#### **SPECIAL REPORT**

### Magazine

# **Portugal** puts itself on the tech map

**POST-CRISIS RECOVERY TURNS INTO A HI-TECH** SUCCESS STORY

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## A tech-fuelled turnaround

PORTUGAL'S ECONOMIC RECOVERY IS IN FULL SWING AND FOREIGN INVESTORS ARE TAKING MORE INTEREST THAN EVER, ESPECIALLY IN THE TECH SECTOR, AS SEBASTIAN SHEHADI REPORTS he Portuguese have witnessed a start-up boom over the past seven years that has, and is, supporting the country's successful and impressive economic bounceback.

Portugal is now one of Europe's economic and political success stories. Just 10 years ago, however, the country was mired in a deep financial crisis. Unable to repay its govern-

ment debt in 2010, Portugal received a  $\notin$ 78bn bail-out package, which it successfully exited in mid-2014.

#### Back from the brink

The country's impressive economic recovery has since outshone fellow crisis victims Greece and Spain, largely due to Portugal's political stability, tourism industry and technology boom, as well as a fiscal policy that has boosted business confidence, made investment easier, and accelerated growth in exports and, increasingly, services. Subsequently, the job market has significantly improved, with unemployment falling to 6.7% in June 2018, the lowest since 2004 and a big improvement from 2013's all-time high of 17.5%, according to research company Trading Economics.

Meanwhile, Portugal's GDP hit 1.9% annual growth in 2016 and a 2.1% budget deficit, the lowest since 1974, according to BBVA Research. The following year witnessed the country's highest GDP growth rate since 2000, at 2.8%, while 2018 hit 2.1%.

Foreign investment figures reflect this positive trend, with 2018 seeing the highest num-

THERE'S AN INCREDIBLE AMOUNT OF COWORKING SPACE FOR START-UPS IN LISBON, THEY KEEP POPPING UP ber of greenfield projects into Portugal since 2003, the majority of which went into software and IT services, according to greenfield investment monitor **fDi** Markets.

#### **Tech boom**

Portuguese tech is particularly hot right now. The EU Startup Monitor 2018 says London, Berlin, Paris, Copenhagen and the Portuguese capital of Lisbon are the biggest hubs for start-ups in Europe. Walking around Porto or Lisbon's latest co-working spaces, and speaking to a dozen leading tech companies in slick new offices, one can feel the buzz.

The past decade has witnessed rapid growth in the number of Portuguese tech start-ups, such as Farfetch, Talkdesk, Uniplaces and Unbabel. Farfetch, now publicly listed and headquartered in London, was the first Portuguese tech unicorn (a company valued at more than \$1bn), now joined by Talkdesk and Outsystems.

In terms of scale-ups in ICT, Portugal grew twice as fast as the European average in 2017, according to a report from the Startup Europe Partnership initiative, which defines 'scale-ups' as start-ups that have raised more than \$1m. International investors have played a central role in this, accounting for 62% of capital made available to scale-ups, and 86% of later stage rounds.

#### Feel the space

Reflecting and fuelling Portugal's tech boom is the rapid growth in new office space. "There's an incredible amount of co-working space for start-ups in Lisbon, they keep popping up. We have a Factory co-working space, from the same people [behind] Factory Berlin", says Alexandre Vaz, managing director of Mercedes-Benz.io, a tech arm of Mercedes-Benz, based in Lisbon.

Another example is Hub Creative do Beato, a former factory that is being transformed into a 35,000-square-metre mega-start-up campus, thereby competing with Paris's renowned Station F incubator in terms of size.

In the longer term, Portugal's tech boom has been made possible by several decades of high-quality education and strategic government funding in traditional and modern engineering. In the shorter term, however, it seems that the economic crisis has been a catalyst. Mr Vaz says: "The start-up economy in Portugal started with the crisis. There weren't enough jobs, so people started to test out new ideas and companies. The push from the government worked quite well too, creating a system for seed



New homes: Lisbon's Factory is a co-working space for start-ups, one of many of a new wave of such sites

capital, and then private players jumped in."

When the economic crisis hit Portugal, many young, highly qualified people had two choices: emigrate or create their own jobs, according to João Barros CEO of Veniam, one of Portugal's most successful start-ups.

The arrival of Web Summit to Lisbon, replacing Dublin as host, was another game changer. As one of the hottest tech conferences in the world, it attracts more than 80,000 attendees from more than 170 countries. Impressed by Lisbon's digital infrastructure, ecosystem and more, Web Summit recently agreed to stay in Lisbon for another 10 years.

#### **Hello Google**

Numbers talk, and the fast-rising value of Portugal's burgeoning tech ecosystem is shown by the 15% increase in foreign tech companies active in the country, according to Aicep, the Portuguese government's trade and investment promotion agency.

Portugal has seen four years of consecutive greenfield FDI growth in software and IT – both in capital expenditure and project numbers – with 2018 setting historic highs, according to **fDi** Markets.

Moreover, Faber Ventures, one of the main institutional investors seeding Portuguese startups, sees 75% to 80% of its investment coming from abroad, according to Carlos Silva, an executive at Faber. "From an investor's perspective, Portugal is one of the fastest growing ecosystems in Europe, but we still have to reach maturity. So, things tend to be undervalued, which means there's some very interesting investing opportunities under the radar," he says.

Google has recognised this, opening a support centre on the outskirts of Lisbon and creating 500 tech jobs for skilled workers. Add to this BMW, Mercedes, Volkswagen, BNP Paribas, Natixis, Zolando, Bosch and Siemens and Euronext in recent years, among many others who are moving or expanding their tech functions in Portugal. Microsoft and Amazon are also scoping the market.

"I've seen a tremendous change in investor perception about Portugal since my first fundraising seven years ago. Increasingly in places such as Silicon Valley, London and New York, Portugal is perceived as a startup nation and a hard-tech location," says Veniam's Mr Barros, who founded the company with the creators of ZipCar.

#### **Investment** rationale

So why are foreign investors getting involved in Portugal? "IT talent, geography, timezone and culture; everyone speaks English, and there is a nice cost [of living and of labour]," says Margarida Marques, president of Hitachi Consulting in Lisbon. Talent is key, however. "Portugal's universities are top ranking, providing a pool of highly qualified engineering talent in multiple areas thanks to government investment in a lot on tech [apprenticeships] and university courses," adds Ms Marques.

Indeed, the country has the second highest rate of engineering graduates in Europe, according to Eurostat.

Portugal was ranked 17th out of the world's 63 leading economies in IMD's World Talent Report 2018, coming fifth in language skills, eighth for skilled labour and 14th for university education. English is widely spoken across Portugal, more so than in Spain or France, as shown by the English Proficiency Index 2018, which ranks the Portuguese 19th best in the world among non-English speaking countries. ■

## An international fintech stage

INITIALLY DRIVEN BY LOCAL START-UPS, PORTUGAL'S BURGEONING FINTECH SECTOR IS NOW ATTRACTING FOREIGN COMPANIES AND FUELLING GLOBAL DEMAND FOR TOP-CLASS STAFF. **SEBASTIAN SHEHADI** REPORTS

AL CCTOR EIGN IG P-Behind all of this lies Portugal's stellar R&D and educational institutions. The country's overall innovation output is ranked 32nd in the world by the Global Innovation Index, conducted by Cornell University, Insead and the World Intellectual Property Organization.

Portugal's economy has witnessed a paradigm shift over the past 10 years. Rather than just exporting goods, the country has also looked to export its services. The internationalisation of Portugal's economy was accelerated by the crisis, which undermined the domestic markets, according to Luís Pedro Duarte, managing director of financial services at Accenture in Lisbon.

"Since the crisis, our governments have been hungry and proactive for foreign business. Having foreign workers in Portugal is normal now [and tourism is booming]; this wasn't happening 10 years ago. Portugal was hidden, now it's being discovered. Those Portuguese who left during the crisis are coming back," he says.

Companies' strategies have also internationalised. Like Accenture before the crisis, Hitachi in Portugal was focused on the domestic market. However, after losing its local clients, the multinational turned to its international network, receiving added-value projects and growing exponentially since 2014, according to Margarida Marques, vice-president at Hitachi Consulting in Lisbon, who adds: "The crisis was a blessing, in this sense."

Like many countries, however, Portugal's increased globalisation does mean it is more vulnerable to international market volatility.

#### An international recipe

The flair with which Portugal's economy has recovered has boosted its reputation and investors' business confidence, helping to position the country as a growing hub for financial services, especially in fintech. "[Accenture] believes the tech movement is generating critical mass in Portugal, [making it] one of the spots to innovate and provide services internationally," says Mr Duarte. Accenture employs 3000 people in Portugal, half of which export high-value technology services. In 2017, the company launched a technology centre in Braga.

Portugal's shift towards service exports has been driven forward, in large part, by its start-up community. The crisis led to the Portuguese creating their own jobs, solutions and markets away from an old economic system that had failed. Start-ups were the answer to providing international clients, talent and investor efficiency.

"The economic crisis rewarded efficiency and [innovation]. It benefited the Portuguese tech ecosystem that bloomed from 2012 onwards. [Moreover], for Portuguese start-ups, the domestic market is too small, so they immediately look abroad and that helps attract international investment and talent," says Carlos Silva, co-founder of Seedr, a leading Portuguese fintech that facilitates international crowdfunding for start-ups on a global level.

This international mindset was furthered by the fact that many of the successful Portuguese start-ups have been founded by Portuguese citizens who studied or lived abroad. As Portugal reaches out, the world has reached back. Considering the global clamour to recruit quality tech talent, especially in Europe, Portugal has become an alternative to the crowded fintech scenes in London and Berlin, according to Mr Duarte.

Moreover, since physical location matters

FOR PORTUGUESE START-UPS, THE DOMESTIC MARKET IS TOO SMALL, SO THEY LOOK ABROAD



For the people: Portuguese start-up and software engineering company Blip has designed its offices with talent retention in mind

less within the digital world – which enables remote working – the importance of 'liveability' has risen. Portugal's tech cluster offers a happy balance between geographic proximity to Europe's economic hubs, accompanied by a high quality of life and infrastructure.

#### **Pack your bags**

Fintech in Portugal now boasts several local companies that have a global profile, with Feedzai, James, Syndicate Room, Switch, Seedrs, UTrust, Magnifinance, MB Way and Didimo among the most prominent examples. Scenting an opportunity, foreign companies have been responsible for a significant flow of investment in fintech and financial services in the country recently.

Amsterdam's Euronext, a European stock exchange operator, and Paris's Natixis, a corporate and investment bank, are just two examples. In its first ever nearshore investment outside of Paris, Natixis set-up a global IT service centre in Porto in 2017. The centre's 550 employees include business analysts, developers, data scientists and a digital transformation centre.

"We were [impressed] by the entrepreneurial ecosystem in Portugal. We find very highly qualified people here. Geographical and cultural proximity was also important since we're working closely with Paris. Another key aspect was the international mindset, especially English language skills," says Nathalie Risacher, senior country manager of Natixis's Porto centre. "Portugal's bureaucracy is definitely painful but the local help we got was great thanks to Porto municipality and [Portugal's IPA]. I've been impressed by the way we've been welcomed. It makes a big difference."

#### **Talent pool**

Similarly, Euronext opened a technology centre in Porto in 2017 consisting of 150 employees in IT development, engineers, cyber security and 24/7 IT operations that keep Euronext's markets open. "It was the bugs talent need in Porto from

"It was the huge talent pool in Porto from

the universities that attracted Euronext. [Like Lisbon], international companies are in Porto. The investment support was good from the local and national government. The set-up time was quick," says Manuel Bento, CEO of Euronext Technologies.

BNP Paribas and Crédit Agricole also opened technology centres in Portugal in 2018, and fintech company Revolut recently opened a support centre in Porto. "Accenture is working with some major international banks – I cannot disclose more – that are moving their corporation to Portugal, as it becomes a nearshore centre for their operations," says Mr Duarte.

#### **Foreign recruitment**

Online bookmaking giant Paddy Power Betfair recognised Portugal's tech potential early, acquiring local start-up and software engineering company Blip in 2012. Visiting Blip's headquarters in Porto and seeing its offices – which include perks such as games and nap rooms and a massage parlour – signals the emphasis it puts into attracting and retaining the best staff. As Portugal attracts more foreign tech companies, the demand for talent will also increase – so the country may also require foreign talent.

"One thing that might be holding back some of the very biggest tech players is the pool of available talent. At the moment, if you invest in Portugal, you'll most likely have to steal the best from other companies," says Helder Costa, director of development at Blip.

João Barros, CEO of Veniam, one of Portugal's most successful start-ups, believes large corporations think of Portugal as a place of untapped talent. "However, it is very important and necessary to further expand our talent base [through education], as I've discussed with Portugal's president," he says. "But the most promising avenue to increase our talent base is to attract talent from abroad, and Portugal is uniquely positioned to do that because of [benefits such as] our quality of life and infrastructure." ■



Hitting the road: Bosch's Braga plant employs 3700 people producing electronic products such as car navigation systems

## In the driving seat

PORTUGAL IS PROVIDING DIGITAL SOLUTIONS FOR THE AUTOMOTIVE INDUSTRY, COMBINING THE COUNTRY'S EXPERTISE IN TRADITIONAL AND MODERN ENGINEERING. SEBASTIAN SHEHADI REPORTS Portugal is enjoying a tech boom in various specialist areas including mobility tech, an area that has seen a flurry of foreign investment in recent years. Reflecting this boom, the country was ranked ninth out of 38 leading economies in the 2018 International Innovation Scorecard, conducted by the Consumer Technology Association.

In the 1990s, Portugal was known

as a low-cost manufacturing location. Two decades on, it is home to cutting-edge R&D in deep tech. The country's rising added value is exemplified by German engineering and electronics company Bosch, which entered Braga in 1990 to assemble radios. In 2002, however, the facility pushed for innovation projects, and in 2010 began a partnership with Braga University, according to Carlos Ribas, Bosch's Portuguese representative.

"The university became an extension of our plant. Since 2010, the growth in R&D has been tremendous, and the next phase of research will represent more than €100m into Bosch and our partner universities in Portugal," he says.

In 2015 the Braga plant employed 1700 people; today, a workforce of 3700 produces electronic products such as car navigation systems. German chancellor Angela Merkel opened the site's Technology Centre in 2017, now home to several hundred researchers who work on sensors and software for automated vehicles. Bosch also has R&D sites in Aveiro and Ovar.

#### Veniam's fine mesh

Veniam provides another example of Portugal's young but world-class start-up scene, especially in mobility tech. The company creates networks of interconnected vehicles via cloud computing that enables automobiles to self-update their software and transfer huge amounts of data. In Porto, Veniam has deployed the world's largest mesh network of vehicles, connecting buses and other vehicles that act as internet hotspots for the public and gather terabytes of urban data for smart city applications.

"Porto offers a living lab for testing our networks, due to its excellent [digital and transport] infrastructure and open-minded authorities. There's a cluster of players making the city a focal point of innovation for the auto industry," says João Barros, who founded Veniam with the creators of ZipCar. "Portugal's start-up and tech scene is still very nascent, but Silicon Valley likes nascent, and venture capital in Silicon Valley, in general, has started investing more outside of the bubble in California, and this is providing good results. They're seeing there's talent everywhere."

Veniam also boasts commercial mesh networks in New York and Singapore, and the company's team is equally international. "As an [American] engineer in deep tech, I was signifi-

## THE MARKET HERE IS BECOMING MORE GLOBAL, SO WAGES WILL INCREASE OVER TIME

cantly impressed by the depth of knowledge in engineering in Portugal. Additionally, the country's English skills are tremendous and I have had no problems integrating," says Jane Hoffer, chief business officer at Veniam.

#### **Welcome to Portugal**

The past two years have seen an impressive slew of foreign investment in mobility tech in Portugal, with the arrival of BMW, Mercedes and Volkswagen. BMW and Portuguese company Critical Software teamed up in 2018 to create Critical TechWorks, a 400-person company providing next-generation software systems at BMW.

Martin Zierheim, chief operating officer of Critical TechWorks, says: "The BMW group [is transitioning] into a mobility tech company. Everything is being disrupted by IT. In Germany it was really hard to find the people, so we looked for companies abroad and had 270 candidates. We wanted an area where IT competencies were growing and were state of the art.

"I've felt welcome in Porto. The officials and city have really helped me, as has Aicep (the national trade and investment agency). Whenever we had questions it was always there to help us, especially with some legal issues."

Local partner Critical Software is a pioneer among Portugal's hi-tech start-up community. Spinning off from the University of Coimbra more than two decades ago, the company sells cutting-edge safety test software for critical systems in sectors such as automotives, health and space, and to customers such as NASA.

#### **Opportunities abound**

Through local talent such as Critical Software, Volkswagen also saw a tech opportunity in Portugal, and in 2018 opened its first software development centre outside Germany, in Lisbon. The 300-person team will build userdriver-centric software. Volkswagen has been in Portugal for more than 25 years, and its plant at Palmela boasts 5900 people.

Similarly, Mercedes-Benz established its first digital delivery hub outside Germany in Lisbon in 2018, Mercedes-Benz.io, which is part of an effort to develop Mercedes from an automobile maker and into a leading provider of premium mobility services.

"I think Portugal's market is still very good

for [FDI]. The auto industry is quite interesting. The war for tech talent is worldwide, and there's good availability in Portugal. Then there's quality of life, English speakers, [political stability], etc," says Alexandre Vaz, managing director of Mercedes-Benz.io. "I wouldn't, however, give the argument of 'low costs'. The market here is becoming more global, so wages will increase over time. [Moreover], Lisbon has completely changed over the past 10 years, in terms of nightlife and entertainment. The city is increasingly attractive to foreign people [and tourists]."

#### The price of popularity

With Portugal's tourism and tech boom in full swing, the cost of rent in Lisbon and Porto has risen sharply in recent years. In the capital, rental prices hit an eight-year high in 2018, according to a report from Confidencial Imobiliário.

"Over the past five years, the transformation of Lisbon and the [tech] boom has been tremendous. [There's a contest] for available offices that has [never] been witnessed before. New space that comes to the market is very often gone within a couple of days, costs by square metre are increasing constantly," says João Delgado, head of communication and governmental affairs at Volkswagen Autoeuropa.

To make the most of this wave of investor interest, the Portuguese government has made significant efforts over the past decade to address the country's ageing bureaucracy, as reflected in the World Bank's 2018 Ease of Doing Business survey, which ranked Portugal 29th out of 190 countries. For example, attracting non-EU tech talent to Portugal has become easier thanks to the Startup Visa, which was recently complemented by the new Tech Visa. Initiatives such as these are supported by the Portugal Tech programme that has already spent €330m since its inception.

In terms of increasing local talent, the government has boosted universities' annual capacity for IT-related courses – however the output is behind the needs of the market, according to Mr Delgado.

Portugal's task now is to retain its highly skilled talent and attract more foreign expertise. Achieving this should see the country remain among the European, and global, leaders in the tech stakes. ■