

Brazil | 2017

FintechLab Report

Fintechlab's mission

FintechLab is the main hub for connections, knowledge and advice about the Fintech market in Brazil. We are constantly monitoring the sector, anticipating changes and working with the different stakeholders to develop the Brazilian market.

Through projects like advisories for businesses, in-company lectures and workshops, matchmaking with start-ups, analysis, and customised reports, FintechLab has contributed to spreading information about the Brazilian fintech ecosystem, as well as with tools like the FintechLab Radar.

FintechLab is a division of Clay Innovation, a consultancy specialised in innovation and service design with more than 4 years of experience in the market. Clay Innovation has already taken part in many projects which have changed the Brazilian financial market. Using innovative approaches and tools and optimising existing knowledge in the companies in which it works, Clay has brought an innovative vision to services and processes.

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Translated by Daniel Pavesio

Introduction

Without a doubt, 2016 will be seen as the year that Brazil finally embraced the Fintech industry. We have seen the creation of hundreds of new businesses and organisations, as well as the growth of its representation in the media. In short, the Brazilian market is maturing.

Along with the market's new maturity we are also seeing it develop increasing complexity. It's being filled with different players of differing sizes, industries and nationalities. The simple discussion of Banks x Fintech or Banks + Fintech gives space for technology giants, multinational companies and the telecommunications market too. In order to represent this new situation, the FintechLab Radar has been revisited. In this new edition, we hope to portray Brazil's Fintech ecosystem. Our objective with this report is to map out the many diverse facets of this ecosystem, including not only the fintechs themselves but regulators, associations, investors, accelerators and other key bodies and companies when it comes to understanding the industry.

We will also discuss new initiatives like the emergence of digital banks, what traditional banks are doing in response and the entry of technology giants into the financial sector. We will also discuss new technologies which are dominating the world stage, and Brazil's po-

sition relative to other countries in Latin America.

In its second year, FintechLab continues to be committed to portraying the Brazilian Fintech market in an accessible, critical and holistic way for all types of professionals, be they entrepreneurs, executives, investors or just people who are curious. Nothing motivates us more than the opportunity of contributing to and being a part of this movement.

Enjoy your reading!



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Overview of the Fintech market



In the past few decades we have seen technology remodel society. We have seen the exponential growth of e-commerce, the emergence of complex digital systems, equipment that can store vast amounts of data, broadband, smartphones, streaming, big data, and of course social networks which have drastically changed the way we consume and exchange information.

With so much innovation, sectors fundamental to society like transport, leisure and tourism – to name a few – are undergoing huge changes spearheaded by companies that use technology to explore innovative new business models. Uber, Netflix and Airbnb are a few examples of initiatives that have changed our way of interacting with the world. The financial sector, intrinsically linked to the lives of people and businesses, was never going to be able to avoid this new wave of transformation.

With the financial crisis in 2008, affecting principally Europe and the US, the financial sector has come into disrepute among the general population. Not only this, but it has also taken workers away from the financial sector, for either personal or economic reasons, and brought them to the Fintech industry, where they are putting their knowledge into practice in innovative

projects. Add to the internet's increasing importance in society, the penetration of smartphones across the world, millennials' new status as consumers, more easily accessible and cheaper new technologies and services now being focused on user friendliness. This has created a 'perfect storm', leading to an outburst in innovation: a 'Fintech Revolution'.

PayPal, considered one of the first Fintech companies, and Ebay were the pioneers of online commerce and payment. Having started up in the already distant years of 1998 and 1995 respectively, they have played an important role in people's changing attitudes to internet shopping. More recently, companies like Prosper in 2005, Lending Club in 2006 (Loans) and Stripe in 2010 (Payments) have arisen as innovative start-ups in their respective areas.

Today Fintech initiatives are present in all areas of financial services, changing the way we transfer money, make payments, obtain credit, control our personal finances and invest our savings, within the framework of other diverse services. Leaning heavily on technology, which allows for lower operational costs and more scalability, financial services are achieving lower prices, allowing the inclusion of those from more economically disadvantaged backgrounds too.

Currently there are 2 billion people and 200 million businesses without access to basic financial services like savings accounts or credit¹. However, developing technology is changing this scenario and creating new channels through which to offer people the possibility of becoming integrated in the financial system.

In Brazil 32% of the adult population doesn't have a bank account and 53% of medium-sized and small businesses don't have access to credit¹. Fintechs can help diminish these differences and we have examples of projects which are focusing on services for these people who are often forgotten by big banks, like Banco Maré, Pop Recarga, ToGarantido, TáPago, E-dinheiro and Avante, among others.

The Fintech revolution is also advantageous on the other side of the scale, increasingly awaking investors' interest in the sector. Up to the third quarter of 2016, investments made by Venture Capital funds, Private Equity, Angel investors and others reached

around \$17.1 billion², with the total sum for 2015 being \$22 billion³, and some Brazilian companies have been benefitting greatly from this. The last report from KPMG 2016 Fintech 100 included 2 Brazilian start-ups in their list of the world's most disruptive Fintechs – GuiaBolso and NuBank.

Throughout the world, many centres for Fintech development have been emerging. The most important among them is London, followed by New York, Silicon Valley, Tel Aviv, Singapore and Shanghai, and there are still sizeable initiatives in Africa and Asia as well as many other developing countries. Fintechs originating from these international hubs have been arriving in Brazil and are principally entering the loans sector (Lendico, Wecash, Simplic, 4Finance) and payments sector (PayU, iZettle, MercadoPago).

These are just a few examples in Brazil's already complex Fintech ecosystem, which is transforming the ways in which we consume financial services and interact with money.

² Source: Report KPMG Pulse - Quarter 3 2016. Available at: <https://goo.gl/RNZIKU>

³ Source: The FinTech Book

¹ McKinsey Global Institute Research - DIGITAL FINANCE FOR ALL: POWERING INCLUSIVE GROWTH IN EMERGING ECONOMIES - September 2016. Available at: <https://goo.gl/Ebq2O7>

State of Fintech in Brasil

Just as has happened in other countries, throughout the last few years Brazil has seen many changes brought about by the development of technology and the internet. Some local success stories, such as Buscapé, Hotel Urbano and Netshoes, have become pioneers in delivering services and interacting with the customer online. Parallel to the appearance of these projects, the Brazilian population is also becoming more used to using technology to manage their financial lives. For example, Internet and Mobile banking have shown very strong growth, together making up 54% of the 54 billion bank transactions made in Brazil in 2015.⁴ However, the digitalisation of financial services has not led to systems being designed in a more user friendly way, and just a brief look at the Internet Banking services offered by major banks reveals usability issues. Some of the most notable ones, among others, are difficulties in linking payment receipts with transactions, difficulties in choosing and comparing investment options and a lack of tools for the integrated tracking of personal finances. In the B2B (business-to-business) market the scenario is much the same, with small and medium sized businesses always having had problems concerning the offering of products, high prices as well as operational difficulties, such as financial agreements.

⁴ Febraban Research. Available at: <https://goo.gl/CGoYwU>

In the payment sector there has also been a strong regulatory push in recent years aimed at incentivising competition, such as with the break in exclusivity for acquisitions in 2010 and new regulations concerning payment methods in 2013.

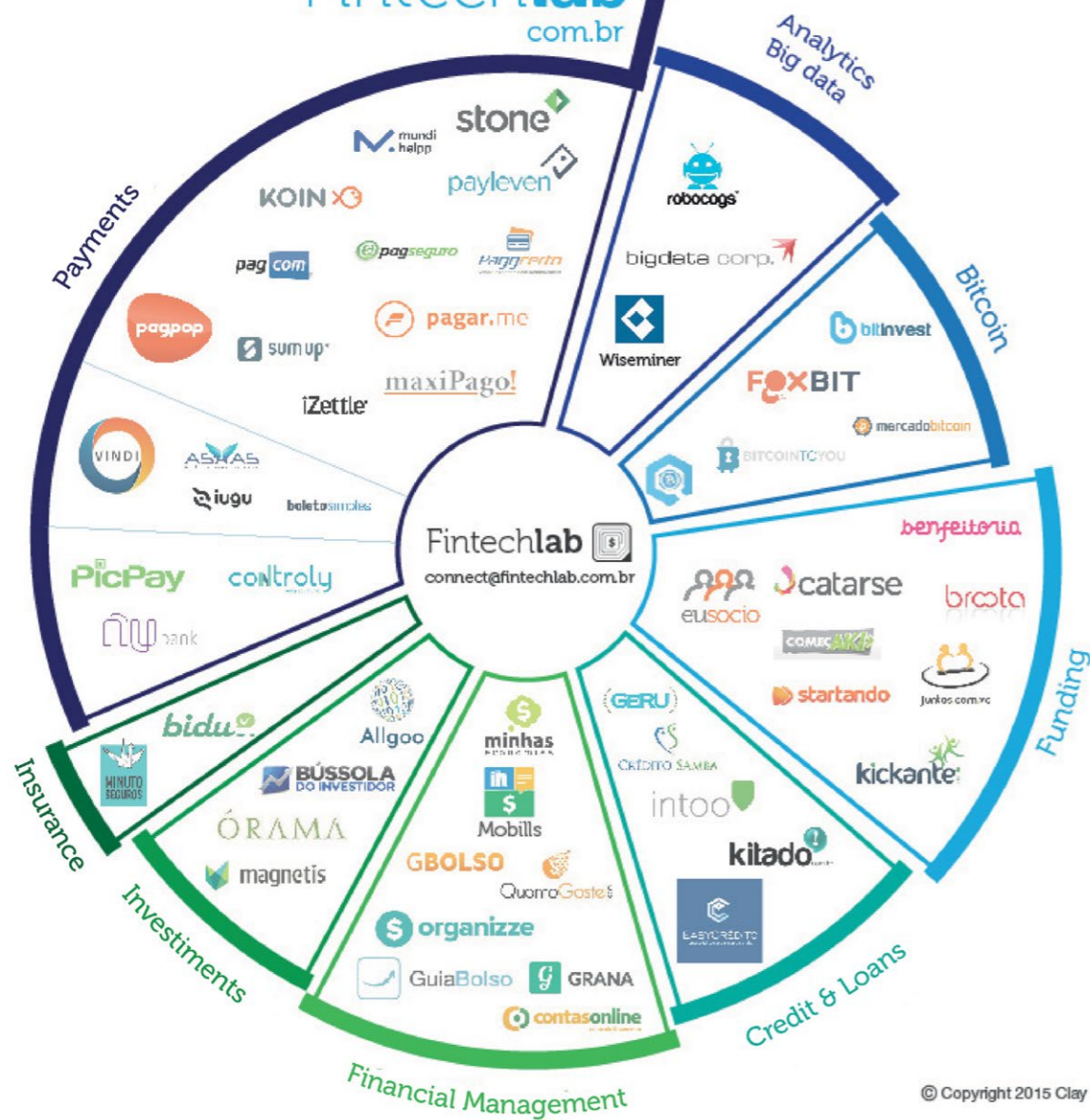
One of the first attempts to revolutionise the local financial market was FairPlace, a company started in 2009 focused on peer-to-peer (P2P) loans. This was at a time when the financial sector was lacking in innovation, and its business model was to connect people who needed funding with people who wanted to finance them by auctioning rates. However, this soon came into conflict with traditional players and regulatory, since legislation requires that loans must be mediated by financial institutions⁵. FairPlace only operated for a few months and, after it closed in 2009, there was a two-year hiatus before the subject was put back on the agenda with the growth of new companies. In the last two years the Brazilian Fintech market has reached boiling point. The evolution of the FintechLab Radar proves this, with the number of mapped businesses rising from 54 in the first report in August 2015 to 244 in this edition. Supported by an ecosystem which is maturing by the day, there is no sign that this growth will slow any time soon.

⁵ Article 17, law nº 4.595/64 and “white collar law” (Article 16, law n: 7.492/86)

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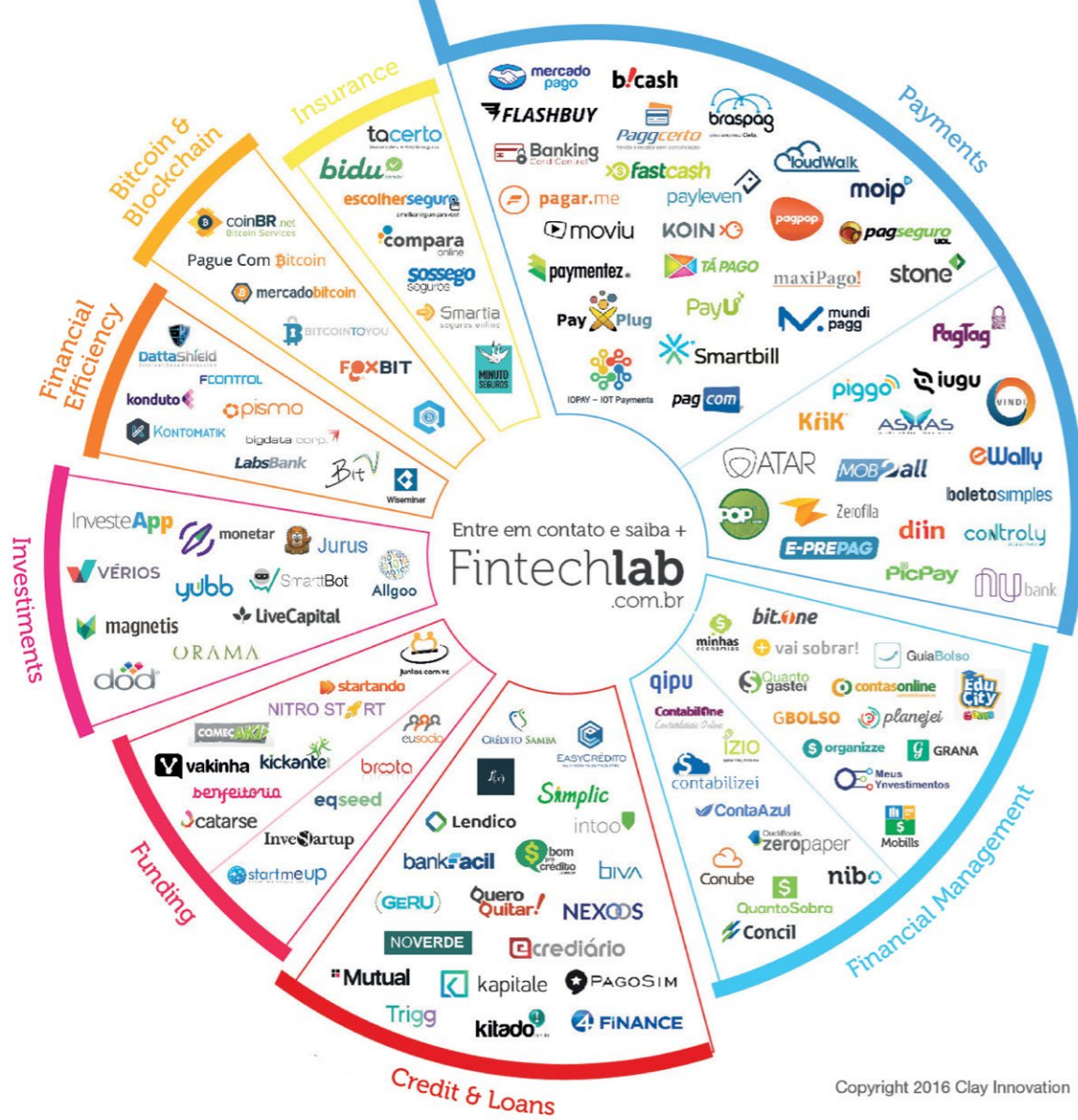
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Radar Fintechlab



Radar FintechLab

FintechLab Radar, the largest initiative for monitoring the Brazilian Fintech market, is now in its 5th edition.

Not only has the number of start-ups and sectors of action increased considerably this year, but so has the complexity of the Brazilian Fintech environment. Therefore, the Radar has had to become even more comprehensive in order to be able to represent the new Fintech ecosystem which is emerging and consolidating itself in Brazil.

The Radar's new format introduces the idea that regulatory bodies, associations, accelerators, credit card companies, big technology companies, banks, financial lenders, Venture Capital funds and other companies and services are orbiting around Brazil's Fintechs, contributing more and more actively to the industry's development. In the next few pages we will see in detail how each one of these new participants is positioning themselves within the wave of innovation taking place.

The first FintechLab Radar was launched in August 2015 and mapped 54 start-ups, divided into 9 categories. Today, as mentioned before, there are 244 mapped within the categories of Payments, Financial Management, Loans, Investment, Funding, Insurance, Debt Negotiation, Cryptocurrencies/DLT, Currency Exchange and Multiservices.

The Financial Efficiency segment, which incorporates businesses which work with big data, APIs and anti-fraud systems, for example, is now considered an independent

sector, which is tending to all the participants in the Fintech ecosystem and in many cases is crucial to their existence. In little more than a year, the number of initiatives in this segment has jumped from 3 to 30, showing the demand for services of this type.

Looking solely at Fintechs, it is the Payment sector that continues to make up the largest proportion of initiatives, rising to 32% this year compared to 22% in 2015. However, the approaches to this are becoming more and more complex and can be divided into three main niches: Payment Management (Fintechs which organise the "bills to pay" sector for companies), Post and Pre-Paid Payments (Fintechs which carry out the payments by providing pre-paid credit cards) and Acquirers (Fintechs which provide credit card terminals or integration with electronic business). The development of companies like Stone, which bought its competitor Eleavon in 2016, the exponential growth of Nubank, which has stimulated the entry of competitors like Digio, and the arrival of organisations from other countries (SumUp, iZettle and MercadoPago) in this segment shows how much the payments sector is expanding.

The Loans sector has also shown development, principally with the start of initiatives which offer and mediate credit for small and medium sized businesses in a format involving marketplaces, as well as with the growth in the number of bank correspondents. According to the FintechLab survey, there are already

33 Fintechs in Brazil that are focused on credit, either based locally or from abroad, a number which makes up 18% of the total number of initiatives.

The main novelty with this Radar is the appearance of the “Multiservices” sector, which incorporates businesses which aren’t financial institutions, but which offer banking services through apps. Six initiatives, like ContaSuper, Zuum and Celcoin are giving more and more people access to these services and are gaining ground in the market.

Other sectors which have emerged in the last few editions of the FintechLab Radar, like Currency Exchange, Debt Negotiation and Cryptocurrencies/ DLT remain relevant and contain a reasonable number of businesses, with 8, 11 and 13 in each sector respectively, making up a total of 14% of all mapped Fintechs when put together.

Along with the new Radar, we are also presenting the findings of the latest FintechLab survey, which involved 177 companies and shows the evolution of the Brazilian Fintech sector. Approximately 80% of the companies have said they already have clients and have already been through the phases of idealization and validation of their business models.

In regards to numbers of employees, little more than 10% of the Fintechs say that they have more than 50 employees in their ranks, and only 100% have more than 100.

But reflecting the sector’s development, the Fintechs have been able to attract investors, with 72% of them already having received some contribution of capital. Of the Fintechs that have received investment, 14%

have received over R\$ 20 million.

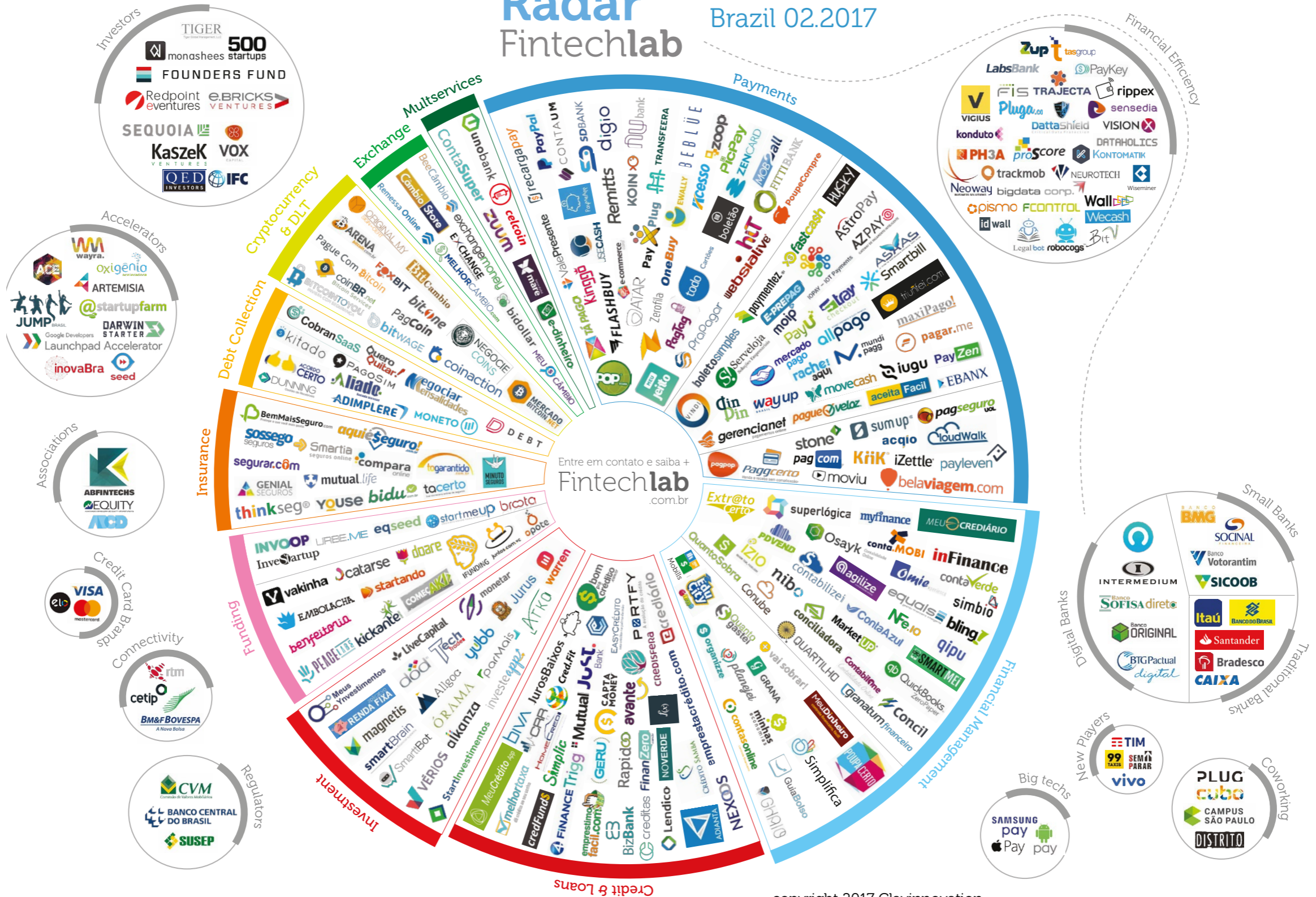
In 2016 alone, Nubank received U\$ 134 million, as well as a U\$ 100 million line of credit from Goldman Sachs. Other notable Fintechs, Guiabolso and BankFacil received R\$ 60 million and R\$ 15 million respectively. As well as local investors putting more money into this sector, it is also expected that international investors will take more interest in Brazil, especially with new reforms to overcome the current political and economic crisis.

According to the data from the survey, São Paulo makes up 65% of the Brazilian Fintech ecosystem, as it offers the main channels through which to attract funds, like investment funds, VCs and Angels, and it offers proximity to banks and access to entrepreneurs. The second most represented region is Rio de Janeiro (11%), followed by Belo Horizonte (6%).

Technological innovation in the financial sector: expanding universe

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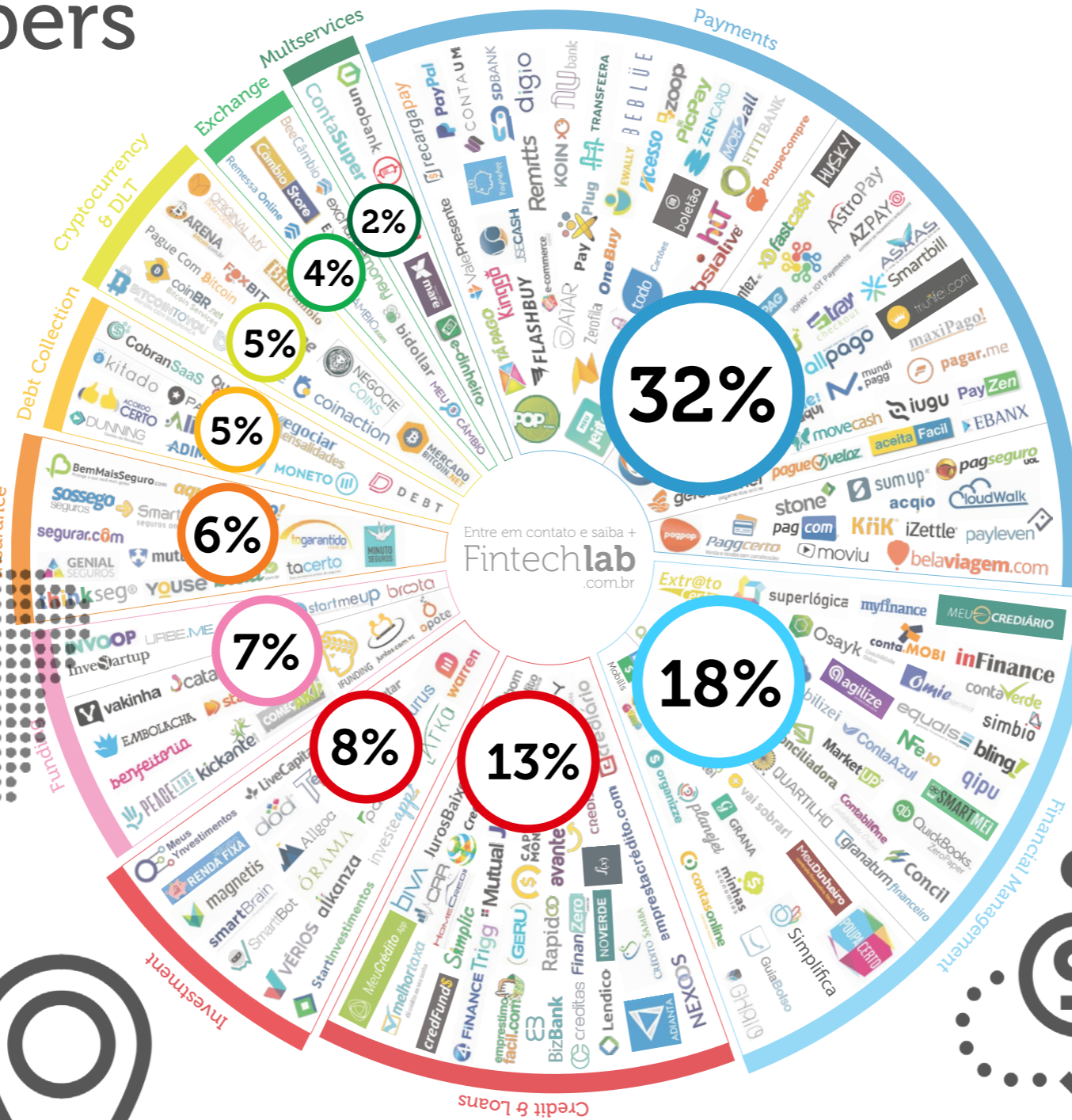
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In numbers

+R\$1bi
Invested in Brazilian Fintechs until 2016



65% SP
11% RIO
6% BH



10%+50
Employees
7%+100
Employees



72%
already received
Capital
Contribution
14% + 20MM



Brazilian Fintech Ecosystem

With a focus on adding value for customers and using technology to transform innovative ideas into scalable solutions, start-ups are taking the leading role in the breaking up of current paradigms. Despite the fact some initiatives have been successful while going it alone, the presence of a strong supporting ecosystem can greatly increase the likelihood of prosperity for businesses.

In addition to the inherent operational difficulties for any entrepreneurial initiative, issues like mentorship, access to markets, physical location, access to talent, access and support in using new technology, integration with partners, and of course investments are all essential to a Fintech's development. You can then add to this the fact that Fintechs operate in a highly regulated environment as well. In this way, the presence of a mature ecosystem can support and be a huge boost to a business.

Therefore, in the following pages we will present the participants and organisations who have strengthened the national market in this way.

The emergence of associations and other initiatives

To gain representation with regulatory bodies and strengthen the growth of the sector, groups of Fintechs

have organised themselves. The main initiatives are as following:

The Brazilian Association of Fintechs (ABFintechs)

Looking to represent the growing number of initiatives, some Fintechs took a leading role in the founding of the Brazilian Association of Fintechs. The association has three fundamental aims: to generate business for its members, to approximate firms to regulatory bodies, and to make a positive social impact. The overall objective is to support the growth of the sector and to amplify the market both nationally and internationally. The association was presented to the public on 25th October 2016.

The Brazilian Association of Digital Credit (ABCD)

In the first quarter of 2016 the credit Fintechs Biva, Geru, Lendico, BankFacil, Simplic, Trigg and Just Bank got together to strengthen the new digital credit sector. They therefore founded the ABCD to increase efficiency and encourage better practices within the sector. ABCD was officially launched in November 2016 and is in direct contact with the Central Bank in order to define good practices with the intention of increasing consumer confidence in these new digital solutions.

Equity Crowdfunding Association

Also looking for more representation and a more favourable environment in the crowdfunding (collective financing) sector, The Equity Crowdfunding Association, also known simply as Equity, was founded by the companies Broota, Economia Criativa, EqSeed, Ideias de Futuro, Kickante, Start me up, The Pie, Urbe and Viking. The association also has partners such as layers and members of the ecosystem who are directly involved with the operation of the start-ups. Equity has worked at getting closer to CVM and has even participated in a public hearing to request updates to current regulation, made in 2003.

The Position of Regulatory Bodies

Regulatory bodies and municipalities such as the Central Bank and CVM have not been passive in regards to the ongoing revolution in the financial system. With the speed and huge potential of the changes taking place, they have tried to understand these shifts and develop policies to incentivise innovation in a secure environment.

Central Bank⁶

The Brazilian Central Bank (BC) has recognised the advances in and the use of new technology in different areas of the financial industry and has tried to encourage their development, stimulating competition in the market, in a way that makes it as efficient as possible and allows products to be offered at lower prices. Increased financial

⁶ Source: <https://goo.gl/ZPhmiU>

inclusion is also one of its main objectives.

On the other hand, the BC has also shown itself to be vigilant when it comes to innovations and whether they could possibly disrupt the solidity of the system. New business models has led to greater vigilance when accompanying the industry in order to ensure the National Financial System (SFN) and the financial market's infrastructure continues working smoothly. The BC established, internally⁷, a task force to carry out studies on digital technological innovation related to the activities within the SPB (Brazilian Payments System) and SFN's scope and to evaluate potential impacts on how these systems work. In this way, the BC is preparing itself to deal with the challenge of accompanying the transformations within the financial system, while simultaneously offering stimulus to local institutions so that they remain at the forefront of development.

In 2010, for example, the BC acted to eliminate the exclusivity that Cielo (formerly Visanet) and Rede (formerly Redecard) had to operate the brands Visa and Mastercard, respectively. From this moment, the regulations opened the door for new acquirers in 2013. This allowed for the appearance of Fintechs, like Stone.

Recently the central Bank's resolution n 4.480, published on 25th April 2016, has allowed current-accounts to be opened electronically without the need to go to a bank branch. With the role of maintaining security, ensuring the interoperability of the network and protecting the financial system, the BC has left it clear that it could intervene using regulation should it be necessary in the future. Blockchain,

⁷ BC ordinance nº 89.399, June 3, 2016.

digital wallets, peer-to-peer lending, robo-advisors and the foreign exchange market are some of the sectors the BC has been accompanying closely.

Monetary Securities Commission (CVM)

Similarly to the BC, with the intention of tracking and acting on the movement of Fintechs, the Monetary Securities Commission (CVM) created a Nucleus for Innovation in Financial Technology in June 2016⁸, to track the development and application of new technologies within the scope of the securities market. In August 2016 a proposal to regulate investments made through equity crowdfunding platforms was made. As previously highlighted, this measure is the result of interaction between the CVM and Equity Crowdfunding Association over the past two years. The public hearing will hear suggestions to improve collective financing in Brazil and update regulation. The new measures are aimed at helping fund-raising for start-ups, encouraging entrepreneurship and giving more security to investors

Oversight of Private Insurance (SUSEP)

Unlike the BC and CVM, SUSEP has not set up a structure to track and interact with Fintechs. However, after a recent change in SUSEP's management changes are expected within the organisation and an official position regarding Fintechs who are entering the insurance market. The municipality thinks that Fintechs bring interesting ideas, but understands that they are still at an early phase.

⁸ Source: <https://goo.gl/rb7aQ6>

Investment Funds: The financial arm

Investment Funds, especially Venture Capital (VC), are fundamental to the financing of businesses, principally those in an initial stage of development. As well as seeking opportunities to generate revenue for their shareholders, the funds also mentor their investments, making them more professional and organised in the search for more investors.

At the moment many different VCs, both local and foreign, are taking part in the Brazilian Fintech ecosystem. And they are investing in the sector's main firms: according to research carried out by FintechLab, investments in Fintechs in Brazil have been above \$1 billion in the last few years, with GuiaBolso and Nubank highlighted as major recipients. Below we list the main investors in Brazil, as well as some Fintech initiatives in which they have a stake.

Redpoint e.ventures

Created as a joint venture between the managers of Venture Capital Silicon Valley Redpoint and e.ventures, Redpointe.ventures was made as a capital entrepreneur firm based in São Paulo and focused on technology companies at an early stage of development. As well as investing directly in companies, Redpoint e.ventures partnered with Itaú in creating Cubo, one of the main coworking and entrepreneurial development spaces in Brazil.

Fintech portfolio: Creditas, Nibo, Minuto Seguros, Magnetis.

Monashees Capital

One of the first Venture Capital funds focused on technology companies at an embryonic stage.

Fintech Portfolio: Bidu, Kitado, Conta Azul, Magnetis

E.Bricks Ventures

Made by the same funders who made the RBS Group⁹, one of the main media channels in Brazil, E.Bricks Ventures is today one of the most relevant VC funds in the country, having invested in GuiaBolso with its first fund. At the moment it is launching a second fund valued at R\$ 300 million focused on technology companies who have shown themselves to be capable of improving productivity in essential areas, such as financial services, education, healthcare and cloud solutions for small and medium sized businesses.

Fintech Portfolio: GuiaBolso and Contabilizei.

Vox Capital

Created in 2009, Vox Capital was the first investment company to have a big impact in Brazil, with part of its investment ethos being investing in innovative companies capable of providing socio-economic benefits for those on the lowest incomes. Vox focuses its investments in healthcare, education, financial services and housing.

Fintech Portfolio: Avante.

⁹ The RBS Group is one of the largest multimedia communication companies in Brazil and the largest affiliate of Rede Globo. Today, RBS is a leader in communication in Rio Grande do Sul and Santa Catarina, producing content and entertainment on radio, television, newspapers and digital platforms.

Kaszeck Ventures

Kaszeck Ventures is a venture capital fund created in 2011 by Nicolás Szekasy and Hernán Kazah, founders of the online shopping site Mercado Livre. The focus of the fund is to invest in technology companies that can be highly impactful in Latin America. Kaszeck already has two investment funds which together make up more than U\$200 million.

Fintech Portfolio: Contabilizei, Nubank, GuiaBolso, Creditas, Zup.

Others

Among other foreign investment funds which have already invested in Brazilian Fintechs are Sequoia (Nubank), Tiger Global Management (Nubank), Founders Fund (Nubank), IFC (GuiaBolso), QED Investors (Nubank, BankFacil and GuiaBolso) and 500 start-ups (ContaAzul and IdWall).

New centres of innovation in Brazil

Despite the fact a large part of projects linked to innovation are concentrated in São Paulo, other regions in Brazil have also seen strong progress and are looking to establish themselves as centres of development for the industry, with initiatives organised by both public and private initiatives.

Belo Horizonte

The start-up ecosystem in Belo Horizonte is well known for being the first to differentiate itself within the country. One of the projects that has been developed there is San Pedro Valley, a community that seeks to bring together Belo Horizonte's start-ups in order to better identify the opportunities and necessities of the market, as well as advertising related vacancies and news. Created in 2011, San Pedro Valley came about after informal encounters between entrepreneurs from the start-ups Beved, Deskmetrics, Everwrite and Hotmart, and as well as being the reference for technological start-ups in Belo Horizonte, it connects more than 200 companies from many different sectors, including coworking spaces, accelerators and investors.

Belo Horizonte is the only city in Latin America which has a Google engineering centre. Accenture and Embraer are also present in the region, making it one of the main technological centres in the country. The work done on applied research by UFMG's Engineering School and Computer Science Department is also very attractive for companies. As well as this, a major part of the start-

up ecosystem in the region is the acceleration program SEED, financed by the state government.

On top of the proximity to technological skills, the region of Minas Gerais is the home to the headquarters of many financial institutions, such as the banks BMG and Intermedium, which have been getting closer and closer to innovative projects.

Rio de Janeiro

Although largely scattered initially, the innovative and entrepreneurial projects located in Rio de Janeiro came together when some local entrepreneurs gathered to form a group called Cariocas, an organisation focused on propagating an entrepreneurial culture throughout the region by setting up events and talks on the subject, as well as being part of the committee of the Brazilian Association of Fintechs.

Despite some well-known accelerators in the region having closed down in the last few years, like 21212, the expansion of the market has attracted new initiatives. For example, ACE, one of the country's most important accelerators, plans to open an office in Rio in 2017.

According to FintechLab's research, Rio de Janeiro has the second most Fintechs in the country. Companies in the region like Stone and Sicoob are looking to strengthen the local Fintech community which is still not very well-known in other parts of the country.

Sicoob, for example, opened a coworking space called Plataforma.space to approximate itself to the start-up ecosystem in Rio de Janeiro. Plataforma.space aims to bring together Rio's entrepreneurial community in one physical space which will be the headquarters of various start-ups and will organise events related to

entrepreneurship. Plataforma.space's first major act will be the launching of the Fintech.Rio programme, which will focus on mature fintechs now looking for scalability. After a selection process, between 5 and 10 fintechs will take part in a 5 week bootcamp with exclusive mentorship and access to Sicoob's tools and facilities. The bootcamp will start in March 2017 and will be open to start-ups from around the country as well as international ones.

On its side, Stone offered space to set up the events Fintech Start-up Weekend and Fintech Rio. With all of this going on, we hope to hear much more from Rio's ecosystem throughout 2017.

Florianópolis

Florianópolis is consolidating itself as a centre for technology based initiatives with the presence of 600 software, hardware and technological services companies in it. To support this wave of innovation and the start-ups involved, Florianópolis created two technological parks (Tec. Alfa and Sapiens Parque), two incubators (Midi Tecnológico and Celta), the Catarinense Association of Technology Firms (ACATE), the Amparo Foundation for Research and Innovation (Fapesc), the Reference Centre for Innovative Technology (Certi Foundation) and the Fiesce system.

With the aim of developing progress in financial services, ACATE made a vertical structure of Fintechs, which joins together start-ups and corporate partners, like Cetip, Senior Solutions and RTM, in order to share knowledge, create business opportunities and defend common interests with regulatory bodies.

ACATE, partnering with CETIP and the accelerator

Darwin, launched the programme's first group in the second quarter of 2016, with 10 companies involved and lasting 6 months.

Recife

In 2000 Porto Digital was inaugurated in Recife's historical centre. The area is one of Brazil's major technological parks, bringing together private initiatives, the government and universities to develop the region's technological ecosystem.

The park contains many different technology companies, both national and multinational, as well as offering innovation programmes, qualifications and support for entrepreneurship. Within Porto Digital there is Jump, one of the main start-up accelerators in Brazil.

Accelerators: helping with the first steps

As aceleradoras têm como objetivo principal apoiar e investir no desenvolvimento e crescimento de startups, ajudando na obtenção de investimentos, oferecendo mentoria para definição de modelos de negócios e operação e auxiliando a construção de parcerias. Além de aceleradoras independentes, ainda existem programas de aceleração patrocinados por instituições financeiras, que serão apresentados mais à frente, como os promovidos pelo Bradesco (inovaBra) e pela Porto Seguro (Oxigênio).

A seguir listamos algumas das principais aceleradoras atuantes no país:

StartupFarm

Considered Brazil's largest accelerator, StartupFarm has already accelerated more than 230 start-ups since 2011, when it was formed. According to the company, the start-ups on its portfolio when added together are worth over U\$1 billion and have received more than U\$100 million in investments through Farm Venture Capital, its investment branch. Aiming to have more Fintechs involved with its initiatives, StartupFarm recently signed a partnership deal with Visa to launch the programme Ahead, focused on financial technology. Both Exchange and PagoSim (two Fintechs) have already gone through this new programme.

Ace

Founded in 2012, Ace has already accelerated more than 70 companies and become one of Brazil's most important accelerators. There are many different programmes available depending on the stage of development of each company, including conception, growth and expansion. The acceleration programs last for 6 months on average. Ace has already accelerated the Fintech HomeCredi and is accompanying the sector very closely. Recently it signed a partnership with the BMG group to prepare two programmes for start-ups in different developmental stages. The first is a programme exclusively for Fintechs in an already more mature stage where they can test their products with the bank BMG and create possible partnerships. The second programme will be open to start-ups at an early stage of development from many sectors.

Launchpad Accelerators (Google)

Seeing that Brazil is the largest country in Latin America and São Paulo is the 12th most attractive city worldwide for start-ups¹⁰, Google decided to launch the Launchpad Accelerators program in the region in 2015. It lasts 6 months and consists of technical support and training to help promising start-ups to create well-made applications and build successful businesses. As well as mentorship, chosen businesses also receive an initial financial contribution worth up to U\$50,000. In 2016, the Fintech BankFacil was one of 6 chosen to participate in Launchpad Accelerators and is enjoying all of Google's infrastructure, including training in Silicon Valley. In the last selection, which was announced in November 2016, Mobilis (Financial Management) was also selected. The program is currently expanding and has already been taken to other countries such as Mexico, India and Indonesia.

Wayra

Wayra is one of the programmes that make up Telefónica Open Future, a global programme that combines all the entrepreneurship and open innovation initiatives from Grupo Telefónica (controlled by Vivo). With offices in 11 different countries and offering not only mentorship programs but also initial investments, the Telefónica group's accelerator has already supported more than 54 start-ups in Brazil alone. Each start-up spends a year in the program and receives training in many different areas, like digital marketing and sales, as well as getting help in securing more investments. Wayfarer has

¹⁰ According to CityLab's 2015 survey: <https://goo.gl/HvrpQS>

already accelerated Fintechs like QueroQuitar, Conube and Pagcoin.

Artemisia

Artemisia is a pioneering accelerator in the propagation and development of businesses with a social impact in Brazil. It offers for selected start-ups an intense 5-month programme which includes formatting business models, access to a network of mentors, team training, refining social impact and connections with investors, managers and partners. In the last 5 years, Artemisia has already accelerated 79 businesses in the spare as of healthcare, education, housing and financial services. Fintechs to have passed through the program are Biva (Loans), TáPago (Payments), ToGarantido (Insurance) and Controly (currently Banco Neon).

Jump

In 2015 Porto Digital, located in Recife and the north-east's main technological park, founded the accelerator Jump Brasil to strengthen Pernambuco's entrepreneurial community. Jump's programme lasts 5 months and offers participating companies mentorship, infrastructure and financial contribution. Jump's objective is to train companies to attract investors and contribute to local economic development. The target audience is companies who already have some maturity in their business models. In the first group 5 start-ups were chosen, but no Fintechs so far.

Darwin Starter

Darwin Starter is one of Florianópolis's major accelerators and is located within ACATE (Catarinese

Association of Technological Firms). It recently finished the second cycle of its acceleration program, investing in new fronts like Fintech (Jurus, PagueVeloz and Exchange Now) and big data (Planrockr and Vigios). In this last acceleration group, Darwin worked in partnership with Cetip, RTM, Neoway and CNSEg and offered coworking space, mentorship and initial investments for the selected start-ups.

SEED

Created by the Minas Gerais government in 2013, SEED (StartupsandEntrepreneurshipEcosystemDevelopment) is a support programme for entrepreneurs who develop projects based on technology. The programme is in its third edition and, with each new group, 40 businesses compete for 6 months of strengthening and incentives in a new physical space in Belo Horizonte, called the CentoeQuatro. SEED has already supported 112 start-ups from 11 countries offering seed capital, space to work, training, mentorship, networking and contact with the program's strategical partners, like Microsoft for example, as well as connections with San Pedro Valley, the largest start-up community in Belo Horizonte. Fintechs like Coinaction, melhorcambio.com, Exchange Now and Smarttbot have already passed through the programme. Following the example of Startup Chile, SEED is an international program which searches for foreign talent to create more valuable interactions for its participants.

Banking Services 3.0

In 2011 the National Monetary Council (CMN) authorised banks to offer their clients the ability to open and move bank accounts exclusively electronically.¹¹). By adopting this type of service the client would be exempt from tariffs, making maintaining a bank account cheaper and therefore promoting financial inclusivity. Originally the measure didn't have its intended impact, getting little traction in the main banks and financial institutions. A few years later we are now seeing a wave of digital banks arriving, formed both by branches of traditional financial institutions as well as by 100% digital projects. These institutions don't have physical branches but allow the user to complete any type of banking service, from investments to transfers, solely through digital means. As one of their main principles, these initiatives look to implement more agile, interactive and simpler processes for the user. On top of this, as they are based on technology, they work with business models that allow for more scalability at a lower cost, which can lead to lower prices for users.

Parallel to this, we have seen the growth of Multiservice companies, which offer the ability to pay bills, transfer funds and top up mobiles without having to be configured as a bank.

In response to these changes, traditional banks have been launching digital initiatives and, in some cases, have transformed themselves completely to keep up with this evolution.

Children of the digital world

It has become clear to banks that the recent move towards digitalisation must go beyond simply offering services online, like with Internet Banking and Mobile Banking. To cope with the new reality we live in, a complete reformatting of interaction with users and the structure in which products and services are delivered is required.

Below we list some of the shifts taking place in the market:

Banco Original

Banco Original has for many years been active in the fields of Corporate Banking and Agribusiness. In 2013 it started investments to turn itself into a 100% digital bank, with the launch for clients taking place in 2016. The bank came up with the idea to meet their clients' current needs, as they live in a modern digital world. As well as innovating when it comes to the experience and usability for the user, with the opening of 100% online accounts, for example, in the second half of 2016, the bank brought APIs to the market, which allows third-parties to develop solutions and connect themselves with the environment, bringing to the country its first Open Banking initiative.

Another concept which has been introduced by Banco Original is that of the Seamless Bank, where clients can interact with their financial services through means and tools which they already use on a day to day basis. To achieve this, it launched Chatbot Original, an interactive channel on Facebook Messenger. Through this channel the client has access to 24-hour virtual customer service with quick replies on a range of issues, like opening

accounts, investments and points programmes, as well as consultations on balances and transactions. These developments bring people's relationships with banking services from external layers to the bank itself and has the potential to integrate services more efficiently into people's everyday lives.

Not only this, but Banco Original has set up an innovation laboratory in Silicon Valley, a partnership with Plug and Play, one of the world's largest accelerators.

Banco Neon

Banco Neon came about as a joint venture between Banco Pottencial and the Fintech Controly, which offers banking services based on low-cost pre-paid cards. Banco Pottencial was already recognized as a financial institution by the Central Bank and the Credit Guarantee Fund (FGC) and, upon starting this joint venture with Controly, it became Banco Neon SA. Neon focuses on "millennials", who are already naturally part of the digital environment. Launched in June 2016, the bank is solely online and utilises innovative security features, such as facial recognition technology.

Banco Intermedium

Founded in Belo Horizonte in 1994, Banco Intermedium was for a long time quite a niche bank, with its main product being real estate loans. As a result of customer requests, Banco Intermedium launched a digital account in 2014 and in just 2 years had more than 50 thousand account holders. The bank decided to invest in digital products to increase penetration and leverage other lines of business, like credit, insurance and consignment loans, for example. Its executives compa-

re digital platforms to supermarkets, where there is no entry fee but, once the client is inside the 'store', they can find services which tend to their needs and eventually hire them. At the end of the day, even though they are free, the products become sustainable and generate revenue. New structures were made to accompany the technological advances and this process counted on the involvement of the highest levels of the bank's management.

As its goal, Banco Intermedium wants to reduce the price of banking services for its clients, and it hopes that its competitors can follow this model. The location of its headquarters is also a positive factor for the company, since Belo Horizonte is one of the country's main technological centres, facilitating access to suppliers and the start-up environment. Looking forward, the bank wants to be not just a 'digital bank' but a financial platform.

Banco Sofisa

Sofisa Direct was launched in 2011 as an independent arm of Banco Sofisa, an institution founded in 1961 which is strongly involved in the corporate credit market. The initiative came about as the bank wanted to put forward a new technology-based value model. The bank wants to bring more simplicity and democracy to the market, making rates and services the same regardless of the amount deposited. The initiative has an independent structure, with specific areas and organisation. As well as this, its internal structure is much like that of a start-up, with an informal corporate culture, an independent technology team and new ideas concerning user experience. Sofisa

Direct follows a long line of fintechs in offering high quality and lower cost services and the objective is to be able to put forward, through collaboration, more and more services which attend to the common client.

BTG Pactual

In June 2016 BTG Pactual, Latin America's largest investment bank famous for its involvement in capital markets and its treasury operations, launched an online investment platform called BTG Pactual Digital. The service is aimed at high-income retail, which still doesn't directly interact with the banks. BTG's idea is to make widely available offers from investment funds and financial products previously only accessible to a select group of clients.

The focus is to attract a layer of the population which has R\$50,000 available to invest which, according to the bank, is a market that could be worth R\$600 billion. Opening an account is very quick, done 100% digitally and can be done either on its website or through an app. Within the platform, the client can manage their assets and be accompanied by specialist attendants.

Accelerating through partnerships

The national financial market is historically concentrated. Despite this, there are more than 100 financial institutions with a licence to operate. Many of these operate only in specific sectors, services or regions, and they are the so-called niche banks. Be it to focus on a specific service, like consignment credit, for example, or to avoid competition with big banks or due to geographical barriers, for a long time niche banks maintained a limited scope and attaining the necessary investment to increase in size

was always a big problem. As well as this, a few years ago the Central Bank restricted the opening of new bank branches, meaning growth could only be achieved through mergers between already well established institutions. But now, with the arrival of the internet and smartphones, everyone can have a bank branch in their house or even in their pocket.

In this way, some niche banks have seen an opportunity in the Fintech revolution to expand their operational scope.

Below are listed some examples of these initiatives.

Banco BMG

With an eye on new businesses, BMG made a deal with the German Fintech Lendico in 2015 to find new ways of attracting clients, using a correspondent banking model. Despite Lendico focusing internationally on peer-to-peer loans (P2P), here the main product is Direct Consumer Credit, which until now BMG has not been very involved with.

As well as this, BMG and Lendico recently launched Lendico Plus, which is a consigned credit card for those who are retired and are pensioners under the INSS (National Social Security Institution). In July 2016 the BMG group opened BMG Up Tech: a corporate venture focused on innovative start-ups. The companies will have access to coworking spaces, a networking centre and help with establishing a go-to-market strategy. Fiemg (Federation of Industries in the State of Minas Gerais) is partnering BMG for this initiative and what differentiates the programme is that it focuses not only in what services the group involved offers, but also in several other branches of technology.

Banco Votorantim

Banco Votorantim has partnered with Microsoft to invest in Fintechs. Initially Votorantim will contribute R\$3 million in the BR Start-ups fund, created by Microsoft, which is investing in Brazilian technology companies. The expectation is that it will invest in around 6 projects with each investment worth between R\$250,000 and R\$1.5 million. The sectors the fund is prioritising for investment are: Payments, Loans and Debt Negotiation, Analytics and Big Data, Funding and Insurance.

Social

In other countries, the peer-to-peer (P2P) loan model is boosting industry and several companies which offer the service are growing worldwide. Some examples have had a large impact, such as Lending Club.

Brazilian legislation doesn't allow for the operation of the P2P model in its essence, since only financial institutions can have formalised loan operations. However, some companies like Biva and Nexoo, through structuring their operations in partnership with financial institutions like Banco Social, are emulating the original model offering P2P loans to small and medium sized businesses.

Multiservice Fintechs

Technology is allowing for financial services to become more and more decentralised. Despite the fact financial services are necessary, they don't necessarily have to be provided by banks. In many situations, legislation allows companies from other sectors to offer some of these services, like invoice payment and money transfers.

The big development which allowed for the growth of Multiservice Fintechs was law 12,865 in 2013 (known as the Law of Arrangements and Payment Institutions), which allows for the creation of new types of electronic bank accounts. Below are listed some examples of these projects.

E-dinheiro

It is a digital financial platform for consumers, small businesses and self-employed workers. By using any mobile phone, it is possible to make a deposit and transfer money, raise invoices, recharge credit, make payments using barcodes or QR codes and even plan monthly spending. All of this is done without any fees. Thought up by Banco Palmas in partnership with the company MadeApp, it is expanding across Brazil through the Brazilian Network of Community Banks. As well as offering this innovative service, it also promotes financial inclusion.

ContaSuper

It is a digital financial platform for consumers, small businesses and self-employed workers. By using any mobile phone, it is possible to make a deposit and transfer money, raise invoices, recharge credit, make payments using barcodes or QR codes and even plan monthly spending. All of this is done without any fees. Thought up by Banco Palmas in partnership with the company MadeApp, it is expanding across Brazil through the Brazilian Network of Community Banks. As well as offering this innovative service, it also promotes financial inclusion.

Zuum

Created from a joint venture between MasterCard and Vivo, Zuum is a pre-paid account service. Its focus is to facilitate the lives of people who don't have bank accounts, but who have to make financial transactions. With Zuum, the user can make deposits, withdraw or transfer money, pay invoices, and top up mobile phones or public transport cards solely using a mobile phone. Zuum also gives access to a pre-paid Mastercard card, if requested.

Banco Maré

Created to offer better services to the inhabitants of the Maré Complex, one of Rio de Janeiro's largest favelas, Banco Maré has come up with digital solutions for paying bills and transferring funds using smartphones. Despite the name, it is not in practice a bank. It works as a financial platform which collaborates to develop the local economy.

Founded as a social initiative, Banco Maré plans to reinvest its profits in the community in projects involved in things like housing and education. The founders aim to expand this model to other regions too.

Celcoin

Celcoin is a digital account service which works without any links to banks or credit card providers. The client can load their bank balance directly on to a cell phone account through a ticket or bank transfer and, through this, can use an app to transfer funds to other devices, pay bills, top up mobile phones, buy credits for games, receive payments and withdraw money at

up to 460 locations in the PagFácil network.

Celcoin does not charge any monthly fee or membership payments. Celcoin's digital accounts can be accessed over the internet or with a smartphone and is aimed at customers who currently have no bank accounts or are unsatisfied with traditional banking models.



The reaction of financial institutions

In a memo sent to employees¹² at the end of 2015, the CEO of J.P. Morgan (the largest bank in the US by assets) Jamie Dimon stated: “Silicon Valley is coming. There are hundreds of startups with a lot of brains and money working on various alternatives to traditional banking.” Dimon’s vision is shared by other heads of financial giants across the world which have for many years dominated the market.

With an ‘adapt or die’ mentality the incumbents (used in the Fintech market to describe traditional financial institutions like big banks), credit card companies and insurance companies are recognising the force of the changes technology is bringing about and for that reason they are now implementing projects which promote innovation and look for digital solutions to analogue problems. To cite a few examples, Citigroup has been opening “Innovation Labs” worldwide since 2013, BBVA, one of the largest banks in Europe, bought the American fintech Simple in 2014 and Barclays opened its first acceleration programme for start-ups in 2014.

In Brazil too, the main financial institutions are taking steps to continue being prominent in the sector:

¹² Letter from JP Morgan CEO, Jamie Dimon: <https://goo.gl/YglhYO>

Banks

Bradesco

In 2014 Bradesco launched an acceleration programme called inovaBra, with the intention of getting closer to start-ups that are developing new services for the financial market. The bank’s aim is to find projects which can add value to its current businesses. The program lasts up to 10 months, with a 4-month selection period and 6 months for those chosen to interact directly with Bradesco’s teams and make a proof-of-concept.

Currently the program is in the selection period for its 3rd round of start-ups. Some of those selected in the first round were: QueroQuitar (Debt Negotiation), Easycredito (Loans), Smarttbot and Allgoo (Investments), Bit.one (Cryptocurrencies and DLT) and Atar and Ewally (Payments).

For this edition, the launch of inovaBra Ventures is expected, an investment fund for start-ups, using a corporate venture model, with R\$100 million in capital. On top of this, the program inovaBra International was announced which plans to connect Bradesco and start-ups to international ecosystems to exchange knowledge and experiences.

Banco Itaú

In September 2015 in Vila Olímpia, São Paulo, Cubo was inaugurated, Itaú’s coworking space. The project was structured in partnership with Redpoint e.ventures so that it would become a leading space in entrepreneurship and innovation. The building offers coworking space for start-ups from any sector and also organises and hosts, on average, four events per day,

some of which are open to the public.

Over time, other companies have also joined the initiative, like Accenture, Saint Gobain, Ambev, Mastercard and Cetip. Through Cubo, Itaú has gotten closer to the entrepreneurial ecosystem. Some of the Fintechs that have been or currently are residents include Véríos (Loans), Kitado (Debt Negotiation), Adianta (Loans) and Controly (currently Banco Neon).

Banco do Brasil

Banco do Brasil has built an internal structure for innovation to research and develop new digital technologies. Innovation methodologies have been incorporated, like canvas, agile and design thinking, to try and emulate the spirit of start-ups within the bank. Start-up weekends and “hackathons” have been set up within the bank to build a culture of creating something new.

To get closer to the latest technologies and new trends, it has also opened the Banco do Brasil Advanced Laboratory (LABB) in Silicon Valley. LABB is located within Plug and Play, one of the world’s most famous accelerators, and shares space with several start-ups, from different countries, providing workers the opportunity to immerse themselves culturally.

The bank also promotes intrapreneurship with its Program PENSA, in which workers can suggest ideas for technological products and they are then evaluated. The next phases of the program involve Digital Business Track, pre-incubation (called BB Garage), incubation and acceleration.

Banco Santander

As the largest international bank in Brazil, Santander has developed many projects to spread a culture of innovation and develop the Brazilian entrepreneur ecosystem. In 2014 the Spanish bank entered the purchasers market through the acquisition of Getnet and, less than two years later at the start of 2016, of SuperBank and ContaSuper.

Another Santander initiative in Brazil is The Code Force, a hackathon program which seeks to engage developers, creative minds and innovators in the development of ideas which can mould the future of the financial market.

In 2014 Santander launched the investment fund Santander InnoVentures, focused on Fintechs and which has already invested more than U\$100 million in global Fintechs like SigFig (Financial Management – USA), Ripple (Cryptocurrencies and DLT – USA), Digital Asset (Cryptocurrencies and DLT – USA), Elliptic (Cryptocurrencies and DLT – Russia), Kabbage (Loans – USA) and iZettle (Payments – Sweden). This year, the fund will also focus on companies in Latin America.

Caixa Econômica Federal

In order to approximate itself to start-ups, Caixa made a partnership with Artemisia (NGO focused on businesses of impact) to develop an acceleration program focused on companies that promote financial inclusion for social grades C and D. Caixa has also set up an internal area for innovation.

Banco CBSS

CBSS, a financial institution owned jointly by Banco do Brasil and Bradesco, launched in 2016, in response to Nubank, the credit card Digio, which doesn't have an annuity and can be managed through an app.

Insurers

Porto Seguro

A leader in the Brazilian insurance market, Porto Seguro has created an acceleration programme called Oxigênio. As described in the 'accelerators' section above, the programme lasts 6 months, with 3 months in Oxigênio's space in São Paulo, and 3 months at Plug and Play, in Silicon Valley. Oxigênio's space is also open for events about entrepreneurship. Porto Seguro has also encouraged its employees to create in-house start-ups, offering them the opportunity to partake in the acceleration programme.

Caixa Seguros

Through Caixa Seguros, the Caixa group's insurer, the Youse project was created, an insurer which unlike traditional models doesn't use brokers but sells its own products. For regulatory reasons, the new company relies in the support of Caixa Seguradora, but functions within an independent structure. While it waits for Susep's approval, Youse is acting as a broker. Youse was the first 100% online platform for selling insurance in Brazil and allows the user to carry out the whole process, from getting a quote to buying insurance, on its website or app. The project notably does not offer closed packages, giving the user more

flexibility when choosing insurance. Its business model is also different as it works with monthly payments, without a defined contract term.

Credit Card Companies

Visa

As one of the main sponsors of the 2016 Rio de Janeiro Olympic Games, Visa pounced on the opportunity to present to the country its innovative solutions in payment options, which could soon be available on the national market. These use NFC (Near Field Communication) technology and include a bracelet made in partnership with Bradesco, a watch developed with Swatch (Swatch Bellamy) and rings that were used by 45 athletes on Team Visa during the games.

In September 2016 Visa opened an innovation centre in São Paulo¹³), following similar projects in Singapore, San Francisco, London, Miami and Dubai. Its objective is to develop new digital payment options in partnership with start-ups, businesses and developers. In this relaxed space, Visa wants to use methods and strategies which deal with challenges in a more collaborative and human way, putting those involved at the centre of each product's development. As well as these projects, Visa has also set up the Visa Developer Center programme, where participants will have access to the company's APIs and SDKs (Software Development Kits), and therefore be able to develop ideas in an open platform.

Finally, to get closer to the start-up ecosystem, Visa has entered into a partnership with StartupFarm, one of the country's main accelerators. Together they

¹³ News about the subject: <https://goo.gl/qXvPjm>

launched Ahead, an acceleration programme lasting 5 weeks, whose first group started at the end of 2016 and it is already preparing for its second edition.

Mastercard

MasterCard has launched MasterCardLabs, a global R&D division aimed at researching disruptive payment methods which could soon transform the way in which users interact with payments. In 2016 it also launched MasterCard Developers which allows its partners (banks, start-ups) to access several payment APIs, data and security. The new platform will be able to integrate MasterCard's technologies and services with its partners' new digital solutions in an easy and economical way, giving consumers a simpler, faster and more secure experience. As well as this, MasterCard has organised and supported hackathons around Brazil, some in partnership with Facebook and Santander, so that it can get closer to developers and users in the search for innovation. To interact more with start-ups, MasterCard, has created Startpath, a global programme which monitors start-ups and where a dedicated team work to help some chosen ones to scale up their ideas with the involvement of MasterCard and its partners. In Brazil, MasterCard has also partnered with Itaú and Cubo, again to increase contact with start-ups and provide mentorship.

Other giants of the financial sector

The financial market is made up of many different companies, and while some may not be known to clients at the end of the process, they still play an

essential part in how the system works. With the changes resulting from new business models and technologies, these companies are also starting to reinvent themselves.

Cetip¹⁴

Responsible for the settlement of transactions involving private fixed income securities (CDBs, LCAs, LCIs and debentures, for example) Cetip is a fundamental member of the Brazilian financial market. It is a genuine technology company and, despite having started as a non-profit branch of ANDIMA¹⁵, it has now been privatised with international owners.

As well as the usual investments in technology and innovation to keep up with the financial market, Cetip is getting involved with projects that promote entrepreneurship and the Brazilian start-up ecosystem. Along those lines, it launched the Foresee programme in 2016.

The programme, as well as promoting inspirational events and forums, has made partnerships with important bodies in the market, like Cubo (Itaú), UP Innovation Lab (Accenture) and ACATE (Catarinese Association of Technological Companies), with which it has overseen the creation of Vertical Fintech.

In partnership with Darwin Starter, one of the largest accelerators in Santa Catarina, it launched the first round

14 Cetip is now B3. B3 is a company which emerged from the merger between BM&FBOVESPA and Cetip. (www.b3.com.br/en_us/)

15 In 2009 ANDIMA (National Association of Financial Market Institutions) merged with Anbid (National Association of Investment Banks), giving rise to ANBIMA (Brazilian Association of Financial and Capital Market Entities).

of its acceleration programme, which chose 10 start-ups including Fintechs, Big Data companies, Insurtech and connectivity. ACATE has also attached itself to this project offering the space to house coworking space for those chosen.

RTM

RTM (Telecommunications Network for the Market), a supplier of integration services for the financial market, launched the innovation programme Conecta RTM, which aims to stimulate entrepreneurship. RTM's goal is to be the largest integrator between the financial market and the technology ecosystem.

The company will also launch a programme to attract start-ups and Fintechs who are interested in gaining access to its network, and in doing so providing services to more than 500 financial institutions who are connected through RTM. RTM is also taking other actions, like forming a strategic partnership with accelerators like StartupFarm and Darwin Starter and organising blockchain related events open to the public.

RTM has also launched Inove, a direct and modern way of communicating with its users. It works as a type of auditing, stimulating the creation of ideas and promoting the growth of new solutions for the financial market.

Internally, RTM maintains a committee for innovation which analyses and discusses trends in the IT and telecommunications sectors.

Other sectors targeting the financial market

As well as the incumbents, the wave of innovation in financial services also involves other outside players, like big technology, telecommunications and transport companies. Spurred on by the possibilities technology brings and with large consumer bases, these companies are also contributing to the change taking place in the financial sector.

Big Techs

Big Techs is the name given to technology giants like Apple, Samsung, Amazon and Google. These companies have become practically omnipresent in the people's and businesses' lives, through services like: shopping, localisation, messaging, search engines, cloud platforms, app development, information management, among myriad others. With this penetration and ability to innovate, Big Techs are widening the scope of their operations and, most recently, have positioned themselves within the financial market.

The markets for payments and transfers of funds have been the doorway for these giants, but the constant search for better customer experiences has given further opportunities to companies that possess a capacity for innovation and a mind-set adapted to the new landscape. In research carried out by Accenture¹⁶ in 2014, 40% of the 4000 bank account holders interviewed in Canada and the US, said that they

would consider using banking services from Google if they were available.

The success these companies have achieved with payment initiatives in the US and Europe means Brazil is a logical entry point into the Latin American market. Despite contactless payments still having a negligible presence in the national market, a large proportion of payment terminals are already equipped with NFC (Near Field Communication) technology to accept this type of transaction. This opens the possibility for not only smartphones or credit cards to be able to make this type of payment, but also for bracelets, rings, watches and so on.

The increase in the quantity of transactions taking place through different channels and methods has led companies to search for ways of increasing the security of these transactions. One example is the process of 'tokenization', adopted by companies like Visa and MasterCard, which allows the same card to be registered in many places, like apps, websites and wearables, with a unique code for each one. In general terms, this system can generate a unique and exclusive 'card number' for each payment channel, or even for each transaction.

Below are some of the Big Techs' main initiatives which are now coming to Brazil.

Samsung Pay

Launched globally in August 2015, it's a payment system that is already operational in South Korea, the US, China, Spain, Singapore, Australia and Puerto Rico. In Brazil, the service has been available since July 2016 and is compatible with cards from Santander, Banco

do Brasil, Caixa, Porto Seguro and Brasil Pré Pagos. In the near future, Bradesco, Itaú, Banrisul and Nubank will also be integrated to the platform.

Samsung's business model is based on the growth of its devices' sales through technological adoption. It doesn't make any money from the transactions, focusing instead on increasing its devices' functionality to make them more attractive on the market.

Apple Pay e Android Pay

Announced in September 2014 and 2015 respectively, Apple Pay and Android Pay are not yet available in Brazil. Apple and Google are negotiating terms with banks and financial institutions and the intention is for both of the services to launch in Brazil in the first half of 2017.

Apple Pay is already present in countries like the US, China, Australia, Singapore, the UK, Japan and Russia, while Android Pay is available in the US, the UK, Singapore, Australia and Poland.

Unlike their Korean rival, Apple Pay takes a small percentage of transactions, generating revenue for Apple. Android Pay, on the other hand, doesn't charge any fee and has a similar business model to Samsung's, with profits in the long run as more users sign up to the service.

Other initiatives not yet planned to reach Brazil

Other technology giants are developing new innovative services related to the financial market, but aren't yet looking at launching them in Brazil anytime soon.

Microsoft launched Microsoft Wallet, a payment

service equivalent to those from Apple, Samsung and Android, but which doesn't need the internet to work, using solely telephone networks.

Facebook, as well as making available globally services of bots with open APIs for interaction with messenger, has acquired a licence in Europe which allows payments and exchanges of financial resources to take place through its messenger application.

Finally, Amazon, the world's largest retailer and a pioneer in 'one-click-buying' and the development of personal assistants like Alexa, which can carry out banking transactions, has launched Amazon Go. It is a supermarket without cash registers which uses cutting-edge technology and artificial intelligence, meaning customers only have to pick up items off a shelf for the system to identify both them and the product, and they are then charged automatically upon leaving the store.

Telecommunications Companies

Launched in Kenya in 2007 by Vodafone, M-Pesa is a service which allows its users to transfer funds, make payments and withdrawals on their phone. Already widespread in other countries like Afghanistan and South Africa, M-Pesa revolutionised the way in which thousands of people handle their money, providing banking services and lowering the rate of those who do not have bank accounts.

As shown in the 'Multiservices' section, phone companies like Vivo and Tim, mirroring Vodafone's model, are making an effort to enter the financial market, having as a consequence an increase in financial inclusion. Claro was also offering banking services through its phone channels, but discontinued the initiative at the end of 2016.

TIM Multibank

In 2015 Caixa entered the mobile payment market. In partnership with MasterCard and TIM, the bank launched TIM Multibank Caixa, a pre-paid account on a mobile phone that lets the user pay invoices, transfer money and carry out top ups, as well as being able to shop using a MasterCard debit card. Money can be deposited in the account in any lottery store, without the necessity to have an account with a bank or provide proof of address. The service works with any of the mobile phone brands sold by the phone carrier, which includes basic cell phones with no access to broadband internet (3G).

Other sectors

As well as the financial industry, technology has allowed for the entry of other sectors into the financial market. Especially when it comes to payments and services involving movement of funds, these changes are already happening and the result is an ever more integrated environment, with higher usability for the user and more revenue sources for suppliers.

As an example of this, in the USA Starbucks, in reaction to clients' growing preference for mobile payments, launched its own app, Mobile Order and Pay. Through it, customers can make their order and pay for it on their phone, without having to wait in queues. Having only been available for a year, it already makes up 5% of all the company's transactions in the US¹⁷.

In the modern world, everything and everyone is constantly interacting and compiling information, and many organisations are taking advantage of this new development. In Brazil, as well as the telecommunications industry, which has already been discussed, some other interesting initiatives have been started in the transport sector.

Sem Parar

Sem Parar has become the national standard for payment systems at tolls and parking lots.

With the application installed, the user can also have access to Sem Parar petrol stations and convenience stores. A pioneer in Brazil in the use of RFID technology to automatically identify vehicles, Sem Parar entered a partnership with Shell, which owns a petrol station network, so that customers can fill up their car and

¹⁷ Data from the official release of company results.

pay without having to leave their vehicle.
And without having to use cash or a card. Using the Sem Parar sticker, the client is charged the amount owed in their monthly invoice.

99Taxis

99Taxis launched Cartão99 at the start of 2015 to help taxi drivers receive money from their runs immediately, without having to wait for the end of the month. Upon using the service, the money from their runs is automatically credited to their account, letting them use it to pay bills and make withdrawals. Cartão99 was launched as a partnership with MasterCard to enable easy receipt of payments and personal financial management for the drivers. It is also advantageous for 99Taxis, as it simplifies the system, eliminating complex layers of financial services, and it allows the company to generate revenue from the fee for every transaction that takes place with the card and the float of non-used funds.



New technologies helping clients

Along with the birth of new financial services, there are also opportunities for other complementary services to develop. Also supported by new technologies, these initiatives, like fraud prevention systems, large scale data collection and analysis, and the internet of things are fundamental pillars of the changes taking place at large.

More flexibility, security and credibility are some of the advantages that these new initiatives bring. As a result, we are now living in an ever more connected, mapped and organised world.

Big data and Analytics

With new technology, more and more data is becoming available for networks. Collecting, organising, processing, understanding and making insights about all this information is what companies like Neurotech, Neoway, Dataholics, Big DataCorp and IdWall do.

Based on modern technology like web crawling, datamining and machine learning the information collected can come to complement or, in some cases, even make feasible decision making in the modern digital world.

For example, smartphones currently have dozens of sensors which can monitor people's routine like

what time they get up, where they go and what physical exercise they do among other things, as well as making available basic information like the brands and models of their devices. Based on understanding how people interact with both their physical and digital worlds, it's possible to identify behavioural characteristics indicative of the risk of default, fraud or even spending habits.

APIs

An API (Application Programming Interface), a technological term used to define an interface model which allows different software components/ applications to be integrated together. In this way, they allow third parties to securely absorb information and develop their own solutions. An example of this would be any GPS application which would use Google Maps, through an API, in order to work.

In the financial market, this concept can be applied to the "Open Banking" model, where financial institutions give third-parties access to their information so that they can develop their own projects. In Germany, for example, due to regulations, if authorised banks can make their clients' details available. With this, it is possible to make integrated PFM (Personal

Finance Management) tools or even more reliable risk assessment systems, since it is possible to see the user's financial risk on a global scale.

In Brazil, Banco Original decided to take up the Open Banking model. As a result, it's expected third parties will be able to develop new services using the bank's information, complementing the current user experience in a similar way to how apps on a smartphone do.

Still in its initial stages, the initiative started with the bank making current account, investment and payment details available, with more information planned on being released in the future. The aim is for the bank to serve as a platform of services, so Fintechs can be free to focus on its core business and build services on top of the bank's base.

Robot Advisors

Robot Advisors are a type of financial advisor which provide recommendations or portfolio management with minimum human intervention. Their analyses are based on mathematical rules and algorithms.

Some Fintechs are using this Robot Advisors model to carry out automatic planning, allocation and rebalancing of investment portfolios. Based on each client's risk profile, the robots select both fixed and variable income assets to invest in. As they don't use professional advisors, the prices charged by these companies are very competitive and mean the service is accessible for more people. These companies are disruptive as they are changing the ways in which people invest. Internationally, the main examples of Fintechs based on Robo Advisors are: Betterment,

Wealthfront, Motif and OpenFolio. In Brazil, the companies Magnetis and Véríos are also developing their own versions. As an alternative, companies like Dod Robôs Investidores are developing and providing Robo Advisor services to the market.

Artificial Intelligence

Artificial Intelligence is characterised by sophisticated technology replacing human decision making. This, however, is not to be confused with automation, which means the automatic repetition of tasks. For a product to be a user of AI, it has to involve a combination of complex algorithms and machine learning, systems which learn as they are used. In this way, a huge variety of data can be analysed to recognise patterns, prevent future results and help base decisions. A simple example of an application of this is virtual keyboards on smartphones which can predict the next word to be written.

Globally, trends indicate AI will grow in prominence in our day to day lives, with it already being used to optimise processes and common tasks in companies. Bradesco, for example, has recently provided an example of how Watson, IBM's artificial intelligence and cognitive computing system, can be used to manage communication between branches and headquarters.

The use of AI in chatbots has also grown. Despite many companies having adopted chatbots in recent years, by using AI the bots can "learn" with time and constantly improve the system. This is the technology that has made virtual assistants like Apple's Siri or Amazon's Alexa possible.

In the US the financial market is already being affected by the emergence of bots. MasterCard announced in October 2016 that it will launch a bot in partnership with Kasisto, a spin-off of SRI International, Siri's creator. It is predicted that the bot will be able to answer questions about personal finances from MasterCard's users and from bank clients. MasterCard is following in the steps of American Express, which has already launched its own bot service on Facebook Messenger in the US. Capital One clients can already interact with Alexa, Amazon's assistant, to make payments and check balances using their voice alone. Bank of America has also said it wants to launch a messenger bot within the next year.

In Brazil, Banco Original was the first bank to launch a chatbot on Facebook Messenger. It was created by a team within the bank and lets clients ask about any doubts on a wide range of services. The chatbot is not exclusively for account holders and can also be used for those who do not have accounts but want to learn more about the bank.

The Internet of Things

The Internet of Things is the interconnectivity via the Internet of computational devices inserted into everyday objects, allowing them to receive, send and interact with information. The development of this process depends on technical innovation in things like Wireless sensors, artificial intelligence and nanotechnology. The spread of sensors and growth in data they generate are a great source of information to be used in products and services.

Visa, as well as the wearables which were described

in the "Credit Card Companies" section, already offers automakers the possibility of putting applications in their cars for Bluetooth and QR Code payments (Visa Token Service). Honda has adopted this idea and is already testing it in some of its cars in the US. The aim is for each vehicle to come with an application that, among other things, alerts drivers as to when they need to refuel, tells them where the nearest gas station is and pays for it without the user having to leave the car.

Similarly, MasterCard launched, in partnership with Samsung, a fridge connected to the internet. The household appliance comes with the "Groceries by MasterCard" app installed and, through a screen, users can do their shopping and pay for it without having to leave the house. As well as the payments sector, the insurance sector is one of the ones which has the most to gain from the development of the Internet of Things. The constant monitoring of objects and people allows not just for the adoption of preventive measures - like indicating the necessity of replacing components due to wear - but also the better quantification of risk, which can consequently improve pricing. For example, a smartwatch can periodically collect information about heartbeats and physical movement and send this data to a health insurer, who could use the information to better price the value of a policy.

Porto Seguro announced in the second half of 2016 a deal with Orange, a French telecom company, to exploit the Internet of things market in Brazil, aiming at the market for vehicle tracking, alarms with sensors and others. In the case of vehicle tracking for example,

if a device is connected to the vehicle it is possible to collect information about the car's condition and driver's driving style, as well as geographic data like locations and distance travelled and where the vehicle is parked.

Fraud Reduction

With the growth of e-commerce, virtual stores need ways of giving their clients more security when it comes to navigating and making payments on their websites. If finalising a purchase takes too long, the chances of a client giving up increase. At the same time, it's important that the necessary checks are carried out to make sure the buyer is, in fact, the card's owner. When it comes to fraud, the biggest losers are the shops and banks.

To try and solve these problems, some start-ups like Konduto, Vigios and Fcontrol have used technology to make the risk assessment process more efficient, using machine learning algorithms and artificial intelligence. Novelty like tokenisation are also being used to avoid possible fraud and make the online and offline payment environments more secure.

Cryptocurrencies & DLTs

The traditional financial model is dependent on bodies and entities which give it confidence and credibility. For example, the stock market works as an intermediary between those who are interested in buying and selling financial assets. The Central Bank defines the money supply and other major aspects of an economy and the SPB (Brazilian Payments System) is responsible for settlement of transactions with securities, valores

mobiliarios, derivatives and foreign exchange.

In November 2008, a scientific article published by Satoshi Nakamoto described a decentralised electronic system for transfer of funds which would become the basis for Bitcoin. Essentially, Nakamoto solved the doubling of transactions through an approval model based on a consensus of nodes connected to a network. Each node holds the history of transactions carried out on the whole network and any new transaction is approved as long as most of this network agrees it is authentic. This new transaction integrates a new block of transactions that is attached to the previous ones at every node in the network. This decentralised register is called a blockchain. In this model, confidence comes from the inherent workings of the network itself, and is not dependent on any entity like with the traditional financial market.

Bitcoin's source code was designated as open-source in 2009 making it the first distributed management virtual currency. The network is based on sophisticated cryptography algorithms, which guarantee confirmations are authentic, as well as remuneration for the network's nodes which are part of the ecosystem and carry out the processing.

In the last few years many different virtual currencies have entered circulation, like litecoin and Dodgecoin, despite not having reached the same prominence as Bitcoin. Even though, for some, Bitcoin seems to just be a bold economic experiment, many new business models have been becoming reality.

In Brazil, Bitcoin brokers like Foxbit, CoinBR, Bitcoinyou and Mercado Bitcoin let people buy the currency. Parallel to this, international companies like Xapo and

BitInKa are entering the market. According to bitValor, the average monthly volume of Bitcoin transactions in Brazil in 2016 up to October was R\$27.1 million.

In 2014, financed through crowdfunding, Vitalik Buterin launched Ethereum, a distributed and public blockchain platform which can process intelligent contracts, also known as smart contracts, showing just how much of an impact blockchain can have on current markets. However, the issue of confidence is not only relevant to financial transactions but to any type of asset. As well as this, by allowing the addition of a layer of programming, Ethereum allows processes to be automated, like, for example, automatically paying for intellectual rights of a song every time it is played. Blockchain gained in prominence at the World Economic Forum in January 2016, when it was presented as one of the most innovative and disruptive new technologies in the financial industry.

Distributed Ledger Technologies (DLTs)

DLT is the umbrella term for initiatives related to decentralised networks, which includes both private networks and public ones, where blockchain is involved. The most well-known blockchains are Bitcoin's and Ethereum's. There exist, however, other initiatives that deserve to be mentioned:

Hyper Ledger

A collaborative organisation created in 2015 by the Linux Foundation, it brings together companies from the technology, logistics and financial industries to create a secure, useful, solid and easy to use platform. The aim is for any individual interested in building

software based on blockchain to be able to use it as a base. These outside contributions will help test the technology and ensure that it can be used in many different industries.

Ripple

Ripple's DLT lets banks make international payments through its network in real time. Ripple's network means the banks can save a lot of money, as it is a far more efficient international network for transferring funds than the current system is. Santander, in the UK, was the first bank to develop an international payments application using Ripple's technology and it hopes to soon make this service available to its clients.

Corda

Known as the banks' DLT, the Corda project was created in April 2016 by the R3 consortium. Corda's objective is to register, manage and synchronise data about the agreements between the financial institutions involved. In Brazil, Itaú and Bradesco joined R3 in September 2016 and BMF Bovespa also entered into the consortium.

Activity of DLTs in Brazil

Locally, banks have invested a lot of time and money into research related to DLTs. In some cases, they have been creating internal projects and approximating themselves to international companies which are already familiar with the technology. Microsoft, Intel and IBM have become international leaders on the subject and have worked to spread this knowledge about DLT's in Brazil.

In the local ecosystem, Blockchain initiatives have started

to emerge. Projects are already in action, like Blockchain Center, a coworking space exclusively for blockchain companies, and Blockchain Academy, which is focused on training people and giving them experience with blockchain.

In Brazil, the main example based on the Ethereum platform is OriginalMy, a company where digital documents can be registered on its network as a proof of authenticity and ownership.

Regtech

An important part of internal management for financial institutions is dealing with legal problems, both regulatory and related to compliance. Maintaining a team to deal with these problems is a significant cost for these organisations. In order to address this type of issue, Regtechs are starting to emerge, mainly in the US.

One example is the law firm Baker & Hostetler, one of the largest in the US, which recently launched ROSS, an AI based lawyer, or “robot lawyer”. ROSS was created based on technology from Watson, IBM’s cognitive computing machine. It’s an advanced source of consultations and has access to the whole country’s legislation, jurisprudence, precedents, citations and any other form of legal information. As well as this, it can update its information 24 hours a day, every day, and alert lawyers as to any new information which may affect their current cases be it concerning tax, labour, criminal or intellectual property lawsuits.

In Brazil LegalBot is a Regtech already available on the market. Through machine learning and a series of tools which help professionals in the analysis,

selection, classification and organisation of many normative aspects, the company aims to facilitate the work of those responsible for the compliance and risk areas of a financial firm.

How Brazil is positioned within Latin America

Brazil is the leader in Latin America's Fintech landscape being the country home to the largest number of companies, well ahead of Mexico which has the second most at 158¹⁸. As well as local projects, due to its demographics, Brazil is a market that attracts international companies which are looking for opportunities to expand.

Parallel to this, Columbia, Mexico, Chile and Peru have set up the Pacific Alliance, an initiative which represents 230 million people and which aims to encourage free trade and economic integration. The organisation is promoting innovation in these countries, and this also means companies now have access to a far larger number of consumers.

One thing all the largest Latin American Fintech markets have in common is the dominance of the Payments sector. With the growth of e-commerce and the number of smartphone and internet users, this area of Fintechs has been gaining momentum. Other important sectors are Loans in Mexico and Columbia, Crowdfunding in Chile and Financial Management in Argentina.

There are a lot of prospects for growth for entrepreneurs and therefore Fintechs in Latin America. Chile launched Startup Chile, a programme that aims to promote entrepreneurship in the country and Mauricio Macri, Argentina's president, has put innovation as one of his new government's top priorities.

The following table shows a comparative overview of different Latin American countries:

¹⁸ Source: Radar Fintechlab (Brazil), Finnovista (Mexico, Colombia, Argentina and Chile) 2016.

| País | # de fintechs ¹⁸ | Main Sectors | Main Companies | Prospects |
|---|-----------------------------|---|---|--|
|  Brazil | 244 | Payments | Guiabolso Nubank Bankfácil | Brazil is the largest Fintech market in Latin America and shows itself more and more deserving of holding onto this lead. |
|  Mexico | 158 | Payments and Loans | Konfío Clip Kubo Financiero | What stands out is the mission to promote financial inclusion and reach the large part of the population with no bank account. A Fintech Association has been created and there are discussions to create a Fintech Law. |
|  Argentina | 60 | Payments and Remittances and Financial Management | MercadoPago Afluenta KoiBanx | Macri put innovation as his government's priority and has aims to make it possible to start a company in 1 day. NextpLabs is one of Latin America's largest accelerators and has a strong vertical in Fintechs. It has already expanded to Mexico, Columbia and Chile. |
|  Colombia | 77 | Payments and Loans | Alegra MesFix Aflora | Bogotá and Medellín and the two strong centres for technology and innovation in the country. Advances count on the government's support, as it aims to digitalise the whole Colombian population. Recently, a Colombian fintechs association has been created. |
|  Chile | 56 | Payments and Crowdfunding | Destacame.cl comparaonline Broota | The acceleration programme Startup Chile has become a leader within the continent. Santiago has become a model city for developing both national and international start-ups. The country's focus on Fintechs is just beginning. |

18 Source: Radar Fintechlab (Brazil), Finnovista (Mexico, Colombia, Argentina and Chile) 2016.

Conclusion and Challenges for the years ahead

The year of 2016 left it clear that innovation in financial services is inevitable. Businesses and consumers, already getting used to this new reality, are searching for simpler, cheaper and more intelligent ways to interact with banking services and to move their money.

In little more than a year, more than 200 initiatives have been started in the country, changing the status quo. However, it is clear that having a good idea is just the first part of the challenge. Conquering the market and scaling up solutions without losing quality are just some of the critical issues Fintechs have to face.

Happily, the maturation of the ecosystem is strengthening and increasing the chances of success. An entrepreneurial environment is not made solely of good ideas and Brazil is strengthening itself in other ways, as shown in this report. There are still challenges: regulatory uncertainties, the political environment, an unstable economy, the need for more qualified professionals – especially in technology, the need for more investment, easier access to markets...

But the strength of the environment promises to make 2017 the year in which the Fintech market gains traction in many sectors.

However, this is just part of the situation. This year will also be the year in which other industries wake up to the new opportunities available. In particular, retail, the telecoms industry and other who have a large base of clients have the potential to grow their revenue streams. The financial world will stop being exclusively for banks. Technology is within everyone's reach.

The banks vs fintechs scenario will give space for a more complex yet more fertile setting for the development of new business and partnerships. And this is not just in Brazil. With a market of more than 200 million consumers, the country is a fertile area for the growth of international initiatives, which can arrive here better financed and structured.

All in all, the situation is complex and that makes it uncertain, but that's what also makes it so interesting. In all this, it is important to be aware of exactly what new changes are going on.

E nas palavras de **experts do mercado...**



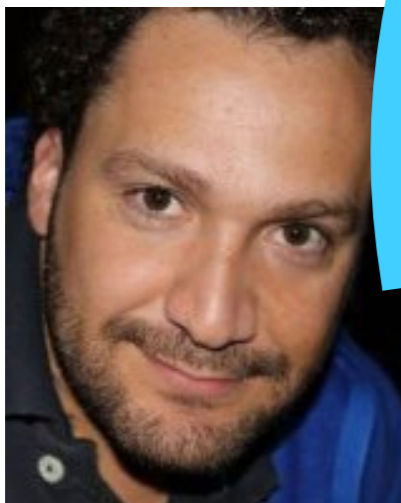
Todd Barrett - Ontario's commercial consul in Brazil

"Initiatives like Cubo and inovaBra – from Itaú and Bradesco respectively – are a great opportunity to strengthen these new companies which are promoting innovation in the financial system, letting them get qualified technical support to launch themselves into the market. For the fintech market to continue growing, initiatives like these should be expanded in Brazil"

Gustavo Paro - Microsoft

"Fintechs also have the challenge of developing a very reliable and scalable idea, as they have to be capable of tending to thousands of users, and in many cases in many countries simultaneously. This includes, for example, international solutions for electronically transferring funds."

"Another great challenge is to find the ideal balance between being a Fintech and becoming a de facto bank, using the best of both worlds"



Guilherme Stocco - Digital Transformation/Fintech Banker Technologist

"Banco Original intends to be close to Fintechs and help the ecosystem develop, and it is for this reason that we made our Open Banking platform which will facilitate the integration of Fintechs with the bank."

"The largest challenge a Fintech faces is acquiring active clients, those who use their products regularly. Acquiring clients is very expensive and few companies manage to carry out their own 'Growth Hacking' to grow exponentially without spending fortunes on marketing"

Erico Fileno - Head de Inovação da Visa

"Visa has been going through a large transformation in the last few years and one of the main aspects of this revolution has been the approximation to Brazilian start-ups and fintechs... Many companies are already creating payment prototypes using our technology and Brazil is the second largest user of our APIs, behind only the USA"
"Visa and fintechs have a lot to learn and a lot to work together on and in 2017 I believe this will happen even more frequently"



Roberto Dagnoni - Exec Director B3

"The volume (of Fintechs) is very impressive to Cetip, given that there were little more than 50 not that long ago. As well as the volume was are optimistic about the possible connections between these fintechs and the infrastructure Cetip provides for the financial market"
"The main challenges for Fintechs in 2017 will be: expanding their scale and getting regulatory changes that will be positive for fintechs"

Flavio Pripas - Diretor do Cubo

"The main challenge for fintechs is no different than that for other start-ups: distribution. How to come up with new business models and make them attractive to users."
"We are building a great foundation for 2017. There is a huge movement of new businesses, investors etc. Locally, regardless of the difficult situation we find ourselves in, I believe that the world of innovation and start-ups will continue to grow at a great pace."



Eduardo Abreu - Zuum's CMO

"Brazilian Fintechs must often break cultural barriers, as Brazilians are too used to using 'money' for payments – more than 70% of payments in Brazil are still made using 'money'"

Glossário

API (Application Programming Interface)

The name for a group of programming routines and patterns to access a software application based on the internet. Companies make APIs available when they want other platforms to use their services and develop new functionality for it.

B2B (business-to-business)

Represents commerce between companies, when one company supplies goods or services directly to another.

Big Data

A large volume of data, either processed or not. With this large quantity of data, organisations can make better models and services, and have come to understand clients' behaviour in greater depth.

Big techs

Group of large multinational technology companies, such as Apple, Google, Facebook, Microsoft and Amazon.

Bootcamp

A short period for start-ups and entrepreneurs to develop ideas, network and learn about new concepts related to entrepreneurship and business.

Bots

Systems with some artificial intelligence that are capable of interacting with users, be it through messages (chatbots) or participating in a game.

Digital Cards

A system which saves and uses cryptography to keep secure information on credit cards and other forms of payment so they can be used both online and offline.

Corporate Venture

Name for investment from companies (generally developed ones) in start-ups.

Banking Correspondent

Any company which, as well as any other activities, also acts as an intermediary between financial institutions which are officially authorised by the Central Bank and their end customers.

Crowdfunding

Collective financing of an idea, company or product.

Cryptocurrencies

A digital currency, like Bitcoin.

Datamining

Consists of aggregating and organising data, and finding relevant patterns, associations, changes and anomalies in it.

Design Thinking

Group of methods and processes used to approach problems, related to gaining information, analysing knowledge and putting forward solutions.

DLT (Distributed Ledger Technology)

Or shared ledger, is a consensus of replicated, shared and synchronised digital data geographically spread across multiple sites, countries or institutions. There is no central administration or centralised data storage.

E-commerce

A form of commerce that carries out its financial transactions through electronic devices and platforms, like computers and smartphones.

Peer-to-peer lending (P2P)

Where individuals or companies lend directly to other individuals or companies, without the involvement of financial institutions. The intermediary is a Fintech. In Brazil this is banned by the Central bank, so it is up to Fintechs to develop legal financial methods of offering this to their clients.

Private Equity Fund

Investment funds which buy substantial parts of companies either in early development, intermediate development or which are mature.

Venture Capital Fund

Investors in risk. A type of investment fund which puts its money in companies either in an early or intermediate stage of growth. To balance out for this greater risk, they offer more possibilities and returns on their investments.

Go-to-market

A company's plan or strategy to get to the consumer and increase its productivity.

Hackatons

A programming marathon in which hackers meet for hours, days or even weeks, with the aim of exploring open data, unveil codes and logical systems, discuss new ideas and develop hardware or software projects.

Incumbent

Organisations and companies which were already in the market before the arrival of new technology. In this context, it refers to financial institutions.

Internet of Things (IoT)

Technology which connects electronic devices used in day-to-day life (like household appliances, portable devices, industrial machinery, transportation etc.) to the Internet.

Angel Investors

Individuals who make the first contribution in companies at an early stage which have the potential to develop.

Joint Venture

An association of societies, without any definitive character, for the execution of a particular commercial enterprise, dividing their obligations, revenues and responsibilities.

Machine Learning

Technology which allows machines to learn new behaviour and functionality as they are used and given information.

Marketplace

Virtual platform where commerce for goods and services can be carried out.

Agile software development

A group of methodologies for developing software which allows fast adaptation to changes and promotes the involvement of specialised and efficient teams.

Millenials

Also known as Generation Y, refers to young people born between the end of the 80s and the beginning of the 2000s.

Mobile Money

Banking services which are carried out through mobile phones and telephone networks.

Business Model Canvas

Tool for strategical management which allows the development and outlining of new or existing business models.

NFC (Near Field Communication)

Technology which lets people pay by just putting two devices close together, for example a credit card machine and a smartphone. It doesn't require passwords or pairing, just proximity.

One-click-buy

Buying something with just one click. It has compressed the filling in of long forms so that people can easily buy things online.

Open Banking

It aims to open banks' digital platform, through APIs, so that they can connect themselves to other companies and services. The objective is to make the ecosystem more connected and developed.

Open-source

When the code for a certain program is open to developers so that they can edit it.

Contactless Payments

Making payments without having to insert a card or pay in cash. Can be through a phone, an accessory or stickers on vehicles, for example Sem Parar.

PFM (Personal Finance Management)

Software which helps users monitor and manage their financial assets.

Cloud Platforms

Platforms which use remote servers to store information and offer access to it via the internet.

R3

A consortium made up of more than 70 of the largest financial institutions in the world to research the applicability and promote the development of blockchain solutions in the financial market.

Robo-advisors

Manager of digital funds which uses automated services and algorithms to define their allocation, without any human influence.

Seamless Bank

Banks financial service connected to non-financial applications.

Smart Contracts

Computerised routines that facilitate, verify or guarantee the success of contracts. In other words, they are computer systems which can determine the conditions under which a given negotiated term is fulfilled, reducing the need for clauses.

Streaming

Technology which send multimedia information through transferring data over the Internet.

RFID Technology

Used to identify objects through radio signals, which can be recovered and stored remotely. Generally, the objects to be identified receive a label with the frequency emitting circuits.

Silicon Valley

Famous region in California, USA, where there is a concentration of companies focused on technology and making scientific innovations.

Wearables

Products we use daily, like clothes and accessories, with devices installed which are capable of generating data about their use and which connect to the internet to transmit it.

Web crawling

Using a computer program to navigate the internet in a methodological and organised way.