

Alternative Financing in Fintech Markets

A LOOK AT THE GERMAN AND BRAZILIAN
ENTREPRENEURIAL ECOSYSTEMS



bundesverband crowdfunding
**DIGITAL INVEST
GERMANY** ”

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The Author

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Tamara Ferreira Schmidt

Creator of personalized content about investments, startups, innovation, digital currencies and blockchain, Tamara has already lectured at São Paulo Tech Week, Tech Week FATEC, Trevisan Business School, Brazil-Germany Fintech eTour, TEDx KanzlerPark, among other events.

German Chancellor Fellow at [Alexander von Humboldt Foundation](#), Tamara's investigation is focused on the impacts of alternative financing and policy instruments on the early-stage entrepreneurial ecosystems. Her host in this research is the [German Crowdfunding Association](#).

Preface

Dr. Guido Sandler
Bundesverband Crowdfunding Association e.V.
Board Member and CEO at Bergfürst AG

The German Crowdfunding Association is very honored to have hosted the German Chancellor Fellow Tamara Ferreira Schmidt for 17 months and contributed to creating an international business environment.

The opportunity to establish a transatlantic network and exchange diverse perspectives from different cultures and markets is mandatory in any segment of a prosperous economy.

Alternative financing plays an essential role in the entrepreneurial ecosystem, and this report brings an exciting overview of Crowdfunding, Neobanks, Tokenization and Green Finance from the German and Brazilian markets perspectives.

I hope you enjoy reading the Alternative Financing in Fintech Markets report, gaining new insights and ideas for further discussions towards a robust and inclusive financial market development.

Yours,
Dr. Guido Sandler



Dr. Guido Sandler

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Chapter 1

Crowd, Angel and Venture Capital Investors

The Best Combination to
Build Successful Growth
Cycles for Startups

*»In order to ensure success,
start-ups need a good financing mix:
VCs, Business Angels and Crowd Investors.
On our platform aescuvest, we join the forces of small
and large investors in HealthTech.
We need more these collaborations across the globe.«*

*Jörg Diehl, Board Member of the BVCF,
Founder of aescuvest.eu*

The German startup ecosystem has stood out on the European market not only for the high level of innovation but also for the great financing offers in the region.

In 2020, startups in Berlin were offered a median seed round of EUR 1.2 million and EUR 7.3 million as a median series A round, while the global averages were EUR 603 thousand and EUR 3.3 million, respectively. ¹

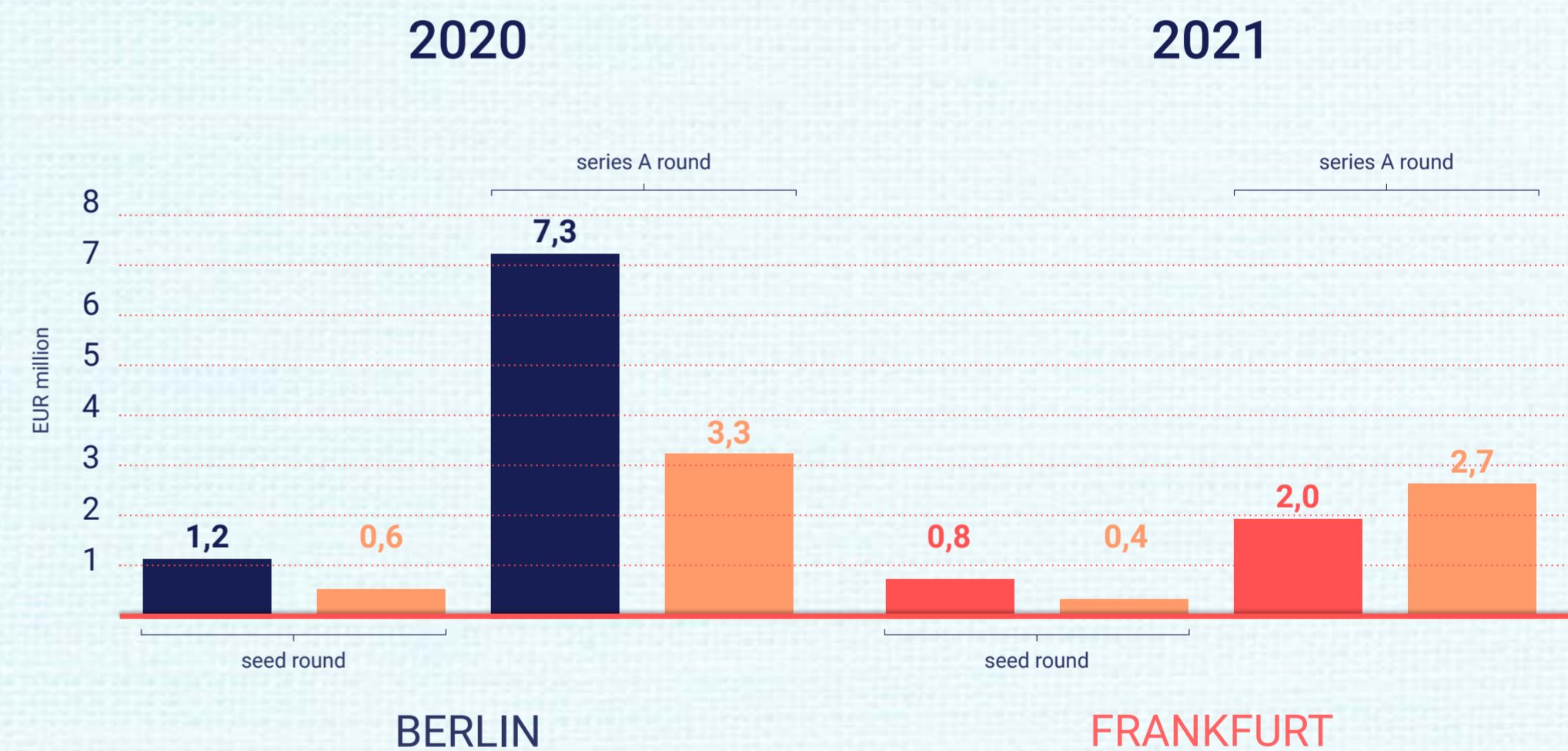
Startups in Frankfurt am Main also offered, in 2021, almost double capital as a median seed round compared with the global average. ²

References

¹ Startup Genome. The Global Startup Ecosystem Report 2020 (GSER2020)

² Startup Genome. The Global Startup Ecosystem Report 2021 (GSER2021)

Capital Offerings



Global average

The majority of German startups are in the early development phase (seed and startup stages). In 2020, this number reached 73.1%, showing the importance of having a well-structured financing framework to ensure that any initial venture has access to capital. ³

This access to external capital is one of the main problems entrepreneurs and startups face in the first stages of their businesses' development. Collateral and strong cash flow are still required in traditional financing processes, although they don't participate in startups' reality.

In this context, the alternative financing market has grown very expressively, promoting early-stage businesses and showing its relevance in keeping the entrepreneurial ecosystem, especially in crisis times. The German crowdfunding market achieved, in 2020, a volume of EUR 400 million, and almost half of this value represents institutional investors. ⁴

This means that crowdfunding can help fill the funding gap because it allows retail investors to invest in innovative startups and represents a valuable first step in attracting the attention of more prominent investors. It's fascinating how different market agents' combinations can build more efficient structures to raise capital.

Considering that business angel and venture capital investments are among the favorite funding sources for German startups, behind only the government funding ³, it's possible to see some German crowdfunding platforms also innovate in bringing those professionals and their expertise as an opportunity to improve the traditional fundraising process.

The [Bundesverband Crowdfunding e. V. \(BVCF\)](#) is the central representation of interests and the network of these platforms in Germany. It was founded in 2015 in Frankfurt am Main and is based in Berlin. The members jointly articulate their interests concerning politics in Europe, Germany and the federal states.



**bundesverband
crowdfunding**

References

³ Bundesverband Deutsche Startups e.V.. Deutscher Startup Monitor 2020

⁴ BVCF Site



Business Angel Market

Since the 1990s, Germany has developed a robust and diverse business angel market, consisting of a varied landscape of regional business angel networks and individuals, informal angel investors. As a national federation, **Business Angels Netzwerk Deutschland e. V. (BAND)**, founded in 1998, serves as the representative of the business angel scene.

Nowadays, business angels are widely recognized as the most important early-stage investors. This is particularly the case in the seed phase, where angels invest more than private venture capital firms. On top of that, more and more angels begin to invest in follow-on rounds.

Today, German angel investing can be considered a lively market segment along the financing chain of innovative and high-potential startups.

According to a 2019 evaluation by ExpertConsult, Germany has between 10,000 and 12,000 business angels and this group invested expressive amounts in 2020. ⁵

Besides that, the country has a history and a variety of instruments and funds for public venture capital, with the **High-Tech-Gründerfonds** and several regional seed funds providing public money to bold startups.

Even if many of these funds actively incorporate business angels as leads or co-investors, a specific policy instrument to foster these investments remained an aspiration for quite some time.

With the establishment of the INVEST grant, the business angels scene received recognition by policy-makers and concrete instruments to facilitate angel investments were introduced. ⁶



Source: Berlin Partner for Business and Technology

References

⁵ ExpertConsult. 2019. Evaluation of the funding programme „INVEST - Venture capital grant“.

⁶ BAF. 2017. Understanding the Nature and Impact of the business angels in Funding Research and Innovation.

Companisto

Companisto, Germany's largest investor network for startups and growth companies, was founded in 2012 by **David Rhotert** and **Tamo Zwinge** in Berlin. The crowdfunding platform has almost 120,000 user accounts and EUR 137 million invested through 206 financing rounds.

Although its operating market focuses on Germany, Austria and Switzerland, the fintech has investors from 92 different countries. In 2018, it started a private group inside the platform called "Companisto Angel Club" that brings together financially solid investors and business angels in the crowdfunding environment.

This group deals strategically with financial investments and seeks professional equity investments in exciting startups. Members have the opportunity to participate in private financing rounds at preferential rates and take advantage of the state INVEST grant, where 20% of the investment amount is reimbursed. Companisto has 6.5% of this market's volume and number of issued grants.

Additionally, this private group can finance any new opportunity offered on Companisto's platform before going to the general crowd.

Robert Wegner, head of portfolio management, confirms that this possibility increases the campaign success rate and allows the non-qualified investors to have examples to inspire themselves in financing.

More than 15% of the total raised by the platform represents this group's investment, and the expressive participation is essentially the result of the great networking built between its members. Besides all interactions that are possible using the platform, experts from different areas can also help to analyze new offers and cooperate with invested companies.

Companisto's community is an example of crowd power mixed with expertise from angel investors.⁷



COMPANISTO ANGEL CLUB



Robert Wegner
Head of portfolio management

References

⁷ Robert Wegner's Interview from Companisto on November 20th, 2020.

INVEST GRANT

Up to 20% of the investment as a grant to business angels

In order to address the financing gap problem in the German business market, estimated at EUR 859 million, the **Federal Ministry of Economic Affairs and Climate Action (BMWi)** created in May 2013 the program called INVEST. It was revised in 2017, and nowadays, it consists of two grants: an acquisition and an exit grant.

The program focuses on business angels on the side of the investors and young innovative start-ups on the side of the companies.

Business angels need to invest at least EUR 10,000 and stay in the investment for three years to receive a fund of 20% of their investment, known as an acquisition grant. After three years, if the investors sell the company's shares and get profit, they can apply for the exit grant and have the taxes on profits reimbursed.

The two main goals of this program are to encourage existing and new business angels to make or expand investments, and as a result, facilitate access to venture capital, especially for young companies.

Companies need to submit an online application at the **Federal Office of Economics and Export Control (BAFA)** to participate in the program. If all requirements are met, the company receives an eligibility certificate and will be listed in the INVEST database to be visible to potential investors.

Investors need to submit an online application at BAFA before the participation agreement's conclusion between them and the company to receive the grant.⁸



References

⁸ BMWi Site. 2021. INVEST - Zuschuss für Wagniskapital.

Results

Besides the vital function in the angel scene, the program contributes to raising public awareness of the concept of business angel and makes this form of capital allocation more popular. The effects can be noticed in companies, investors, and the entrepreneurial ecosystem.

Almost a quarter of the companies would probably not have been established without INVEST support or possibly would have been significantly delayed. The quicker success in the search for investors and some impacts brought by additional capital such as faster implementation, early market entry, time advantage in development and others can be highlighted as some program's benefits.

In 2017 and 2018, the average of different investors exceeded the government target, reaching the number of 1,400 business angels. Each investor usually participates 4.5 times in the program, which means more capital coming into this market, and although the minimal possible investment is EUR 10,000, the average subsidized investment is EUR 81,700.

The program already mobilized EUR 910 million through almost 11,400 investments and created 32,000 jobs. At least 16% of the German angels have been reached by the program so far. ⁵

Outlook

It's exciting to think about all the possible effects created by the program if it were extended to other types of investors. In 2020, more than EUR 400 million was invested by German investors via crowdinvesting platforms.

Even though the Corona pandemic led to uncertainty among investors, the market development in the 3rd and 4th quarters of 2020 and the first quarter of 2021 show that the interest in crowdinvesting is still great. The level of 2019 was reached again in the first quarter of 2021. ⁴

It'd be great if the INVEST was accessible to crowdinvestors, with a lower value for minimum investments, and contemplate other instruments such as subordinated loans, the most used investment type on platforms.

Facts & Figures

Status: December 31, 2020

1.15



million euros

have been mobilized by INVEST in venture capital since May 2013

15.000



investments

have been approved since May 2013

References

⁴ BVCF Site

⁵ ExpertConsult. 2019. Evaluation of the funding programme „INVEST - Venture capital grant“.

Venture Capital Market

In terms of venture funding, Germany saw an all-time high in 2019, with a 50% increase over 2018. Companies received EUR 2,256 million in funding across 664 deals. These results made Germany the 2nd best-funded country in Europe, behind only the UK. ⁹

Although the numbers dropped in 2020 primarily due to the effects of the Corona pandemic, this market raised EUR 1,850 million, 74.7% of which invested in seed and startup-phase companies. The massive concentration of investments in the early-stage phase has grown over time, confirming itself as a good strategy for maintaining startups and SMEs, especially in time crises. ¹⁰

As the deal number remains at the same level, average investment tickets increase every year, showing a mature ecosystem with the highest valuations in Europe. A pre-money German valuation corresponds to EUR 6.1 million in the seed phase, EUR 22 million in Series A and EUR 100 million in Series B. ⁹

The geographically decentralized ecosystem enables Germany to be home to specialized and complementary hubs that cover expansive ground and form a well-connected city network that extends even by the DACH (Deutschland, Austria, and Confederation Helvetica - Switzerland) region.

Even though Berlin has the highest percentage in venture capital investment, 39% of the total German offers, other cities and regions also represent this topic well. Munich and Hamburg have 28.8% and 22.1%, respectively, performing above the national average of 18.6%. ³

The Brazilian hubs are more centralized, especially in the south region. Sao Paulo leads the larger fintech clustering, followed by Belo Horizonte and Curitiba, which can be highlighted as digital health and fintech hubs respectively. ¹⁵

References

⁹ Bundesverband Deutsche Startups e.V.. Deutscher Startup Monitor 2020

⁹ White Star Capital. 2020. German Venture Capital Landscape 2020

¹⁰ BVK. 2020. Der deutsche Beteiligungskapitalmarkt 2020

¹⁵ abstartups. Startup Base.

FunderNation

FunderNation, Germany's first crowdfundering platform set up by an experienced venture capital team, was founded in 2014 by **Uli W. Fricke** in Bensheim-Auerbach. The offers focus on IT, Greentech, Healthcare & MedTech and Aerospace, and these categories are essentially a reflection of **Triangle Venture Capital Group's (TVCG)** business model since it creates outstanding and highly innovative companies from research spin-offs.

The idea to found a crowdfundering platform was driven by a market need when the TVCG identified, in the first half of the 2010s, that the venture capital market in Europe didn't grow as fast as the startup ecosystem. Many more companies were looking for capital than professional investors acting in this business. It was clear that an alternative way to raise money and different sources of capital should be introduced in the market.

FunderNation was created to organize efficient fundraising from private investors through an online platform, offering an opportunity to those companies that would be eligible to receive investment but had not yet obtained it.

Seventeen years of high-tech investment experience were hugely helpful to build a successful business. How and what to look for in companies, what looks great but doesn't work, how much work is necessary to help companies to become successful, the prevailing funding structures of startups across the world, the expectations of business angels and VC investors when they look at startups, the legal and regulatory frameworks, all this know-how contributed to creating a platform with a crucial investing background.

Symbiotic relationships between crowdfundering platforms and venture capital firms can offer startups a longer business development path than performing their earliest investment rounds. With transparent procedures and rules of co-investment, FunderNation is in the process of raising the next generation of venture capital funds.

In a vibrant startup ecosystem, it's critical that crowdfundering platforms, business angels and VC investors can coexist to bring different solutions to distinct companies. Very few agents in this market can run a company from one to IPO without anybody else providing additional funding. Therefore it's evident that only one category of investors is not feasible for market development.

"Not every startup wants to be a unicorn. Not every entrepreneur wants to be driven to an exit and sell the company after five years, which is what the VC investor needs", emphasizes Uli. Crowdfundering and business angel investors that usually don't have such aggressive money flow demand can subsidize startups without a business plan or an intention to grow 100 times in a short period of some years.

Mobilizing private capital in young and innovative companies is imperative to get the economy out of the covid-crisis. ¹¹



Uli W. Fricke
Founder of FunderNation

References

¹¹ Uli W. Fricke's Interview from FunderNation on May 3rd, 2021.

SMU

Crowdfunding platform for SMEs

The relationship between angel, crowd and venture capital investors can also be observed in the Brazilian market. The crowdfunding regulation introduced the figure of the investment syndicate and the leading investor into the crowd market, allowing this person, which can also be a company, to lead an offer through a crowdfundering platform.¹²

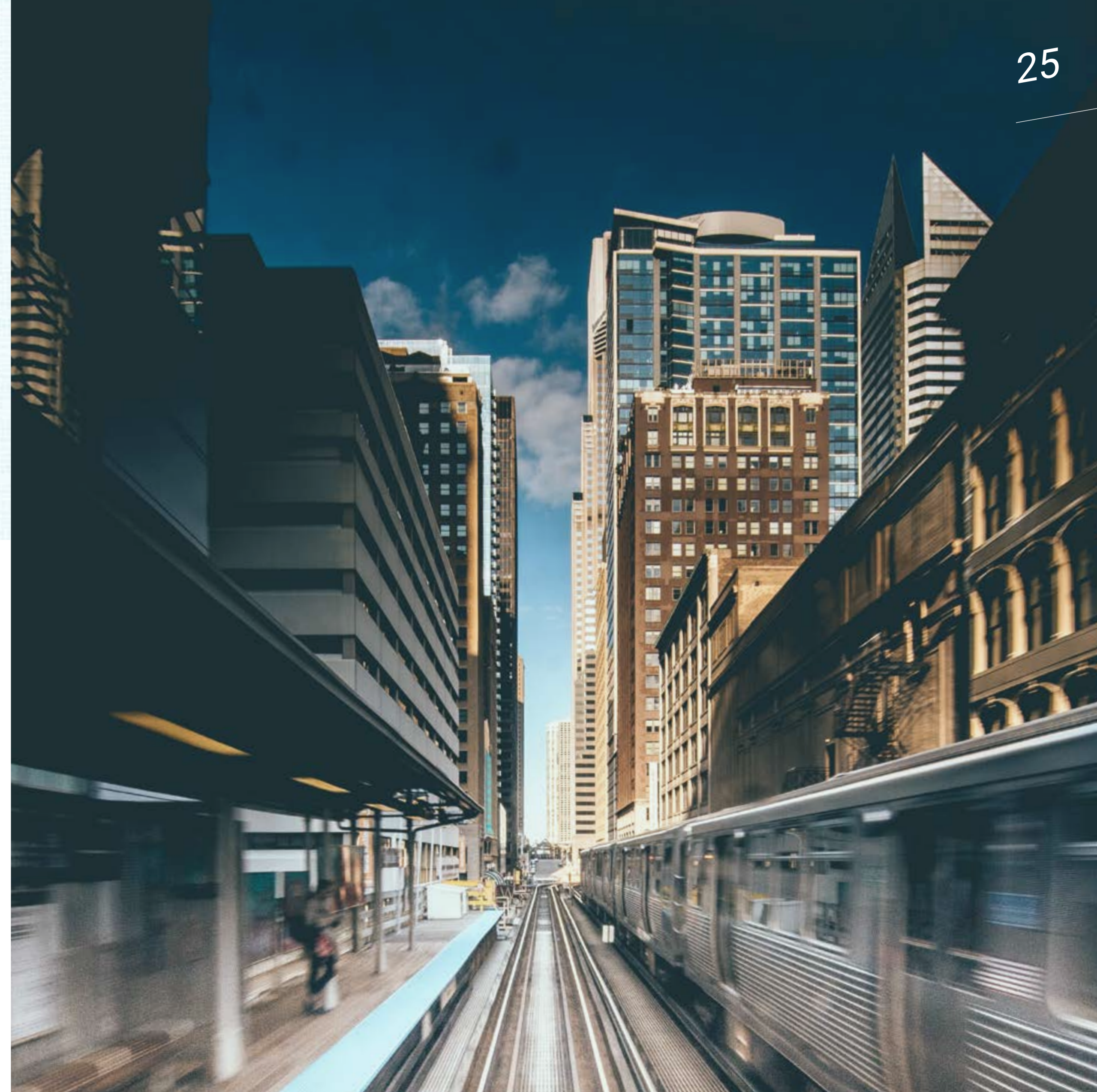
In general, business angels, qualified and corporate investors assume the offer leader position, contributing at least 5% of the funding round. Besides the capital, the investment syndicate brings more security to all investors once the financed company has been analyzed by professionals that are mostly segment experts.

There are several obligations involved in the leading investor position. For example, to introduce his/her investment thesis setting out the reasons and justifications for such a choice besides having a centralized communication to decrease information asymmetry.

On the other hand, the regulation allows a performance fee payment to the leader based on the investment return measured in the exit, including through securities issued by the small business company.

This is a great incentive for different agents to interact and participate in a crowdfunding framework. Business angels and especially corporate investors started to see this model as a possible option to structure a fundraising process.

SMU, Brazilian's first crowdfundering platform founded in 2013 by [Rodrigo Carneiro](#), [Diego Perez](#), [Fabio Silva](#) and [Fernando Patucci](#), acts as a leading investor in all offers raising funds on its platform. This business design shows a strong platform alignment with its investors, confirming that it's more than only a marketplace by the skin-in-the-game strategy.



References

¹² CVM Site. 2017. ICVM 588.

SMU

The Brazilian Market

Commitments in this level positively impact all platform processes, from the search and analysis of the startup to the post-investment. "This model makes us smarter in our analysis; we want the startups' success and the investor return. The exit is our goal and we understand that this interest's line is good for all involved, platform, investors and entrepreneurs", comments Rodrigo.

Other two different models can be found in the Brazilian market. When the platform considers the startup, instead of the investors, its main client, it acts as a marketplace that offers its customer basis and crowdfunding services. When the service is provided a technological solution to big players, we have a PAAS (Platform as a Service) where the client can customize it with its brand and set up all its campaigns.

The complementary between the market agents has become expressive and successful in many funding rounds. Joining forces and raising funds together is an excellent plan to provide startups with a more assertive growth cycle.

SMU has partnerships with agents in earlier stages than crowdfunding, like angels, groups of angels, accelerators, incubators, and agents from following rounds, like venture capitalists.

"I talk with big funds to know what they want to see and what they don't want to see in their rounds. Then, I apply reverse engineering in our offers to increase the chances of these startups continuing their path in fundraising", adds Rodrigo.

Understanding the ecosystem as a whole, not only worrying about your own business, shows us a more mature market and an environment conducive to successful cases. Rodrigo believes in a future where all players use the crowdfunding framework to raise capital.

The regulatory strength and the crowd power can bring benefits that don't exist in other models.

The Brazilian regulator, [CVM](#) (Securities and Exchange Commission), admitted on December 2021 SMU's participation in the regulatory sandbox to carry out the activity of organized securities markets' constitution and administration, in the form of an organized OTC market. This environment also foresees the security tokens negotiation's admission, fostering the Brazilian economy tokenization.¹³ The secondary market development will start a new era in crowdfunding, and the other agents will take advantage of this necessary market evolution.¹⁴



Rodrigo Carneiro
Founder of SMU

References

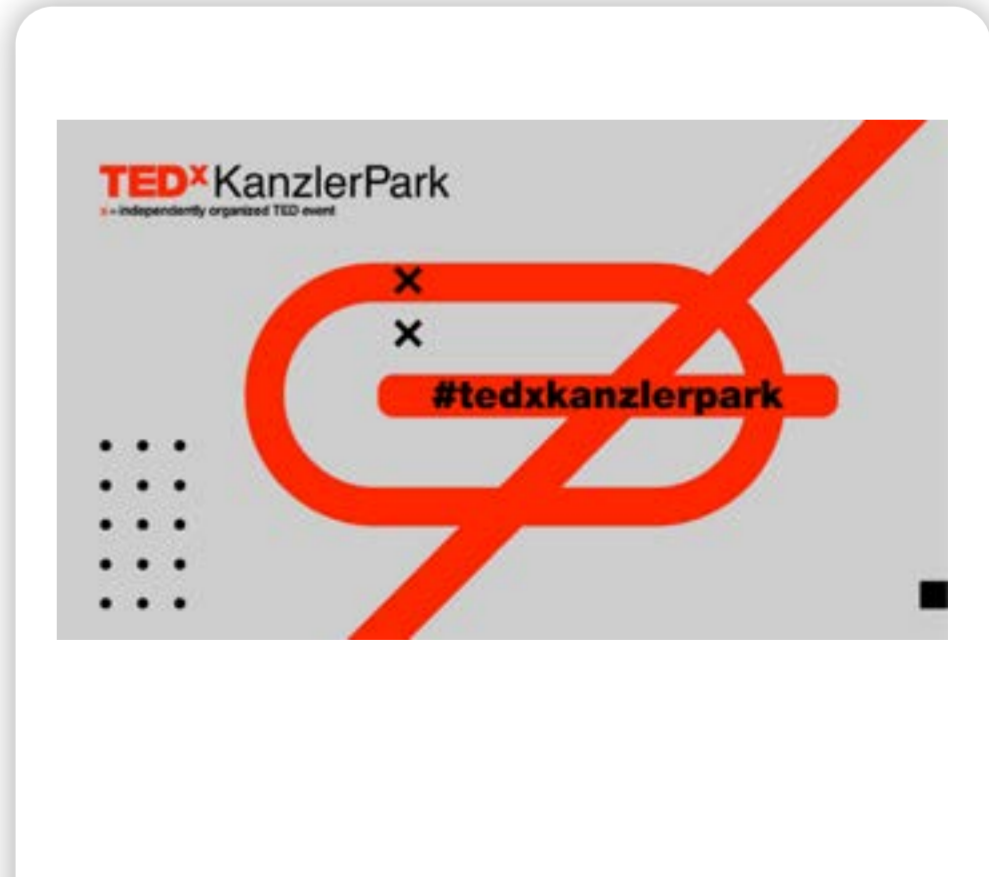
¹³ CVM Site. 2021. Deliberação CVM 877

¹⁴ Rodrigo Carneiro's Interview from SMU Investimentos on May 10th, 2021.



Can Crowdfunding Save Startups from Valley of Death?

Tamara Ferreira Schmidt | TEDxKanzlerPark



Chapter 2

Segmentation vs. Portfolio Expansion

The Early Stage Ventures'
Support in the Way of
Neobanks' Profitability

*»The financial landscape in Germany is changing fast –
LegalTech and digitization of financial services
give a competitive edge to Neobanks.«*

*Dr. Tobias Riethmüller, Legal Counsel of the BVCF,
Partner at GSK Stockmann*

The number of banks in Germany has been in continuous decline over the past few decades, reflecting pressure to rationalize and cut costs. Despite this shrinking of the market in terms of institutions number, the size of the German banking system in terms of total assets to GDP (Gross Domestic Product) increased steadily until the subprime financial crisis. ¹

Large German banks, particularly Landesbanken, have scaled back their interbank activities and foreign operations following the financial crisis. ¹ The cost of financial intermediation seems to have declined due to improved technology and increased competition. ²

How digital innovations affect productivity in banking crucially depends on changes in the competitive structure of markets. As in other industries, the entry of new, more productive firms and the exit of incumbents can be a channel for productivity improvements. ³

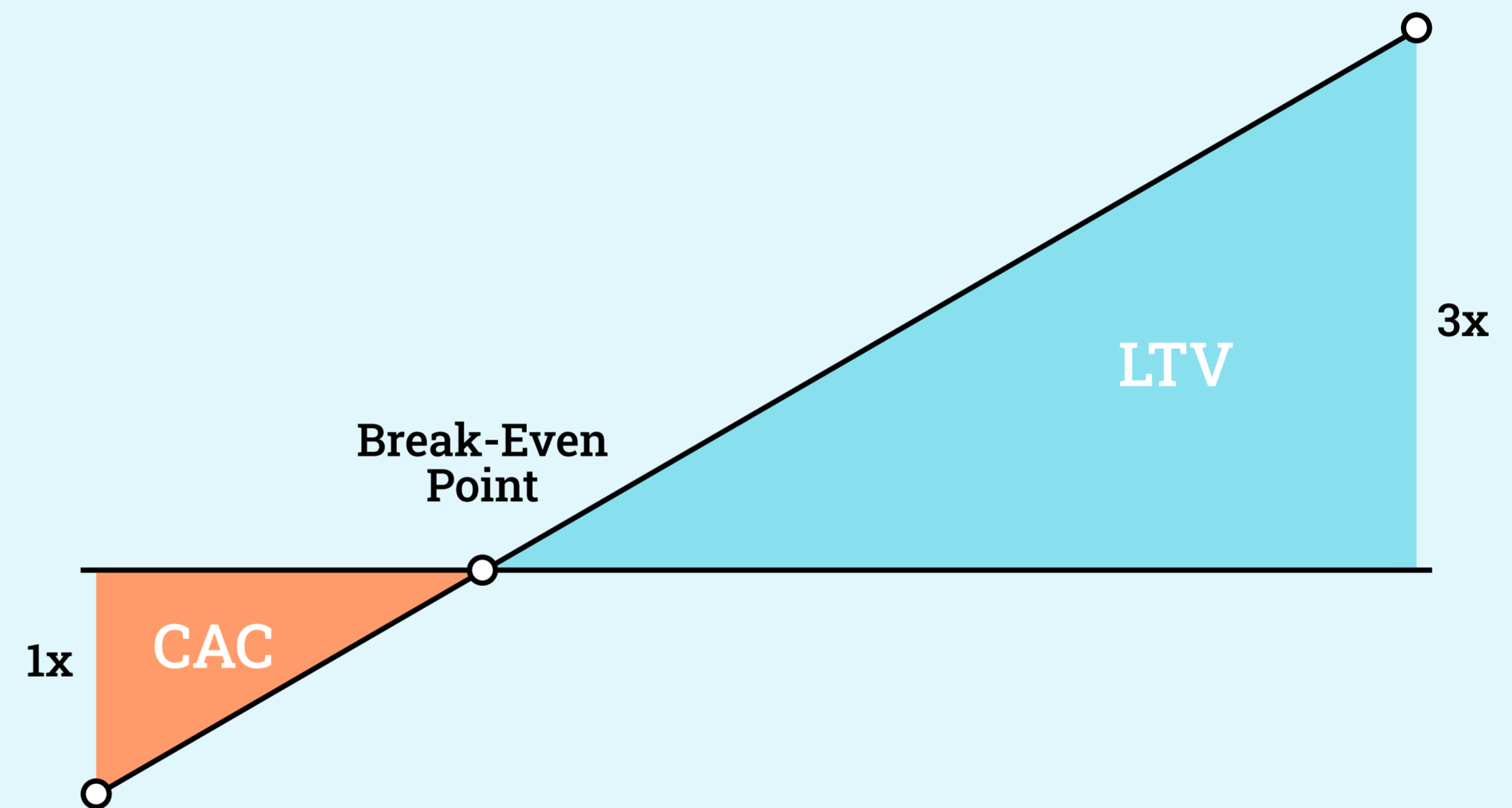
Nowadays, neobanks are under tremendous pressure to show they mean business. Investors are pushing the fintech challengers to demonstrate that they can monetize their products and eventually profit. And those conditions are perfect for some kind of market consolidation.

The challengers have been racing to roll out new products in an effort to bring in new revenue streams and edge toward profitability. They are typically confronted with increasing costs, while the margins generated per customer remain low. Although several years of losses and heavy venture capital investing are standard requirements to disrupt the financial market, some indicators, such as the LTV/CAC, should still be healthy.

The LTV (the customer Life-Time Value) is the average revenue generated by a customer in 1, 3 or 5 year period. This indicator should be as high as possible but remains an area of concern for many neobanks that seek revenue mainly from the low debit card interchange fees. The average LTV is around EUR 15 per customer per year and can worsen due to reduced traveling and small purchases following different confinement periods.

LTV CAC Ratio

A great business will have a ratio of 1 CAC : 3 LTV. In essence, great business models get three times the value from a generated customer than it took them to get that customer in the first place.



References

¹ Deutsche Bundesbank. 2017. Financial Stability Review 2017.

² Philippon, T. 2019. On Fintech and Financial Inclusion. NBER Working Paper Series.

³ Lumpur, K; Buch, C. 2019. Digitalization, Competition, and Financial Stability. Deutsche Bundesbank.

The CAC (Customer Acquisition Cost per customer) is the total money spent on customer acquisition divided by new customers. This indicator should be as low as possible.

Most neobanks still achieve far better CAC values than incumbent banks, with an average CAC of neobanks around EUR 30 versus EUR 200 for incumbent banks, but still too high compared to the average revenue generated per customer.

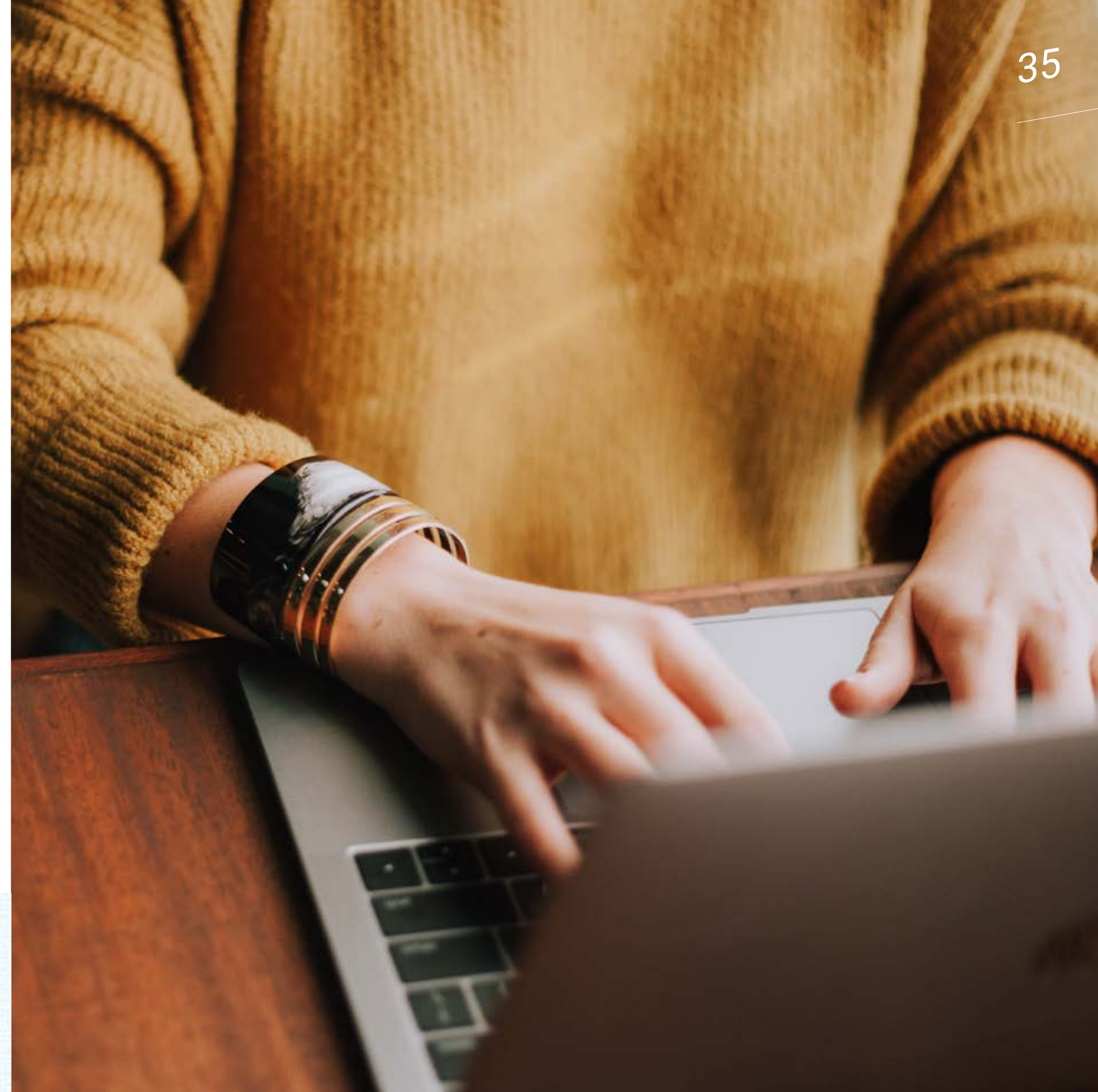
As a result of the recent pandemic and its effects on the economy, venture capital firms push neobanks to change their focus from growth to profitability. This condition leads to neobanks repositioning their offering, seeking more profitable products and services, like investments and credits. Other strategies to increase LTV are expanding to more profitable customer segments, like SMEs, providing “banking-as-a-service” to other fintechs or even banks, and positioning their fintech app as a super-app offering third-party non-financial services and taking a lead generation commission.⁴

Several well-funded fintech companies that exclusively focus on serving the freelance or SME market segment have been founded in Europe

over the last years.⁵ However, the profitability urgency has positively impacted the early-stage entrepreneurial ecosystem, once freelancers, startups and SMEs have been the center of many neobanks strategies. Products and services targeted in this public have supported the initial company phase that, in general, has more severe difficulties to stay alive in the market.

More than ever, businesses are looking for a more reliable banking partner who can provide innovative financing management tools, better customer experiences, and tailored financial products. Nonetheless, it’s getting harder to differentiate one neobank from another regarding their focus and message because offering business banking accounts is getting commoditized.

Segmentation, international coverage and have their own banking licenses are ways to differentiate themselves used mainly by small fintechs.⁶ The big ones add new products and services to make possible the monetization of their customer base. It’s pretty interesting how the binomial “segmentation vs. expansion” has affected the dynamic of making money.



References

⁴ Lochy, J. 2020. Neobanks should find their niche to improve their profitability.

⁵ Klee, A. 2021. An analysis of Europe’s key SME fintechs.

⁶ Chong, T. 2020. Unpacking Neobanks for SMEs – Chapter 1 | Introduction to the Global Landscape.

Penta

Known as the “N26 for corporate customers”, **Penta** is a young startup based in Berlin that offers a business-tailored account to smaller companies, sole proprietorships, freelancers and startups. It works with Solarisbank once it doesn't have its own banking license.

Founded in December 2017 by [Jessica Holzbach](#), [Luka Ivcevic](#), [Lav Odorovic](#), [Aleksandar Orlic](#) and [Sir Gabriel Holbach](#), the neobank had raised EUR 45 million from business angels and venture capital firms like Inception Venture Capital, HV Capital and Finleap.

With the slogan “built by business owners for business owners”, the fintech reached 30 thousand user accounts and a valuation of EUR 45 million in 2021. ⁷ [Markus Pertlwieser](#), Penta's CEO, confirmed a clear goal of doubling this customer base. He believes that Germany has a vast digital undersupply of four million potential customers. The business segment is highly attractive where the classic banks have been less on the move in recent years and not so much has been founded. ⁸

Furthermore, to differentiate itself from alternative providers, Penta makes the company budget management possible, allowing the leaders to give their employees and departments budgets to manage them independently.

The account also contains tools that integrate existing booking systems and work platforms such as Dropbox or Debitoor into the account management. In addition, customers can use the tools to make international transfers, make forecasts for their companies' liquidity, and even get involved as developers to customize their account requirements.

Since the beginning, the customer focus has been one of the reasons for Penta's success. Its **community** is solid and accessible by Slack, where clients determine which products and functions the neobank develops next and stay aware of updates, news, events, etc.



References

⁷ Penta Profile at DealRoom.com

⁸ FinanceFWD#86 mit Penta-CEO Markus Pertlwieser. 2021

N26

Founded in 2013 by **Valentin Stalf** and **Maximilian Tayenthal**, N26 is a German direct bank based in Berlin specialized in account management via smartphone. With over 7 million customers reached in January 2021, the neobank currently offers services in 25 countries, including Brazil.

Raised EUR 1.4 billion since its beginning, N26 has a valuation of EUR 7.8 billion (Oct. 2021)⁹ and was voted number 1 in the 2021 Forbes list of the world's best banks. It won awards in five countries, and placed as the top-ranked bank in Austria and Italy, ranked #2 in France, #4 in Spain, and #13 in its home market of Germany.¹⁰ This rank is interesting and shows us some of the German financial market dynamics, which are conservative and traditional in some segments.

However, this strong profile didn't prevent the fintech from losing money in its global operation, reaching the amount of EUR 217 million in 2019 despite having doubled its revenues from EUR 43 million to EUR 100 million in the same period.¹¹

A big driver of N26's revenues has been its premium subscription-based accounts, for which it charges between EUR 4.90 to EUR 16.90 for a range of additional features. But Valentin believes that the big thing they are doing is to focus on the marketplace and integrate the entire experience.

Products such as trading and credit were included in the N26 app while the company takes fees from third-party providers.¹² A great example of this dynamic is the neobank entrance in the insurtech space. The product "N26 Insurance" provides private liability insurance, home insurance, life insurance, pet insurance, and coverage for bikes, electronics, and other large purchases. Clients can take them, manage the scope and make claims through N26's app.

It can be bought as a standalone product or accessed as part of N26 Metal, the highest-price subscription plan.^{13 14}

Despite the pandemic, the neobank said the number of business customers using their service has almost trebled in the past two years. The partnership between N26 and SumUp provides digital tools to allow freelancers, self-employed and entrepreneurs to accept cashless payments, helping their businesses thrive in today's increasingly digitized world.¹⁵

In January 2021, the fintech withdrew from the U.S market (around 500 thousand user accounts) to focus on the European expansion, which includes bringing different financial services and investment products for its clients, like cryptocurrencies.¹⁶



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⁹ N26 Profile at DealRoom.com

¹⁰ Gara, A. 2021. The World's Best Banks 2021

¹¹ Woodford, I. 2021. sifted.

¹² Browne, R. 2021. CNBC.

References

¹³ Tattersall, M. 2021. INSIDER.

¹⁴ Silicon Canals Site. 2021.

¹⁵ RTE Site. 2021. N26 partners with digital payments company SumUp

¹⁶ Browne, R. 2021. Germany's \$9 billion digital bank N26 to withdraw from the U.S.

Nubank

The Brazilian Market

Nubank, one of the most valuable fintech unicorn based in São Paulo, was founded in 2013 by **David Vélez**, **Cristiana Junqueira** and **Edward Wible**. The neobank opened space for the Brazilian banking transformation, breaking the hegemony among the five traditional banks that controlled 80% of the Brazilian market. These incumbents earn massive profits by lending at high-interest rates and charging exorbitant fees while providing lousy customer service. ¹⁷

With more than 40 million customers, the neobank currently offers its services in Brazil, Mexico and Argentina, and its first international office was opened at the end of 2017 in Berlin. The European team focuses on infrastructure and data engineering. Still, the mission is the same: to create products that reduce complexity and give its customers back control over their financial lives. ¹⁸

In June 2021, Nubank raised EUR 660 million from Berkshire Hathaway Corporation, reached EUR 26 billion value, becoming one of the most valuable startups in the world.

The fintech leader increases its customer base by more than 1 million customers a month, which will make it the market leader in 2023 when it will complete ten years of life, beating the current leader, Banco do Brasil, with 200 years old. ¹⁹

The Brazilian fintech, ranked as the best Brazilian bank for three consecutive years by Forbes ¹⁰, is also expanding itself to other markets beyond payments and credit. It added investments in its portfolio through the Easynvest acquisition, which includes two own investments funds ²⁰, and insurance offers through a partnership with Chubb. ²¹

In July 2021, the neobank rolled out the “Nubank Ultravioleta”, a paid premium credit card with exclusive benefits such as cashback, VIP airport lounge access, travel medical insurance, and others. By launching a premium account tier that charges a monthly fee, Nubank is positioning itself to convert its huge client base into a steady revenue stream independent of the card usage. If it can convince just one out of every ten customers to become an Ultravioleta client, Nubank would stand to gain as much as EUR 31 million in revenue. ²²

In December 2021, Nubank went public in NYSE with an emission price of EUR 7.89 (USD 9). The offer raised EUR 2.2 billion and the fintech valuation reached EUR 36 billion. ²³ B3, the Brazilian Stock Exchange, saw a significant increase in the number of new customers, and 815 thousand Nubank investors, through BDR, were largely responsible for this growth. ²⁴

The business account, focused on individual and self-employed entrepreneurs, already supported 700 thousand customers. For this audience, which felt firsthand the importance of going digital in recent years, especially during the pandemic, the most significant advantage of being a fintech customer is the ease of receiving payments from its customers.



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Chapter 3

Tokenization in Crowdfunding Platforms

How Blockchain Technology
and Alternative Financing can
Revolutionize the Financial
Market Together

*»Tokenization will change how investors obtain
and trade securities. With our CRWDToken,
CONDA was the first European platform to implement
tokenization for SMEs.«*

*Dirk Littig, Board Member of the BVCF,
CONDA Germany*

Like any other token or digital contract, securities tokens represent a security investment contract on a blockchain. Their offerings, called STOs (Security Token Offerings), are treated like any other security offering, making financial service regulations apply to most token generations events that represent an investment or qualify as tradable security. ¹

An STO can be a real estate investment contract, a financial derivative product, or an issuance of debt or equity. This kind of investment was approved as a regulated financial product by German authority BaFin in 2019. ² Although most private investors associate blockchain technology with cryptocurrencies like Bitcoin and thus with high volatility, German crowdinvesting platforms discovered the opportunities offered by digital securities. ³

The tokenization of real estate started relatively early. Two real estate projects were among the first four security token offerings approved by the European Regulators. In summer 2019, [Exporo](#), founded in 2014 as a crowdinvesting platform for real estate projects, managed the first fully regulated STO for the real estate market in Europe. By now, the company has 25 realized real estate assets and 45 project developments with an issue volume of over EUR 280 million on the blockchain, explains [Patrick Hartmann](#), Exporo's managing director. ⁴

Known as [Invesdor](#) after its merger in 2021, Kapilendo stood for the largest German STO in SME financing for quite some time.

With the token-based bond for FR L'Osteria SE restaurant chain, the company raised EUR 2.3 million from more than 1,300 investors in 2019.

[WIWIN](#), founded in 2011 as a platform for sustainable investing, conducted Tomorrow Bank's two fundraising rounds as digital security in 2020 and 2021. In the first one, the fintech raised EUR 3 million in 5 hours, and in the second one, EUR 8 million in 24 hours. It's pretty interesting how the German tokenization market for investors emerged inside crowdinvesting platforms. Many factors that convert to the same point, products and process simplification, can explain this dynamic.



Patrick Hartmann
Exporo's managing director

When the Technology Meets the Startups' Needs

According to the German regulation, some investments require plenty of documents before going public. The preparation is long and expensive, making it often impossible for startups. On the other hand, a security token investment asks for a security prospectus rather than a sales prospectus under the asset investment act. ² Therefore, the regulation makes the process more accessible when the company and platform choose the right instrument.

While the big financial players keep making the sector one of the most profitable in the world, thinking of not changing the status quo, after all, they make a lot of money during the entire process; the crowdinvesting platforms need to be creative to reduce costs.

Innovative and risk-taken, they lead the blockchain technology's adoption, showing that a more efficient solution can democratize assets and make the crowd profit from them.

This market disruption is also a game-changer for startups and SMEs since the advent of security tokens representing debt and equity can perform a great instrument to companies raise capital and even go public. Why not have a "pre-IPO" happening naturally in the startup growth cycle in place of waiting for the company to become huge?



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⁴ Patrick Hartmann's Interview from Exporo on November 16th, 2021.

The Promising Future

In a system that protects itself, it's reasonable to consider that the incumbents won't disappear suddenly overnight. Still, they will likely absorb the new technologies within their legacy systems. For example, in a stock trading life cycle, studies show that custody is the most promising service for blockchain technology without significant changes in the business model. ⁵

Unfortunately, the effort to transform illiquid assets into tradable ones is a long way once some challenges come along with the STOs. The lack of a secondary market limits the primary market development, making a genuinely tradable instrument still a promise. Moreover, the lack of interoperability and implementation of a single tokens protocol among different platforms presents plenty of difficulties to the feasibility of the global security market.

Philip Filhol, neoFIN's CTO, also points the tokenization market acceptance as another obstacle since there is no integration with the classical financial market. Big banks would love to offer security tokens for their clients, but with the present structure, they would take money away from their own ecosystems with the current framework.

Of course that beyond the obstacles, the opportunities are tremendous. Philip is entirely sure that tokenization will replace all financial instruments in the future. ⁶

Currently, the global equities market represents EUR 62 trillion, and the global bonds market is about EUR 81 trillion. These segments are mainly restricted to professional investors and high-net-worth individuals. There is an exponential potential of using securities tokens among the internet's 4.1 billion users. Utilizing security tokens technology can further expand the number of global equities and bonds available. ¹

neoFIN 



Philip Filhol
neoFIN's CTO

References

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Cashlink

After pivoting from being a P2P German payment startup, **Cashlink** started as a tokenization solution in late 2018. Initially, the fintech was focused on issuing tokenized company shares and incrementally moved from niche to niche going through different types of products.

Founded by [Michael Duttlinger](#), [Lars Olsson](#), [Niklas Baumstark](#) and [Jonas Haag](#), the startup based in Frankfurt provides an all-in-one software solution for securities tokenization. The technology combines all processes and required licenses from the primary to the secondary market. Besides the API for proprietary investment platforms, Cashlink also offers a whole investment platform as a service with the tokenization engine integrated.

[Benedikt Scheungraber](#), Cashlink's CMO, confirms that offering a complete solution was a game-changer for improving customer service. The topic's complexity is still a problem, especially if companies out of this business must handle the entire process themselves. The great partnership network created by the fintech around its services allows a fast response through a standard product, whereby customers can choose the most feasible arrangement according to their needs.

The tokenized assets' range is quite wide, from real estate, solar panels, forest, ships to VC funds, Cashlink's customers structure their offers usually through a debit instrument that seems like an equity one; a profit participation rights. Agnostic about the adopted blockchain, the fintech uses Ethereum, Stellar and Polygon to issue the security tokens.



Benedikt Scheungraber
Cashlink's CMO

Compared to classical securities, the most significant advantage from tokenization pointed by Benedikt is the speed settlement. Two settlement days make the traditional capital market inefficient, thinking it's necessary only a few seconds to transfer tokens. On the other hand, transferability is undoubtedly the most relevant improvement reached compared with the real estate market.

Cashlink has won the Fintech Germany Award two times. In 2020 under the Blockchain category and 2021 under the Early Stage category. Offering a P2P trading solution with a market maker to the secondary market is part of the fintech futures plans. The CMO believes it's the logical next step to make tokens actually tradable. He also imagines a short future when blockchain technology would replace the clearing process and the custody from the classical stock market.⁷

References

⁷ Benedikt Scheungraber's Interview from Cashlink on November 8th, 2021.



WIWIN

WIWIN, the German crowdfunding platform for sustainable projects, was founded by **Matthias Willenbacher** in 2011 with the motivation to involve citizens more in the energy transition. Based in Mainz, the fintech offers renewable energies, sustainable startups and energy-efficient real estate projects to people that can make large investments possible with small individual amounts.

With more than 10,000 investors and EUR 116 million raised to sustainable projects, WIWIN has an expansive offering portfolio that includes some token-based opportunities structured through Cashlink's investment platform.

Felix Auspurg, WIWIN's project management team leader, explains that tokenization makes the investment process easier because it reduces bureaucratic steps faced by investors from classical securities. Besides improving the user experience, which is imperative for the success of startups campaigns, blockchain technology ensures any further system integration possible.

For example, in Tomorrow's case, one of the platform's most successful token offerings, people should invest using the bank app, which naturally complicates the inclusion of a lot of information. In addition, keeping all the data in blockchain eases building a trading environment for the fintech tokens in the future.

The minimum investment of EUR 100 combined with the strong customer community contributed to the excellent campaign success: the company raised EUR 8 million in 24 hours.

WIWIN provided digital wallets for clients that didn't have them. Soon, its customers can transfer the tokens using the platform's dashboard exclusively; there will be no need for a two-factor authentication made by an app.

Felix believes that tokenization's most significant advantages are the efficiency of a cheaper process and the different possibilities to show people investments once the information is recorded in a distributed ledger. In this way, it's not necessary to consult it in other places, as traditional securities do.

The regulation does not allow platforms to offer the best solutions yet. Much of this market is still being developed and several aspects need to be created and approved.

Even starting with so many limitations, Felix is convinced the tokenization market will replace the traditional instruments bringing efficiency and simplifying investors' and startups' lives. Opportunities to people investing in instruments that weren't accessible in the past and making part of these markets is already a great advance.

Carlotta Claußen, WIWIN's business development manager, confirms that the fintech is looking to the big picture. Its strategy includes having, at this moment, products technically prepared for the future market. Although the tokens are not truly tradable due to the secondary market's lack, she sees this scenario changing in a few years. She concludes that it's really smart to develop now what the market will trade tomorrow. ⁸



Felix Auspurg
WIWIN's project management team leader



Carlotta Claußen
WIWIN's business development manager

References

⁸ Felix Auspurg and Carlotta Claußen's Interview from WIWIN on November 10th, 2021

Liqi

The Brazilian Market

Founded in 2021 by **Daniel Coquieri**, **Felippe Percigo**, **Persio Flexa** and **André Montenegro**, Liqi is a Brazilian token marketplace based in São Paulo. The fintech transforms assets and businesses into digital fractions to make them accessible to ordinary investors.

The company's name mentions one of the tokenization's advantages: enable some investments groups to have greater or even some liquidity. Solidarity mechanism's token, impact's token and receivables' token have been offered by the fintech so far on its platform. According to Daniel, Liqi's CEO, building instruments with different features is crucial to show regulators and incumbent players the possible technology's applicability cases, besides meeting the market demand.

However, he believes that advance on receivables is the type with the most significant appeal for acceleration, at this moment, in the Brazilian market, once it's a trillionaire industry accessible only for corporate investors. In addition to investment democratization, tokenization can considerably facilitate the process for the receivables' holders.

With 2,527 active investors and almost EUR 700 thousand raised, the fintech offers the tokenization process in a verticalized way. The first phase is the token origination that includes its legal structuring. After that, the token is issued

at the blockchain and ready to be negotiated. Liqi ensures the primary offer on its platform and the tokens' custody. The secondary market, which happens at the BitPreço platform, is under development, and Daniel admits this feature will be available soon in Liqi's platform for all customers.

Better spreads, less bureaucracy and middleman elimination, the blockchain technology promises are coming true, and Daniel considers them a fundamental way to revolutionize the financial market. Unnecessary intermediaries in the chain can be reduced to make the investment more interesting for investors and companies at the same time.

Regulation and the traditional agents' resistance are still a problem that slows down the market evolution in Brazil. Fortunately, the incumbents are more open mind than years ago when blockchain technology emerged. Fear of losing another positive movement has made the classic and the neo-market build important partnerships.

Pilot projects show how tokenization can be part of products and services in the traditional market. They are significant inputs to the parallel agenda that Liqi has with the regulator once it doesn't have the opportunity to participate in the Brazilian sandbox environment.

The asset tokenization creates the chance to build other products focused on B2C. Most of them are related to tokens' distribution, for example, loans, portfolio management, robots, etc. Daniel considers that Liqi's future is in this segment combined with the "token as a service" offer, in which all specialized companies would plug in themselves in the infrastructure. The fintech raised in January 2021 EUR 4.5 million, which will be directed towards marketing strategies and the team's expansion.^{9 10}



Daniel Coquieri
Founder of Liqi

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Exporo

Tokenization in Real Estate Crowdfunding

In 2014, **Exporo** co-founders had the vision to enable real estate investments for everyone. Besides being the most prominent market globally, real estate has less volatility than any other asset class and high demand from private investors.

However, there are many obstacles regarding investing in this kind of assets, such as difficult access, high minimum investment amounts and substantial transaction costs. In addition, steadily increasing regulatory requirements are making it more difficult, not to mention the impact of low-interest rates, making investors look for new and innovative investments opportunities with attractive returns.

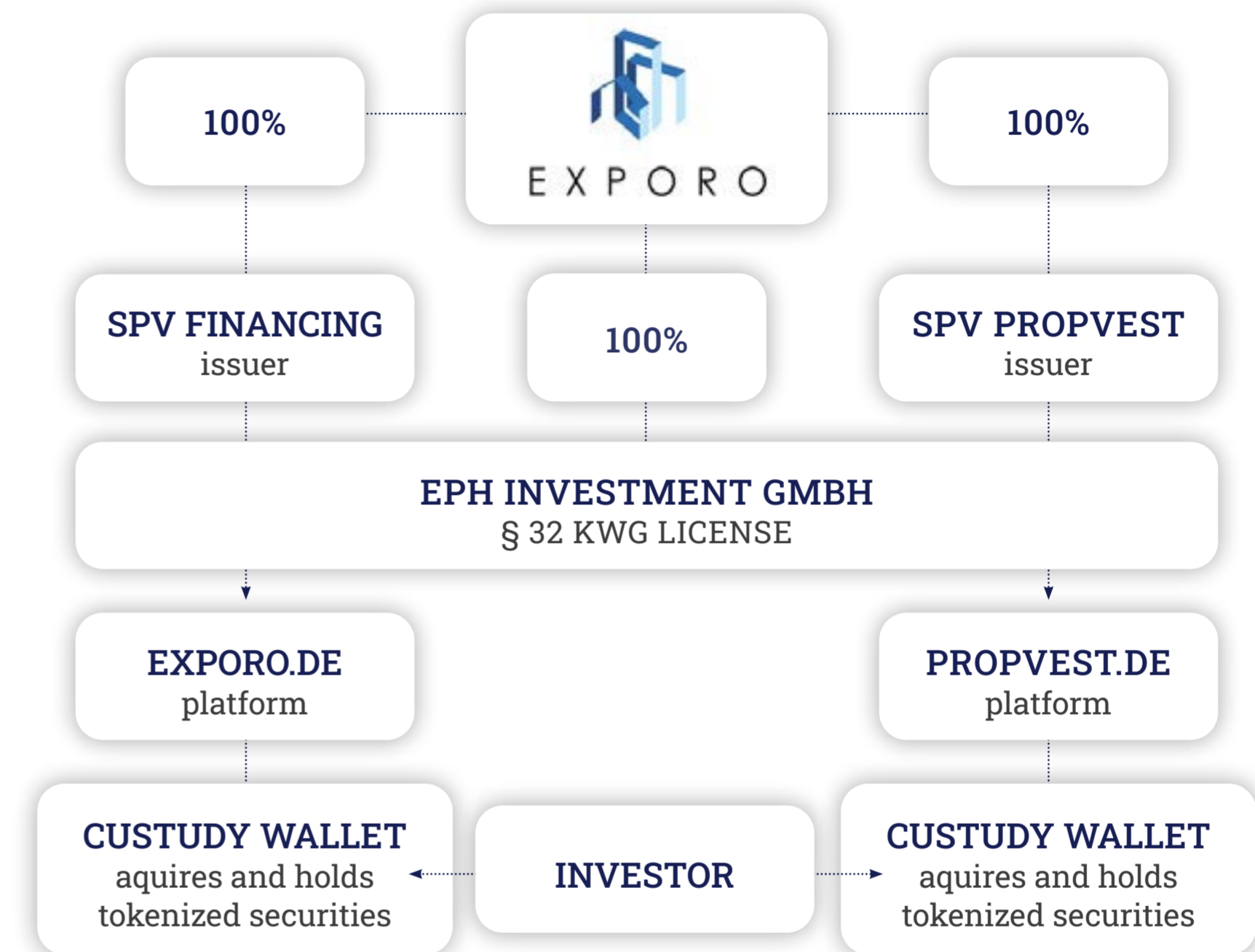
The Hamburg-based fintech wants to democratize access to real estate investments for all, including the smallest investor, by bringing full transparency and liquidity to this market through its digital platforms. exporo.de enables access to real estate via the token-based product category called "Financing". Investors can acquire token-based bonds and thereby invest in real estate development projects. Such investments are relatively short-term (generally between 18 - 36 months) and are suitable for more risk-affine investors. The fixed interest rates are around 5 - 6 %.

Through propvest.de, investors can invest, via token-based bonds, in existing real estate projects and profit from the rental income (approx. 4 - 5 % return) and the increase in properties' values. These investments have an extended horizon and help investors build up a long-term real estate portfolio.

Both investment products are issued as token-based bonds on the Ethereum Blockchain. Investors can not only conclude investments from anywhere in the world but also - in the case of Propvest - trade their "pieces of real estate" acquired via Propvest secondary market with other investors daily and within seconds.

Using blockchain-based security tokens has been proven to be superior compared to legacy bonds in terms of cost efficiency, flexibility and processes automation.

Digital Token Approach



In addition, Exporo sees this technology's strengths in significantly reducing minimum investment amounts. It allows a healthy and straightforward portfolio diversification with suitable quantities for everyone.

This blockchain technology application shows us that it has outgrown its conceptual phase and offers real added value for investors and companies.

Nowadays, Exporo has the leading platforms for digital real estate investments in Germany, holding more than EUR 280 million in assets under management and since its incorporation in November 2014, more than EUR 900 million have been digitally intermediated.¹¹

References

¹¹ Daniel Weitmann from Exporo on February 8th, 2022.

Chapter 4

Green Finance Market

The Traditional and
Alternative Players' Race
Against the Climate Change

*»Green Finance is the key to tackle the climate changes.
At GreenVesting, we enabled retail investors to
participate in investments in renewable energy.
This segment will continue to grow.«*

*Dirk Völker, Treasurer at the BVCF,
Founder of GreenVesting*

Green finance is any structured financial activity, a product or service, that's been created to ensure a better environmental outcome. It includes, but is not limited to, financial system's components that deal specifically with green investment, such as green bonds or green funds, including their specific legal, economic and institutional framework conditions. ^{1 2}

Green bonds, for example, have the same structure, return and risk as "normal" bonds, but in this case, the issuer uses the proceeds to finance climate protection or environmental project. Most green bonds in Germany are issued by development banks, commercial banks, companies and countries. Renewable energies are clearly ahead of the financed projects, followed by environmentally friendly buildings. ³

By country, issuers from Germany top the third quarter of 2021's list with the largest volume's share (17% or USD 18 billion), in part thanks to the country's fourth sovereign issuance worth EUR 3.5 billion (USD 4.1 billion). Deutsche Bank was the single-largest financial corporate issuer, with eight deals totaling USD 3.7 billion dedicated solely towards renewable energy and low carbon transport projects. ⁴

Brazil is the largest green bond market in LAC, with a cumulative USD 10.3 billion issued between 2015 and 2021. Renewable energy and land use (forestry, bioenergy, agriculture, livestock, food industry and financial institutions) continue to be the two most financed categories. The biggest issuer is Suzano Papel e Celulose (USD 1.7 billion). ⁵

Neither the [Sustainable Development Goals](#) (SDGs) nor the objectives of the [Paris Agreement](#) could be accomplished without fundamental change within the national and international capital allocations framework. The big financial players must not only involve themselves in reaching those goals but also support the transition towards a low carbon economy. If the traditional market doesn't make this a joint fight, there is no chance for significant changes.



SUSTAINABLE DEVELOPMENT GOALS



Crowdfunding platforms focused on energy efficiency and climate-friendly projects also make part of green finance. [ecoligo](#), founded in 2016 by [Markus Schwaninger](#) and [Martin Baart](#), brings to life solar plants in emerging countries, allowing companies to produce sustainable energy. The company created its solar-as-a-service solution to make getting solar as smooth and straightforward as possible. Private investors that finance these projects can benefit financially, support local economic development and, most importantly, help accelerate the global clean energy transition.

Martin, ecoligo's CEO, highlights that with this model, the company enables everyone to make a difference, helping humanity fight the most pressing global challenge of our time: climate change. With almost 3,600 crowdfunders, the fintech raised EUR 19.7 million through 119 campaigns for more than 70 projects, saving 987,300 tons of CO₂ emissions and contributing to the SDGs 7, 8 and 13.

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portagon, a software-as-a-service provider in the digital financing space, was founded in 2015 by **Johannes Laub** and **Jamal El Mallouki** and nowadays enables businesses of all sizes to access capital digitally in a fast and legally compliant way. The company raised more than EUR 200 million with its software, and two-thirds of this volume can be attributed to projects in the sustainability field. Johannes adds that 4 of its top customers are in the sustainable area, including ecoligo.

The platform **bettervest** was launched in 2012 to finance energy efficiency projects at the hands of ordinary citizens.

bettervest
your money, your impact

Now it finances sustainability globally while focusing on the impact of the projects measured by the United Nation's Sustainable Development Goals (SDGs) - whether biological wastewater treatment in Kenya, solar plants for commercial and industrial customers in Kenya, sustainable cookstoves in Zambia or energy-efficient building renovations in Germany.

Its core mission is to contribute to a low-carbon emission economy. With more than 11,300 customers, the platform raised more than EUR 18 million throughout 105 financed projects. With the same goal of encouraging the development of green projects and using innovation to address sustainability and financial needs, the climate fintechs are powering the quick-growing market, facilitating climate action, driving decarbonization, and unlocking trillions in economic benefit. ⁶

This kind of startup raised USD 1.2 billion in 2021, three times higher than all previous years combined. European climate fintech raised more in 2021 than their US counterparts, considering the geographic VC fund distribution, with USD 624 million vs. USD 576 million. ⁷

Germany took third place in Europe, raised USD 96 million and second only by UK and France. Frankfurt is becoming the center for global sustainability standards. At the **COP26** in Glasgow in early November 2021, the IFRS Foundation announced that the International Sustainability Standards Board (ISSB) headquarters and the office of the Executive Board would be located in Frankfurt. ⁸

As an emerging space, 68% of all companies that have announced funding rounds are at pre-seed or seed stage. The largest subsector is carbon offsetting, followed by carbon accounting, which raised USD 410 million. The race for decarbonizing our energy, transport and industrial infrastructures will become a tremendous market in the following years, especially with the goals to halve net emissions by 2030 from today's level and reach carbon-zero by 2050. ⁷



»Digital Investing Platforms provide many different opportunities for retail investors. For the issuers and intermediaries of digital investments, it is important to have a secure, reliable and scalable IT-infrastructure.«

Johannes Laub, CEO of portagon

portagon

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Green and Sustainable Finance Cluster Germany

The Green and Sustainable Finance Cluster Germany (Cluster) is an initiative emerging from the fusion of the Accelerating Sustainable Finance Initiative (Deutsche Börse) and the Green Finance Cluster Frankfurt (Hessian Ministry of Economics). The Cluster, launched in April 2018, aims to bundle activities in sustainable finance to achieve greater use of financial market expertise in the sustainability area. Its primary ambition is to formulate and implement solid approaches to fostering the sustainability of national and international financial markets.

 **Green and Sustainable**
Finance Cluster
Germany



Sebastian Rink
Associate Net Zero Banking Alliance Germany

Big banks, asset management firms, rating agencies, and other significant and advanced financial market players make part of the Cluster to drive Germany to a greener and harmonized financial center, increasing climate action, biodiversity and social aspects. [Sebastian Rink](#), Associate Net Zero Banking Alliance Germany, explains that the Cluster is different from a regular association or chamber of commerce.

The initiative that wants to bring the climate agenda forward works close in the members' operationalization, building competitive solutions together.

The Cluster supports the Net Zero Banking Alliance Germany (NZBAG) in developing pre-competitive foundations, steering governance approaches, and advisory capacity for climate-neutral loan portfolios and investments.

The participating financial institutions are BNP Paribas, Commerzbank, Deutsche Bank, DKB, DZ Bank, ING, LBBW and Umweltbank, who have pledged to steer their portfolios towards climate neutrality, in line with the Paris Agreement. It means that CO₂ emissions associated with investments or loans must be reduced to net-zero by mid-century at the latest.

In 2021, NZBAG started its work by defining minimum requirements for employee training on climate change in banks and developing indicators to measure the impact of the loan portfolio on the climate, which forms the basis for understanding the bank's climate footprint.

By the end of 2022, a framework should be defined within which banks can set scientific climate targets for sectors with a high climate impact (energy, transport, heavy industry, etc.). Starting in 2023, the participating companies will have to report on their progress in implementing the goals.⁹

The Task Force on Climate-related Financial Disclosures (TCFD) Think Tank is another project started by the Cluster in 2018 on assessing climate risks in financial institutions. Currently, the initiative analyzes how to ensure the correct data and measure climate risks in specific sectors.¹⁰

Another exciting project is called safe Financial Big Data Cluster (sFBDC), which focuses on data sovereignty in Europe. It's promoted by the Hessian Ministry of Economy and financed by the German Ministry of Economy.

As there is a powerful component of sustainable finance, the Cluster facilitates the dialogue between the technical experts, who establish the database and the algorithms, and the financial system, who communicates their needs.¹¹

Although the Cluster is focused on the German market, it's a member of the [Financial Centers for Sustainability \(FC4S\)](#), a network founded under the United Nations umbrella to bring together different financial sectors worldwide. The Brazilian Laboratory of Financial Innovation (LAB) joined FC4S in 2020, becoming the first South American member.

Besides the EU Emissions Trading Scheme applicable to power stations, industry and other large installations, Sebastian believes that from the green and sustainable finance perspective, risk assessment and support to the low carbon economy's transition are two key policies that have been plenty discussed and will surely accelerate in the following years.

The strong demand is great but difficult to handle in this evolving market. The lack of integration and standardization regarding reports, data, measurement methods, climate ambition combined with the missing of new skills are real challenges the ecosystem faces. A deep institutionalization is necessary to make the German sustainable finance marketplace more attractive and more competitive, which also involves the bringing together of the real economy and suitable financial solutions, clarifies Sebastian.¹²

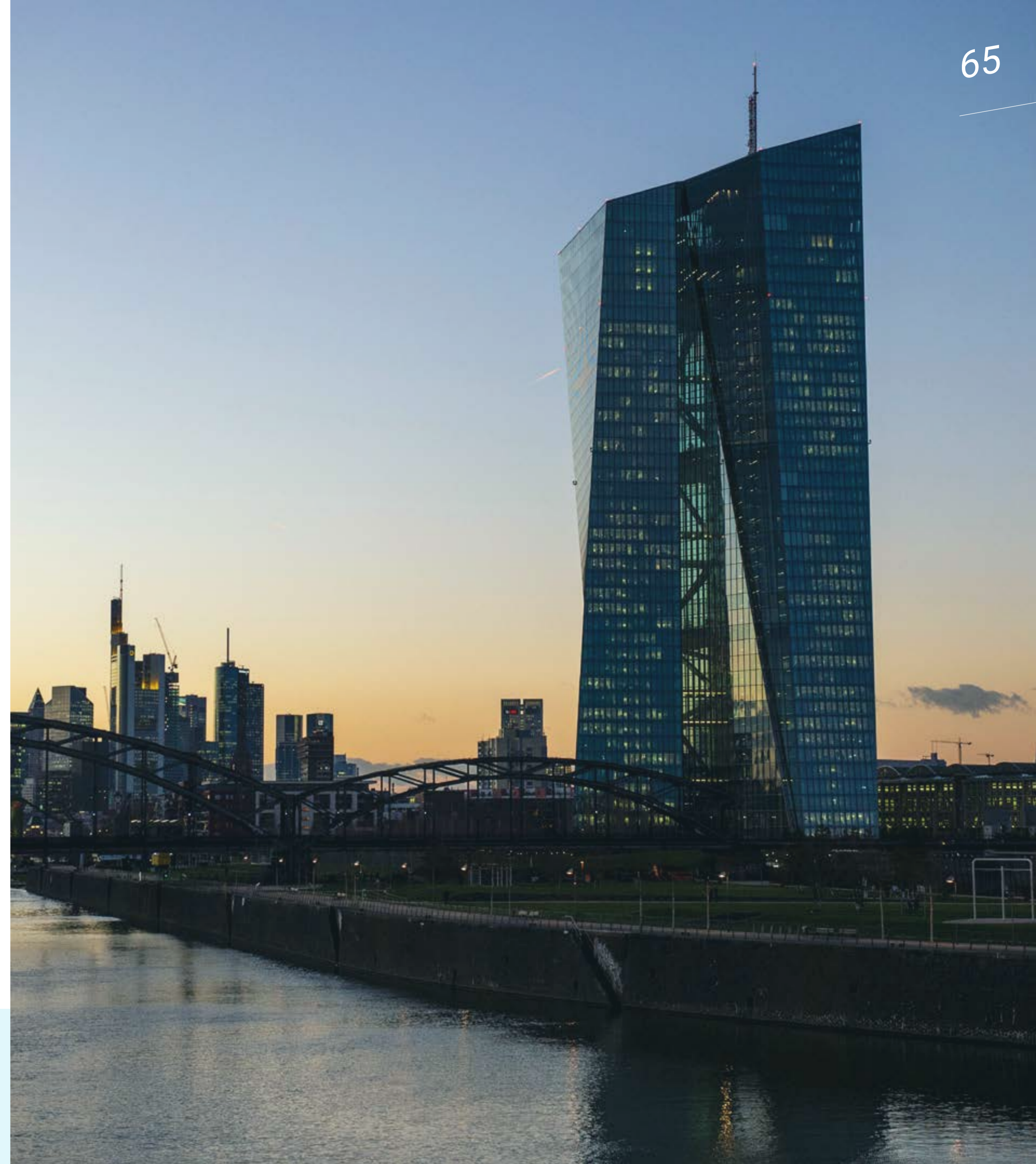
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Carbonfuture

Carbonfuture helps companies and organizations worldwide on their path to true net-zero. As an online marketplace and fully digitized platform for high-quality and effective carbon sink credits, the fintech offers long-term and science-based certificates that not only avoid CO₂ emissions but actively remove them out of the atmosphere.

Intending to deliver real climate impact, [Andreas Hölzl](#) founded in 2020 in Freiburg the German company, which covers the complete carbon removal value chain: tracking, sink modeling, credit issuing, registry and credit management. For each phase, starting in the physical world and going digital, the company has effective partnerships, essential for achieving the final result. The fintech has established a strong team of multi-disciplinary experts from the worlds of IT and product development, finance and risk management, plus members with key management and entrepreneurial experience.

[Hannes Junginger](#), Carbonfuture's CEO, explains that the idea to build a fintech emerged from the necessity to pay for the service to keep carbon out of the atmosphere rather than avoid emissions or remove carbon in the first place. Looking at the future carbon removal volumes needs, it evolves immediately clear that this sector is a trillion-dollar market and will become a massive field in the following decades. To create such a

market is necessary to develop financial instruments, a proper basis for financing the carbon removal services. Going deep and building a trustful and robust framework is the right way to foster the carbon removal market.

The company searched for the most suitable carbon removal technology scalable in the short-term and chose biochar from a technical perspective because it's stable and permanent. Its properties, production process, quality level and measure methodology are well known. In this way, Carbonfuture Carbon Sink Credits are financing portfolios of sinks. Each physical sink (for example, a big bag of biochar applied to the soil on a specific farm) is documented end-to-end at Hyperledger Blockchain and, after a third-party auditor's validation, securitized in an individual certificate, which is tokenized, issued as a credit, and sell to final investors.

Hannes comments that the original idea was to tokenize this carbon sequestration service and trade it at blockchain networks. However, as the fintech was running the business, it was evident that the sector needed the money flowing directly as soon as possible. Hence, the company started to provide pre-financing and bank solutions to unlock the projects' financial access. The strategy of covering all carbon removal chain services meets the early market stage. Hannes believes that delivering a services combination rather than a solution for only one phase adds genuine value to the market.

One Carbonfuture Carbon Sink Credit finances the stable removal of 1 ton of CO₂ equivalent over 100 years. People and companies, such as tech companies, consultancies and even industries, can use the marketplace to buy carbon credits to offset their carbon emissions. The fintech Klarna is a prominent Carbonfuture customer who is leading together with Milkywire and MASH Energy a project to carbon removal, air pollution reduction and enhanced livelihood for local communities of Maharashtra, India. ¹³

Entirely focused on the carbon removal voluntary market, the company is fighting for the segregation between carbon removal and emission reduction from a regulatory perspective. Both initiatives must be together because it's impossible to replace emissions reduction by creating carbon sinks once this is unsustainable from the potential and costs viewpoint.

Hannes said at COP26 that the most significant voluntary carbon market contribution is to set the bar high in terms of quality standards and force the regulated market, which will have a massive impact, to adopt the same criteria.

The company raised \$ 2.8 million in seed funding in January 2022. The investment round was led by Übermorgen Ventures, which was joined by early-stage investor seed + speed Ventures, impact investor Wi Venture, plus existing investors and additional business angels. ¹⁴ With footprints in Europe and the USA, the climate fintech is looking for expansion, including tropical sinks in its portfolio, expanding to other carbon removal technology like recycling concrete and focusing on carbon removal financing solutions. ¹⁵



Hannes Junginger
Carbonfuture's CEO

References

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Carbonext

The Brazilian Market

Carbonext, a Brazilian climate fintech founded in 2010 by **Janaina Dallan**, aims to preserve and protect the Amazon Forest and biodiversity through nature-based solutions. The company seeks to stimulate the bioeconomy, generate high-quality carbon credits, reconcile environmental, social and economic development and combat climate change.

All its carbon credits are generated through REDD+ carbon projects.¹⁶ REDD means Reduction Emissions from Deforestation and forest Degradation and + represents the social and biodiversity gains that occurred during the project's development. These projects strive to prevent forests' deforestation and, through a methodology certified by **Verra**, generate carbon credits that make it possible to pay those who keep forests standing and invest in the local communities' development.

Danilo Sugahara, Carbonext's head of business development and partnerships, explains that at the beginning, the fintech was focused exclusively on projects development, from land prospecting until carbon credit generation. The startup started to commercialize these credits and became a climate fintech two years ago since **Luciano Corrêa da Fonseca**, co-founder, and other people joined the company.

Currently, Carbonext is one of the only companies that manages all stages of REDD+ projects, from conception, auditing, registration, commercialization, delivery and traceability of credits. In each phase, specific partners, like land managers, lawyers, auditors and others, contribute by adding value in building the product.

The fintech has a **digital platform** and APIs where individuals and companies can offset their greenhouse gas emissions and take advantage of benefits' set for those who become carbon neutral. Almost 5 million carbon credits were issued, totaling 1.8 billion m² of REDD+ projects under management. 70% of the revenue generated by those carbon credits sales goes back to the landowner.

80% of its clients are individuals who often had the first contact with the carbon-neutral path through a business experience.

People must know this theme for their employers and this contact becomes a personal interest. Customers can compensate for their carbon footprint monthly or yearly, and it's vital from the fintech side to keep serious and close monitoring to avoid greenwashing, clarifies Danilo. Uber uses Carbonext services, for example, to offer users the "Uber Planet" modality, launched November 2021, allowing its users to offset their journeys emissions by paying on average 5% more.¹⁷

Based in São Paulo, the startup has already received capital from angel investment and a series A round to grow its operation and foster the land prospection and local economy promotion, which are the main reasons for Carbonext existence. The company is co-owner of each project, contributing with the skills and workforce and receiving carbon credits as a counterpart.

New products and services are inevitable for a climate fintech that acts with B2B and B2C markets. There is a huge potential to develop new business fronts and Carbonext is focused on improving its technology processes to offer a great solution to its clients. For example, helping other SME companies with a sustainable goal and no fund to join the carbon-neutral way is also in the fintech pipeline.

A future towards a low carbon economy depends not only on the private sector but also on individuals. Danilo concludes that education and knowledge about this topic are crucial to engaging society against climate change. The pandemic fostered the sustainable companies' arising and, in some way, made people a bit more conscious about brands that treat this topic with proper relevance.¹⁸

CARBONEXT

NATURE & FUTURE



Danilo Sugahara
Carbonext's head of business development
and partnerships

References

¹⁶ Brazilian Ministry of the Environment Site. 2016. O que é REDD+.

¹⁷ Folha de S.Paulo Site. 2021.

¹⁸ Danilo Sugahara's Interview from Carbonext on January 20th, 2022.

Annex

The image shows a modern architectural complex. On the left, a large building with a curved facade and extensive glass windows is visible. The glass reflects the sky and surrounding environment. In the foreground, a curved walkway paved with light-colored stone tiles leads towards the building. To the right of the walkway is a large, white, curved wall. Above this wall, a staircase with a glass railing leads up to a higher level. In the background, a body of water is visible, and a bridge or walkway connects different parts of the complex. The sky is blue with some clouds. A blue banner with a white grid pattern is overlaid on the left side of the image, containing the word 'Annex' in white text.

Acknowledgments

During the 17-month research in Germany, I had the privilege to have on my side incredible people that made this report come true.

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Yours,
Tamara Ferreira Schmidt



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Women in Financial Technology



The German Crowdfunding Association is committed to ensuring that there are more women in financial technology. It promotes female investors and female founders and make #femalefintech more visible. Tamara had the opportunity to interview three Brazilian experts and shared their experiences with the community.



PALOMA SEVILHA

Economist, Financial Market Infrastructure and Cryptoeconomy expert. Head of Business in Bitrust Digital Custody.

“We have to remember who inspired us on this path, and be ready to inspire and guide others. Honor the past, work hard for a better future.”

[Complete article](#)



ANA CARLA BASSANEZE

Financial Services Consulting Manager of Accenture.

“Today there have been many discussions about diversity in the business world; however, it is not enough to have a diverse environment, but also to think and act inclusively. Starting this process through leadership is the best way.”

[Complete article](#)



THABATA ABREU

Founder and financial advisor at FCP Financial Planning and Investments.

“To remain silent and accept inequalities, is also to take a stand that reinforces the current status quo”.

[Complete article](#)



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