

ENRICH MONTHLY

MONTHLY BUSINESS & INNOVATION NEWS COMPILED BY ENRICH IN BRAZIL



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Dear Reader,

a warm welcome and thank you for your time and interest in our tenth edition of ENRICH Monthly.

Recently Brazil has made an important decision for their future economy. On November 12th the Congress officially ratified the pension reform bill. It took three presidents and several ministers for Brazil to finally pass the reform. According to experts and official data released by the government, Brazil's public debt would have skyrocketed and the economy would have had trouble to take off for growth, as pensions on average accounted for a whopping 40 percent of the federal budget.

With the landmark pension reform approved, Jair Bolsonaro is now pushing for a tax reform. His government will send his proposals to Congress within this year, though it has been put on hold amid current social unrest across Latin America. The successful pension overhaul and the news about the future tax reforms caused a wave of positive reactions among investors and bankers, leading markets to rally and stock hit high. Speaking of stocks and investments, Brazil now has one of the world's smartest cities with hundreds of startups and tech firms that are continuously attracting investors from all around the world. In this edition, we have chosen articles that would give you an insight about this city and the reasons to why it is thriving in innovation and tech scene.

With our ENRICH Success Story we have also prepared for you a quite fascinating article about a work of an entrepreneur, who is successfully managing to draw investments across borders. Dr. Joao Transmontano is the CEO and the founder of Biolotus, a pharmaceuticals company. With his entrepreneurial skills he is bringing together international firms, innovations, and funds all into one pot to fight against mosquito-borne diseases and to develop environmentally friendly agriproducts that would help farmers around the world to protect their harvest but also cause no harm to their surroundings.

We hope you enjoy reading the 'ENRICH Monthly' and we are happy to receive your feedback via [email!](#)

All the best for you,
ENRICH in Brazil Team



ENGIE Receives Época 360 ° Award, one of the Most Important in the Brazilian Media

ENGIE was the great winner of the Época 360 ° Award, one of the most important in the Brazilian media, and also won in the category of best company in the energy sector.

ENGIE Brasil CEO Mauricio Bähr highlighted the company's vision of the future as he received the trophy and thanked customers and employees. Bähr also stressed ENGIE's leadership in the future of the energy sector, the Group's commitment to the journey towards a low carbon economy.

"The award is the result of a transformation that the company has made in the last three years. We have been in Brazil for 22 years, but it was from 2016 that we changed our strategy towards low carbon energy," said the CEO. "We believe we can become world leaders in the energy transition. Our focus is on decarbonizing our clients' activities. We work with them on topics such as energy efficiency, distributed generation and urban mobility," he added.

In addition to financial performance, the award evaluated corporate governance, people, innovation, forward thinking and sustainability to select the winners of each industry and company of the year.

Read more at: [France-Brazil Chamber of Commerce](#)



The award evaluates corporate governance, people, innovation, forward thinking and sustainability in addition to financial performance

Norwegian Deputy Minister Visited Brazil

The Deputy Minister, Liv Lønnum, visited Brazil during the international oil and gas event Offshore Technology Conference and the several events during Norway Brazil Weeks. On October 28th, she attended a reception at the residence of Consul General Marianne Fosland in Rio de Janeiro, organized in partnership with Norwegian Brazilian Chamber of Commerce (NBCC).

On October 30th, the Norwegian Minister was invited to give the opening remarks at Brazilian Norwegian Oil and Gas Symposium, an event organized by Innovation Norway, NORWEP and the Norwegian Consulate General in Rio de Janeiro, with the support of NBCC. During the symposium, Brazilian and Norwegian companies and government authorities shared the floor to discuss and explore oil and gas offshore challenges.

A recent report from Rystad Energy shows that the international turnover for the Norwegian supply and service industry grew by 3 percent in 2018, totaling NOK 102 billion (≈ EUR 10.1 billion; ≈ BRL 46.6 billion). NOK 12 billion (≈ EUR 1.2 billion; ≈ BRL 5.5 billion) of this are exports to Brazil, a reduction compared to 2017, but still 12 percent of the total international turnover.

"Brazil is one of the most important market for the Norwegian supply and service industry. Brazil is also important for companies like Statkraft, Equinor and Scatec Solar who all have activity here", said Mrs. Lønnum.

Read more at: [Norwegian Brazilian Chamber of Commerce](#)

French Minister Meets Northeast Brazil States Governors



French minister for Europe and Foreign Affairs, Jean-Yves Le Drian, met on November 19th in Paris with the Brazilian governors of the nine states of the consortium for sustainable development in the northeast of the country.

This meeting falls within the framework of the road map signed by Jean-Yves Le Drian and the nine governors on July 29th in Brasilia aimed at implementing projects linking sustainable development and the provision of quality public services.

In keeping with his visit to Brazil, the minister reaffirmed France's determination to cooperate with all regions of Brazil.

The minister for Europe and foreign affairs and the governors expressed their determination to continue to implement this road map, in particular the efforts of the French Development Agency in this region of Brazil, the strengthening of decentralized cooperation and academic and scientific cooperation.

The sustainable development of the northeast, environmental protection and the fight against climate disruption were discussed.

Read more at: [Merco Press](#)

Nokia and SENAI-SP Partner for Industry 4.0 in Brazil

Nokia and SENAI-SP (Brazil's National Service for Industrial Training) are teaming up to implement the vendor's portfolio of technology and connectivity solutions at SENAI-SP's lab in São Caetano do Sul.

Based in the metropolitan area of São Paulo, the lab is a facility for mechatronics training that features an Industry 4.0 factory. It will help professionals understand the technologies needed to leverage Industry 4.0 developments, as well as aid pilot testing and demo new solutions before they enter the market.

Brazil is demonstrating ambitious investment in next-generation industrial technology to enable the next wave of economic growth. According to research conducted by the Federation of Industries of São Paulo State (FIESP) in partnership with SENAI-SP, 90 percent of companies familiar with Industry 4.0 agree it will boost productivity. Meanwhile, 79 percent acknowledge it will impact business models, but only 30 percent started the process to adopt Industry 4.0 technologies.

Nokia believes that Industry 4.0 will produce the opportunity to enhance the work delivered by organisations today, using technology to automate processes and empowering employees to develop new skills. World Bank data shows that the Brazilian industrial sector accounted for 21 percent of the country's total employment in 2017, including manufacturing, mining, construction and public utilities.

The partnership will enable SENAI-SP to utilize the reach of its 166 units in the state to work with Nokia to research and develop new technologies, training and preparing professionals across Brazil for the age of Industry 4.0 in all segments where SENAI-SP operates. Nokia will leverage its end-to-end portfolio of technology and connectivity solutions to support enterprises across Brazil, as the lab will serve the whole country.

Read more at: [Developing Telecoms](#)



The Scandinavian way of Business

For the second time, the event Scandinavian Day showcased best practices from the Scandinavian countries to business executives, civil society organizations, authorities and other stakeholders from both private and public sector.

Scandinavian Day was created as an arena for dialogue and for the sharing of experiences and best practices from the Scandinavian countries. The event is organized by Imagem Corporativa, with the support of Norwegian Brazilian Chamber of Commerce, the embassies of the Scandinavian countries as well as other chambers of commerce.

This year's event took place in São Paulo on November 6th, 2019, and was divided in panels that addressed different topics through a dialogue between the panellists. Among them, gender equality and innovation and sustainability sparked inspiring dialogues. The panel was composed by representatives of Nokia, Equinor, Pilar Neves, Yara, Marel, Demos Helsinki think tank, Vestas Wind Systems and others key players from private and public industries.

Other panels addressed Information, Culture and Democracy and Transparency and Compliance. Paula Pereira, Senior Compliance Officer at Statkraft (in the photo below), emphasized the importance of having systems and procedures in place. Transparency and open doors were some key concepts brought to the debate by Olle Widén, CEO of FinanZero. Other inspiring ideas and practices that could serve as an inspiration were also addressed by the panel.

Read more at: [Norwegian Brazilian Chamber of Commerce](#)

Switzerland Recognizes Anvisa Inspection Excellence

On October 29th, the director of Anvisa Antonio Barra and the CEO of Swissmedic, Dr. Raimund Bruhin, signed in Rome, the pilot project on inspection of good manufacturing practices of medicines and pharmaceutical supplies between Anvisa and the Swiss regulatory authority.

Adopted this week, in parallel to the meeting of the International Coalition of Medicines Regulatory Authorities (ICMRA), the pilot project establishes a workflow between the two institutions to give concrete meaning to the recognition that the systems inspection by both countries are equivalent. The project will apply to all medicines (synthetic, biological and herbal), including active pharmaceutical ingredients.

Anvisa director Fernando Mendes points out that “the signing of this project is the result of efforts to harmonize and contribute to discussions at the international level,

and decisively drives drug manufacturers located in Brazil to access different markets”.

The manufacturing profile of medicines in Brazil and Switzerland is complementary. While Brazil has a solid industrial park for the manufacture of generic medicines, Switzerland stands out for its investments in research and development focused on innovation, without diminishing the sanitary rigor applied to medicines marketed in both countries. Thus, cooperation between the two regulatory authorities will bring tangible benefits to the population and productive sectors of both countries.

Regarding exports, there is much room for growth in participation, especially for generic drugs manufactured in the national territory.

Read more at: [Swiss Brazilian Chamber of Commerce](#)

BASF Ventures Invests \$4M in Brazilian Agtech Fund, AgVentures II

BASF Ventures has made its first investment in Brazil, and is one of the primary investors in Brazilian agtech-focused fund AgVentures II, committing USD 4 million (≈ EUR 3.6 million; ≈ BRL 16.7 million) to the fund's first close.

BASF joins other strategic investors in the fund that include multinational companies, financial investors, international development finance institutions, and domestic family offices.

Managed by São Paulo-based SP Ventures, AgVentures II is currently the only fund in Brazil focusing its capital exclusively on ag technology. Its goal is to make 20 to 25 investments in new companies founded and headquartered in Latin America that are working to answer some of the key challenges faced by the region's agricultural producers.

These areas would include agricultural production factors, business management, precision farming, software solutions, and livestock management; food technologies for innovative food, new ingredients and plant-based proteins, and supply chain technologies such as food safety and traceability, logistics, and processing technologies. The fund also states that it will focus on fintech and the emergence of an agriculture-focused, tech-enabled financial services industry.

"BASF is a unique anchor investor that will make SP

Ventures an even better financial investor," said Francisco Jardim, managing director, SP Ventures. "As a partner in our network and with its high profile in our region, BASF will convey institutional credibility with the entire agribusiness economy in Brazil."

The investment is also a signal by BASF of its intent to deepen its investment presence in the Latin American market, as explained by Markus Solibieda, managing director of BASF Venture Capital, who said, "We look forward to supporting promising startups and our business colleagues with this investment. As a partner of AgVentures II, we are preparing the ground for our own future direct investment activities in Brazil and Latin America."

It is not surprising that BASF would set its sights on Brazil, and more specifically, agtech innovation in Brazil. Agriculture is a pillar industry for the country, accounting for approximately half of the country's exports. However, climate change, increasing threat from pests and crop diseases, as well as varying soil conditions across the nation's growing regions have presented its agricultural producers with challenges that must be managed through innovation. This need has resulted in a rapid increase in the number of companies being launched that are using technology to develop solutions.

Read more at: [Global Ag Investing](#) & [BASF](#)

As a partner of AgVentures II, BASF will not only provide capital, but will also be a collaborator; sharing its expertise and market insights with the startups in SP Venture's network.

Brazil's Senate Approves Much-Vaunted Pension Reform

On October 22nd, Brazil's senate approved the much-anticipated pension reform. Decades in the works, the reform was hailed as "historic" by politicians across the spectrum. It is aimed at restoring domestic and international confidence in Latin America's largest economy by tackling the nation's woeful fiscal position.

By raising the retirement age for men to 65 and women to 62, the new legislation is forecast to save the state some BRL 800 billion (≈ EUR 172 billion) over the next 10 years.

Originally, Paulo Guedes, the finance minister who spearheaded the reform, wanted the bill, which amends Brazil's constitution, to save more than BRL 1 trillion (≈ EUR 215 billion). The revised plan passed with a vote of 60 in favour — a comfortable margin above the 49 votes required — and with 19 against.

"This fiscal impact is extremely relevant. It will give us breathing space to rebalance our budget," said Rogério Marinho, the government's social security secretary. "The main thing is that it creates predictability and legal certainty to demonstrate to the market that the country will honour future commitments. And it paves the way for tax reform." Brazil's existing pension system caused huge increases to the country's budget deficit, accounting for around 40 percent of all federal spending in the country.

The efforts, however, have yet to bear fruit, with unemployment still high at almost 12 percent and economic growth stagnant. The country narrowly avoided a technical recession in the second quarter after posting 0.4 per cent growth. The next big prize is a contentious plan to simplify the nation's tax system, with reforms of value added tax and income tax and a reduction in payroll taxes.

"The conditions are being put in place for growth to accelerate," said David Beker, chief Brazil economist at Bank of America Merrill Lynch, but tax reform "is going to be really complicated...We still don't know what exactly that proposal will look like".

Read more at: [Financial Times](#)

Brazil's Congress Takes up new Economic Reform Package

Despite protests against free-market policies in other parts of South America, Brazil is pushing ahead with an ambitious overhaul of the bloated government machine and betting on the private sector to boost economic growth.

On November 5th, Paulo Guedes, the finance minister of Latin America's largest economy, presented a string of constitutional amendments to Congress that, if approved, would allow the government to free up more of the budget for discretionary spending, automatically trigger austerity to comply with spending caps and scrap job stability for new civil servants in a bid to restore Brazil's fiscal health. Mr. Guedes said that BRL 93 (≈ EUR 20) of every BRL 100 (≈ EUR 21.50) in the federal budget is earmarked for mandatory spending, making long-term investment almost impossible.

With a landmark overhaul of the pension system approved late last month, Jair Bolsonaro, the country's conservative president, is keen to take advantage of the momentum. He accompanied Mr Guedes on a visit to Congress to present the package in person. "I feel things are starting to go in the right direction," said Paulo Skaf, who heads the powerful industry lobby group Fiesp in São Paulo.

Rodrigo Maia, the powerful speaker of the lower house of Congress, recently told the Financial Times that there was enough support in Congress for the reform package to secure approval as early as March. "Maia is really engaged with the economic reforms, more than with any other kind of reform," said Thiago de Aragão, a political consultant with Brasília-based Arko Advice.

If the reform is pushed too far into next year, analysts warn, it risks being bogged down by electoral politics ahead of municipal polls in October. Campaigning for those, and the corresponding horse-trading, starts in May. Unlike the reform of the pension system, which has been in the works for more than two decades, the latest reforms are newly designed by Mr. Guedes, a strong advocate of free-market solutions.

Tuesday's package includes a "federative pact" that will create a fiscal council — including the president, the head of the supreme court, the speakers of both houses of Congress, the chief of the audit court and state governors — to oversee federal, state and municipal budgets and ensure that spending limits are not breached. If certain trigger levels of spending are reached, officials would be empowered to declare a "fiscal emergency" and enact automatic austerity measures such as cutting the salaries and working hours of public servants to bring expenses back into line.

Read more at: [Financial Times](#)

Brazilian Government Announces Creation of an AI Lab Network

The Brazilian government has announced it will create a network of eight research facilities focused on artificial intelligence (AI).

According to the minister of science, technology, innovation and communications, Marcos Pontes, creation of these centres has been one of the priorities for the ministry that would facilitate and improve the Brazil's capabilities around AI.

Specific timescales and details around locations, investment and potential partners are currently being defined and should be announced in a soon-to-be-released tender.

According to the minister, one of the labs will focus on edge AI technology in areas such as cybersecurity and will involve the Brazilian Army.

The other seven centres will work on applied AI. Four of these venues will be working on the technology in line with the national Internet of Things (IoT) plan.

The four core verticals of Brazil's IoT plan are Smart Cities, Healthcare, Agribusiness and Manufacturing. The plan was preceded by a study, funded by Brazil's National Development Bank (BNDES) and carried out by a consortium led by consulting firm McKinsey.

Another AI centre within the network announced by minister Pontes will be focusing on the application of artificial intelligence technologies in government.

The Brazilian government has already put the wheels in motion to get the building blocks ready to fully exploit AI in the public sector. For example, it has announced the creation of a single citizen database in October, which will contain a wide range of personal information about the country's population of over 200 million people, to be fully shared across departments.

"What has made a difference throughout history is the ability to work in teams; the ability to reason, plan and think about the future; and our ability to create tools to solve problems and improve quality of life," Pontes said during his speech.

"We have created magnificent things, we have gone through many transformations - machines, engines, electricity, electronics, computers, airplanes - and we have reached a point now that is very special, which is digital transformation," he added. "We now have [technology] that aids the creation of other tools that help us plan and work in teams."

Read more at: [ZDNET](#)

The Brazilian government has already put the wheels in motion to get the building blocks ready to fully exploit AI in the public sector.



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How Brazil is Leading Latin America's Fintech Revolution



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Latin America (LATAM) is experiencing a fintech boom — and Brazil, the region's economic powerhouse that's home to the world's fifth-largest population, is leading this revolution.

There were 380 fintechs operating in the country in May 2019, per Finnovista, and around two-thirds (64 percent) of Brazilian consumers are defined as fintech adopters by EY — a rate that's level with the global average and higher than the majority of G7 countries'. Several factors have created a fertile environment for innovation across the financial services industry, driving this revolution:

- A large underserved population: Around 45 million people in the country don't have access to or have not used a bank account in the past six months.
- Demographics: The median age in Brazil is 32, providing the country's fintechs with a large, youthful, and tech-savvy consumer base that's likely to be more receptive to digital financial solutions.
- Smartphone and internet penetration: Three-quarters of Brazilians used smartphones in 2017, which is expected to tick up to 86 percent by 2025 — and both figures are the highest across the region.
- High fees charged by incumbents: Brazil's four largest banks control almost 80 percent of the country's deposits, with similar concentrations in credit and assets.
- Supportive regulation: Brazil's fintech-friendly regulatory agenda aims to stimulate competition in financial services.

Read more at: [Business Insider](#)

There were 380 fintechs operating in the country in May 2019, per Finnovista, and around two-thirds (64 percent) of Brazilian consumers are defined as fintech adopters

~ Ernst & Young

Why are There so Many Startups in Curitiba?

Although Florianópolis has been in evidence for years as a reference for innovation in the southern region of the country, Curitiba, the capital of the state Paraná, has stolen the protagonism in recent weeks. Owner of the first unicorn in the region, the capital of Paraná has gained strength and is moving to become the reference and consolidate itself as one of the main ecosystems of the country.

Currently, the city has 368 startups, according to a survey by the Brazilian Startup Association (ABStartups), and is consolidated as 5th in the ranking of most innovative capitals.

"Curitiba is a city that seems to have everything in its favor. Has a good Gross Domestic Product (GDP), a good quality of life. This somehow favors the strengthening of an innovation ecosystem," says Arthur Garutti, COO and partner of ACE, an innovation company. "I believe the city will gain more strength from now on."

Vitor Torres, CEO and founder of startup Contabilizei, believes that the capital of Curitiba combines a good quality of life with a much lower cost of living than in other nearby capitals, such as São Paulo and Rio. He mentions that things in the region are about 30 percent cheaper than the popular destination such as São Paulo.

CEO of MadeiraMadeira, Daniel Scandian, points out that the capital of Paraná, offers a good quality workforce, especially in the areas of business intelligence, technology and engineering.

Who is pushing the city to the top of innovation rankings is startup Ebanx. Fintech, which processes payments to foreign giants such as Spotify and Uber, has become the region's first unicorn - that is, startups worth more than BRL 1 billion (≈ EUR 216.8 million) - and the ninth nationwide. From day to night, he drew attention to Curitiba.

"We are off the Rio-São Paulo axis. We are a unicorn from Curitiba. This helps our mission to contribute to the local ecosystem movement," says Wagner Ruiz, co-founder of Ebanx. "A huge ecosystem is being formed, with local impact in the city of Curitiba, through support for culture, sports, entrepreneurship, etc."

Although Ebanx is the only unicorn, other startups have received investments in recent months. In the second half of 2019 alone, the Japanese SoftBank fund led two major contributions: one of BRL 190 million (≈ EUR 41.2 million) in Olist, a startup that connects small retailers to marketplaces; and another of BRL 450 million (≈ EUR 97.6 million) in the MadeiraMadeira virtual furniture store.

Finally, there is encouragement from the city, which in 2017 launched the so-called Pinhão Valley - in reference to the American Silicon Valley. The idea is to foster the region through five pillars: legal system and tax incentives for innovative projects; support for education and entrepreneurship; technology, connection and integration and urban development.

Pinhão Valley, Curitiba's innovation ecosystem, has been generating business, jobs and revenue for the city. The initiative, which completed two years in 2019, is beginning to yield a number of results.

Curitiba is currently a leader in the generation of Information Technology (IT) jobs in Paraná. Service Tax (ISS) revenue grew by 20 percent in the first quarter compared to the same period last year.

A Cris Alessi, president of the Curitiba Agency, recalls, one of the changes that came with Pinhão Valley was the creation of the new Curitiba Tecnoparque. The Tecnoparque program offers a 5 percent to 2 percent discount on ISS to companies that invest in technology and innovation. Suspended for new memberships since 2013, it was relaunched in August last year by the City Hall and, before being paralyzed, already benefited 83 companies, which continue to fit.

In addition to the investments that come up in droves, the region's startups see an extremely favourable scenario for the Curitiba ecosystem. Vitor Torres, CEO and founder of startup Contabilizei, believes that the capital of Curitiba combines a good quality of life with a much lower cost of living than in other nearby capitals, such as São Paulo and Rio.

Read more at (Portuguese): [Yahoo Finance](#) & [Curitiba City Hall News](#)

Curitiba, one of the World's Smartest Cities of 2019

Curitiba is one of the six smartest cities in the world with the Pinhão Valley, the City Hall movement and the innovation ecosystem to bring sustainable development throughout the city. The capital was a finalist in the 2019 World Smart City Awards, the world's largest smart city award.

The awards ceremony took place on November 20th in Barcelona (Spain), during the Smart City Expo World Congress.

The World Smart City Awards recognize pioneering projects, ideas and strategies that promote urban development.

Curitiba competed with five other cities for the main prize, the City Award. The winner was the city of Stockholm (Sweden), with its project of inclusion, connectivity and sustainability. Also finalists were the cities of Bristol (United Kingdom), Montevideo (Uruguay), Seoul (South Korea) and Tehran (Iran).

Being among the six finalists at the World Smart City Awards represents a great victory for Curitiba, as Vale do Pinhão has been selected from nearly 400 projects created by governments, companies, research centres and startups from 54 countries.

Among the actions already taken by Vale do Pinhão are

the opening of the Lighthouses of Knowledge and Innovation, in which students can build prototypes with 3D printers; the launch of applications such as Curitiba App and Saúde Já, which bring the City Hall closer to citizens; the capital's first Fab Lab, a training space for industry 4.0; and the inauguration of public co-workings (Worktibas) at Barigui Park and Cine Passeio (Centro).

Urban revitalization projects, such as the opening of the Innovation Engine by the City Hall, and the Rebouças Innovation and Acceleration Campus (Cria), a private initiative; and public-private partners of the Rosto da Cidade program, which are allowing the renovation of the Historic Centre, are other actions by Vale do Pinhão that helped Curitiba to win the title of one of the smartest cities in the world.

In 2018, the state capital was also a finalist in the World Smart City Awards, but in the Urban Environment category with the Chef's Garden program, which encourages urban farmers to sell part of the food they grow to restaurants in the city.

Read more at: [Curitiba City Hall News](#)

"The creative innovation ecosystem of Curitiba has reached the podium of the six smartest cities in the world. The Pinhão Valley is aligned with our vision of smart city, able to respond to the needs of the inhabitants,"

~ Rafael Greca, Mayor of Curitiba



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Mergers and Acquisitions in Brazil Peak in 2019

Brazil's merger and acquisition market increased between January and September 2019 with 614 transactions a record. The number is around 31 percent above the value achieved in the same period of 2018 and represents the highest transaction volume in the last five years, like one from the newspaper Valor published poll by PwC Brasil revealed.

According to Leonardo Dell'Oso, partner of PwC Brazil, the medium and long term oriented investor realized that there is a positive development of the Brazilian Economy - accompanied by better macroeconomic indicators and recent reforms, such as pension reform.

Moreover, the privatization agenda has started well and the downturn in mature economies such as Japan and Germany are also attracting interest foreign investors. "The whole scenario encourages an uptick in Brazil, and investors recognize that," explained the manager.

The PwC expert expects a total of 900 mergers and acquisitions by 2019 takeovers are carried out, and the number of transactions coming in year rises to 1000. Transactions encompassing acquisitions and acquisitions of minority interests exclusively by

foreign investors increased again from January to September 2019 and reached 189 Business deals, the highest level in four years and corresponding to an increase of 20.4 percent compared to 2018.

The 393 transactions with national investors carried out until September 2019 mean an increase of 36 percent over the previous year. Joint ventures,

Mergers and divisions are not included. "We believe that this year, many foreign investment will come into the country," commented Dell'Oso.

Among the countries that have invested the most in Brazil, the US come first with 34 percent of total transactions. It is followed by Japan with 7 percent and Germany with 6 percent of the total transactions. "Privatizations will accelerate significantly in early 2020, large state-owned companies should be given over to private initiative," said Dell'Oso. Examples of transactions conducted in September are the sale of two oil fields of Petrobras to Central Resources and the granting of a 35-years concession of the Pacaembu Stadium in the state capital São Paulo to the consortium Patrimônio SP, which is owned by the Brazilian company Progen and investment fund (FIP) Savona.

Read more at: [AHK São Paulo](#)

Brazil Offers Good Conditions for Investment in Biogas

The biogas produced from organic materials, which is used either for energy production or in the form of biomethane as vehicle fuel, still accounts for less than 2 percent of gas production in Brazil.

The abolition of the natural gas monopoly Petrobras, which is currently being discussed in a committee with members of the ministries and authorities, is one of the guiding principles for the new gas market. The program offers incentives for investments in the gas distribution infrastructure, which, according to Gardemann, Alessandro Gardemann, President of the Brazilian Biogas Association (ABiogás), could be fully used by the biomethane industry.

In Brazil, one sees potential for biogas in the enormous quantities of field waste, in particular in the sugar cane and pig farming segments. If the new regulatory framework sufficiently stimulates the interest in existing biogas potential, it could raise investments of BRL 5 billion (\approx EUR 1.07 billion) in the next decade. According to estimates by ABiogás, the offer could expand by 10 billion cubic meters of biogas each year. These investments could reach a total of BRL 50 billion (\approx EUR 10.7 billion) until 2030 and are considered by the industry as the "target" for the sector. Hereby, not only the theoretical potential of biogas production is considered but also the real prospects for investing in technologies are taken into account. Investments are rising steadily but are still far from the target.

According to Abiogás, there are seven major projects underway, plus a multitude of smaller projects that

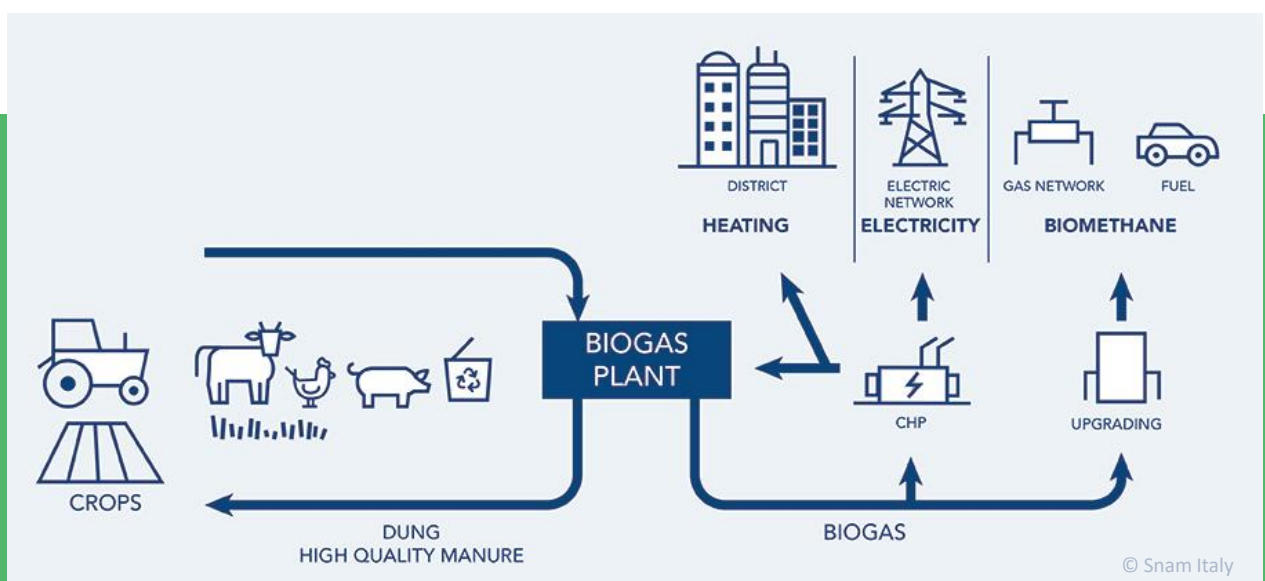
should increase the biogas capacity by 180 million cubic meters per year. The total investment of all projects amounts to BRL 700 million (\approx EUR 150 million). As of today, more than 300 biogas plants produce about 730 million cubic meters of biogas annually, which is a significantly small amount compared to 40 billion cubic meters of natural gas derived from fossil sources each year.

The second impetus for increased investments is RenovaBio. The emissions trading scheme on fuels will enter into force in 2020. Several ethanol refineries have already applied for the sale of the emission certificates Cbios. According to the program guidelines, standard biomethane causes 96 percent less emissions than fossil fuels such as diesel, gasoline and natural gas.

For Gardemann, however, the logic of the program that enables the comparison of energy efficiency of individual firms is of higher importance than the potential revenue from the Cbios. To this regard, he said that the substitution of diesel through biomethane may be more profitable due to the higher energy and environmental efficiency, especially for the sugarcane industry. Biomethane could be then, for example, used in fuel-adapted trucks which will be introduced onto the Brazilian market later this year.

The theoretical potential of biogas production considering all of today's usable and "lost" organic substances is far above the target value of ABiogás.

Read more at: [AHK São Paulo](#)



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 SoftBank

Why SoftBank Is Investing in Brazil

The growing middle class and fast adoption of new technologies has made Latin America—and in particular countries like Brazil and Mexico—a prime target for SoftBank. The firm has already made bets on 10 different startups in the region, according to André Maciel, managing partner of the SoftBank Innovation Fund. The exec spoke at this week's Fortune Global Forum in Paris, where he talked about the various reasons why this region is so attractive to SoftBank. (In total, SoftBank is committing USD 5 billion (≈ EUR 4.5 billion; ≈ BRL 20.9 billion) in investments in Latin America.)

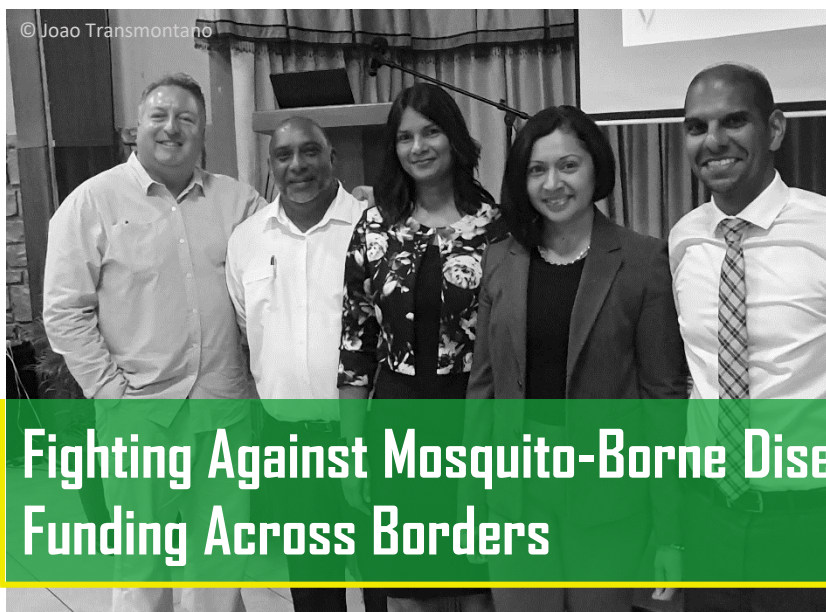
"We have 650 million people," Maciel said on Tuesday during an on-stage interview at the Fortune conference, "and they're a very, very strong adopter of technology."

According to Maciel, Brazil is the No. 2 country for Netflix when it comes to subscriber numbers— that's still a distant second to North America, the streaming service's biggest market. Facebook and ride-sharing app Uber also have huge penetration in Brazil, said Maciel.

To date, SoftBank's investments in Brazil include startups in the food delivery and real estate space. Those aren't exactly new categories, but Maciel told the audience at this week's conference that that hardly matters.

"[Latin American] companies can look at ideas that have been developed in China and the U.S., and they can mirror them," said Maciel. In other words, the local market is so large and so robust that just investing in more localized versions of existing services presents a big opportunity for SoftBank.

Read more at: [Fortune](#)



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Success Story

Fighting Against Mosquito-Borne Diseases: Funding Across Borders

by Johanna Haunschild, Fraunhofer IPK

Berlin. Based on an interview with Dr. Joao Transmontano for ENRICH in Brazil.

For the November Success Story column, our ENRICH Monthly team interviewed a special guest, Dr. Joao Transmontano, who is fighting against zika – a flavivirus that recently gained a widespread public attention due to the large outbreaks in Brazil, Americas, Africa, and other regions of the world including Europe. Joao Transmontano is the CEO and the founder of Biolotus, a pharmaceuticals company with a public health division that focuses on control of mosquito-borne diseases.

Short Biography

Born in Portugal's coastal city of Lisbon, Dr. Transmontano acquired a degree in Pharmacy at the University of Lisbon and at the ETH Zurich he received his PhD in Pharmaceutical Technology. Shortly after, he embarked on a job in Basel that fused technical knowledge and managerial skills. It was the beginning of his international career that led him through Europe, USA and Latin America. Working in various projects and for different organizations, (e.g. DLR in Cologne, Vifor Pharma – USA project or Mepha in Basel) across continents gave him the opportunity to develop leadership and interpersonal skills. One of the projects that Transmontano was involved in inspired him to establish his own firm – the Biolotus Biotech. Biolotus Biotech is a pharmaceutical company specializing in research, development, registration, manufacture,

promotion, distribution and worldwide commercialization of pharmaceutical products of biotechnology origin, medical devices and cosmetic products.

Biolotus and MOUSTICIDE™

In 2016, during the zika outbreak, Brazil was running out of time to find an effective solution to curb the virus as the Rio 2016 Summer Olympics was nearing. On another continent of the world, Angola was threatened by Yellow Fever. The common problem that these two distinct countries had were the mosquitoes. Mosquitos are the reservoir of yellow fever, zika, dengue, chikungunya and malaria, among others. The rate of mosquito reproduction is extremely high. In 60 days, one female mosquito can reproduce 92 million other female mosquitoes. The problem was addressed from various perspectives and many measures have been tried for mosquito control over the years and decades. The most common household methods are repellents and windows screens. At the public level or in the industry, chemical pesticides are applied on a large scale.

In the long-lasting battle against mosquitos, a Malaysian biotechnology firm EntoGenex brought a booster shot by developing a product called MOUSTICIDE™ that starves mosquito larvae to death before they reach the adult stage. Depending on the local climate and environment, there is a specific window of opportunity to effectively curb the number of mosquitos and cut the major transmission path of the dangerous viral infections.

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All mosquito types have four stages in their life cycle: egg, larva, pupa and adult. The larvae emerge from the eggs laid in moist areas near water (e.g. natural water bodies or in the inner, wet walls of containers storing water like bowls, cups, fountains, tires, barrels and vases). This process is only triggered when the water level rises above the eggs (after rain or when the container is filled with more water afterwards). The hatched larvae feed on microorganisms in the water and become pupae within 3 – 10 days depending on the local environment. This exact lifecycle stage gives the opportunity to effectively and efficiently fight against the deadly insects.

Inspired by the outstanding results that MOUSTICIDE™ demonstrated, Joao Transmontano established a partnership to bring the innovative product to countries, where mosquito-borne diseases pose a threat to the national health. He committed himself to provide an effective, holistic approach to eradicate the problem at the source.

MOUSTICIDE™ targets all mosquito species. Most importantly, it is biodegradable and non-toxic to all other organisms. The long lasting effect makes it also cost-effective. It stops the infection cycle at source. This

super biolarvicide is a synergistic combination of TMOF™ (Trypsin Modulating Oostatic Factor – a mosquito protein that stops the release of the digestive enzyme trypsin in mosquito larvae) and Bti (Bacillus thuringiensis israelensis - naturally occurring soil bacteria with larvicide properties that release endotoxins which cause rupture in larvae's gut cells). The current larvicide products differ with respect to their characteristics which are: effectiveness, potency, long-lasting effect, target specific, non-toxic to non-targets, biodegradable, resistance-free. The MOUSTICIDE™ has all these properties, although chemical larvicides are effective, they can be the worst since the insects develop resistance to the used chemical ingredients. Some products like mosquito films or Bti are environmentally friendly, however, they exhibit significantly low potency level. The MOUSTICIDE™ kills 100 percent of mosquito larvae within 1 – 6 hours with a single application lasting up to four weeks. It works effectively by simultaneously binding the TMOF™ to larvae gut, inhibiting release of trypsin, while the Bti Cry-toxin punches holes in the midgut cells. This double action of no-digestion and holes in the gut causes immediate death of larvae. When used according the instructions, it effectively eliminates several mosquito species such as Aedes spp, Anopheles spp and Culex spp.

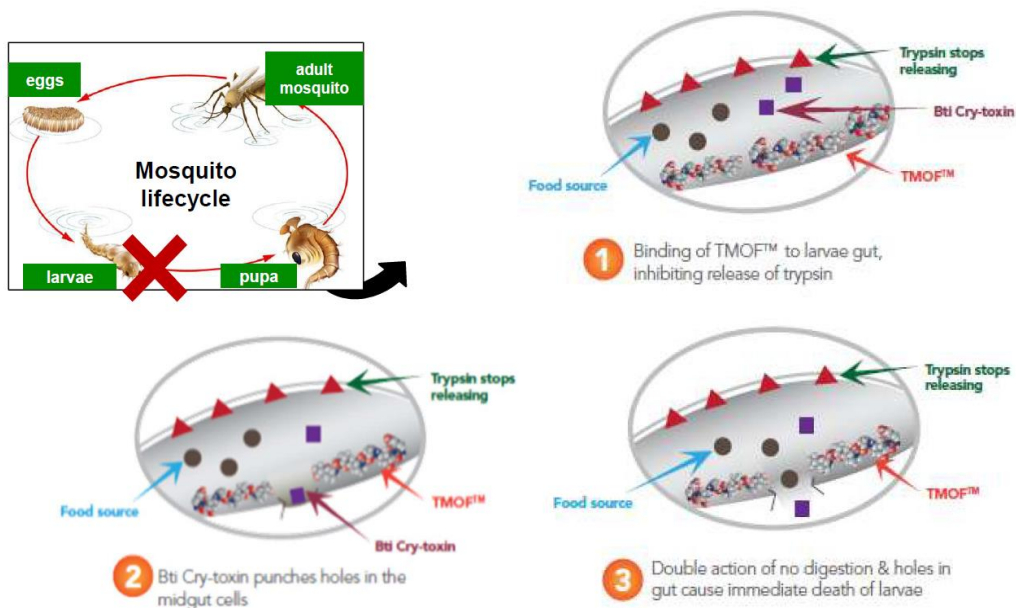


Figure 1: Process of how the MOUSTICIDE™ works

International project funded by H2020

The mosquito market is quite substantial. In Brazil, the fear of the mosquito-borne zika virus coupled with increased cases of Dengue has boosted the mosquito market up to EUR 7.2 billion (≈ BRL 33.2 billion). The mosquito repellent market received an additional spur in 2016 when the Brazilian government released a warning of a potential link between zika virus and microcephaly, a condition in which the brain does not develop properly resulting in abnormally small head size in new-borns that can lead to developmental problems.

As Biolotus in partnership with Entogenex and other European organizations (i.e. IPP Portalegre, INIAV Portugal, CEB Braga) was seeking to penetrate the Brazilian market, it faced financial problems, due to the weak supporting mechanics of startups in Brazil. Hence, they tried their luck in Europe and looked into Horizon 2020. Luckily they identified a potential funding line and received funding from Portugal 2020 with zero interest rates for a duration of eight years.

Dr. Transmontano committed himself to provide an effective, holistic approach to eradicate the problem at the source.

The aim of Entogenex Europe is to create a high-tech industrial unit to develop and produce non-toxic, biodegradable insecticides and pesticides for each type of insect (pest), with a global market view. The prime focus is on sub-tropics but also other regions e.g. Sweden, Austria, Switzerland where application of chemical and toxic substances will contaminate potable water sources. The technology used is based on the identification and sequencing of biosynthesis modulating peptides of enzymes essential for the digestion of different organisms. It is then followed by their coding in the yeast genome which leads to their regulated intracellular expression with the optimization of the fermentation process. The generated biomass is inactivated by generating a formulated product that can be fumigated or applied to control mosquitoes of the

Aedes spp species (arboviro-sis-dengue, zika, chikungunya, yellow fever, etc, in total 27 known diseases), *Anopheles* spp (malaria transmitter) and *Culex* spp species (encephalitis transmitters, West Nile fever).

The technology makes it possible as well to develop an application for specific pest species affecting Mediterranean agriculture such as olive tree plantations. Six years ago, when the world's most dangerous pathogen *Xylella* was found on olive trees in Italy (the first time the bacterium has been reported in the European Union), the olive industry of Southern European countries have been under great threat. *Xylella fastidiosa* is a vector-transmitted bacterial plant pathogen associated with serious diseases in a wide range of plants. It causes Pierce's disease in grapevine, which is a major problem for wine producers in the United States and South America. The vessels that the plant uses to transport nutrients and water are the main target of the bacterium. When this sap insect feeds on the plants' xylem fluid, the plant displays symptoms such as scorching and wilting of its foliage, eventually followed by the death of the plant. With regards to this massive problem, EntoGenex Europe was given the opportunity to develop an environmentally friendly effective pesticide to tackle the issue. Furthermore, with creation of jobs in the region of Portalegre- Alentejo, EntoGenex Europe had the possibility to repay 60 percent of the total funds through jobs created. This was a win-win situation for both parties.

Despite the funding secured from Portugal 2020 in 2018, the project still required further substantial financial resources. Alone the process of bringing the pesticides to registration took several years costing around EUR 6.3 million (≈ BRL 29.1 million) of private investment. On July this year, EntoGenex Europe and the city of Portalegre confirmed an investment of over EUR 2 million (≈ BRL 9.2 million), including the EUR 1.5 million (≈ BRL 7 million) H2020 grant complemented by the investment from a group of businessmen. With this announcement, EntoGenex Europe welcomes further partners into the project including the Malaysian Prince, Tunku Naquiyuddin and his team. This financial fuel will be directed in the establishment of a research and development centre in Portugal. The first and prime targets of the centre are the olive flies (*Bactrosera oleae*), olive tree moths (*Prays oleae*) and Mediterranean fruit flies (*Ceratitis capitata*). The project has officially started in 2019 and will be carried out until the end of 2021.

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Entogenex Europe in Brazil and other countries

For the integration of the products into the world market, EntoGenex Europe is also collaborating with the Brazilian government. The target pests in this region are maize worms, sugar cane worms, pests that plague cotton, soy beans, coffee and mango plants. For the pesticide development, which totals roughly EUR 800.000, the Brazilian government invests between 30-50 percent of the total value through the Brazilian Agricultural Research Corporation EMBRAPA and the rest will be funded by Entogenex Europe either through research grants or by raising additional funding in Brazil and/or in Europe. The R&D project is also very lucrative seen from the market perspective. The agricultural pesticide market is forecasted to be approximately EUR 72.5 billion (\approx BRL 334.5 billion) and Brazil is currently the single largest market in the world, according to Mr. Transmontano.



Joao Transmontano mentions at this point, that there is also a possibility to collaborate with German agricultural sector. For instance, its champagne sector is the world's 4th largest export market with more than 12 million bottles crossing the national border per year. The average per capita domestic consumption is around 5 bottles p.a. which equates to around 3 million

hectolitres. In meantime, discussions are continuing with other states e.g. Mexico, Guatemala, Colombia, USA, Angola, Tanzania and Uganda.

"The agricultural pesticide market is forecasted to be approximately EUR 72.5 billion and Brazil is currently the single largest market in the world,"
~ Dr. Transmontano.

Challenges faced by startups in Brazil

As someone who is working in different countries with distinct cultures and political systems, Joao Transmontano shared his thoughts about the situation for entrepreneurs and researchers in Brazil. Although Brazil offers a huge market and a vast territory that encompasses diversity in all aspects yet with one common official language which simplifies much, after several changes in the political system, the local business environment has changed its tone not to the advantage of the creators and developers. Universities receive much of the research and development budget creating a misallocation of the public money, as they do not bring products to the market. The lack of necessary mechanisms and/or failure in policies was also evident, when Joao Transmontano approached BNDES – Brazilian Development Bank – for the idea of the EntoGenex Europe project. BNDES could not approve the project funding since the science behind the products was not innovated and developed in the Brazilian universities. Transmontano underlines the importance of national mechanisms that support and promote internationalisation of innovation and education, as innovation also needs foreign influence. Welcoming and fostering innovation imports has a vast spillover effect, not mentioning creation of new jobs and a positive impact on the economy in the long-term.



Personal challenges and opportunities

In comparison to Europe, in Brazil generic research and engineering is accepted in a much broader sense. Europe is much more regulated and stricter. In another word, for instance, Germany is well known for its bureaucracy but also for its great planning strategies.

On the other hand, despite the strict regulations and dozens of rules, Europe has advanced enormously with respect to state mechanisms of supporting and promoting entrepreneurship and

providing incentive for innovation. For instance, establishment of a new company takes its time in Brazil and requires patience. In contrast, in Portugal it takes less than an hour and in Spain three days. It is a huge difference. People in Brazil just give up. Closing down a company takes even longer – approximately up to 6 years.

We thank Dr. Joao Transmontano very much for sharing his valuable experience and being an “Ambassador” for increasing scientific and technological cooperation between Europe-Brazil.

Top Tips from Dr. Joao Transmontano for our readers who are interested to collaborate EU - Brazil:

- *Find the right partners!*
- *Talk to people! Formal contact and the way of communication is very important*
- *Learn the legal aspects of the target country beforehand! You need to know what regulations you need to meet. Fiscal and legal regulations of Brazil are quite complicated. So do your homework!*
- *Don't take everything by the word! Give it a little time. Brazilians are an enthusiastic nation.*
- *Know your customers and consumers at the market!*
- *If you are Portuguese and no language barrier is existing, be aware, that Brazil is totally different – don't tap into that trap!*