Interview: Ana Teresa Lehmann – Secretary of State for Industry, Portugal



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17.05.2018

Tags: Portugal, Minister, Industry, Investment, Digitalization, Manufacturing

The Portuguese secretary of state for industry invites readers to discover the vibrant tech landscape in Portugal. Ana Teresa Lehmann unravels the reasons why Portugal is such an exciting investment destination and the value of new projects including free tech zones and initiatives to link corporates and startups. Since July 2017, her goal has been to promote the entrepreneurial ecosystem and to influence an industrial revival via the digitalization of industry that could land Portugal back on the global manufacturing map.

How have your experiences in academia and business prepared you for your current role?

My 23 years of experience in academia including lecturing in Porto, in the US and in several EU countries taught me a number of things applicable to this role, notably the importance of adapting to dynamic realities. I am originally a professor of international business and a consultant in the domain of foreign direct investment (FDI) attraction and of policies to promote industrial development and innovation – having worked in a variety of countries in five continents. Further, I have worked in attracting FDI as well as helping multinationals to devise investment strategies, roles which have been very useful for my current responsibilities as State Secretary for Industry in the Portuguese Government. I have been involved in the management and Boards of over twenty entities (companies, foundations and other non-profit organizations, public and private) which I use to understand the relevant contexts and markets better, and which enabled me with relevant

managerial skills to fulfil my current role. I possess an international outlook and I am aware of new trends in industry, markets and technologies worldwide, which is important to have a perspective that goes beyond Portugal. This way, I can better see and understand domestic and international opportunities.

What are your current priorities as Secretary of State for Industry?

We work on two main fronts, firstly with industry—in the Anglo-Saxon sense of the word—meaning manufacturing and technologies related to relevant services. We promote innovation and look to modernize and digitize all industrial sectors while ensuring that Portuguese manufacturing capabilities, for which we are well-known across Europe, continue to produce volume at high quality. We work both with established industries (where we disseminate practices and technologies that align their techniques with modern day methods) and with emerging sectors – exploring also the convergence of both. For all this we have a flagship program, the Industry 4.0 initiative, with several measures that go from professional training to the setup of world-class digital innovation hubs.

We have launched several initiatives that bring together the industrial sectors, to promote collective efficiency. Cluster policies is a case in point, and the healthcare sector is a reference and a good example of how large corporates can interact with start-ups. Our goals include promoting the link between centres of knowledge, whether that be universities or technological centres, together with companies and other organizations promoting collective efficiency. We also promote Suppliers' Clubs and Collaborative Labs. This is in what consists what we call the Interface Program.

Our second front involves entrepreneurship and start-ups, where we seek to create a robust business ecosystem. We are implementing a vast array of measures with the following three axes/foci: Ecosystem, Funding and Internationalization. At all stages of the life of a start-up and of a scale-up, from Incubation Vouchers to venture capital co-investment funds.

What is your strategy to promote the start-up culture?

Naturally, the start-up landscape is transforming the way ideas are transferred from science to business, and we see more and more Portuguese companies coming forward with great ideas, technologies, designs and solutions. What's more, we see positive actions in start-ups and in the attraction of international companies to Portugal, in which such firms recognize the highly-skilled talent pool we have on offer in our country.

Start-ups have (due to their specificities, here and all over the world) a high mortality rate, and therefore with the assistance of either corporate or public sector backing, start-ups are more likely to survive. To develop this initiative, we organize matching events where we introduce start-ups to large companies that were not aware of the existence of such new firms, which allows for business and strategic alliances between corporate institutions and up and coming start-ups. These processes create a launchpad for success, deflect risk and reduce the chance for insolvency: the smaller companies have access to big businesses' experience and resources, and conversely, start-ups provide fresh-thinking and innovative solutions in a fluid environment.

What is the impact of the Interface Program and collective efficiencies for life sciences?

For the life sciences sector, it is crucial. Life sciences are the most significant producer of science in Portugal: the scientific output of the sector is truly impressive. What we need to do now is to bring more to the market, and the cluster approach intends to communicate the value of these discoveries and bring these items into the market view so that innovations do not go undiscovered. The cluster approach is an exciting example that is working well in healthcare, and it is gradually being spread to other industries.

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What examples of innovation do you see in life sciences?

Firstly, it is not possible to innovate in life sciences without bringing together the different realities of local players and international players (hospitals, universities, large and small companies, laboratories, etc.) so that dialogue is comprehensive.

A very relevant emerging area is, for instance and among others, the one that brings together digital and health. In Porto, Portugal's second city, we have the only subsidiary of Fraunhofer Gesellschaft, the largest research institution in Europe. An example: they combine digital technologies and healthcare knowledge to improve quality of life in the ageing population—a very pressing healthcare problem and also a huge opportunity. In Braga, Startup Braga is promoting medtech as an area of focus for startups.

Porto is a hub for comprehensive cancer research, among other domains; and is the home for I3S which is one of the largest institutions of its kind in Europe. For example, this institute develops world-class research in domains like pancreatic and stomach cancer, to mention just a few areas. We have also the Champalimaud Foundation in Lisbon, and 3Bs in Guimarães (bio-tissues and regenerative medicine). Indeed, across Portugal, there are several companies and institutions in

which the research done is among the most advanced internationally, and clearly in some areas Portugal is leading the way regarding marrying different industries whereby individual areas and sectors interact and learn from one another.

Free-tech zones is a project we are developing that integrates across the value chain. This concept applies to physical and or regulatory spaces across any number of industries, for example, the testing of drones, and in that area (like in others), special regulations apply that promote innovation. Specific technologies require regulatory testing spaces due to the innovative and disruptive nature of the technology, and in offering free-tech zones, we want to encourage innovation and the attraction of relevant investment.

Have these initiatives impacted foreign direct investment?

We see an increase in foreign direct investment due to several reasons. Primarily, the fantastic talent pool, which is chiefly thanks to the quality of our universities and education system whereby new graduates have excellent English skills and are ready for the digital economy. Secondary to our human resources is the visionary approach our research centers employ regarding cross-pollinating different technologies. New materials, digitization, Big Data—these are not future trends—they are happening now, and our research centers seek to combine each industry's working parts to enable a more fluid crossover of ideas. Among several other reasons (competitive costs, safety, quality of life) that make Portugal's value proposition for investors hard to beat in many cases.

For example, Amyris, a global company, is investing in a biotech and circular economy operation at the Catholic University of Porto. A 50 million Euro investment will be deployed over the next five years, employing about 100 researchers with Ph.D. in biotechnology. They will create the European Bioproducts Institute, covering products ranging from cosmetics to perfumes, with applications growing year on year.

What else characterizes Portugal as an investment destination?

Portugal is very competitive in a number of different ways, but our key selling point is our talent. Nowadays, the bulk of the projects that we have received in Portugal have been off the back of our outstanding human resources. We know as a nation that we have to compete in quality given the size of our economy and country; this is the same for technology industries as for agro-industry, textiles, footwear, pharmaceuticals, etc.

We have left behind the siloed-approach, and we are now cross-pollinating industries and reaping the benefits of this intense cooperation. We are stimulating innovation and that findings are shared, contributing to a holistic view on the convergence of technologies. The health sector provides a wonderful example of such convergence, because in Portugal we have solutions from bionic hands, to bones made from new materials, synthetic tissues, etc.

This offers an exciting value proposition to investors. Investors can see promising talent found in universities and research centers, and can take advantage of employing them in exciting future-focused projects.

Portugal is now back to growth following an uncertain period. However, Portugal is still one of the most debt-ridden countries in Europe, especially in healthcare. What is your take on this matter?

To offer a balanced view, we suffered the crisis like many other European countries, but we rode it out and had resurfaced with fresh ideas. Our industrial sectors are now showing positive growth and good indicators for the future. We now have the highest growth in GDP of the last 17 years—the fastest growth of the current century.

We are, of course, tremendously proud our National Health Service (SNS), which is recognized worldwide as a benchmark. However, there is a cost involved with having one of the best health systems in Europe which is a social choice. This choice gives a level of dignity to our population which is remarkable. We implement more and more efficient and necessary practices into the system, and the government has been doing an essential job in adopting responsible budgetary policies. Our hospital sector is crucial to innovation, along with medical schools and private sector companies for which I am very proud.

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On a personal note, what objectives did you set yourself when assuming the role last year?

I would like to explore a unique concept, where Portugal brings more value to its industrial traditions—sectors that historically we have been very proud of, but that face important challenges with the pressures of globalization; industries such as textiles, footwear, metals, jewellery, furniture. Although naturally, one of our primary goals is to disseminate new technologies via sector 4.0, we want to show to the world what is unique about Portugal. We want to increase value through the incorporation of tradition together with the most cutting-edge in innovations. This mix

will be unbeatable. And it is also our great opportunity in today's (and tomorrow's) global economy.

On the industry side, we are introducing a campaign to empower young people to work in manufacturing sectors. Young people naturally orient their job choices more towards services and office activities, and therefore it is essential to make them understand that working in a factory is prestigious and rewarding.

Historically, the two countries that over the last decades had a more significant weight in GDP of manufacturing industry were Germany, and then Portugal. Germany, is a powerhouse in Europe, in great part due to its industrial prowess. And then there is Portugal, where industrial sectors are experiencing a revival and a positive evolution. Similar to Germany, we cannot give up on our industrial tradition – and Europe as a whole as well. We need young people to understand the importance of manufacturing, and bringing their passions to the factory grounds.

Do you have a final message for our international readers?

With the right preparation, we can pinpoint the technologies of the future. We are a small country, but we are proud of a rich and diversified industrial tradition as well as being ready for cutting-edge new technologies. Indeed, we are a fertile ground for experimentation and a test-bed for tomorrow's technology. Our crucial policy is to prioritize innovation through experimentation which will drive growth across the industry.

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