

**2022
EDITION**

Coordinators

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FinTech Report Romania

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2022
EDITION

FinTech Report Romania

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OF ECONOMIC STUDIES

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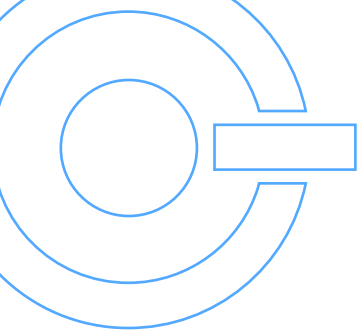
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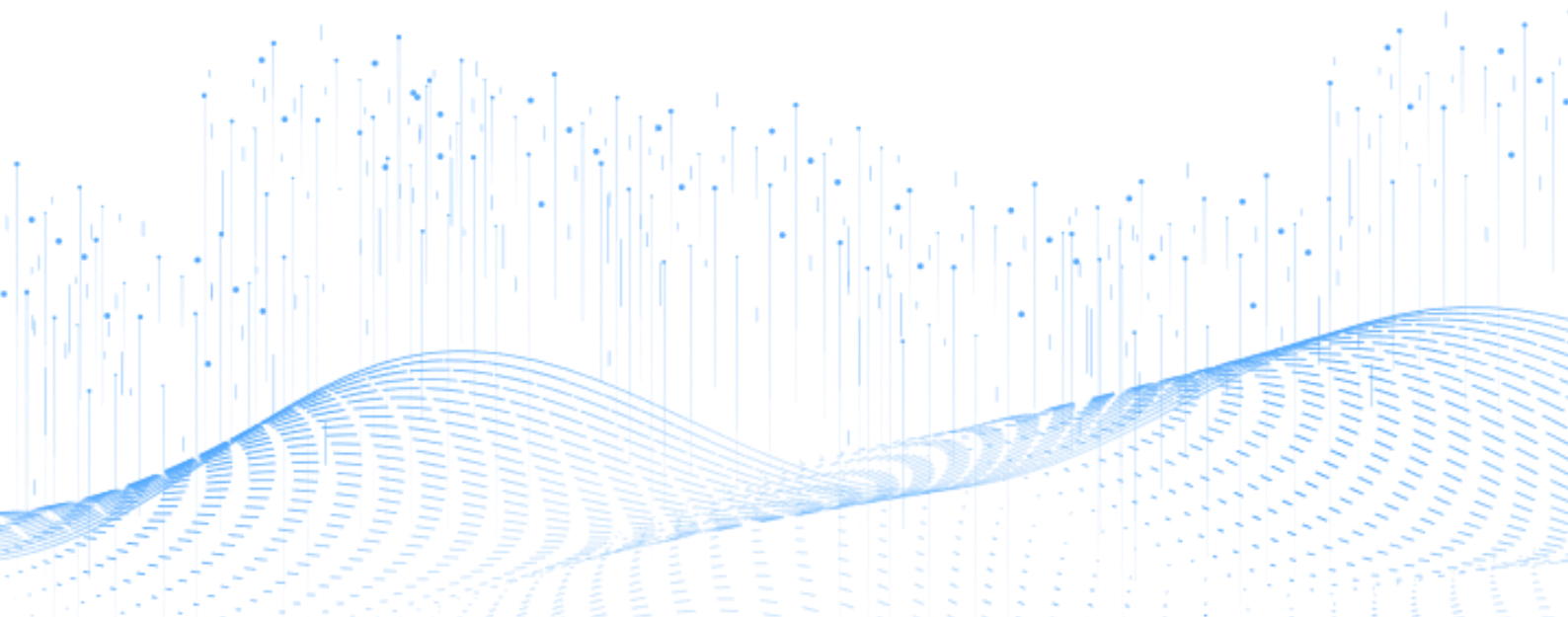
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We thank all respondents!



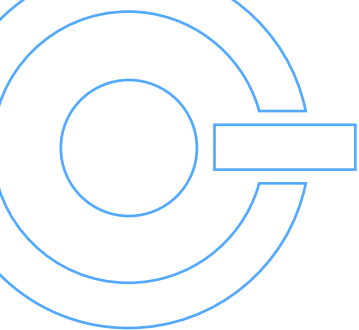
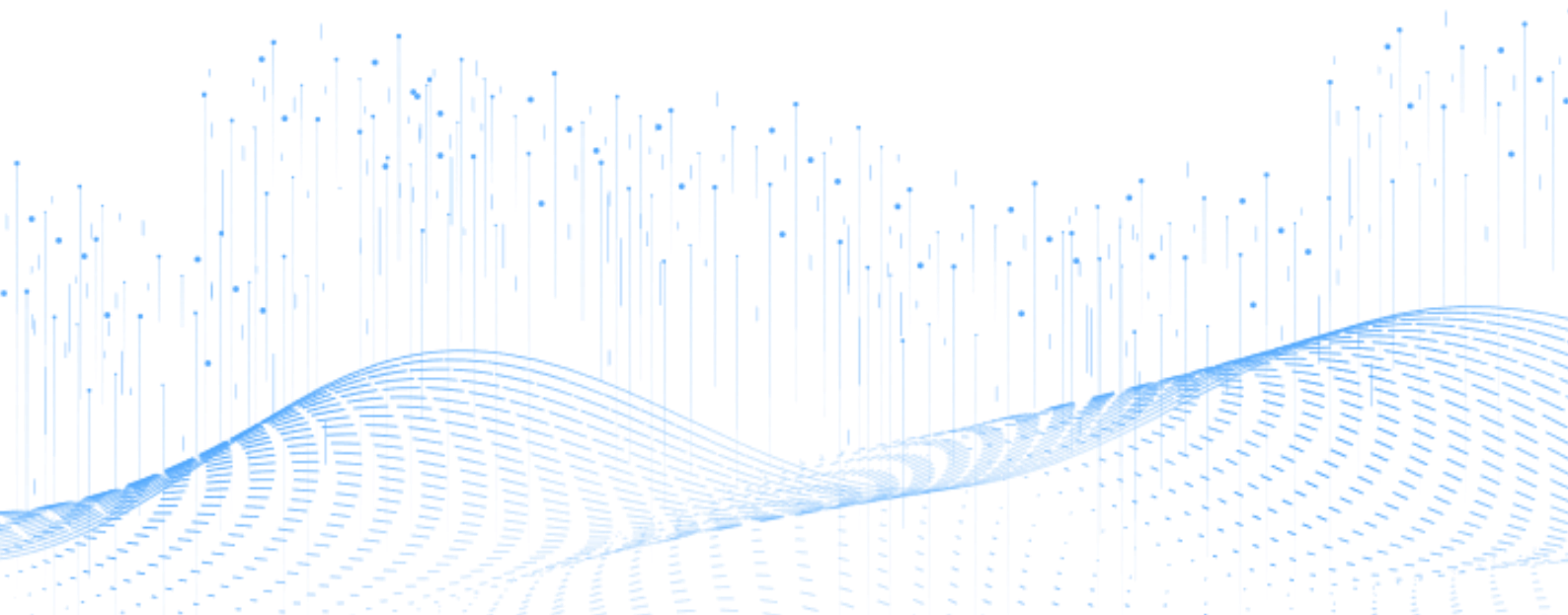
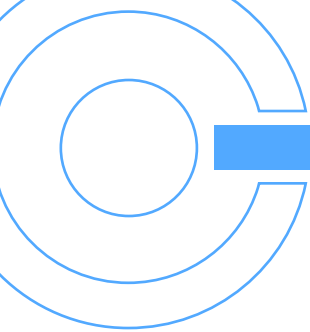


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SECTION 1

Preface

The Romanian FinTech sector has been developing faster mostly during the last five years.

The present report is the first to assess in a more complex manner the current state of the fintech ecosystem. The report is based on the methodology and structure used by the representatives of TALTECH School of Business and Governance and by the representatives of Fintech Estonia in their report published in 2021 for the Estonian Fintech sector. The report also incorporates information presented in the Estonian report with the clear purpose of ensuring consistence and comparability. The current report also includes an analysis of the developments of the sector emerged as a response or as a cause of the COVID-19 pandemic.

The present report aims to provide an overview of the recent developments influencing the Romanian FinTech sector and the main characteristics and challenges of the FinTechs.

This report is coordinated by the Bucharest Business School from the Bucharest University of Economic Studies in cooperation with the Romanian Fintech Association (ROFINTECH) as key representative of the Romanian Fintech sector. The team of the report is broader, including academics from three universities in Romania, namely Bucharest University of Economic Studies, Babeş Bolyai University and University of Oradea. As mapping the FinTech landscape is a challenge, because of the difficulties in distinguishing FinTechs from non-FinTechs, we would urge the Romanian FinTechs not mentioned in this report to let us know of their existence, so they can provide input for future reports. Starting from the Estonian model and also bearing in mind the need for comparability, the report is divided into several sections.

SECTION 2

Provides the definitions and the overall framework of the report.

SECTION 3

Presents an overview of the current Romanian FinTech environment with the main focus on changes in the legal environment and characteristics of the local FinTech ecosystem.

SECTION 4

Presents an overview of Romanian FinTechs and the results of the survey conducted in spring 2022.

SECTION 5

Concludes the report by presenting the most important findings.

The team of the report greatly appreciates the support provided by the representatives of the Romanian Fintech Association in contacting the FinTechs. Our deepest appreciation goes to the FinTechs who agreed to participate in the survey.

We would like to thank Magda Sandulescu, Tudor Doman and Raluca Micu for their support and feedback on the report. We would also like to extend our appreciation to the team of TALTECH School of Business and Governance who has shared with us their work and encouraged us to follow their approach and replicate the study in Romania.

Definition and Framework of the Study

2.1. Definition of Fintech

In a nutshell, the concept of fintech emerged along with the introduction of technology within financial services.

Fintech is a broad term which encompasses IT solutions that can be developed internally by a financial organization or by an IT provider.

The Financial Stability Board (FSB) defines fintech as “technologically enabled innovation in financial services that could result in new business models, applications, processes or products with an associated material effect on financial markets and institutions and the provision of financial services” (FSB, 2022).

Previous reports have divided fintech companies in two main categories: providers of financial services - retail facing, and providers of technology and support services - market provisioning (CCAF, World Bank and WEF, 2020). A detailed list of FinTech solutions has been included in the CCAF, World Bank and World Economic Forum reports (CCAF, World Bank and WEF, 2020; CCAF, World Bank and WEF, 2022).

A similar taxonomy has been developed for Fintech Report Estonia 2021 (Laidroo et al., 2021). We suggest a leaner taxonomy based on the proposals within the previously mentioned sources and also adapted to the Romanian ecosystem.

Providers of **financial services** are organizations which perform:

CAPITAL RAISING AND PERSONAL FINANCE



Digital lending:

P2P lending, micro lending, invoice trading, leasing



Digital capital raising:

crowdfunding and ICO platforms

DIGITAL PAYMENTS AND ASSETS EXCHANGE



Digital payments:

mobile payments, money transfer, mPOS, NFC,



Digital assets exchange:

cryptocurrency platforms and brokerage, e-wallets

InsurTech, including digital brokers, P2P insurance



InsurTech

OTHER SERVICES



WealthTech: personal financing, pension planning, wealth management & advisory

Providers of **technology and support services** include:



Cybersecurity and Digital Identity: biometric solutions, Know Your Customer (KYC) solutions



Credit and Data Analytics: financial analyses and credit scoring based on big data



RegTech: IT solutions for meeting regulatory requirements



Enterprise Technology Provisioning: solutions for financial companies, including cloud computing, business intelligence applications, API management, distributed ledger technology and others



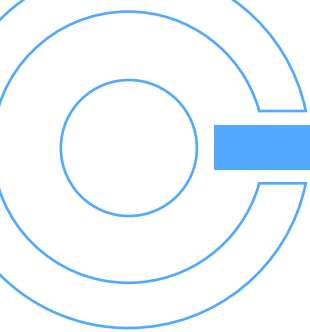
2. 2. Research Methods

The current report incorporates the information collected by the research team through desk research, through the analysis of data collected through the survey carried out during the spring of 2022 and also through the analysis of the information collected through the semi-structured interviews carried out during the same period.

The survey was based on a questionnaire which was adapted after the questionnaire used by the Estonian team in their survey conducted in 2021 and 2022. The main focus of the survey was the business model of the Romanian FinTechs. The Romanian Fintechs were analyzed using the business model canvas proposed by Osterwalder and Pigneur (2010), covering the key activities, key resources, value proposition, customer channels and segments, and revenue streams.

The analysis covers several aspects like technology, value proposition, and product / service delivery classifications introduced by Eickhoff et al. (2017). The survey included a section focusing on COVID-19 impacts and location choices of FinTechs and will probably be adapted in future iterations of the study.

The quantitative data were complemented with information collected through interviews carried out with representatives of Romanian Fintechs. This information was also complemented with input from other stakeholders including regulators and supervisors. The analysis of all collected data and information is structured and presented mostly in section 4, even though some of it was also used in section 3, mostly in section 3.2.



Romanian FinTech Environment

3.1. Legal Environment

3.1.1 Changes in European legal environment

While the advantages of FinTech solutions in terms of innovation and job creation are clear, there are also threats that these developments can impose, one of them being the threat of cybercrime. To capitalize on the FinTech advantages, while creating a framework to mitigate the risks, the EU has announced and developed several initiatives to regulate the industry, among which, intra-EU payment services, data protection, crowdfunding and regulatory sandboxes (Stamegna and Karakas, 2019). The EU regulatory framework for FinTech is fragmented, and there are areas where Member States can choose to apply individualized regulations.

In 2017, the European Commission adopted the final regulatory technical standard proposal for the Payment Services Directive, which made banks set up a communication channel which would allow third party service providers (TPPs) to access needed data (European Commission, 2017).

Later in 2017, European legislators agreed to extend the scope of the Anti-money-laundering Directive to virtual currency exchanges and wallet providers. The 5th Anti-money-laundering Directive (Directive (EU) 2018/843) amended Directive (EU) 2015/849 by including virtual currency exchanges, custodian wallet providers, persons storing, trading or acting as intermediaries in the trade of works of art. In 2021, the European Commission proposed a new amendment to the 2015 directive, with the scope to avoid regulatory divergences within the European Union and include corporate responsibility (European Commission, 2021).

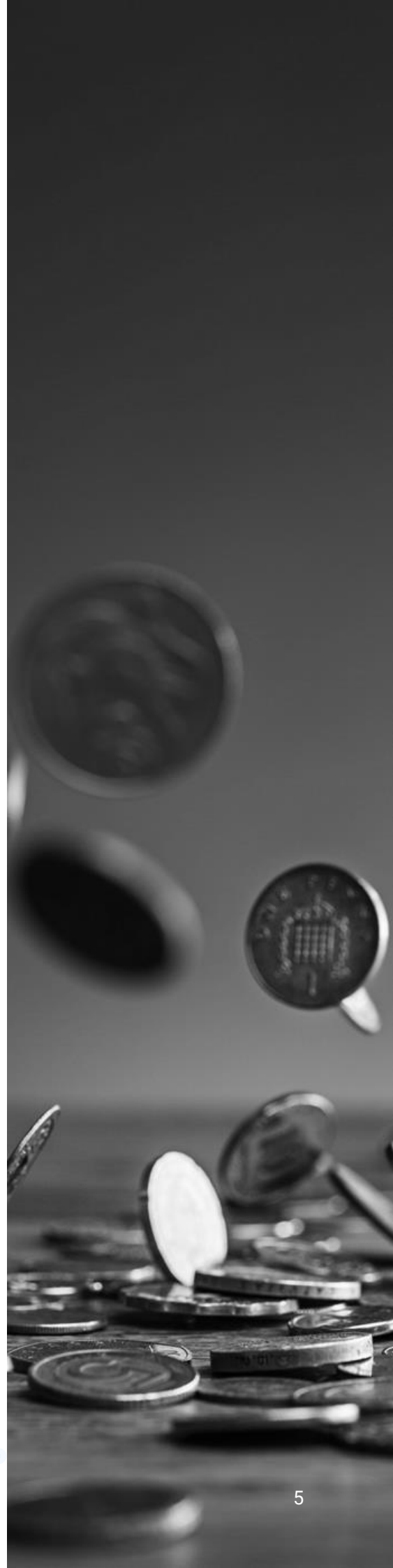
The first FinTech action plan was introduced by the European Commission in 2018 and was complemented by the digital finance package in 2020. This strategy has led to the formulation of several initiatives. Most recent changes in regulations pertain to the regime for market infrastructures based on distributed ledger technology, digital operational resilience, and the field of crypto-assets. There are also discussions towards the Open Finance concept, albeit incipient.



The Regulation on European Crowdfunding Service Providers (Regulation (EU) 2020/1503) entered into force on November 10, 2020 and was applied directly across the EU starting from November 10, 2021. The ECSP was aimed at introducing a methodological guidance for crowdfunding cross-border activities (European Commission, n.d.). The service providers are required to apply for a license in their home member state before being able to conduct business in all other member states without the need for extra authorization.

In June 2022, the European Commission announced that The Council Presidency and the European Parliament reached a provisional agreement on the markets in crypto-assets (MiCA) proposal (European Council, 2022). While MiCA describes a crypto-asset as a digital representation of a value or a right which may be transferred and stored electronically, using distributed ledger technology or similar technology, the European Banking Authority defined crypto-assets as "a type of private asset that depends primarily on cryptography and distributed ledger technology as part of their perceived or inherent value", and noted that the majority of crypto-assets qualify as financial instruments under the Markets in Financial Instruments Directive (MiFID II) (EBA, 2019). However, there are many challenges in interpreting the directive for crypto-assets. The recommendation of ESMA is to assess each crypto-asset individually (ESMA, 2019).

The main objectives of the MiCA framework are to ensure legal certainty, financial stability, appropriate levels of consumer and investor protection and market stability, and to support innovation. After the adoption of the MiCA draft regulations, crypto-asset service providers will need an authorization to operate within the EU, will have to respect strict requirements to ensure the safety of consumers digital wallets and become liable in case they lose the crypto-assets of their consumers (European Commission, 2020). MiCA also introduced a framework for stablecoins issuers. A sufficient liquidity reserve made up of a 1/1 ratio and partially in the form of deposits would be required of stablecoin issuers to support the quantity of outstanding stablecoins in circulation. Stablecoin issuers will be monitored by the National Competent Authorities, while some important stablecoins will be supervised by the European Banking Authority (European Commission, 2020).



The MiCA regulatory framework has been complemented by a proposal for a regulation on a Pilot Regime for market infrastructures based on distributed ledger technology (Regulation (EU) 2022/858). To be applied starting March 2023, this regulation would allow entities in the European Union to issue financial instruments using distributed ledger technology (DLT). The regulation stipulates thresholds on the DLT financial instruments that can be admitted to trading and settlement and also establishes the conditions for collaboration between DLT operators and competent authorities. The main goal is to test such DLT market infrastructures, which would allow the development of crypto-assets as financial instruments and of distributed ledger technology. Currently, specific EU requirements would prevent the development of these solutions.

Another regulatory proposal within the Digital Finance Package is the Digital Operational Resilience Act (DORA), which will ensure a European financial system which can overcome cybersecurity threats and severe operational disruptions. DORA creates a unique digital operational resilience framework within EU and stipulates security measures for financial companies and their third-party providers, to be able to overcome and recover from any ICT threats and disruptions. The provisional agreement on DORA was reached in January 2022 and it is estimated that will be adopted by the end of Q1 2023.

Other plans for 2023 include the finalization of the Digital Euro project (ECB, 2022), which would be a means of payment backed by central banks.

The Transfer of Funds Regulation (TFR)¹ aims to strengthen anti-money laundering requirements to ensure that crypto transfers can always be traced, and suspicious transactions blocked. The European Parliament and the Council have reached a provisional agreement for crypto-asset providers to provide identifying information on all digital asset transactions. On the subject regarding the open financial framework, EC has launched a consultation process seeking the views of stakeholders on the use of aggregated data for research and innovation or for the purposes of risk monitoring and compliance².

¹Financial Supervisory Board of Romania website accessed at 17.09.2022: [Asfromania.ro](https://asf.romania.ro)

²European Commission website accessed at 17.0.2022: <https://ec.europa.eu>

3.1.2. Romanian competent authorities within the FinTech field

The Financial Supervisory Authority (Autoritatea de Supraveghere Financiară) (ASF), established in 2013, is the national authority responsible for the regulation and supervision of the insurance and reinsurance sector, private pensions and capital markets. The Financial Supervisory Authority (ASF) actively contributes to strengthening the integrated framework for the functioning of the three sectors. In Romania, ASF has taken on an active role in supporting the FinTech environment. The authority has also been appointed by Law no. 244/2022 as competent authority for the Romanian crowdfunding platforms, in terms of authorization, monitoring and control.

One of ASF's initiatives within the FinTech sector is the FinTech Hub, meant to offer FinTechs a direct channel of communication with the authority and mediate the communication with companies that develop FinTech solutions, offering them guidance regarding the FinTech regulatory framework.

ASF has also established InsurTech Hub, an innovation facilitator with the main goals to support efficient communication between stakeholders of innovation solutions driven by technology in the insurance market, to identify new trends, solutions or products and to foster an environment for the growth of the InsurTech field. The organization brings together representatives of 2 universities, 11 professional associations, 11 insurance companies and intermediaries, and 18 IT & software companies and functions as an innovation accelerator for these stakeholders.

The National Bank of Romania (NBR), whose key goal is to ensure price stability, has taken on a role to contribute to financial education, as well as to the support of the fintech sector. In 2018, the National Bank of Romania, together with the Ministry of National Education, the Ministry of Public Finance, the Financial Supervisory Authority, and the Romanian Association of Banks, signed a Cooperation Protocol to collaborate on financial education activities and the development of the National Financial Education Strategy (NBR, 2022a). FinClub was one of the projects developed under this collaboration protocol, as a financial education program for high school students interested in the financial market (NBR, 2022b). NBR also launched BNR EconomicHub in 2020, a project for the business community, where members can receive information regarding the entrepreneurial environment and debate on topics of interest (NBR, 2022c).

In the fintech environment, NBR has launched the FinTech Innovation Hub, to support the development of innovative solutions in the financial sector. Through this project, the NBR seeks to also identify the risks that the new products and services could entail, and find measures to overcome them. Through its involvement in the FinTech Innovation Hub, NBR also provides fintech start-ups with non-binding guidelines regarding compliance with legal requirements in force (NBR, 2022d).





3.2. Romanian FinTech ecosystem

Based on the answers to our survey, as well as on the interviews with key stakeholders in the ecosystem, we can state that the Romanian FinTech sector is growing rapidly and is reducing the gap with more mature similar sectors in the region. This being said, it is important to notice that the Romanian FinTech ecosystem is still in its early stages of development and, with a few notable exceptions, the vast majority of the FinTechs are small companies, at pre-seed or seed stage.

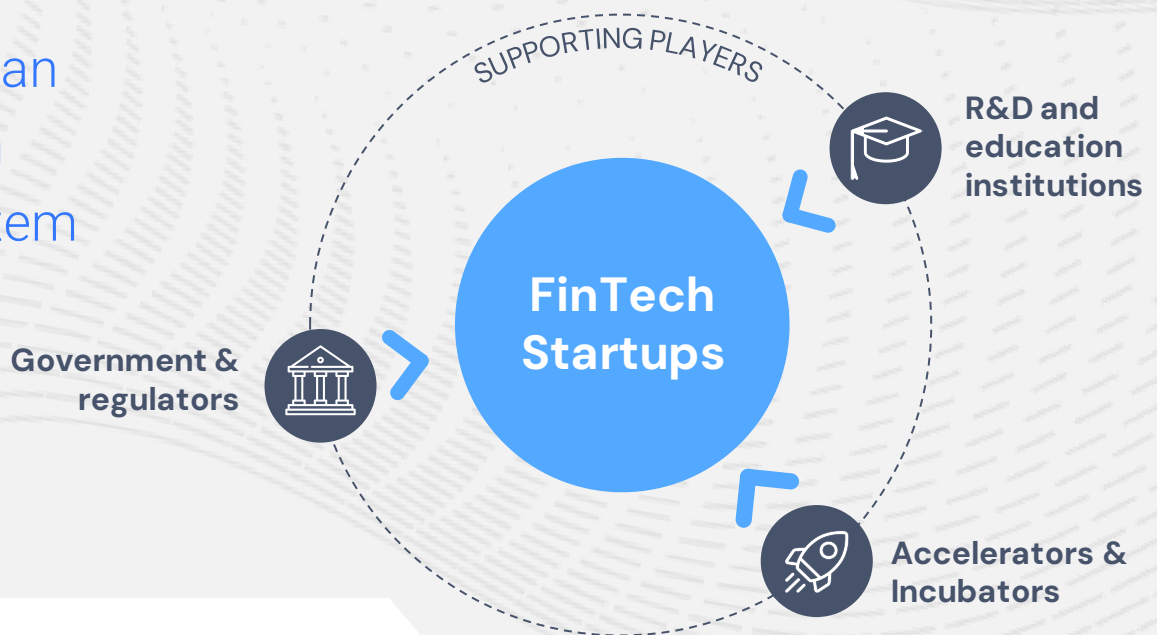
The central role in the ecosystem is played by the FinTech companies themselves. RoFintech could be considered the umbrella organization of the Romanian FinTech ecosystem, as a significant number of the FinTech companies are members of RoFintech. Under this umbrella, the companies can now be more effective in dialoging with other relevant players in the ecosystem, such as the Government. RoFintech also represents a channel for other relevant organizations, such as banks, insurance companies, and large consulting firms to support the entire ecosystem and collaborate more effectively with the FinTech companies.

The Government is the second most important player in the ecosystem, and is represented by the National Bank of Romania, the Financial Supervision Authority and the Ministry of Finance. In a heavily regulated environment such as the financial sector, it is necessary that the Government in its entirety supports the ecosystem and is in constant communication with the FinTech companies and other relevant parties in the ecosystem.

Accelerators and incubators should be regarded as another important part of the ecosystem. The Romanian FinTech ecosystem benefits from the existence of accelerators such as Techcelerator and InnovX and incubators such as Founder Institute and Commons Accel. Most of the newly formed FinTech companies emerged from one of these programs.

The fourth player in the ecosystem is represented by the R&D and education institutions which are not often viewed as an active part of the ecosystem by previously mentioned players. However, this is changing rapidly since the largest universities in the country are taking a more active role in the ecosystem by organizing both long-term and short-term education programs dedicated to FinTech. The authors of this study consider this to be a key driver in the coming years, as most of the FinTech companies are facing significant challenges with meeting their human capital needs.

Romanian FinTech ecosystem



Universities are also taking steps towards bridging the gap between the regulators and the ecosystem, by joining the support programs of the regulators and actively participating in research projects together with both the regulators and the FinTech companies. These research projects, together with the close collaboration with RoFintech could lead to FinTech spinoffs emerging in the coming years, founded either by faculty members alone or by faculty members together with executives from the existing companies.

In addition to these players, the ecosystem is also expanding as a result of the existing traditional financial sector, Romania being a large and attractive market for many FinTech companies. This is one of the main strengths of the Romanian FinTech ecosystem, as many of these traditional financial players, especially banks, are actively supporting the ecosystem in its development.

Same as in Estonia, many ecosystem players feel that the main obstacle to ecosystem development is the lack and weak cooperation and coordinated activities between the players in the ecosystem. The effects of these weaknesses could be mitigated only through the joint efforts of different ecosystem players – FinTech companies, Government and universities. On the same note, more openness from the regulators is desired by the FinTechs.

RoFintech is regarded as the leader of the Romanian FinTech sector since is the only body bringing together some of the voices of the players in the ecosystem. According to the market participants, RoFintech's strengths are structured and coordinated activities. RoFintech is also seen as an important lobbyist in dealing with public authorities, both in Romania and in Brussels, and is considered to represent the "one single voice" of the Romanian ecosystem.

Nonetheless, its activities are restricted by the size of its budget which is heavily dependent on membership fees. As the ecosystem grows and more companies are joining RoFintech, as well as more supporting members are financially supporting the association, this could give RoFintech the boost it needs in order to expand its activity and to increase its visibility.

The Romanian business environment is seen as stable, and it offers all the key ingredients necessary for starting and growing a FinTech company. The large size of the financial sector offers relatively easy access to early-stage capital (both private and public). At the same time, the local tech human capital creates the premises for many of the FinTech companies to grow locally.



However, it might mean that the local FinTechs will have further difficulties expanding into international markets and building global companies since they are not developing from the beginning with a global drive. One other key concern of the players is the growing competition for skilled workforce because the local FinTech companies compete with large global players for the existing local resources. The role of universities becomes critical here, and by working together with the FinTech companies, they can design educational programs better suited to attract students to a career in FinTech. Despite the abovementioned limitations, ecosystem players feel that the Romanian entrepreneurship culture is strong, characterized by entrepreneurial mentality, willingness to act, creativity, and tolerance for alternative tools and solutions. The development of digital infrastructure and the large-scale use of English as a business language in Romania, creates the premises for more global FinTech companies to start locally.

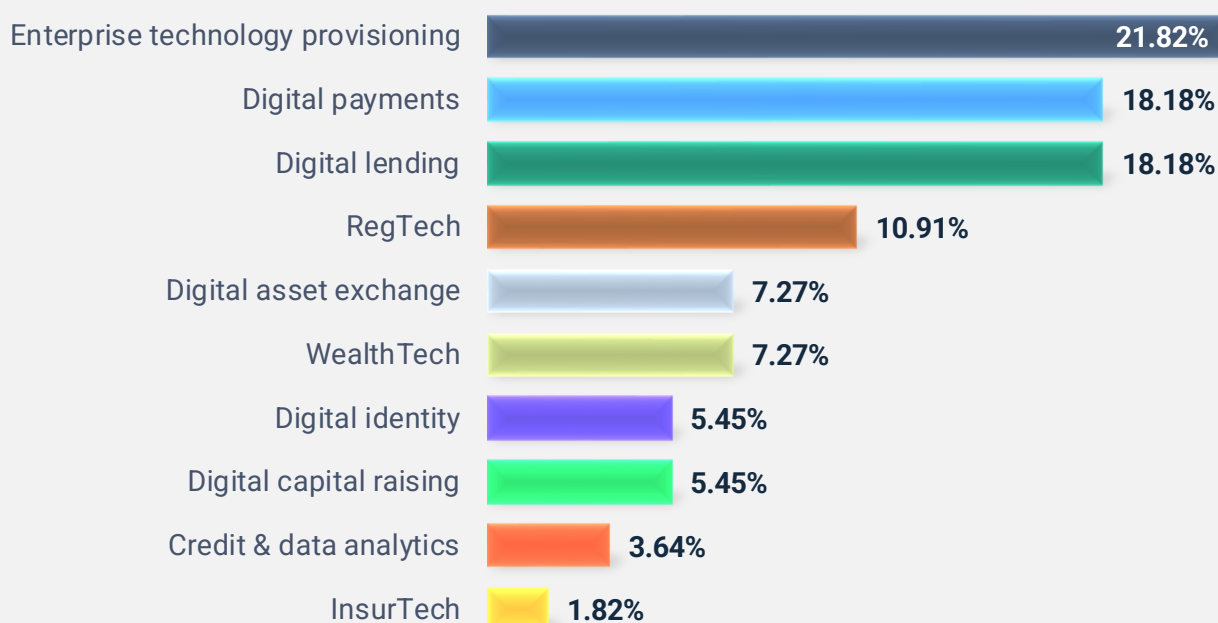
Even though FinTechs feel the support offered by authorities to startups has grown in recent years, they still feel that support targeted specifically towards FinTechs has remained low. Although there is relative freedom for the activities of FinTechs in Romania, many FinTechs complain about the inadequate regulation of the industry and difficult access to open data. These aspects diminish the openness of the sector and FinTechs find it difficult to navigate the regulatory process. On the positive side, it needs to be mentioned that the National Bank and the Financial Supervision Authority have boosted their openness in communicating with the entrepreneurs in recent years. These evolutions could prove to be pivotal in overcoming the difficulties previously mentioned, since FinTechs have also highlighted that co-operation and communication between the state and the private sector could be a key driver supporting the future development of the sector.

Summarizing it can be concluded that a favorable business environment and culture, a strong IT infrastructure, and industry-specific know-how provide good preconditions for the development of the local FinTech sector. On the other hand, the limited nature of these resources, the lack of cooperation, the insufficient interest and support from the state, and the inadequate legal framework could be regarded as significant obstacles to the future development of the Romanian FinTech ecosystem.

Fintech Companies in Romania

4. 1. Overview of Romanian FinTech companies

Fig. 4.1. 1. Distribution of the Romanian FinTech Companies based on the type of activity



The FinTech companies in Romania have been classified using the categories previously presented. Some of them could have been included in several categories but we have decided to choose only one category, the one that is most representative (in our view) of the respective company's activities.

As can be seen in Figure 4.1.1, the top four categories of FinTechs take up 70% of the total population. These are enterprise technology providers with 21.82% of the companies, digital payments and digital lending with 18.8% each, and RegTech with 10.91% of the companies.

The rest of the companies in the remaining categories take up to 30% of the total population, the most representative being digital assets exchange and wealth tech providers. Since this is the first year this research is being conducted, we cannot compare this distribution with the one in previous years. What can be inferred from the distribution presented in Figure 4.1.1 is that the proportion of FinTech companies focusing on more traditional financial services is significant.

However, the proportion of companies focusing on services such as digital assets exchange or blockchain is noteworthy for an ecosystem as young as the Romanian one.

Fig. 4.1.2. Distribution of the companies based on maturity

Figure 4.1.2. indicates that 38% of the FinTechs are 3 to 5 years old, 24% were established 5-10 years ago and 11% were established more than 10 years ago. This indicates that the majority of FinTechs are mature companies and only 22% are younger than 2 years. This is somewhat surprising when correlated with the yearly revenues and indicates that most of these companies have a national focus, regional at most, and very few have a global reach.

Figure 4.1.2. also indicates a somewhat decreased birth of new FinTech startups in Romania. Of course, to observe a trend, we need to compare the results in 2023 with the results we have now.

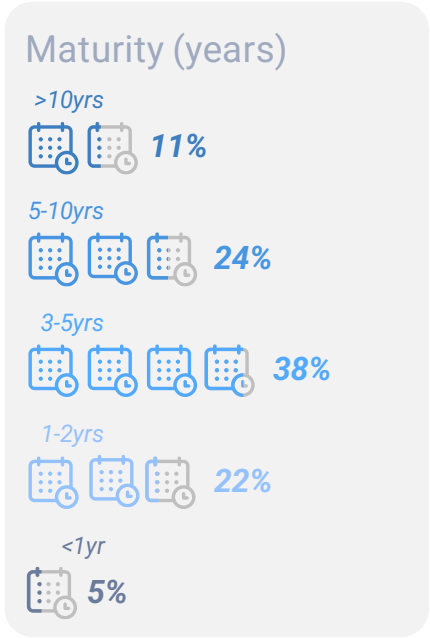
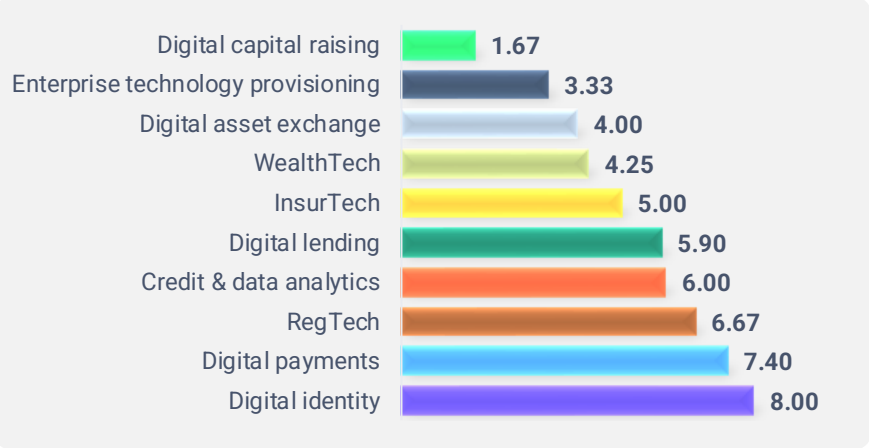


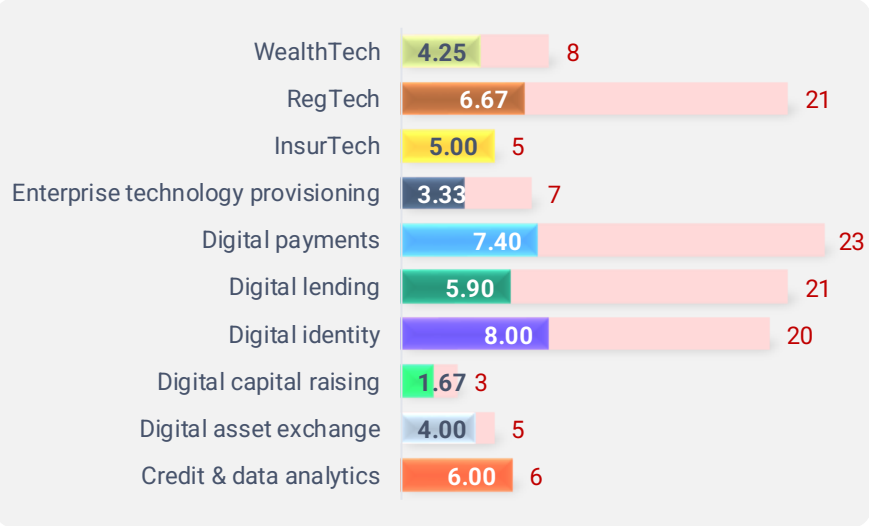
Fig. 4.1.3. Average (and maximum 4.3b) maturity based on type of activity



As can be seen from Figure 4.1.3, the oldest companies are in digital identity, digital payments, RegTech, and credit & data analytics.

However, the average age of the companies is somewhat similar across FinTech categories, with the exception of digital lending. This can be explained by the existing set of technical abilities in Romania, especially 5-10 years ago.

Fig. 4.1.3b. Average maturity vs maximum maturity



The smaller age of the digital lending companies can be easily explained by the tight regulations in force in this vertical in Romania.

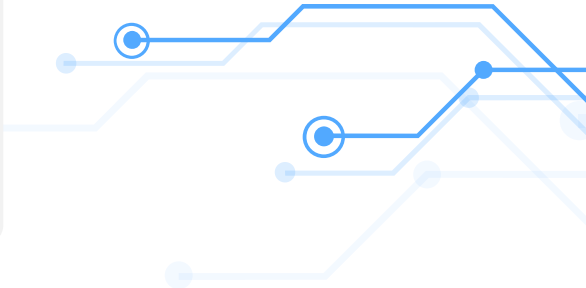
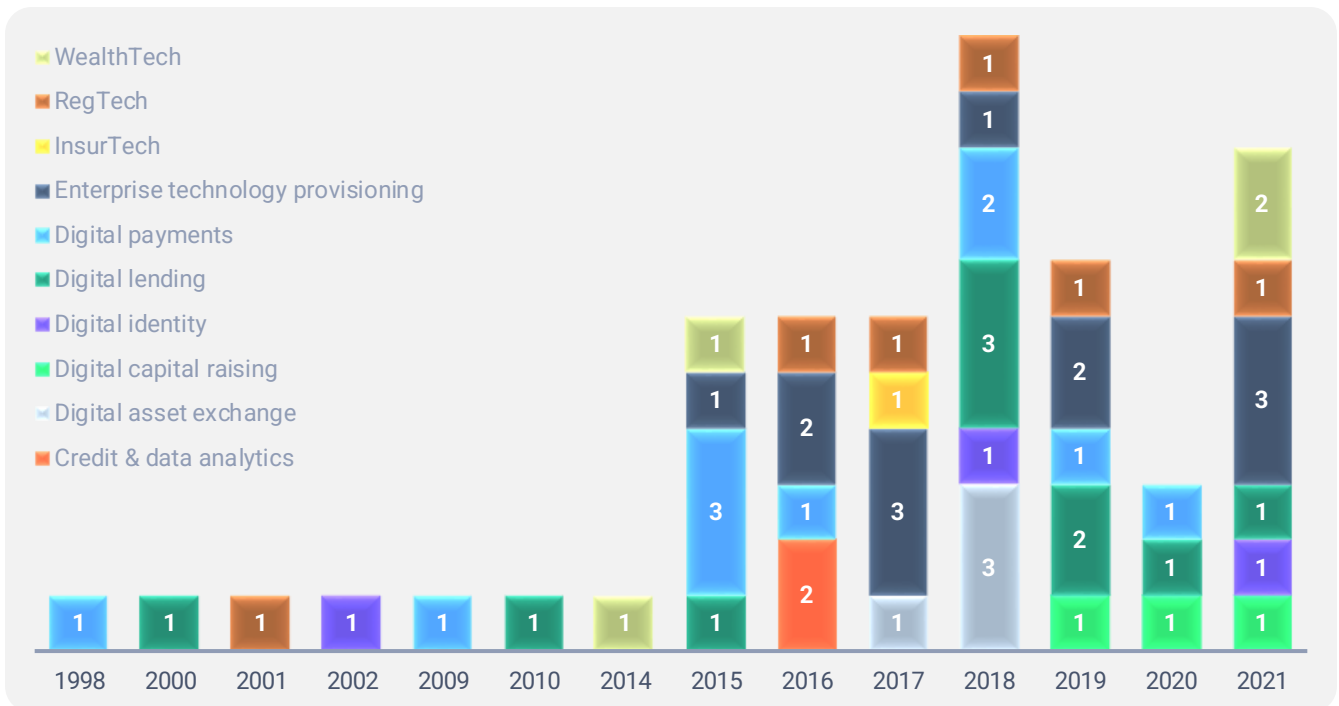


Fig. 4.1.4. Distribution of FinTechs by year of birth and type of activity



Even though 1998 is the year when the first Romanian FinTech was established, the year that should be considered the starting point of the Romanian FinTech sector should be 2015, when 6 new FinTechs have been established. Until 2015, other notable milestones could be considered: 2001, with already 3 FinTechs established, and 2010 when the population of FinTechs reached 6 companies.

The best years for the establishment of new FinTechs was the year 2018 with 11 new FinTechs, followed by 2021 with 9 FinTechs and 2019 with 7 FinTechs. The distribution of established companies by type during 2015-

2022 can be seen in Figure 4.1.4. In 2018, digital asset exchange and digital lending dominated with 3 established companies in each vertical, followed by digital payments with 2 new companies. In 2021, Enterprise technology providers dominated with 3 established companies, followed by WealthTech with 2 established companies.

For 2021, the numbers may also be impacted by our diminished possibilities to trace recently established FinTechs. The remaining categories, even though with a high potential, have been less frequent in the Romanian ecosystem.

Fig. 4.1.5. Distribution of FinTechs according to the type of activity and total assets in 2021

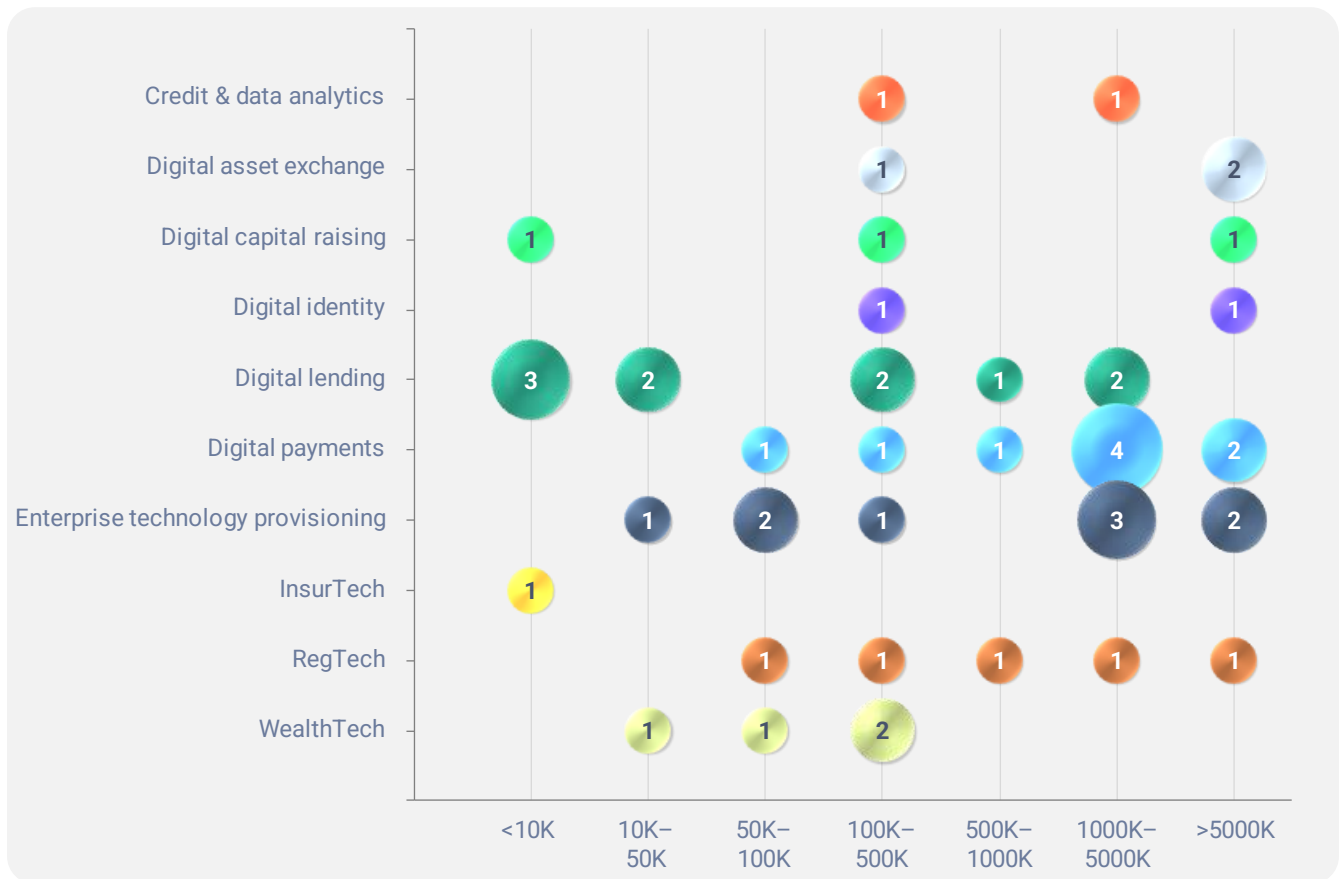


Fig. 4.1.5 shows that the sectors with the largest value of total assets, over 5000K RON are to be found in the RegTech, enterprise technology provisioning, digital payments, digital identity, digital capital raising and digital asset exchange.

They are followed by sectors like digital lending and credit & data analytics. Most of the companies have assets below 500K RON showing that the sector is still in its early stages, but with a significant growth potential.

Fig. 4.1.6. The turnover structure according to the type of activity in 2021

0.25%

Credit & data analytics

credit scoring based on alternative data, solutions based on analysis of biometric and social data.

7.79%

Digital identity

services related to biometric security, KYC, fraud prevention.

0.00%

InsurTech

insurance-related products and services, including digital brokers or agents, peer-to-peer insurance, insurance comparison portals etc.

5.01%

RegTech

solutions for meeting regulatory requirements, including profiling and due diligence, risk analytics, regulatory reporting, market monitoring etc.

5.21%

Digital asset exchange

trading and brokerage services including different platforms, exchanges, Bitcoin Teller Machines etc.

0.59%

Digital lending

P2P lending, balance sheet lending, including invoice trading, leasing, consumer credit.

4.19%

Enterprise technology provisioning

technological solutions for financial service providers including back-office solutions, API management, cloud computing, AI, BI tools, enterprise blockchain etc.

0.11%

WealthTech

robo-advisors, social trading, personal financial management, and financial comparison sites.

0.87%

Digital capital raising

equity-based, reward-based, or donation-based crowdfunding, unsecured debt or equity or real-estate crowdfunding, ICO platforms.

75.80%

Digital payments

mobile payments, money transfers, e-money issuers, points of access, other payment-related services.

As can be seen from Fig. 4.1.6, most of the revenue in the FinTech sector comes from the digital payments. With more than 75% of the total revenue, the digital payments sector is the backbone of the Romanian FinTech sector. The second type, with little below 8% of the total revenue, is represented by the companies in the digital identity sector. On the third place there is the sector of digital asset exchange with little above 5% of the total revenue. Even though the crypto-assets ("crypto currencies") are among the hottest topics these days, the sector of companies intermediating these investments is rather low in Romania.

Fig. 4.1.6b. Distribution of turnover of companies based on type

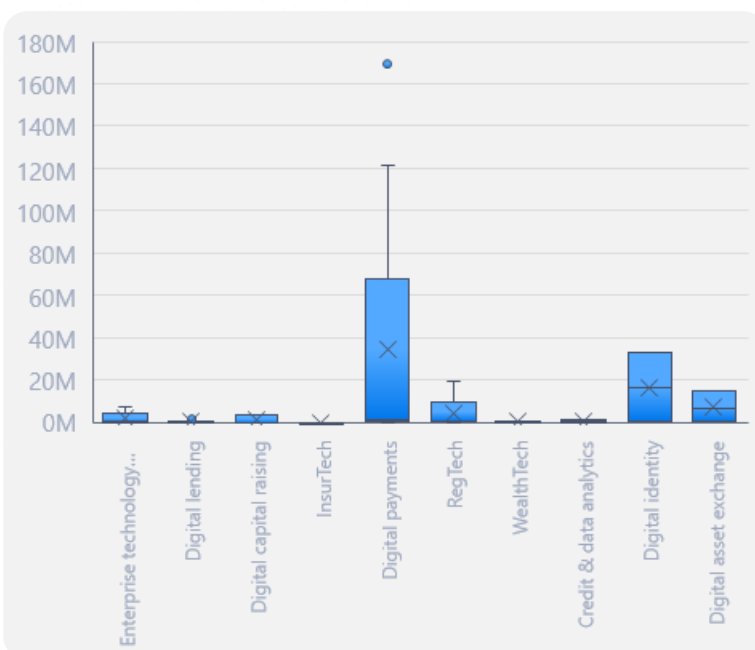


Fig. 4.1.7. Average net profit by types of activities

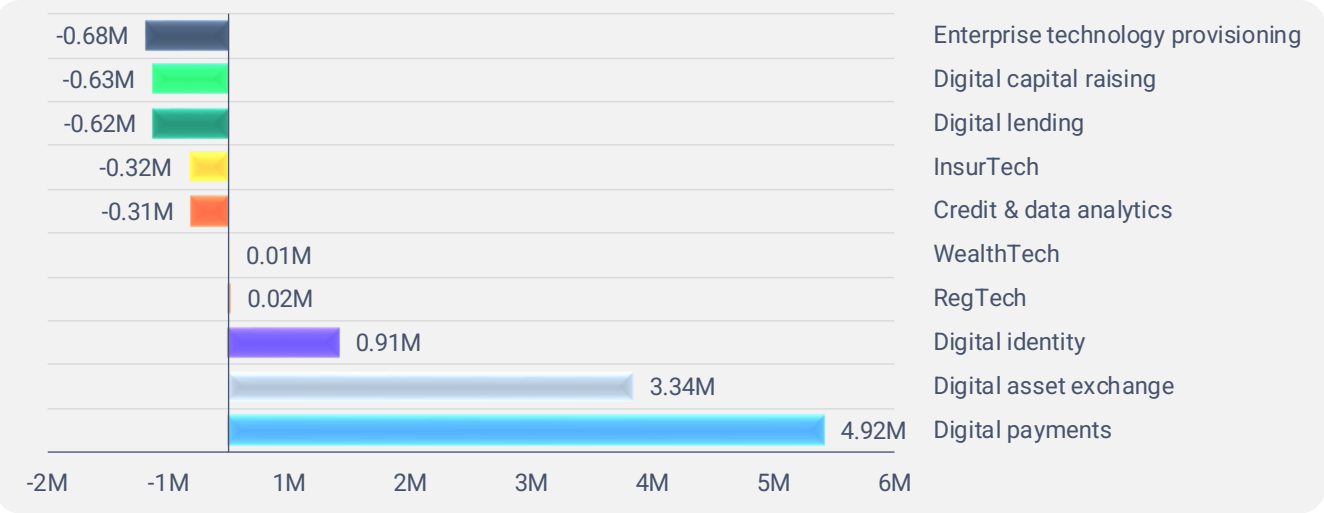
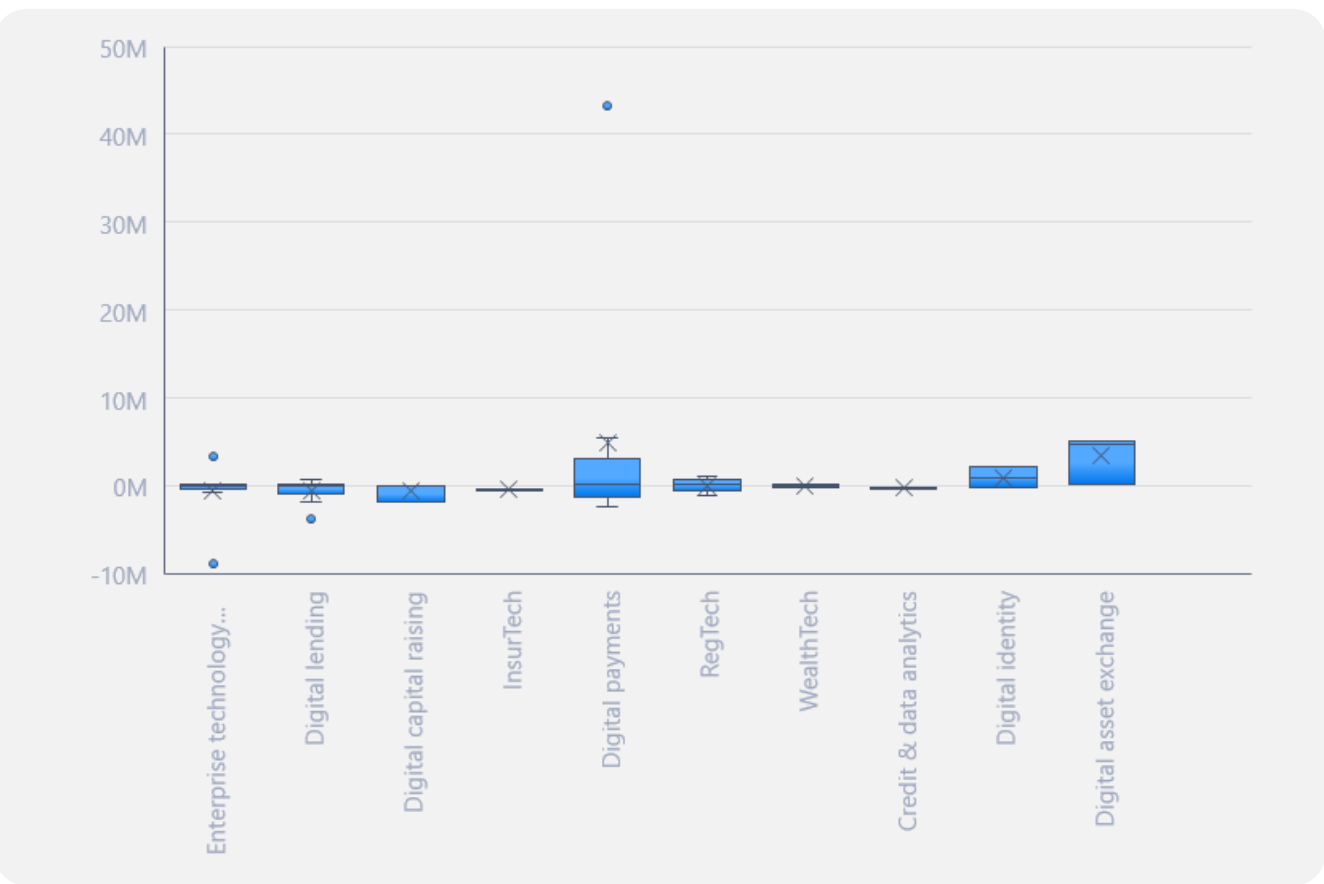


Fig. 4.1.7 shows that the highest profitability is to be found in the digital payments, followed by digital assets exchange and digital identity, RegTech and WealthTech. Therefore, a solution for developing the entire sector might be to further develop the ecosystem supporting companies active in these niches.

All other sectors display negative results and therefore, in these cases more support would be required to ensure the initial boost. The maturity of the companies and the magnitude of the required investments could explain the negative profitability in these sectors.

Fig. 4.1.7b. Net Profits distribution by type of activity





4.2. Results of the survey

In total, 20 FinTechs responded to the survey in April–June 2022.

This represents 36.4% of the total population of Romanian FinTechs (55) identified by the present study. Most of the responses (85%) were provided by top representatives of the companies, the owner, the CEO or COO.

Fig. 4.2.1. Maturity of the company

The responses are somehow balanced in what the operation phase of the company is represented. While half of the responses were obtained from companies in the growth phase that are not yet profitable, 40% were obtained from companies that are already running and only 10% came from companies that are just under construction for the moment (see Figure 4.2.1).

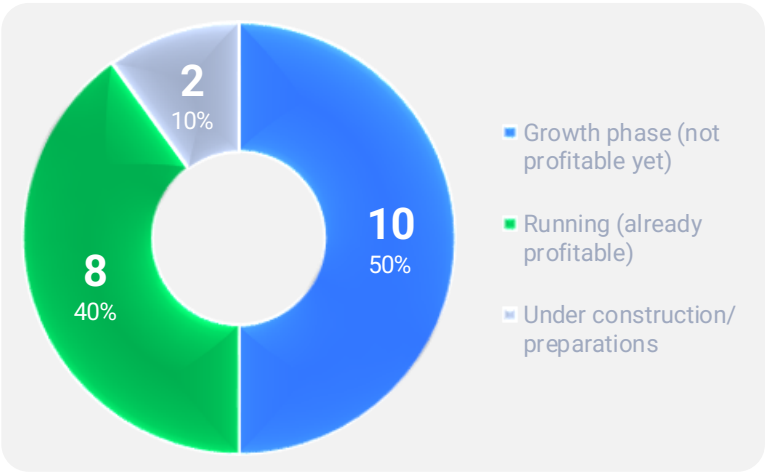
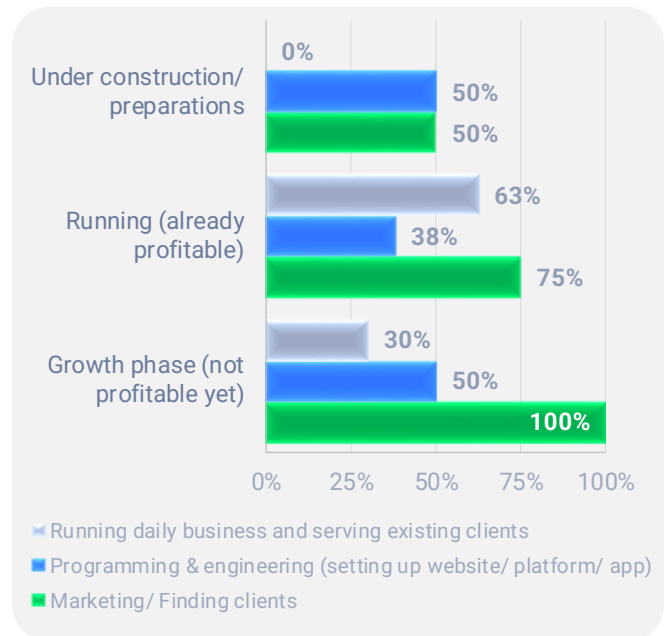


Fig. 4.2.2. Maturity of the company vs activities on which they spend most of their time

The three main activities proposed to the respondents have significantly different distributions based on the development phase of the company, as can be observed in Figure 4.2.2. Thus, 100% of the companies in the growth phase have indicated spending time on marketing and finding clients and only 30% declared spending time on serving the existing clients, while 50% declared programming and engineering.

Running daily activities and serving existing clients is a crucial activity for 62.5% of the already running companies. In this case, 75% of the respondents have indicated marketing activities and finding clients as a key activity.



The situation is also consistent for companies under construction, where 50% have indicated marketing and finding clients, and 50% programming and engineering. Therefore, marketing and finding clients is the key activity for our respondents, being indicated by 90% of them.

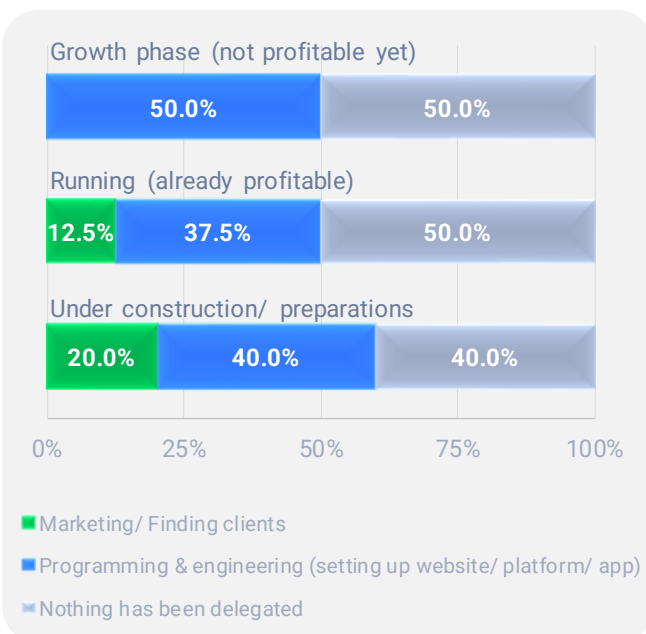
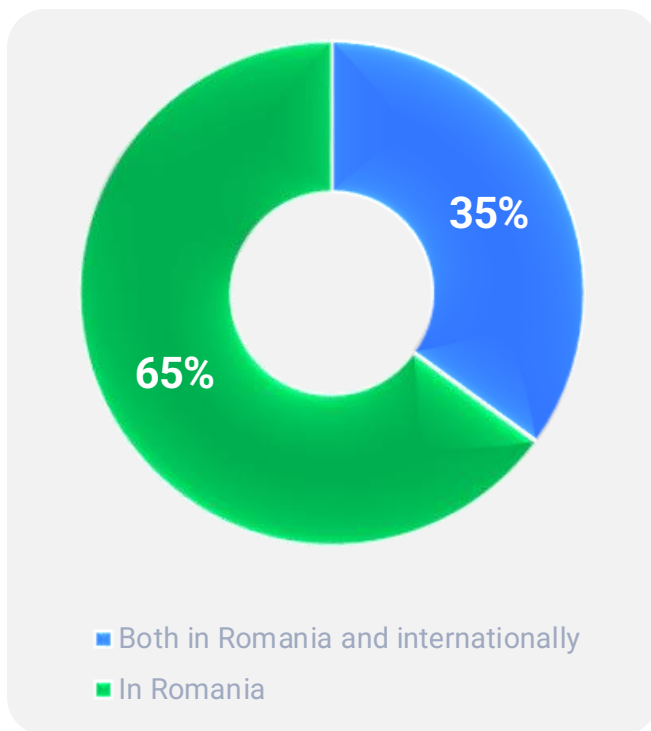


Fig. 4.2.3. Maturity of the company vs activities that have been delegated to third parties

Notable differences are also to be found in terms of the distribution of third parties delegated activities. Companies which are already running delegate most often the technical activities connected with programming, and focus more on running the day-to-day activity, along with marketing issues and finding new customers. Thus, only 12.5% have delegated marketing activities.

A larger percentage of companies in the growth phase, namely 20%, have delegated marketing related activities and also 40% of them declared they are delegating programming and engineering activities. In the case of companies under construction only the technical activities were mentioned as delegated activities (Fig 4.2.3).

Fig. 4.2.4. Market presence of FinTech companies registered only in Romania



A total of 7 out of the 20 respondent companies declared that they also operate on other markets, regardless if they are registered only in Romania or not (Figure 4.2.4).

The markets that were most often listed by the respondents are countries of the European Union: Ireland, Italy, Lithuania, Croatia, Germany or Poland. Outside the European Union other markets listed by the respondents are: Moldova, The United Kingdom, the USA (especially Silicon Valley), Canada, Singapore, Australia, or the Middle East (United Arab Emirates or Saudi Arabia).

In terms of future expansion on foreign markets, most of the Romanian FinTech companies intend to expand their activities on other European markets. Some of them also mention the USA or China and Singapore. There is no declared intention to expand operations in the Middle East, which is quite interesting, considering the intensive growth of the area.

Fig. 4.2.5. Population structure vs sample structure

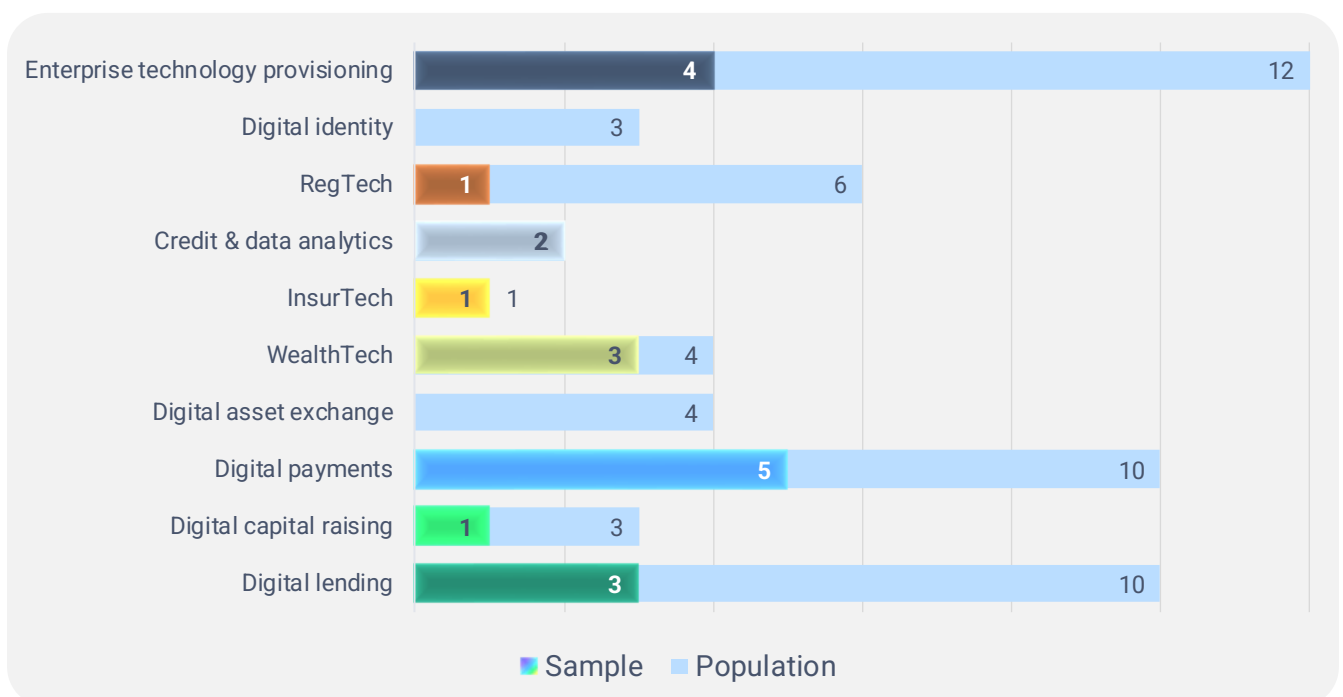
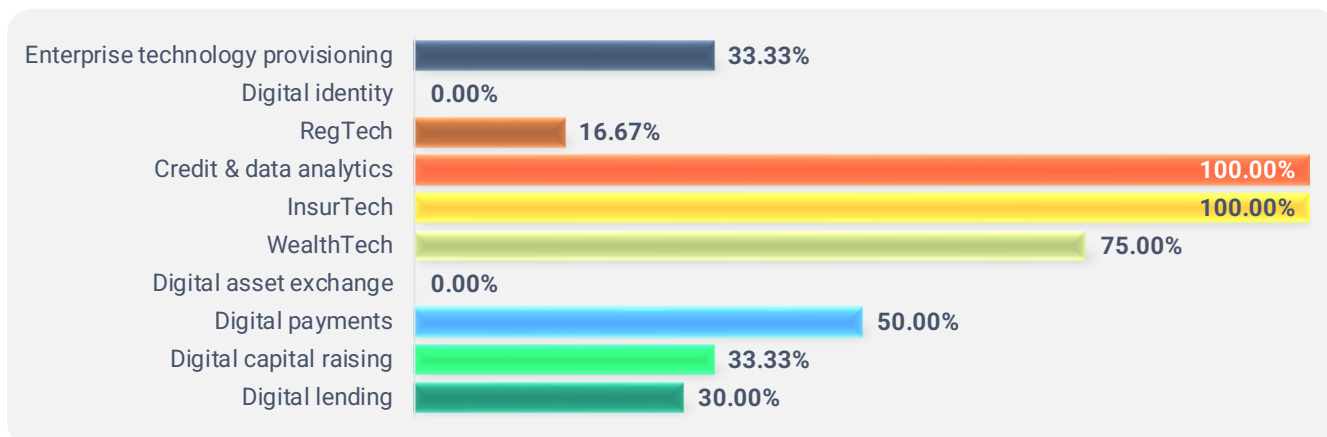


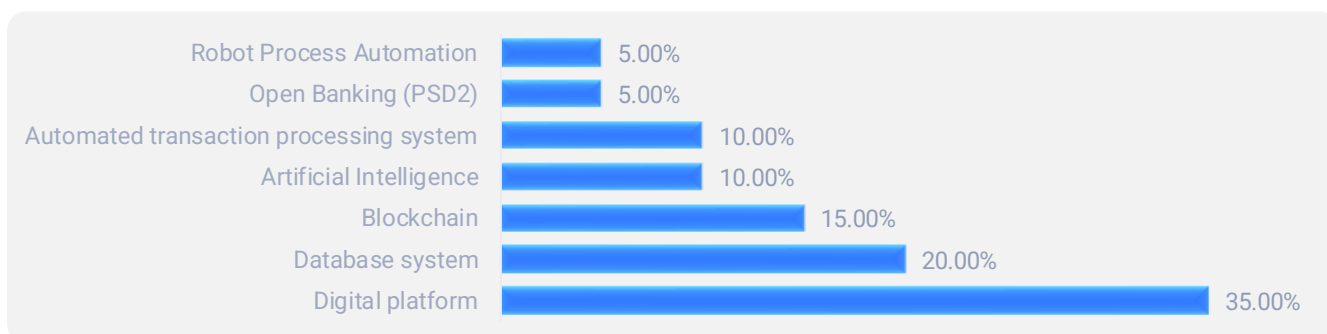
Fig. 4.2.6. Response rate (sample/population) per activity field



Even though the structure of the population and the structure of the sample are different, it is important that respondents are covering most of the FinTech types available into the population. The largest number of companies are grouped into the categories 1) enterprise technology provisions, 2) digital payments, and 3) digital lending, both in the population and the sample.

When looking at response rates we have 2 categories with 100% response rates (only 2 and 1 companies in the entire population) and 2 categories with 0% response rates (digital identity and digital asset exchange). For the rest of the categories, the response rate varies from 16.67% to 75%. This information is visualized in Figures 4.2.5 and 4.2.6.

Fig. 4.2.7. The company uses the following main innovative technologies in its activity

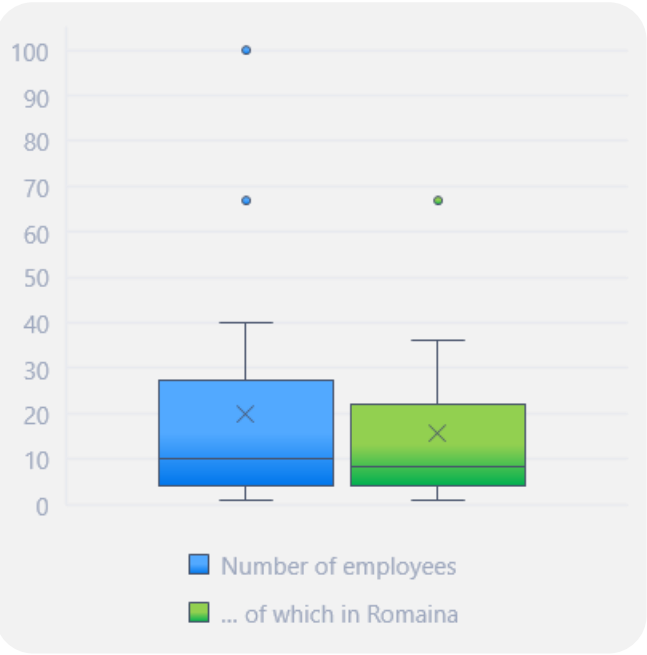


An important aspect for the FinTech sector is given by the type of innovative technologies that are used in the daily routine of the company.

An observation that we have to make is that many of the respondents have declared they use more than 1. For the purpose of this report, we considered the innovative technology they used most. Figure 4.2.7 shows that 35% of the sample uses mainly a Digital Platform as an innovative technology, followed by Database Systems (20%).

On the third place comes Blockchain, a new technology that is currently an important trend (consider, for example, the NFTs and the significantly high prices some of such works were sold for). This is the main innovative technology for 15% of the respondents. The next two technologies account each for 10% of the sample. They are Artificial Intelligence and Automated Transaction Processing System. The least used innovative technologies are Open Banking and Robot Process Automation, each accounting for only 5% of the respondents.

Fig. 4.2.8. Distribution of the sample according to the total number of employees and those in Romania



Regarding the number of employees there is a large variation in the sample of respondents both as a whole, and in what the employees located in Romania are regarded.

Numbers vary between 1 and 100, and for the employees located in Romania the minimum is similar (1 employee) and the maximum number is 67. In the same time, the total employee count of respondents is 397, and 21% of them were employed outside of Romania. Thus, the average number of employees is 19.85, and the median is 10 (meaning that half of the respondents have a maximum of 10 employees).

The large variation is due to the fact that the majority of the respondents are companies that have a small number of employees, being newly established companies or start-ups in their early development stages. The average number of employees located in Romania is 15.65 (78.8% of the general average), and the median is 8.5 (85% of the general median).

Another important aspect is that 60% of the companies in the sample declared that they have all their staff located in Romania and only 10% of the respondents have less than half of their employees located in Romania.

Fig. 4.2.10. Expected change in workforce in 2022

Additionally, the perspectives of the companies (figure 4.2.10) are positive, since the large majority expects a growth in the number of employees.

However, expectations are conservative as this majority expects a moderate growth in the number of employees in 2022.

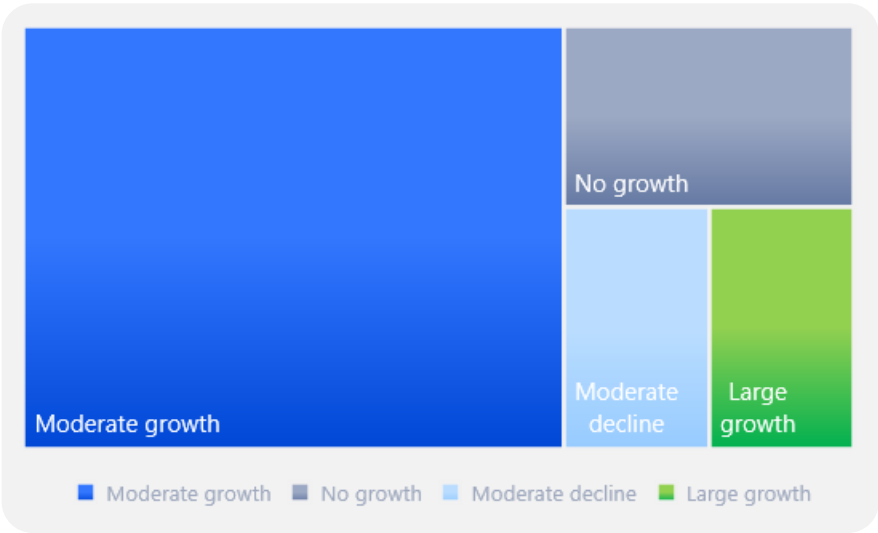
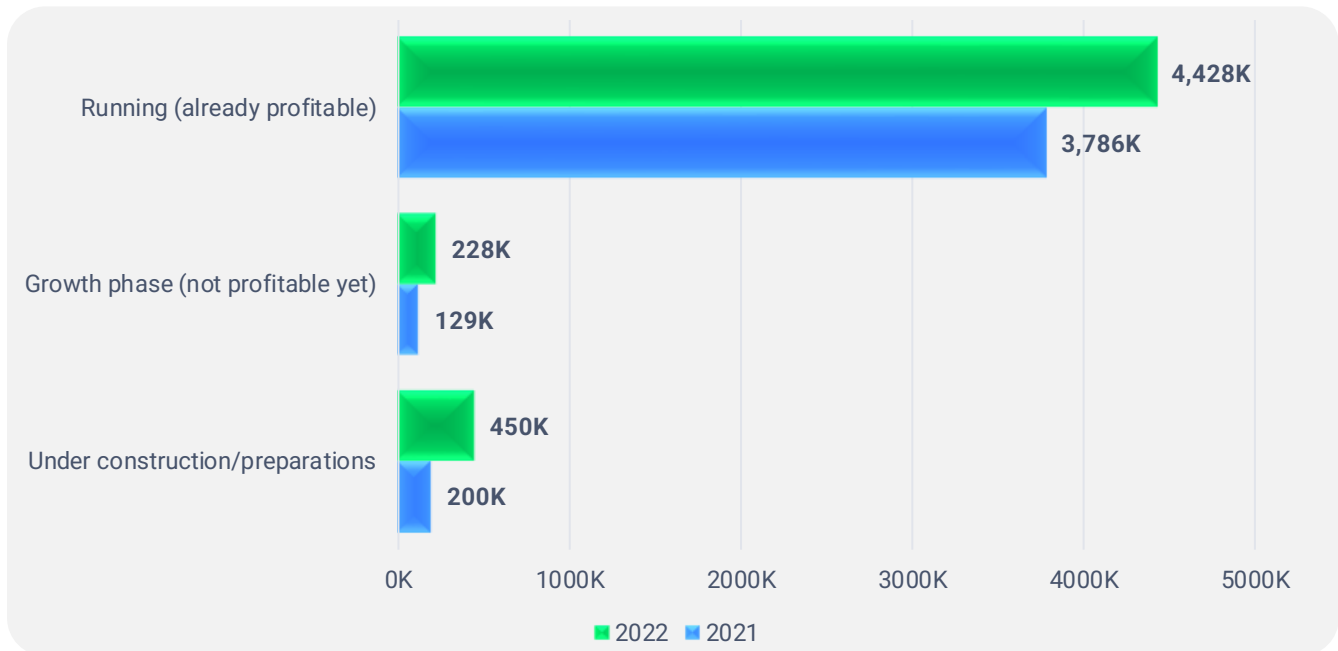


Fig. 4.2.11. Average expected income by maturity group of the company



Also, the financial expectations for 2021 and 2022 are extremely heterogeneous, ranging from 0 to approximately EUR 2.5 million for 2021 and EUR 2.7 million for 2022. These expectations show the high heterogeneity of the FinTech sector in Romania. Another important figure is the median expectation.

Half of the respondents expect incomes of a maximum of EUR 85,000 in 2021. An optimistic trend is observed, the median value doubles for the year 2022, when half of the companies expect an income of maximum EUR 165,000.

This might be regarded also as an indicator of the important growth potential of the FinTech sector in general. Based on the forecasted income, the FinTech companies have been asked about the percentage of this income that can be obtained via export activities.

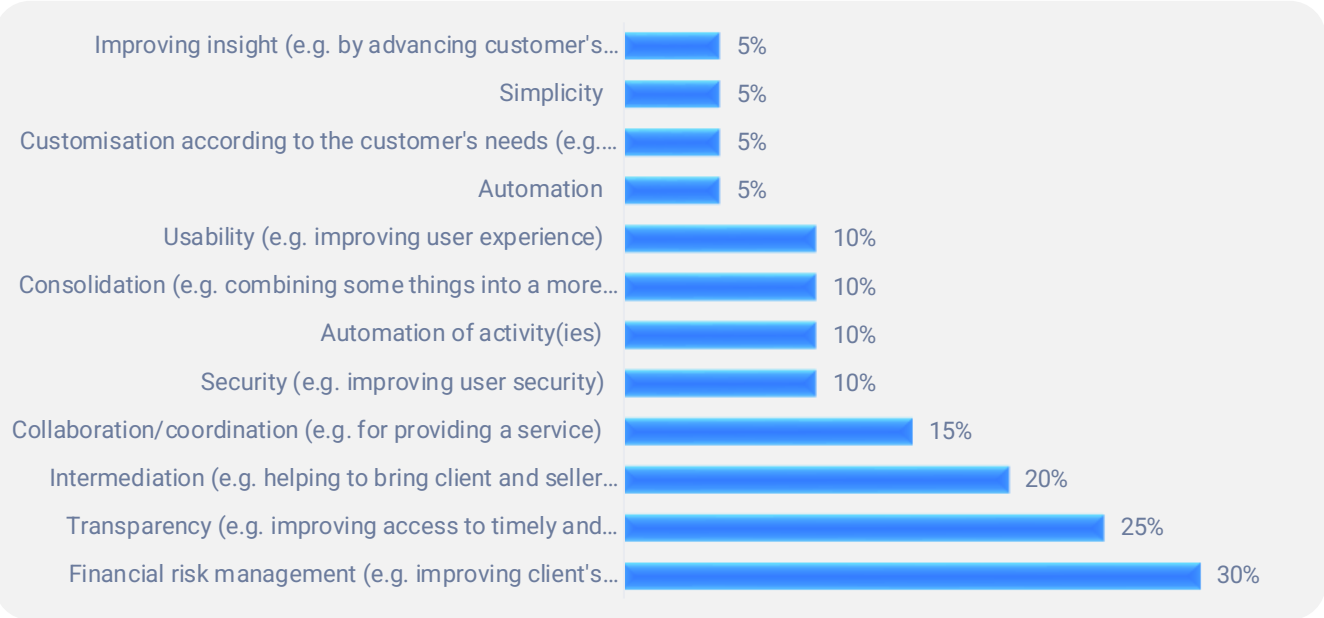
65% declared that their entire income is expected to come from the internal market, and is also not related in any way with imports. On the other hand, there are two companies who declared that 95% of their income, for the first company, and 100% of income for the second is expected to be obtained from export activities.

For the rest of the sample, the share of export activities varies between 5% and 30%. In the case of most companies, the share of export activities is expected to be relatively stable in total revenues, indicating that the field has also an important export potential, contrasting with the classical financial sector.

Most of the respondents offer products / services with several value propositions

(see Figure 4.2.12). The most frequently mentioned was *Financial Risk Management* (e.g., improving client's financial risk management), by 30% of the respondents, followed by *Transparency* (e.g., improving access to timely and sufficient information) mentioned by 25% of the respondents. *Intermediation* (e.g., helping to bring the client and seller together) and *Collaboration / coordination* (e.g., for providing a service) were mentioned by 20%, respectively 15% of respondents. Value propositions such as *Usability* (e.g., improving user experience), *Consolidation* (e.g., combining some things into a more effective and coherent whole), *Automation of activity(ies)* and *Security* (e.g., improve user security) were mentioned slightly less frequently.

Fig. 4.2.12. The company's value proposition (value to the customer) is based on



The four least mentioned value propositions were *Improving insight* (e.g., by advancing customer's knowledge), *Simplicity*, *Customization* according to the customer's needs (e.g., personalized service) and *Automation*, all referred to by 5% of the respondents.

No clear connection could be identified between a specific type of FinTech and the value proposition mentioned. Still, results do show that improving the client's financial risk management and transparency remain at the forefront for most Romanian FinTech's.

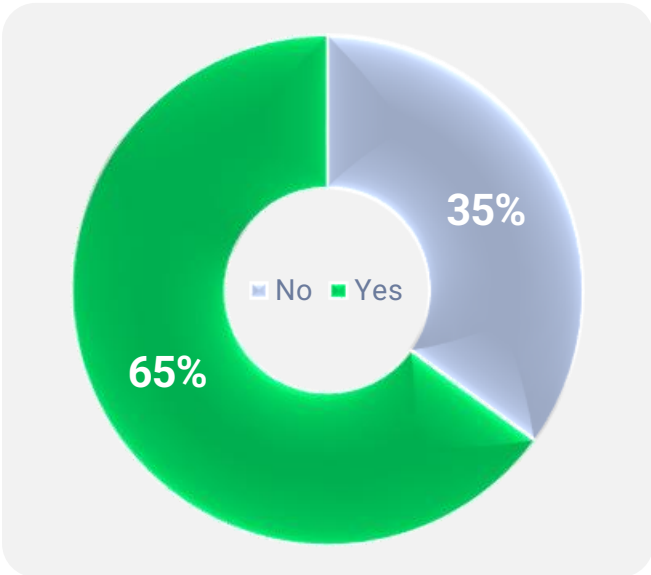












Fig. 4.2.13. The company provides a financial service itself

65% of the sample provides financial services (Figure 4.2.13), but only 2 out of the 20 respondent companies declared they are dealing with crypto currencies. One of them is already a mature company, running and already profitable, while the other is under construction. With almost equal weights, respondents have listed the following financial services as services provided by their companies – see Figure 4.2.14.

Figure 4.2.14 Financial services provided by the companies

	BNPL (Buy Now, Pay Later)
	Capital raising (incl crowdfunding)
	Cash management platform for enterprises
	Complete claim management for insured clients
	Digital wallet
	Lending
	Lending, Crowdfunding, Payments, Trading & Brokerage
	Money transfers, access to financial information for individuals
	Payments
	Portfolio management
	Trading or brokerage

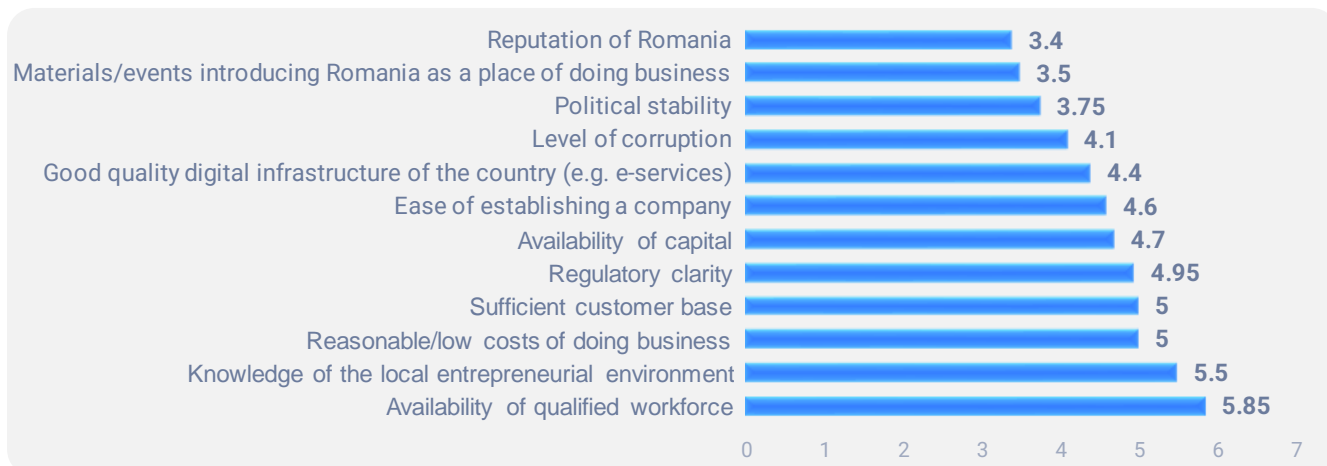
Respondents were asked to assess the importance of several different factors that affected their decision to register the company in Romania, from less important to more important on a scale of 1 to 7 (see Figure 4.2.15 for results).

Results show that FinTech entrepreneurs valued the most the availability of qualified workforce and knowledge of the local entrepreneurial environment. Both aspects received an average score greater or equal to 5.5. Quite even emphasis, ranging from 4.95 to 5 average points, was given to regulatory clarity, sufficient customer base and reasonable / low costs of doing business.

The lowest relevance was put on Romania's reputation (evaluated on average at 3.4 points), followed by materials / events introducing Romania as a place of doing business and political stability. It is important to also notice the availability of capital, which came the 6th in the final ranking.

This is a very important result, showing that Romanian capital is available, and its owners are willing to invest in the FinTech sector. Among other reasons that were given by the respondents, we must mention the business opportunities offered by the Romanian market, in respect to others, and the possibility to validate the products.

Fig. 4.2.15. Importance of specific factors for registering the company in Romania – average scores



We also analyzed the evaluations across FinTech categories. The greatest number of responses were obtained from FinTechs focusing on digital payments, enterprise technology provisioning and digital lending. Greater differences in the evaluations made by these types of FinTechs were observed in the following areas.

Firstly, companies involved in digital payments evaluated “Ease of establishing a company” at 1.6 points above the average of all FinTechs. Secondly, the same types of FinTechs evaluated “Regulatory clarity” also considerably above the average of all FinTechs, scoring this criterion (on average) at 6.4 out of the maximum 7 points, with 1.45 points above the sample mean.

Thirdly, companies involved in digital payments were more concerned about the “Reputation of Romania” as a place of doing business, scoring that factor 1.2 points above the average, while those involved in enterprise technology provisioning evaluated this criterion almost diametrically opposed, at 1.40 points below the sample mean. Fourthly, the “Availability of capital” seems to be important for both digital payments and enterprise technology provisioning FinTech companies considering that both categories evaluated this criterion at 1.1, respectively 0.97 points above the sample mean.

An interesting fact is that for enterprise technology provisioning FinTechs, the “Availability of qualified workforce” criterion is very important (all the questioned companies in this field answered with 7 points out of 7), while for the digital lending ones this factor is less important than the average (1.85 points below the sample mean of this industry type, 5.85). In the remaining areas, the differences in the evaluations remained less pronounced.

70% of the respondents were involved in making the location decisions when the company was founded. Over half of them indicated that when registering with the company, they had communicated with a public institution. The most mentioned institutions were the National Register of the Trade Office (ONRC) and the Central Bank (BNR). Some respondents also mentioned the Financial Supervision Authority (ASF).

On a scale from 1 to 7, the FinTechs felt the strength of the support of these institutions on average at 5. A somewhat worse evaluation was given to the cooperation between these institutions, with a sample mean of only 3.57 points out of 7. Additionally, in Figure 4.2.16 we provide the average scores for the cooperation with the three main mentioned public institutions. The most valued is the National Bank of Romania.

9 of the 20 respondents mentioned that they considered registering with the company in some other country. Other countries mentioned in this context include Switzerland, Belgium, Ireland, Luxembourg, Denmark, UK, Lithuania, Estonia, UAE and CEE countries. When asked to comment about the decisive factor in preferring Romania, the most mentioned factors were knowledge of the local ecosystem, Credit Bureau, knowledge of the local environment, minimal starting financial obligations for a start-up and the dimension of the market, previous business and entrepreneurial experience, tech infrastructure and having already the tech talent onboard from previous Software Company, respectively easiness of testing and validating product features.

The main factors that have been important in choosing Romania as the headquarter are referring to the: ease of doing business, validation of the product, market size, business opportunities, co-founders' location, and easiness of opening the business in other EU countries and the access to capital. The origin of the company was also an important factor, but the possibility of moving outside of Romania once it grows internationally is considered. 6 of the 9 respondents said that they have considered moving the company out of Romania.

Overall, results indicate that Romania may be the first choice for local entrepreneurs due to greater familiarity with local conditions and stronger networks. However, the lack of understanding, poor access to relevant data, and regulatory challenges may force companies to select alternative destinations or even re-consider their initial location decisions over time.

Fig. 4.2.16. Public institutions involved and average scores for the cooperation with them

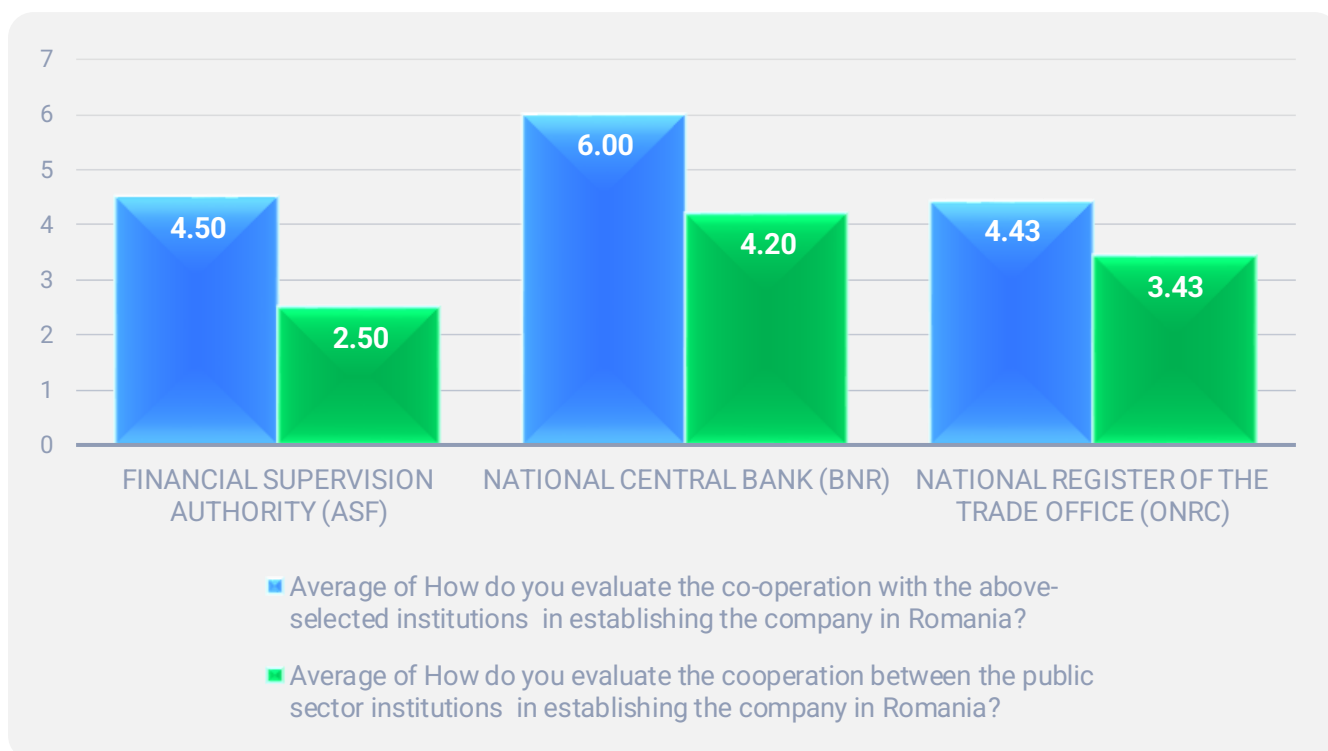
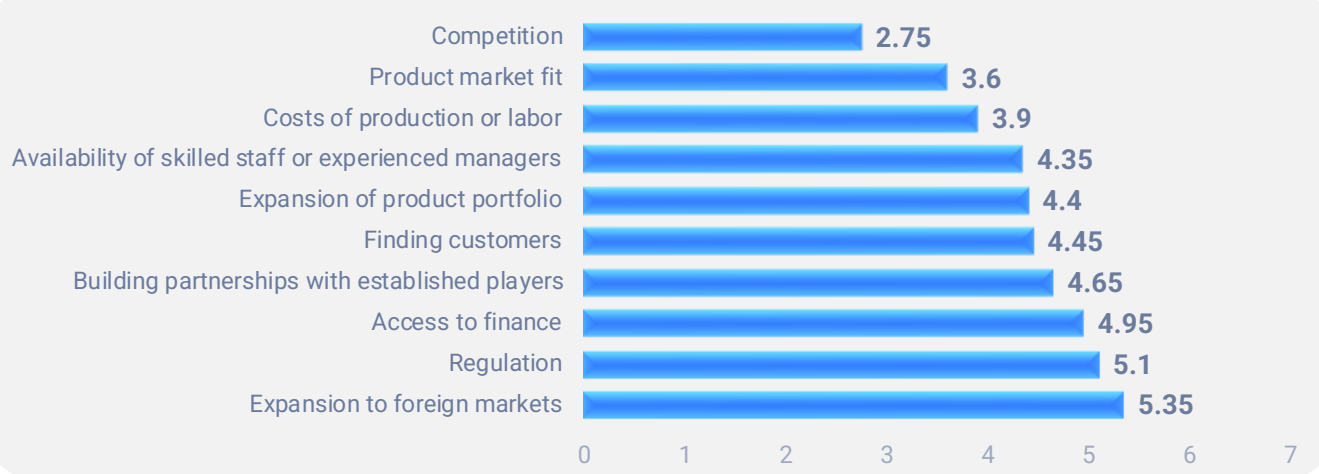


Fig. 4.2.17. Current pressing problems for the business - average scores



The same scale of 1 to 7, from not pressing to extremely pressing, was also employed for assessing the perceived extent in which specific problems affect the respondents’ business.

As can be seen in Figure 4.2.17, the most critical problems are related to the expansion to foreign markets, scoring 5.35, and regulations, scoring 5.1. Quite similar relevance, with evaluations ranging between 4.35 and 5 points were attributed to the access to finance, building partnerships with established players, finding customers, expansion of product portfolio and to the availability of skilled staff or experienced managers. The least critical problem was the

competition, scoring 2.75. Product market fit and costs of production or labor were considered also relatively less pressing.

We also analyzed the answers across FinTech categories. Among the three most relevant respondent groups, the most striking differences were observed for access to finance and costs of production or labor. Pressure from the access to finance side was the strongest for FinTechs involved in digital lending, scoring at 6.67 out of 7, compared to only 3.4 for FinTechs in digital payments. Enterprise technology provisioning also exceeded the average score of 4.95, having a score of 5.67.

Fig. 4.2.18. Factors restricting the expansion of your business to foreign markets

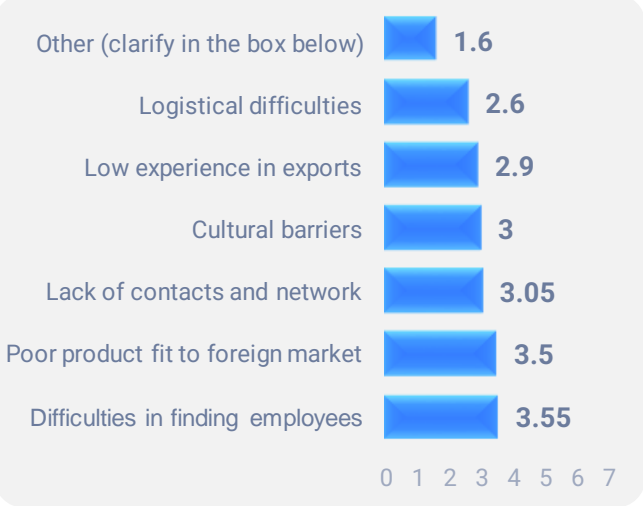
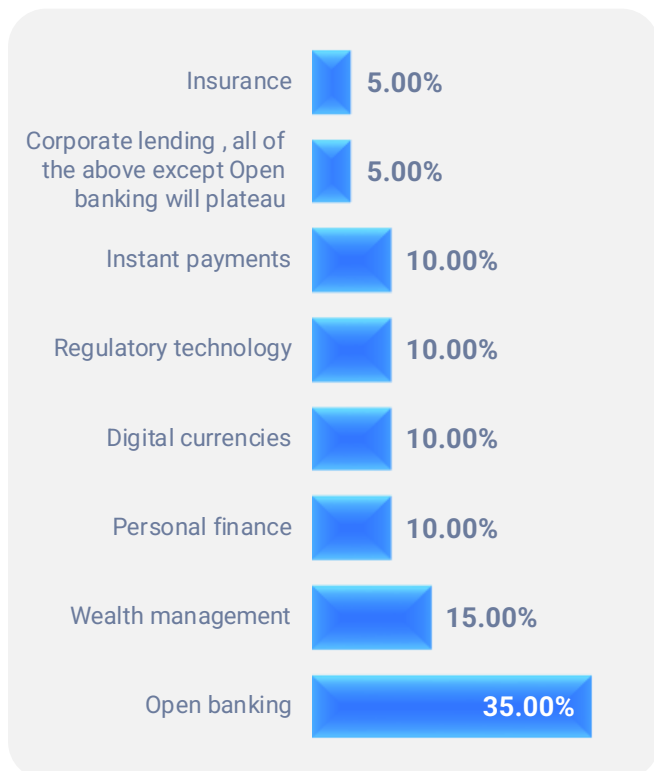


Figure 4.2.18 shows that non-regulation specific factors receive an even lower score. The highest scores, reaching 3.55, respectively 3.5 were given to difficulties in finding employees and to poor product fit to foreign markets. An average score of 3.05 or lower was given to lack of contacts and network, cultural barriers, low experience in exports, and logistical difficulties. This indicates that more “classical” factors inhibiting expansion to foreign markets are less relevant, and the regulation-related factors tend to dominate.

Fig. 4.2.19. In which area do you see the best development potential for FinTechs?



We asked the respondents to mention the areas in which they see the best development potential for FinTechs (figure 4.2.19) and the measures that would support the development of the Romanian FinTech sector (figure 4.2.20).

35% of the respondents indicated that the greatest development potential in FinTech lies in "Open banking". "Wealth management" was mentioned by 15%, while "Personal finance", "Digital currencies", "RegTech" and "Instant payments" by 10% (each one) of the respondents as attractive areas. On the other hand, not so attractive areas regarding the best development potential for FinTechs are "Insurance" and "Corporate lending" (5% each one).

Fig. 4.2.20. Which measures would, in your opinion, help to develop your company and/or the Romanian FinTech sector further?



When the respondents were asked to indicate which measures would help to develop their company and / or the Romanian FinTech sector further, better co-operation with regulators and improvement of regulations were the two most highly ranked measures. The following four measures were Cooperation with education and research institutes, Sandbox, Specialized incubators, and Tax reliefs.

The two measures that were ranked the lowest were Startup-visa and Support for hiring foreign workforce. This indicates that addressing the bottlenecks in the regulative environment deserves the most attention.



Improving regulations proved to be the most important measure to support the development of the Romanian FinTech sector.

Additionally, the importance of cooperating with regulatory institutions was emphasized by respondents. In the following part we have focused our attention towards getting more insight into this subject, by asking respondents to provide their opinion in respect to (1) the regulations that should be changed and how, such as to support the development of the Romanian FinTech sector, and (2) how regulators could support this.

In respect to (1), opinions are very diverse and are dependent on the field of activity of the FinTech company. However, several respondents pointed out the need for introducing new regulation, as in some FinTech subfields they do not exist for the moment. However, this should be done following consultations with the key players on the market. Additionally, there is the need for speeding up the implementation of the EU regulations, that would ease digital identity and electronic signature access, and provide more regulatory stability for VC investments, crowdfunding, cryptocurrencies, or open KYC (know your customer). Open-Banking and Open-Finance (PSD2 regulations) were also mentioned, in the sense of introducing them in regulations, in order to boost the development of the sector and the ease of payments and

crediting, along with facilitating the access of TPPs on the insurance market. Building Regulatory Sandbox was also one of the convergences of a large share of respondents. Two other interesting ideas came out: (a) to introduce regulations to limit the use of cash, and (b), which is extremely important, to make the regulations clearer and more user-friendly. Respondents talking about the later stated the need to simplify the language of the regulations, in such a way as to be understandable for a person that does not have Law education.

(2) Regulators could support the introduction of new FinTech solutions by facilitating open access to data or accelerating the implementation of EU regulations. But the most frequently mentioned actions are related to building Sandboxes and enhancing the dialogue with the sector to have a good idea about the features and problems of the sector and what needs to be regulated, on one hand, and, on the other, to continuously discuss the new ideas with the FinTech sector in order to enhance the level of understanding of the regulatory environment from the FinTech companies. Creation of hubs made up of representatives of both the regulatory entities and the FinTechs is another idea. Open-banking is given as an example of how a new regulation created the environment for the development of the FinTech sector.

The research was also designed for obtaining opinions from the respondents regarding 3 critical aspects that might fuel the development of the FinTech sector, both at national and international level (1) sandbox, (2) crowdfunding and (3) crypto-assets.

1. SANDBOX

When questioned about the obstacles that could be overcome by the creation of a sandbox, respondents indicated some of the following main ideas:

- Access to relevant data that would lead to solutions development.
- Considerably lower the lack of understanding.
- Increase the possibility to test before implementation. This would lead to more innovation in the field (both as business models and as technologies), faster access to the market, proof of concept, etc (PoC, MVP, TRL4 to TRL6). All these enhance solutions development.
- Digital currencies to become the mainstream.

2. CROWDFUNDING

When asked about how well the EU crowdfunding regulation reduces the risks in the sector, only 3 respondents active in this sector have provided an answer and the average score is 5.3, showing that they are confident that regulations have a high potential of reducing the risks.

3. CRYPTO-ASSETS

Only 4 out of the 20 respondents are familiarized with the EU crypto-assets regulations.

The EU proposals for regulating this field are considered less efficient in risk reduction than the sandbox ones, with an average score of 3.8 and a median one of 4 (on the same scale from 1 to 7). Similar opinions are also to be found about the level of adequacy of these proposals – average score of 3.95 and median of 4 (see Figure 4.2.21).

Fig. 4.2.21. Distribution of the sample according to the scores given to the efficiency and adequacy of the proposed EU legislative regulations for the field of crypto-assets

The application field (scope) of the proposal for crypto-asset regulation is welcomed by the Romanian sector, based on the answers. The need for regulation is getting more obvious as time passes, and FinTech companies are affected by the lack of clarity and ambiguity leading to contradictory interpretations in some cases. However, the respondents are not that confident in the capacity of the EU to create efficient regulations so that it may reduce the risks around the crypto sector.

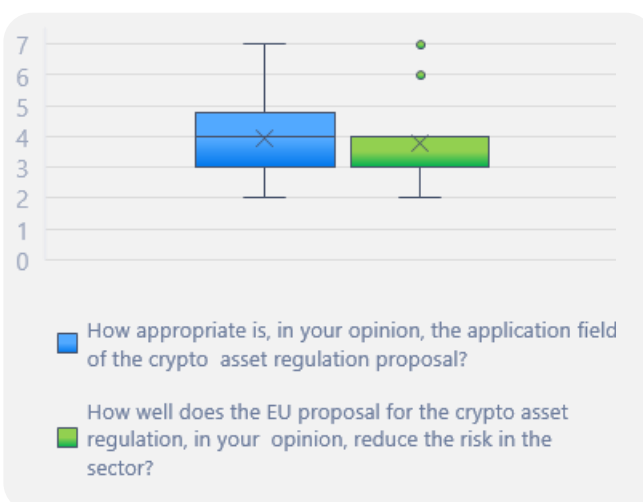
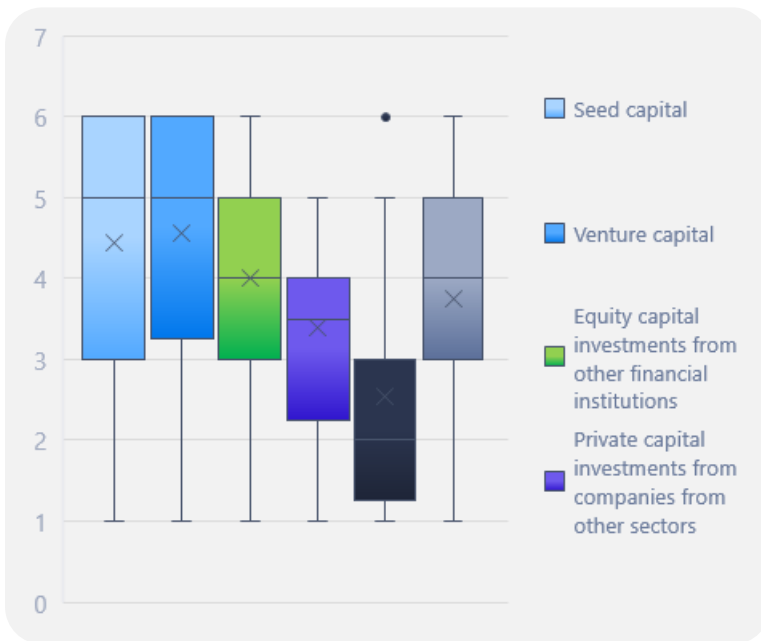


Fig. 4.2.22. The importance of financing sources for the FinTech sector in the next 3 years



The most important sources of capital for the companies in our sample seem to be seed capital and venture capital, with a slightly higher score for venture capital (4.55 versus 4.45).

Venture capital firms generally get a stake in the new venture in return for investing in its development and sometimes broaden the network and capabilities of the financed company. Since development is crucial in this stage for all funded companies, it comes naturally for them to try and attract venture capital investments.

Another type of preferred investment is equity capital investments from other financial institutions, or equity in general, since also in this case financial investment might also come with other development/ business opportunities (average scores of 4 and 3.75).

The smallest score for financial sources for FinTech is represented by debt funding (an average of only 2.55) and private capital investments from companies in other sectors (average score of 3.4). These small scores (especially for the first source) might be explained by the fact that financial investment, in these cases, might not be regarded as being correlated with other opportunities that the investor might bring.

Also, debt funding might not be a suitable source in this stage of development (early stages for the majority of the companies of the sector).

Fig. 4.2.23. The importance of funding sources for the FinTech sector over the next 3 years - average and median scores

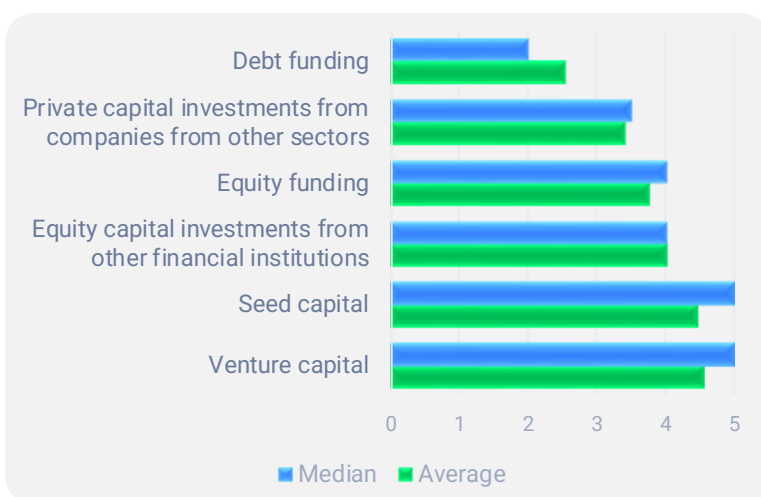
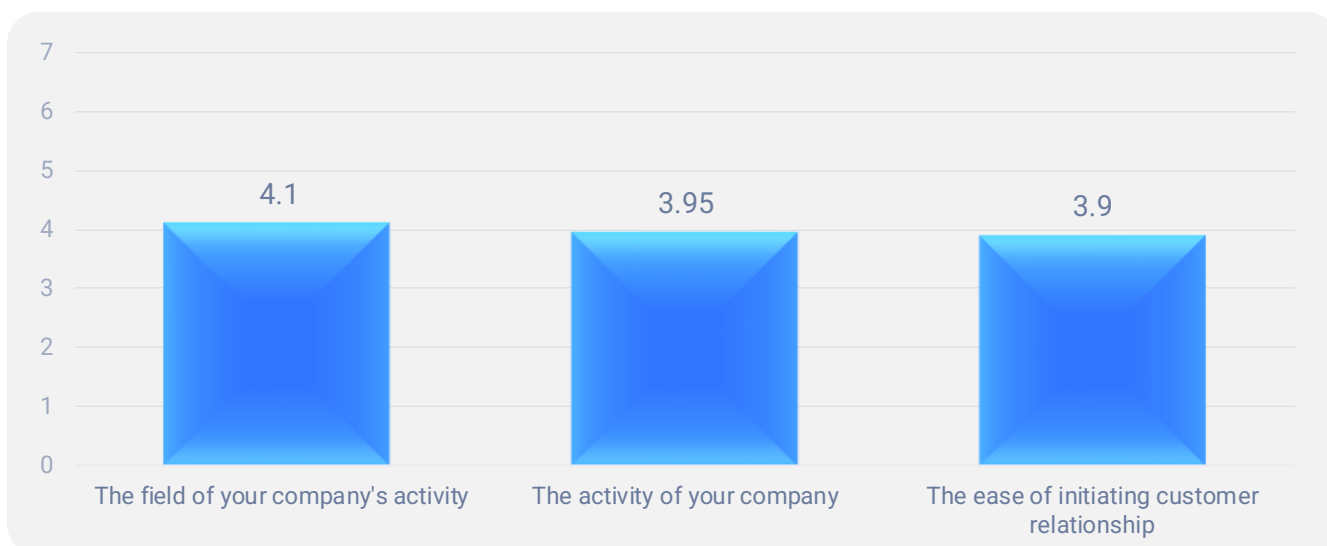


Fig. 4.2.24. The influence of COVID-19



When respondents were asked about the way the Covid-19 pandemic influenced their company, the sector in general and the easiness of initiating relationships with customers, responses ranged from strongly affected to not affected at all.

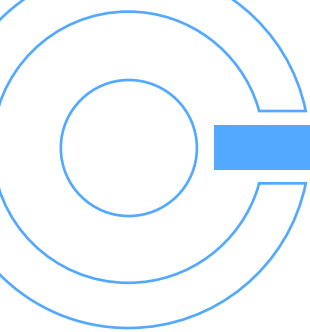
Even though the average scores are not significantly different for the three aspects investigated, the highest average, showing therefore the highest impact of the COVID-19 pandemic was recorded for the item field of activity of the company. A lower average score was recorded for the impact of the pandemic on the activity of the company of the respondent, showing that respondents are more confident in their own activity than in the sector in general.

The lowest average grade (almost 5% lower) is recorded for the ease of initiating relationships with customers showing that the respondents are confident in the perspectives of their companies and the interest of the market for the services offered by their FinTech.

Only one company of the sample of respondents has received support through IMM invest (a Romanian state aid scheme designed to support companies during the Covid-19 Pandemic) and only two consider that legislation has changed due to the COVID-19 pandemic.

Another notable aspect is the increase of the ease of working with the public institutions (digitalization of the public institutions has increased, and this was also one of the suggested actions regulators could take to enhance the development of the sector).

Remote working and development opportunities (increase of the number of employees, increased demand for their services) were among other aspects mentioned by the respondents in connection with the impact of the COVID-19 pandemic.



Conclusion

This report tries to be the first attempt providing an overview of the Romanian FinTech Ecosystem and, in the same time, it aims to identify the main characteristics of the Romanian FinTechs, their main challenges and the expected trends.

The research team has complemented the data collected through a survey with information gathered through desk research, and also with information collected through interviews from the participants of the ecosystem. The main conclusions of the analysis conducted by the research team will be concisely presented in this final section of the report.

Firstly, the Romanian FinTech ecosystem is still small, but has accelerated its growth during the last years, more than half of the companies being established after 2018. In 2022 it includes 54 companies, and the top types are represented by technology providers with 21.82% of the companies, digital payments and digital lending with 18.8% each, and RegTech with 10.91% of the companies. The ecosystem includes a collaborative body, the Romanian Fintech Association, RoFintech, which brings together 22 companies representing only a share of the total active players. While the total number of employees of the respondents is 397 the average number of employees per company is almost 20, the

minimum is 1 and the maximum reaches 100.

Secondly, in terms of turnover, the sector is highly concentrated, since over 75% of the 2021 turnover is being brought by FinTechs classified as *digital payments – mobile payments, money transfers, e-money issuers, points of access, other payment-related services*. The second important type, with less than 8% of the turnover is represented by companies offering *digital identity – services related to biometric security, KYC, fraud prevention*.

Thirdly, the FinTech entrepreneurs value the availability of qualified workforce and knowledge of the local entrepreneurial environment the most, when selecting Romania for their activity. Other relevant factors considered by the respondents are the existence of a sufficient customer base and reasonable / low costs of doing business. On the other hand, the lowest relevance was put on Romania's reputation and on the existence of materials / events introducing Romania as a place of doing business and as a place with political stability. Another factor which was not considered top, but was listed among the important ones, was the existence of the available capital. These factors are also combined with the prior knowledge about the local business ecosystem, previous entrepreneurial experience on the local market and the availability of the required tech infrastructure.

Fourthly, respondents reported that the effects of the Covid-19 pandemic were felt. Among the main examples were the relationships with the customers which were negatively impacted, and the relationships with the public sector which were positively impacted, becoming easier since the sector accelerated its digitalization. Also noteworthy was the fact that very few (only one) have received state aid support through IMM Invest.

Fifthly, the most critical problems of the respondents are related to the expansion to foreign markets, and regulations. Next in line are criticalities related to the access to finance, building partnerships with established players, finding customers, expansion of product portfolio and the availability of skilled staff or experienced managers. On the other hand, the least critical aspects are the competition, accompanied by product market fit and costs of production.

Sixthly, respondents indicate that the most important measures helping the development of their company and of the Romanian FinTech sector are: better co-operation with regulators and improvement of regulations, followed by cooperation with education and research institutes, the existence of a Sandbox, the existence of specialized incubators, and Tax reliefs. The least important were the existence of a Startup-visa and the support for hiring foreign workforce.

Finally, the general conclusion is that the sector has accelerated its development in the last years and has a significant growth potential if regulations are improved, procedures are simplified and skilled workforce is further developed.





Map of Romanian FinTech Ecosystem



DIGITAL PAYMENTS

mobile payments, money transfers, e-money issuers, points of access, other payment-related services

- Finware
- Smart Fintech
- Self Pay
- Pago
- Symphopay
- Ebriza
- Macropay
- MonePOS
- **



DIGITAL IDENTITY

services related to biometric security, KYC, fraud prevention.

- Pay by Face
- itSmartSystems
- TypingDNA



DIGITAL CAPITAL RAISING

equity-based, reward-based, or donation-based crowdfunding, unsecured debt or equity or real-estate crowdfunding, ICO platforms.

- SEEDBLINK
- STOCKESTATE
- BAAM



DIGITAL ASSET EXCHANGE

trading and brokerage services including different platforms, exchanges, Bitcoin Teller Machines etc.

- StockBery App
- Elrond
- Vestinda
- Tradesilvania



REGTECH

solutions for meeting regulatory requirements, including profiling and due diligence, risk analytics, regulatory reporting, market monitoring etc.

- ListaFirme.ro
- Intellicrops
- QOOBISS
- ZANUMI
- PAIDanalitix
- Confidas



DIGITAL LENDING

P2P lending, balance sheet lending, including invoice trading, leasing, consumer credit.

- LENDRISE
- Fagura
- Beez
- SALARIUM
- CREDIFY
- Filbo
- Mokka
- OceanCredit
- Omncredit
- VIRTULA



INSURTECH

robo-advisors, social trading, personal financial management, and financial comparison sites.

- PayPact



CREDIT & DATA ANALYTICS

credit scoring based on alternative data, solutions based on analysis of biometric and social data.

- iFactor
- Volt



WEALTHTECH

robo-advisors, social trading, personal financial management, and financial comparison sites.

- Bankata.ro
- Kids Finance
- Degethal
- CASHCONTROLAPP



ENTERPRISE TECHNOLOGY PROVISIONING

technological solutions for financial service providers including back-office solutions, API management, cloud computing, AI, BI tools, enterprise blockchain etc.

- TRADERION
- ThinkOut
- Modex
- Prime Dash
- DRUID
- FinLight
- FintechOS
- Keez
- SOLO
- Contapp
- SenseTask
- Optimrent

**The company Salt Edge SRL, with the registration number 43084765 at ONRC was included in the analysis in section 4.1. However, since its connection with the Fintech named Salt Edge and also its inclusion in the Romanian Fintech ecosystem is unclear, the authors of the study have decided not to list it explicitly in the list of entities active in the Romanian Fintech ecosystem.

Global Competitors

3 global competitors for each of the Fintechs in the Romanian ecosystem.

ROMANIAN FINTECH	TYPE OF FINTECH	GLOBAL COMPETITOR	ROMANIAN FINTECH	TYPE OF FINTECH	GLOBAL COMPETITOR
TRADERION		Fitch Group Training the Street Euromoney	Pago		Sage Intacct Expensify Zoho Expense
LENDRISE		Lending Club SoFi Zopa	ListaFirme.ro		Experian Dun & Bradstreet Equifax
SEEDBLINK		Kickstarter Indiegogo Crowdcube	Bankata.ro		Bankrate NerdWallet Credit Karma
PayPact		Solera Sprout Snapshot	iFactor		altLine eCapital Resolve
ThinkOut		Agicap Commitly Trovata	Symphopay		Stripe Adyen Square
Fagura		Lending Club SoFi Zopa	Volt		Credit Sesame OneScore Clear Score
Beez		Klarna Afterpay Affirm	Intellicrops		Cropin Aibono Blue River Technology
Finquare		Cross River Trovata Cobase	Kids Finance		Greenlight Goheny BusyKid
Smart Fintech		Cross River Plaid Tink	Degethal		Revolut Robinhood Webull
Self Pay		Alipay Stripe Payoneer	Pay by Face		Stripe Adyen Square
Modex		Alchemy Kaleido Corda	StockBeryy App		E-Trade Robinhood Webull

APPENDIX 2

Global Competitors

ROMANIAN FINTECH	TYPE OF FINTECH	GLOBAL COMPETITOR	ROMANIAN FINTECH	TYPE OF FINTECH	GLOBAL COMPETITOR
SALARIUM		Wagestream Hastee Salary Finance	Keez		Quickbooks Xero Sage
Prime Dash		Cross River Plaid Tink	Macropay		Cross River Plaid Tink
CREDIFY		Bankrate NerdWallet Credit Karma	Mokka		Klarna Afterpay Affirm
CashControl App		Sage Intacct Expensify Zoho Expense	MonePOS		Square Lightspeed Retail Toast Lab
DRUID		Uniphore Dixa Yellow Messenger	OceanCredit		Funding Circle Fundera Kabbage
Ebriza		Square Lightspeed Retail Toast Lab	Omnicredit		Funding Circle Fundera Kabbage
Elrond		Ethereum Algorand Dfinity	QOOBISS		IDnow Onfido Trulioo
Filbo		Funding Circle Fundera Kabbage	SOLO		Quickbooks Xero Sage
FinLight		Quickbooks Xero Sage	BAAM		CrowdStreet Fundrise EquityMultiple
FintechOS		Mambu Temenos Finacle	STOCKSTATE		CrowdStreet Fundrise EquityMultiple
itSmartSystems		Quicken Future Advisor Personal Capital	ZANUMI		Quickbooks Xero Sage

APPENDIX 2

Global Competitors

ROMANIAN FINTECH	TYPE OF FINTECH	GLOBAL COMPETITOR
SenseTask		Quickbooks Xero Sage
PAIDanalitix		Yapstone Boku RecargaPay
Vestinda		Coinbase Binance FTX
Tradesilvania		Coinbase Binance FTX
Optimrent		Buildium TurboTenant AppFolio
Confidas		Experian Dun & Bradstreet Equifax

**The company Salt Edge SRL, with the registration number 43084765 at ONRC was included in the analysis in section 4.1. However, since its connection with the Fintech named Salt Edge and also its inclusion in the Romanian Fintech ecosystem is unclear, the authors of the study have decided not to list it explicitly in the list of entities active in the Romanian Fintech ecosystem. For ensuring comparability with the other entities explicitly present in the report the main competitors identified for this entity are: Cross River, Plaid and Tink.



References

CCAF, World Bank and World Economic Forum (2020) The Global Covid-19 FinTech Market Rapid Assessment Report, University of Cambridge, World Bank Group and the World Economic Forum.

CCAF, World Bank and World Economic Forum (2022) The Global Covid-19 Fintech Market Impact and Industry Resilience Report, University of Cambridge, World Bank Group and the World Economic Forum

Directive (EU) 2018/843 of the European Parliament and of the Council of 30 May 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, and amending Directives 2009/138/EC and 2013/36/EU

ECB European Central Bank (2020) Report on a Digital Euro, online at https://www.ecb.europa.eu/pub/pdf/other/Report_on_a_digital_euro~4d7268b458.en.pdf

European Commission (n.d.) Crowdfunding, online at https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/financial-markets/crowdfunding_en#documents

European Commission (2017) Payment Services Directive (PSD2): Regulatory Technical Standards (RTS) enabling consumers to benefit from safer and more innovative electronic payments, MEMO/17/4961

European Commission (2020) Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937

European Commission (2021) Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the mechanisms to be put in place by the Member States for the prevention of the use of the financial system for the purposes of money laundering or terrorist financing and repealing Directive (EU) 2015/849

European Council (2022) Digital finance: agreement reached on European crypto-assets regulation (MiCA), Press Release

ESMA European Securities and Markets Authority (2019) Initial Coin Offerings and Crypto-Assets, ESMA 50-157-1391

Financial Stability Board (2022) FinTech, online at <https://www.fsb.org/work-of-the-fsb/financial-innovation-and-structural-change/fintech/#:~:text=The%20FSB%20defines%20FinTech%20as,the%20provision%20of%20financial%20services.>

Law No 244/2022 on laying down measures implementing Regulation (EU) 2020/1.503 of the European Parliament and of the Council of 7 October 2020 on European providers of equity financing services to businesses and amending Regulation (EU) 2017/1.129 and Directive (EU) 2019/1.937



References

Regulation (EU) 2020/1503 of the European Parliament and of the Council of 7 October 2020 on European crowdfunding service providers for business, and amending Regulation (EU) 2017/1129 and Directive (EU) 2019/1937

Regulation (EU) 2022/858 of the European Parliament and of the Council of 30 May 2022 on a pilot regime for market infrastructures based on distributed ledger technology, and amending Regulations (EU) No 600/2014 and (EU) No 909/2014 and Directive 2014/65/EU

Stamegna, C. and Karakas, C. (2019) Fintech (financial technology) and the European Union: State of play and outlook, Briefing of the European Parliamentary Research Service

Laivi Laidroo, Anneliis Tamre, Mari-Liis Kukk, Elina Tasa, Mari Avarmaa (2021), Fintech Report Estonia 2022, <http://www.financeestonia.eu/wp-content/uploads/2021/06/FinTech-report-2021-final.pdf>

NBR - National Bank of Romania (2022a) [Banca Națională a României - Financial education \(bnr.ro\)](https://www.bnr.ro/Banca_Nationala_a_Romaniei_-_Financial_education_(bnr.ro))

NBR - National Bank of Romania (2022b) [Banca Națională a României - FinClub \(bnr.ro\)](https://www.bnr.ro/Banca_Nationala_a_Romaniei_-_FinClub_(bnr.ro))

NBR - National Bank of Romania (2022c) [Banca Națională a României - BNR - EconomicHub](https://www.bnr.ro/Banca_Nationala_a_Romaniei_-_BNR_-_EconomicHub)

NBR - National Bank of Romania (2022d) [Banca Națională a României - FinTech Innovation Hub \(bnr.ro\)](https://www.bnr.ro/Banca_Nationala_a_Romaniei_-_FinTech_Innovation_Hub_(bnr.ro))



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