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# Start Up Spain

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<sup>1</sup> This paper is the result of a meeting of *Club España 2020* on innovation and international repositioning of the Spanish economy that was held in late 2010. *Club España 2020* brings together Spanish managers and senior managers located in Spain and abroad, including members on the executive committees of foreign multinationals based outside the Peninsula. The opinions expressed here are solely those of the authors.

## ***ABSTRACT***

- **Spain is at a crossroads and needs to change its production model. This change involves moving up the production value chain, which implies a commitment to innovation.**
  - **This paper sets out specific proposals to encourage more innovation, including these ideas within another series of initiatives that have multiplied throughout 2010.**
  - **The recession provides an opportunity to re-set the Spanish economy. This will not be achieved without breakthroughs in innovation as well in the field of economic policies.**
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## ***Start Up Spain***

Spain needs to change its production model. Big businesses in the Peninsula have managed to strengthen themselves through entrepreneurship and innovation. This has occurred even in unexpected industries that we were told were doomed such as textiles as shown by the case of Inditex. However, these are exceptions. The list of tasks that must be carried out is well known. We all agree that what is required is more education, more excellence, greater effort to produce more engineers and scientists as well as entrepreneurs who are more capable of transferring patents and inventions to the business world. The figures are also widely known: Spain spends 1.4% of its GDP on R&D expenditure, below the European average and far behind many Asian countries, while the Dutch company Philips puts in more applications in one year to the European Patent Office than the whole of Spain (in 2009 Spanish companies achieved only 1.3 % of all European patents). As pointed out in a recent report by McKinsey and the *Fundación Entrecanales*, Spain is the country with the lowest capacity for innovation given its level of income per capita (only Kuwait

and Greece have worse results for similar income levels). In 23 of the 31 indicators used by the EU to assess the innovative capacity of a country, Spain is below the European average<sup>2</sup>.

This is not only a problem for Spain but also for Europe; the US invests in technology venture capital 15 times more than Europe, which had a turnover of only a billion dollars for this in 2009. Companies in the US with venture capital backing employ 12 million people, whereas in Europe this number comes to only 2 million. The amounts invested are not only smaller but also more disperse. In 2009, venture capital businesses invested nearly \$ 25 billion in the US in about 2,700 transactions, whereas in Europe this came to just € 3.4 billion in about 1,000 transactions. More generally, overall investment in R&D came to barely 1.9% of the diminished European GDP, far below that of the US (2.8% of GDP) and that already achieved by China (1.7% of its burgeoning GDP). While 45% of this investment in Europe is public, in the US this only accounts for 33% of the total and in countries like Japan or South Korea it only comes to 30%. Public investment in Europe could be higher but what is significant is that private investment is low.

Despite awareness of the constraints, the initiatives are growing. As regards the public sector, in late 2010 (with Europe in recession) the Science and Innovation Minister Cristina Garmendia promoted a new venture capital fund of € 300 million to encourage the development of innovative businesses. It is possible to imagine a comparable investment from the private sector (contemplated by the ministry, which seeks triple this amount with private contributions). Something similar has been done in Israel with the famous Yozma venture capital funds, with mixed funding and private management. These funds were essential in turning Israel into a cutting-edge technological country, increasing the venture capital industry and multiplying technological start-ups (today Israel is second only to the US as the country with the most companies listed on the NASDAQ). Spanish government bodies have made a

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<sup>2</sup> See the report by Mc Kinsey and the *Fundación José Manuel Entrecanales* entitled *Innovación y empresa: una oportunidad para España* (Innovation and business; an opportunity for Spain), Madrid, 2010.

commendable effort to get the innovation system off the ground in Spain, increasing public investment in R&D every year as of mid-2000 so that in 2008 (before the recession) it reached levels similar to those of the EU (0.61% of GDP in Spain compared to 0.67% of GDP in Europe). They could also consider taking other action such as raising the percentage of public tenders awarded to innovative companies (which is beginning in Spain and has long been carried out in the US). Furthermore, they should also reduce red tape for creating a company (including a start-up); whereas in New Zealand you need one day to create a company with a single procedure, in Spain you still need an average of 10 procedures, which takes almost 50 days and costs € 1,000. The procedures for starting a business or management company for venture capital funds can last a year. Like Chile with its programme to encourage start-ups (see below), special attention could also be given to reducing barriers for foreign entrepreneurs who create start ups involved in technology, biotechnology or renewable energy (to give three industries as an example) in the country by streamlining procedures for visas, permits and registrations.

Movement is also beginning to be seen in the private sector as regards noteworthy initiatives. Ana Patricia Botín, for example, launched the *Fundación Empieza por Educar* to promote educational leaders in schools and enhance the figure of teachers, starting from the grass roots. *Fundación Banesto* has also been promoting the connection between Spanish start-ups and Silicon Valley to encourage business trips to the Californian Mecca for business innovation. In late 2010, Esther Koplowitz and other businesspeople such as those from *Laboratorios Esteve* founded a cutting edge biomedical research centre, the Esther Koplowitz Centre. This institution occupies 9,000 square meters where approximately 400 researchers work. In early 2011, *Fundación Emilio Botín* launched an initiative called *Mind the Gap*, which aims to cover the absence of capital and know-how between scientific research and the market, particularly in the fields of biomedicine, biotechnology and bioengineering. It will be investing a total of € 40 million over the next five years. For his part, the president of Telefónica made a specific proposal at the last summit between Spain and Germany to set in motion an ambitious plan to create a pan-European network of fund incubators and a fund for venture capital funds. This

is all backed with € 6 billion from governments, the EU and the ten main European companies in technological industries. Also in early 2011, entrepreneurs launched the Business Council for Competitiveness (CEC in Spanish), another sign of the commitment to seek change in the economic fabric's centres of gravity. Again in early 2011, former President of Spain Felipe González joined a dozen entrepreneurs to launch a venture capital fund (Tagua Capital) to invest € 150 million in innovative companies in Spain and Latin America. Another noteworthy initiative has come from José Ignacio Goirigolzarri, who as well as investing in start-ups opened an unprecedented foundation in February 2011 – Garum. This aims to develop free software tools that will then be available throughout the business community at no cost, thereby seeking to support companies in developing their guidelines, systems and procedures throughout their value chain. For their part, the *Fundación Everis* have also created a high-impact media campaign to raise awareness in Spanish society about the problems of entrepreneurship and innovation. In late 2010 they published a report with proposals and ideas to transform the Spanish economy<sup>3</sup>.

Initiatives are also beginning to appear in emerging countries, not to mention in China, India and Israel, all of which have far-reaching programmes to position themselves as world leaders in new technologies. In the Latin world there are also groundbreaking initiatives emerging. Some countries, aware that nursing new entrepreneurs takes time, have even decided to import them as in the case of Chile and its Start-Up Chile programme. During the term of office of its entrepreneurial president, Sebastián Piñera, this is expected to attract over 1,000 start-ups, paying \$ 40,000 to each entrepreneur who sets up in Chile and providing help in creating their start-up by solving bureaucratic procedures, visas and permits. Perhaps Spain could take inspiration from this initiative, which is combined with other measures such as those involving venture capital - an essential tool for accelerating business innovation. This is a country that now has a first-class infrastructure compared to the rest of the world and above all millions of square meters empty surface area waiting to be used. Moreover,

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<sup>3</sup> See the report at :[http://www.fundacioneveris.com/Images/Transforma%20España%20Fundación%20everis\\_tcm34-71088.pdf](http://www.fundacioneveris.com/Images/Transforma%20España%20Fundación%20everis_tcm34-71088.pdf)

about 45% of its young people are unemployed. It would therefore be worth turning around the programme by seeking to encourage entrepreneurs to set up here because they would in turn create jobs, as in start-ups like Tuenti (founded by Zaryn Dentzel, a US American based in Spain) and multi-nationals such as Mango (founded by Isak Andic, a businessperson who was born in Istanbul).

Likewise, some reflection is necessary as to how to boost innovative companies that already exist and apply measures according to their scale; SMEs are still too fragmented and small to innovate and absorb quality scientific employment. Large companies in Spain only generate 22% of total employment, as opposed to 40% in leading countries in innovation. Attracting multinationals (e.g. European corporate headquarters) as Ireland and Singapore have done may be an initiative to accelerate growth in R&D, as shown for example by HP's innovation centre in San Cugat, which boosted R&D in Catalonia. At the same time, innovation clusters need to be grouped together much more; only 6% of the 83 science and technology parks in the country have more than 200 companies, according to the McKinsey study mentioned above. The clusters are small, which is also seen in the low number of patents: only 144 for the Barcelona cluster (including St. Cugat) and 45 for Madrid. These are the two largest in the country and the numbers are well behind the clusters in Tel Aviv (352), London (461), Paris (1,055) and Silicon Valley (9,265). This problem of scale can also be seen in the micro-example of the software industry. Spain has managed to produce major companies such as Indra, Iecisa, Telvent (Abengoa group) and Panda Security. However, there are few of these - just four that have managed to appear in the list of the hundred largest European software companies. Furthermore, the top one of these has a software turnover of just € 110 million (Telvent), far behind the figures of Germany's SAP (over € 8 billion) or Sage UK (€ 1.1 billion), not to mention the American giants Microsoft (with over € 33 billion in software turnover), Oracle and IBM (both with a turnover of nearly € 14 billion).

Nevertheless, not everything is economic and quantifiable. One of the major obstacles to establishing a more dynamic business culture is the fear of failure. In Spain this is a real social stigma, particularly business failure. How can one

fight this? Schools should have a role but how should this subject be introduced into schools? Spanish public opinion still hangs onto the idea that entrepreneurs are people who exploit the effort of others. What can business organizations do to improve this image? Pedro Solbes once said that all Spanish employees want to be civil servants and all Spanish employers want to have a cigar. What can be done to promote entrepreneurship and the will to take risks?

The example of many elite Spanish sportspeople can be very useful in promoting a culture that rewards ambition, hard work and humility. The good news is that this culture is not innate, but is learned in the *CARs* (Centres for High Performance), Barça's *La Masia*, etc. How can we take advantage of this example? Changing culture is not easy, but if Spanish society has provided a demonstrable example of an asset in recent decades, it is its adaptability to cultural changes. The apparent resistance to change comes not from the majority of the population but from fierce resistance from very specific minority interest groups who act as the backbone to the anti-reform establishment. In any event, where can we start? There is a top-down approach and a bottom-up one. Spain has some of the best companies in the world. We should be getting these companies to permeate the higher echelons of Spanish society, especially in universities (in the UK, 70% of new millionaires in the last decade have been university lecturers). Both lecturers and students should be targeted. There should be graduate and MBA programmes from major Spanish companies in Spanish universities, similar to those that American companies have in American universities. This should be considered to be an act of corporate social responsibility. The bottom-up approach should begin with pilot projects in some autonomous regions (although there is the issue of governmental competences), combining training, funding and logistical support. Both the top-down and bottom-up approaches in the initial projects should combine features that can be scaled down so as to be easily reproduced at a low cost.

Spain also has some aces to play when it comes to promoting greater business and entrepreneurial culture. The country is fortunate in having a young prince who reflects many of the values mentioned above. He recently created the

*Fundación Príncipe de Girona*<sup>4</sup>, one of whose areas of activity precisely involves promoting an entrepreneurial spirit. Like the *Príncipe de Asturias* awards in the areas of arts, science, literature and sports, one can envisage *Príncipe de Girona* awards designed to encourage entrepreneurs and entrepreneurship. Target areas would not necessarily have to be restricted to the established business world but could also emphasise start-ups and venture capital initiatives, as well as cultural entrepreneurs and creative culinary experts who have also created companies, etc. These awards could have an internal purpose (encouraging entrepreneurial culture within the country) and an external one (promoting the image of a modern country, seeking to attract start-ups and projecting the image of a land of creativity and talent).

Reflecting and acting upon the link between an elite education system aiming to create more excellence in hard sciences and engineering with a positive change in entrepreneurial attitudes is another assignment still pending. One of the first steps in this direction would be, for example, to estimate how much wealth is created by our universities. A few years ago, the economic impact of the MIT was evaluated. It was estimated that about 26,000 companies were created by former students, altogether directly employing more than 3.3 million people and generating revenues of over \$ 2 trillion<sup>5</sup>. The fact that universities and R&D centres in Europe and particularly in Spain are not well geared towards the business world and entrepreneurship leads one to re-think part of the system, its structures, incentives, budgeting and governance<sup>6</sup>. Not only do Spanish universities not appear in international rankings, but their level of involvement with private enterprise is scarce; whereas the annual average number of spin-offs from universities (companies arising from university initiative) stands at 112 in Spain, in the UK it comes to 210, i.e. twice the amount. Achievements in the area of business schools – where Spain has no fewer than 3 schools in the top 20 worldwide – shows, if necessary, that there is no reason why the Latin world

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<sup>4</sup> The *Fundación Príncipe de Girona* gives an award to young entrepreneurs (last year's winner was Pau Garcia-Milà, who this year published the book "Todo está por hacer" with a prologue written by Prince Felipe and an epilogue by Felipe González.

<sup>5</sup> See Edward Roberts and Charles Eesley (MIT Sloan School of Management), *Entrepreneurial impact: the role of MIT*, Cambridge, Mass., Kauffman Foundation for Entrepreneurship and MIR, February 2009.

<sup>6</sup> The *Fundación Príncipe de Girona* has commissioned ESADE a survey: "White Paper on entrepreneurship in Spain", being developed by the ESADE Entrepreneurship Institute and Professor Luisa Alemany (one of the greatest experts on risk capital), which will be presented on June 22 at the Forum Impulsa.

cannot achieve excellence. The shortage of people with technical profiles who also have an entrepreneurial mindset also suggests we should encourage a closer relationship between scientific and management training centres. Co-diplomas involving the two are not unthinkable, for example. In any case, we need more graduates in technical courses where there is a significant deficit, in particular in industrial engineering. This is an imperative that is seen to be even more relevant when one realises that in this field there will be a global deficit; positioning Spain and the Spanish people in an emerging market would be very strategic.

The ideas presented here define only some of the steps to be taken, and the sooner the better. Spain is at a crossroads. We can either take a new leap in terms of production – as this country has done magnificently in the last quarter of a century - or we may watch as many other economies' high speed trains pass us by and move on ahead, with the locomotives putting distance between the driving economies and us. We have nearly been derailed. It is time to put renewed energy back into the Spanish economy. This will not happen without groundbreaking innovation in the field of economic policies and quite simply in politics.

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