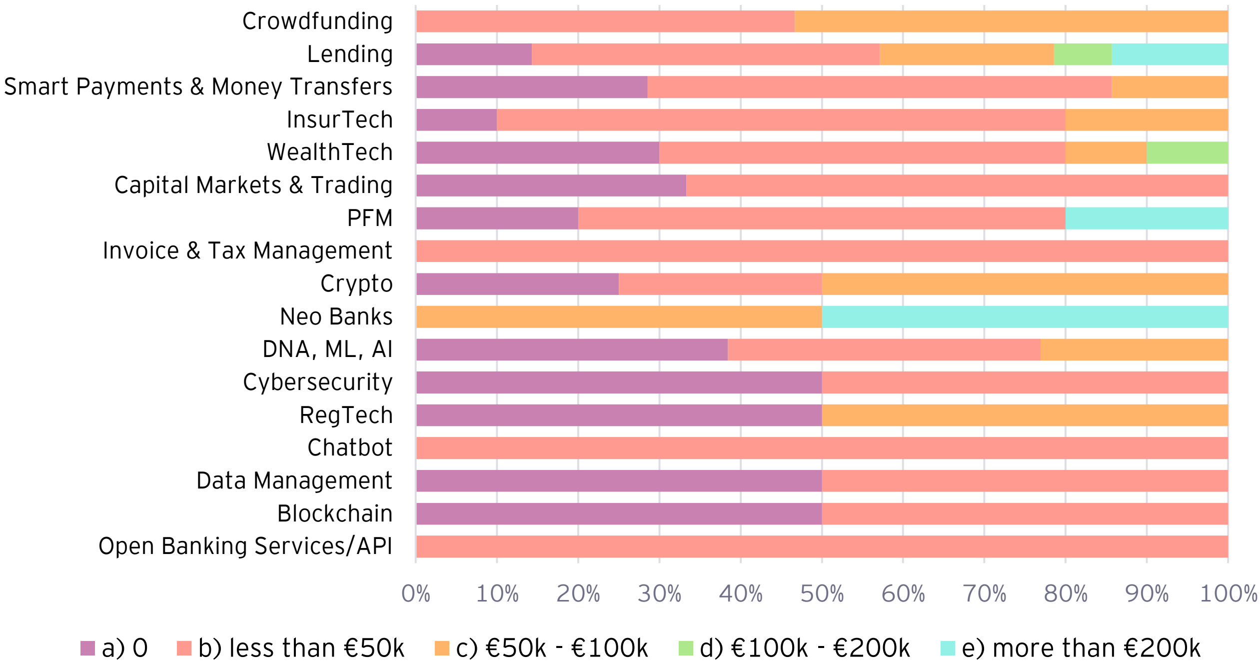
Microsegments – team members age



Microsegments – risk function coverage



Microsegments – annual expenditure on Compliance & Risk



Appendix 4 - Investor characteristics

The global financial industry is populated by different types of investors. The **infrastructures** mostly used to provide funding, acquire, integrate and collaborate with target companies are as follows:

Venture Capital

Venture Capital is a form of private equity and a type of financing that funds or companies provide to startup companies and small businesses, which are often tech-focused, that are deemed to have a considerable long-term growth potential.

Corporate Venture Capital

Corporate Venture Capital (CVC) is the direct investment of corporate funds or companies in external startup companies' equity. A CVC firm provides investments on behalf of large companies that strategically invest into startups to increase revenues or to gain a competitive advantage.

Private Equity Vehicles

Funds and investors, generally organized as limited partnerships that directly invest into private companies that are not listed on a public exchange through capital provision.

Business Angels

High net worth individuals that provide equity financing for the development of a startup, with the aim to help an entrepreneur's business idea to succeed by investing in return for convertible debt or equity. Business angels usually are also interested in becoming involved in the project by acting as a mentor to both the businessperson and their commercial concept.

State/Local Funding

Investments in the startup's equity made through state or locally generated funds. It can also be made under the form of a debt financing.

Private Debt Vehicles

Funds and investors, generally organized as limited partnerships that directly invest into private companies that are not listed on a public exchange through the purchase of a debt instrument in return for a principal with interest.

Personal resources

Personal financial resources employed by funders and management, as well as from Family & Friends (F&F). It is a funding source guided by entrepreneurial commitment or emotional relationships, often representing one of the first type of financing undertaken by startups.

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