



University and business in the Basque Country

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Executive summary

The re-launch of the Lisbon Strategy in 2005, five years after it was created as an agenda for a new economy, emphasised the need to strengthen the links between the three sides of the so-called *knowledge triangle*; education, research and innovation. In other words, and according to the recommendations published three years later by the European Commission, this renewed reformist drive should focus on “the contribution of higher education to jobs and growth”, emphasising “its international attractiveness”, which is needed to drive “this shift towards open innovation with increased flows of knowledge and new types of cooperation between education institutions, research organisations and companies”.

On 26 September 2016 KPMG organised a discussion forum attended by the Regional Deputy Minister for Universities and Innovation at the Basque government, representatives from the university community and executives from companies and business associations in the Basque Country to arrive at conclusions on the best model to adopt in the immediate future to forge links between university education -the height of academic excellence- and socioeconomic and political partners within Basque civil society. One of the main

purposes of this meeting was to define a model for growth, a business and industrial environment and specific and clear educational, social and cultural links with a view to shaping the Basque *knowledge triangle*.

The aim is to pass on, as quickly as possible, the scientific knowledge generated in universities, improving the business culture and the qualifications of professionals who, together, must face the competitive challenges and business levels demanded by increasingly globalized and digitised markets.

These are ambitious goals that require priority measures. These include education and teaching reforms aimed at driving creativity, innovation and business thinking. They also include critical aspects to help create an environment of appropriate and beneficial understanding between universities and business employers; incentives to drive R&D&I activities forward, particularly at universities, but also within organisations; financial, teaching and employment incentives that provide a way of disseminating the innovative knowledge generated in university ideas labs, the natural habitat of basic research, to Basque civil society, ensuring that we

can adapt to the technological and digital demands of business. In other words, ensuring that this knowledge fits well with the applied research that the business sector invests in on a daily basis.

Consequently, the round table discussion centred on clarifying the kind of strategic links needed to protect each of the three sides of this *knowledge triangle*. And so the event focused on developing research in such a way that "all parties undertaking R&D&I activities work closely together" and also on "tools to encourage the transfer of knowledge" to small and medium sized companies (SMEs), large corporations and public and private research centres.

This is the European Commission's recommendation, which also stresses the need for research centres to be promoted on a local and regional level so that a "critical mass of investment in research can be achieved, enabling these centres to have their own knowledge transfer office or their own intellectual property manager". The Basque Country is nationally and internationally known for its network of clusters and business incubators and it has already laid some solid foundations in its *knowledge triangle*.





About this report

This report reflects the contents of a round table event held in Bilbao on 26 September with representatives from the Basque government and universities, as well as distinguished speakers from the regional business community.

In particular, the education community was represented by **Gorka Artola**, Head of Innovation and Tech-Transfer at the University of the Basque Country (UPV), **Jon Altuna**, Academic Vice-Chancellor of Mondragón University and **Víctor Urcelay**, Vice-Chancellor of Entrepreneurship and Continuing Education at Deusto University.

Adolfo Morais, Regional Deputy Minister for Universities and Research, attended on behalf of the Basque Country government.

The business community was represented by **Asier Aloria**, Head of Training at Confebask, **Alejandro Arrasate**, Head of HR at Aernnova, **Carlos Pereda** from the Training Department at the aforementioned Basque confederation, **José Esmorís**, Head of R&D&I at CIE Automotive, **Iñaki Rodríguez**, Human Resources Manager at CAF, and **Pedro Francisco Zubieta**, Head of HR Recruitment and Training at Iberdrola.

Providing KPMG's take on the situation were **Cándido Pérez**, Partner in Charge of Infrastructures, Transport, Government and Health, **Cosme Carral**, Partner in Charge in the Basque Country, who chaired the discussion, and **Mauricio Lazcano**, Director of Business Development in the Basque Country.



1. Introduction

University education throughout Spain has attracted a certain degree of worldwide recognition. The latest analyses by institutions such as the OECD highlight diversity, pluralism, the growing number of private universities, a rise in science-based work, increased institutional and financial support for universities and tertiary education in the different regions of Spain as elements that have strengthened the quality of university teaching.

Over the last few decades, the process of developing the skills described by the OECD has resulted in Spain implementing quality academic systems in line with international best practice and acceptable human, material and economic resources in accordance with the parameters of the Bologna Process.

At the height of the digital era, these same studies certify however that a lack of funding for university R&D&I activities and their inability to transfer knowledge mean that Spain's process towards modernising the university education model is "incomplete". Spain has been unable to match its rivals (European members and other industrialised economies), and the OECD attributes this to "excess regulation" and a "lack of integration and consistency" when "coordinating" research centres and business associations due to the "diversity of governments and public institutions". This situation has led academic research centres to provide an "inadequate response" to

the range of technological demands issued by society and the economy on a daily basis.

The OECD also criticises universities' failure to undertake so-called Third Mission activities, such as outsourcing services and specialised training, and this has created "an inadequate academic labour market". OECD experts suggest that ongoing efforts are required in the areas of institutional management, the governance of teaching programmes and the adaptation of academic curricula so as to close this professional gap. The aforementioned analyses also talk about "greater involvement of companies, industry and trade unions" in postgraduate and research activities at universities.

The OECD's warning is clear and important: "Those in charge of education on a national and regional level need to foster mutual understanding between students, business people and local universities", which implies "moving towards cross-industry partnerships with greater autonomy, flexibility and interaction" and to put strategic measures in place to filter the information disseminated by the different partners, to implement an effective and transparent monitoring system and to transfer the information within the knowledge triangle.

The European Parliament issued another study on university education in 2015 that specifically focused on the academic internationalisation of students and teachers at Spain's 82 universities (50 are public and 32 are private).

Priorities of the OECD to strengthen the University education

1

Develop a consistent vision for the future in terms of tertiary education in collaboration with the most relevant socioeconomic players.

2

Integrate the education model using agreements, missions and specific contributions to increase the vocational interest of teachers and students in science and specialisation at universities.

3

Draw up a strategy containing objectives based on diversity and educational values.

4

Strengthen institutional autonomy.

This paper explains that university programmes and plans to forge foreign links have fundamentally taken place within Europe via the Europe 2020 Strategy and Erasmus programme, and that outside the domestic market, experiences are almost entirely limited to alliances with countries in South America and Africa. Initiatives linked to university innovation do not receive positive feedback either. The report states that "the ambitions of universities' international agendas usually conflict with political precariousness and financial difficulties that prevent them from materialising". The organisation's recommendations to national and regional authorities focus on four main areas: intensifying and consolidating an outstanding system to internationalise universities; increasing the international attractiveness of universities; fostering global competitiveness levels in regions with university backgrounds and intensifying partnerships with universities in other parts of the world.

During the discussion, Cándido Pérez, Partner in Charge of Infrastructures, Government and Health, reiterated this global effort pinpointed by both institutions. In his opinion "the direct link between the acquisition of knowledge and higher education in societies with advanced levels of economic and sociopolitical development is well known", as shown by European history over the last century. Despite "universities having demonstrated their ability to provide valid knowledge to citizens, it is however impossible for them alone to give new graduates all the

skills they will need to face the professional demands they will come up against". He further explained that this challenge is linked to "a number of skills, such as entrepreneurship".

He continued by saying that "in Spain, as in Europe, the shift to Bologna's academic parameters should be seen as an opportunity to underpin occupational skills and abilities". This change has put universities "in the academic limelight" and has demanded a period of reflection since its implementation. The result of this process should be an academic undergraduate and postgraduate model that meets market needs and applies "a degree of collective order" when grouping the 2,500 plus degrees that currently exist in Spain. He believes the "dispersed nature of degrees to be significant". Pérez continued by clarifying the point that more general undergraduate degrees and more specialised master's degrees could perhaps make sense and help make the system more efficient. Furthermore, progress could also be made if there were incentives for companies to work together with the teaching community to tackle the business world, "a sector that advances as quickly as the digital world".

5

Raise funds for teaching and design a shared costs model aimed at achieving excellence.

6

Draw up programmes that are consistent with teaching quality and business competitiveness.

7

Foster the involvement and contribution of social and economic partners to the university R&D&I system.

8

Modernise academic degrees and adapt them to the professional demands of the private sector.

9

Formulate a more active and dynamic role for government authorities in the internationalization of its companies and universities.

2. The Basque "knowledge triangle" challenge

Cultural change in the Basque Country's Information Society has created a knowledge triangle based on innovation with digitalization at the core. José Esmorís, Head of R&D&I at CIE Automotive, believes that this triangle "is a reality" from the business sector's perspective, although the qualitative leap towards modernisation and a new dimension "has yet to come, so we are going to quickly need to adapt university skills to the demands of the private sector and we're going to need new staff to do this in the short and medium term who will introduce a number of skills that business urgently needs".

Esmorís believes that the professional knowledge required of those hoping to fill these jobs will have to be combined with personal skills that equip people to meet the challenges of coordinating diverse, multidisciplinary professional teams. Another challenge will be to manage several projects and initiatives at the same time, many or all of which are strategic for the company. And yet another challenge will be to constantly adapt to business demands or to the different markets where the company operates. As

well as this, professionals must have solid financial knowledge so as to make each project profitable, they will have to be able to explain and defend projects in several languages and, above all, be able to work with individuals of different ages and even cultural backgrounds on sophisticated plans for expansion that "must always have a positive outcome", in terms of returning a profit.

The picture described by the Head of R&D&I at CIE Automotive during his contribution at the round table event with business representatives, universities and political authorities was backed up by the Regional Deputy Minister for Universities and Research at the Basque government, Adolfo Morais, who spoke about the actions that his department is going to make official policy over the next four years: "We believe that there is a need for further partnership between both worlds - university and business".

He stressed that this partnership framework "should not be based exclusively on agreements". We must be able to generate efficient understanding on a daily basis through "active initiatives that consolidate



these partnerships". Morais is adamant that the basic foundations have been laid in the recent past, thanks to a network of links that "have not been truly or fully explored and which must not be ignored". When dealing with this new understanding over the next four years, the background that has been described "will help re-establish and emphasise these links" so that the Basque knowledge triangle functions "from an ambitious European perspective", with a broad scope that looks beyond local issues towards the competitive and business challenges of digitalization.

At the same time, we must not forget the educational successes achieved in the Basque Country. Asier Aloria, Head of Training at Confebask, stressed the benefits of the Basque vocational training system (SVFP), which has shown a great return on investment over the years, giving back work skills to the business community. He also mentioned that his model is based on the teaching centre and company working together, investing in dual training that adapts to the needs of the business, but also includes other essential elements such as entrepreneurship and

innovation. Carlos Pereda, from the same department at Confebask, talked about how an active student attitude towards the business challenges generated by increasing competitiveness and the shift to digitalization has been recently introduced and encouraged in Basque vocational training programmes, whilst at the same time focusing on the technical and industrial skills the students acquire during their learning journey.

The socioeconomic partners involved in the discussion agreed that the SVFP's measures to develop partnership and understanding need to be introduced at universities and vice versa. This is of particular relevance in the areas of research and innovation and in the transfer of occupational and professional knowledge and the ongoing adaptation of management and funding experiences that emerge from digitalized global markets.



2.1. Basque companies' demands

The private sector does not require too much in order to prepare the Basque Country's Knowledge Society, in general, and the region's universities, in particular, for the changes created by new business practices undertaken almost all over the world, as seen from a business management perspective. The sector's requirements are nevertheless ambitious and stimulating.

Their main request is for university chancellors to meet the technical professional requirements of companies early on in a student's degree course via thorough curricula that are well put together and include the specific knowledge and skills needed to deal with competitiveness and the aim of constantly increasing market share.

José Esmorís explained this approach in the following way: "Universities should never lose the idea that they are the pinnacle of our young peoples' education". This is why "we ask them to use their teaching spaces to encourage and champion this ability to react, to understand socioeconomic and business changes

and to align these developments in production and management with their teaching", so that "the academic experience they provide, their ability to transfer knowledge to their students" incorporates the know-how of companies in order to "help students progress in their future professional careers". Esmorís believes that "we need agile, more responsive universities that work more closely with companies and this should be done not just through partnership agreements, but also via fluid, closer links with business that could see executives playing an active role in teaching".

Alejandro Arrasate, Head of HR at Aernnova, mirrored these comments. "Everything that is done to prepare students for the flexibility they will find in the market is positive". This challenge also impacts on "the lecturers' ability to keep abreast of the competitive reality of national and international companies". "Companies have seen that students who are taught by lecturers with extensive private sector experience learn the

Thoughts from the Basque business sector



José Esmorís
(CIE Automotive)

"Universities need to find ways of including the skills required by companies in their teaching programmes and to constantly strive to update their theoretical knowledge, keeping abreast of strategic changes in the private sector"

Alejandro Arrasate
(Aernnova):

"Companies need to constantly adapt to highly demanding markets and this includes moulding our employees' skills to the needs of our clients in a constantly evolving world"

Asier Aloria
(Confebask):

"Competitiveness is key to transferring the most highly skilled professionals from the teaching/university environment to companies, ensuring that the entire Basque business community benefits from their theoretical and technical knowledge"

knowledge and skills much more quickly". In other words, "if the lecturer is too academic, students have to work much harder to obtain the skills they need and, consequently, this gap is more difficult to fill". He concluded that "the teaching staff needs direct contact with the private sector and it is fundamental that the knowledge and skills learnt in the classroom are brought to life through business projects".

Asier Aloria backed up what his colleagues had said and added to the Basque employers' demands by stating that any educational developments need to be "competitive", from both an academic and a technical point of view. This has to be a key factor in any future strategy. And it is also something, in his opinion, that "is often lacking in the university field". Furthermore, we need to tackle the issue of adapting the education system to business needs. This means aligning training with our companies' competitive progress, including qualitative aspects, such as qualifications, and also aligning it with the private sector's learning

requirements and demands and this is linked to clearly defining the list of skills and knowledge content required. From a more quantitative perspective, this implies developing the professional profiles that will be needed. CONFEBASK is prepared to liaise between both sectors.

Iñaki Rodríguez, HR Manager at CAF, stressed the need to teach values and attitudes. "At our industrial group we appreciate the high technical professional component of master's and undergraduate degrees, but we do not by any means overlook the business values that students should have learnt throughout their time at university", because "they help each new professional slot in more easily to CAF's organisational structure". The second recruitment criteria we always consider is international experience, as "we need employees and executives who know how to act in foreign environments" and "the foreign experiences that students may have acquired by the time they end their degrees is always positive".

Iñaki Rodríguez
(CAF):

"The Erasmus programme and any other educational or professional experiences abroad are important, as are intangible skills, such as the ability to adapt to change required by markets and clients who want people with a flexible approach and attitude in executive posts"

Carlos Pereda
(Confebask):

"Attitude is something that needs to be developed jointly by company trainers and academic lecturers"

Pedro Francisco Zubieta
(Iberdrola):

"Dialogue between university and business should focus on specific, pragmatic solutions; a clear description of work experience periods that match timetables and business needs, reducing the amount of regulation"

Pereda referred to a Confebask study on employment and qualification needs published last year, which highlighted the Basque private sector's need for professionals, from both the vocational training and university channels, mainly in technical and industrial areas, with training that met the specific requirements of each company, but particularly, the right attitudes to continue learning and to become intra-entrepreneurs, in other words, professionals with initiative who are hungry for internal promotion. "Perhaps universities need to encourage students to develop this kind of skill early on" by generating institutional links and sharing educational plans with the business sector to encourage and drive university teaching research, with ideas labs and projects focused on companies' strategic business plans. "We're not however talking about regulation. We're talking about something much more dynamic, something that is much more difficult to define, it is about how we organise this necessary and vital link", he stated.

Francisco Zubieta, Head of HR at Iberdrola, stressed that "attitudes also include knowing how to work in a team and being continually aware that all business actions have a cost that has to be calculated". He commented further by saying that "knowledge has to be "switched on", but with an emphasis on attitudes. He said that the Bologna Process "has created a better environment for professionalising academic skills". That said, he also acknowledged that the role of lecturers needs to be strengthened; "they are not just a source of knowledge, but also a means of encouraging and motivating professional and business links".



2.2. The critical challenge facing universities in the Basque Country

The challenge facing the Basque university community is to lead the process towards competitively modernising its teaching programmes so as to tackle the global digitalization of markets. Academic representatives at the KPMG discussion forum in Bilbao provided much evidence of this by emphasising the need for long-term planning and encouraging greater involvement by the business sector.

Gorka Artola, Head of Innovation and Tech-Transfer at the University of the Basque Country (UPV) emphasised both drivers, which provide a picture of the situation at large universities. "We have master's specialising in many fields of knowledge and a significant list of specific postgraduate courses that meet the concrete needs and requirements of certain business sectors". He added however that "this challenge requires companies to use their human and economic financial resources".

In his opinion, the university "is able and ready to contribute flexible tools", despite the administrative constraints placed on us and that we inflict on ourselves in order to preserve the guarantees that must govern all public bodies, because "we are able to customise our teaching". Artola also commented on the business community's demand for professional attitudes. "This issue requires a strategic, multidisciplinary solution due to its clear social education element" he stated before admitting that "university may play an important role in developing these civil values, but it is not the key role, as our task is essentially to teach skills and

we do this above the required minimum levels". He also suggested that companies should explore the current boundaries of knowledge so that they can integrate highly qualified university doctors into their organisations".

"Many of our highly qualified academic teaching staff can contribute a great deal to the business sector and business organisations". He commented however that "their professional options are limited almost exclusively to teaching, or they are forced to take the entrepreneurial route in order to find a channel for their scientific knowledge, as they have more than enough skill, but they lack business attitudes".

Víctor Urcelay, Vice-Chancellor of Entrepreneurship and Continuing Education at Deusto University, stressed the need for further cooperation, bringing together learning spaces at university and in business. This ongoing dialogue enables profiles to be matched to the needs of organisations. Companies and organisations of all kinds have to share responsibility for the educational process. The challenge of merging university and business is real and difficult, as historically we have been shown a clear separation between university education and professional performance. But the world is changing and we are being given opportunities that we have to take. This is an extremely important challenge for business and university and it will take a significant change in attitude.

For Jon Altuna, Academic Vice-Chancellor at Mondragón University, one of the hallmarks of a well managed university is the ability of its students to adapt to surrounding employment and business needs. In saying this, he stuck up for the Basque academic community. "Our contribution to the business sector is clear", he stated. The university environment is not a monolithic model. There are research centres, huge academic diversity and a huge number of micro-networks formally linking universities to the private sector. It is more akin to an all-round system, although greater participation is still required from the business community to help generate professional knowledge.

"Private investment to push the boundaries of knowledge is key, particularly in terms of transferring innovation", he confirmed. Altuna believes that "it should be companies that lead the cutting-edge digital plans so that universities can then manage this knowledge appropriately". And this involves investment in research. He acknowledged the business sector representatives stating "You invest, particularly when this scientific progress is linked to business productivity, although you continually

invest in applied R&D&I". Altuna also supported internationalisation. "There is almost unlimited scope for improvement. And in their role as important social partners when it comes to transferring knowledge, universities are obliged to make global networks that make this transfer possible".

Cándido Pérez supported Altuna. The KPMG Spain partner expressed his conviction that "the entire university environment understands that the world is now global, as do companies, who try to prepare themselves for this reality on a daily basis". He believes that "foreign students are the central piece of this process in universities, although institutional links with other regional universities are important, as is their ability to attract foreign lecturers". All of these elements intensify the international experiences and skills of students, who then transfer them via their business links with the private sector.

What the Basque Country's academic community thinks



Gorka Artola

(UPV):

"Business should not think of universities only as institutions that generate undergraduate degrees, master degrees and professional skills. They should also be seen as institutions that nurture researchers. Excellence can also be found in the domestic market, in Basque universities"

Victor Urcelay

(Deusto):

"The huge challenge we face for the future is to cooperate further, bringing together learning spaces at university and in business. Universities, companies and society as a whole have to share responsibility for the educational process"

Jon Altuna

(MU):

"At the centre of this discussion companies and universities have different ideas about how to cross the boundary between theoretical knowledge and professional skills"

2.3. The tipping point for the Basque government

Adolfo Morais, Regional Deputy Minister for Universities and Research at the Basque government, expressed the Basque Country's hope for a real and effective transformation in terms of working together within the knowledge triangle. The Basque Executive's contribution will be focused on policies that encourage dual education with approaches that facilitate learning and teaching recommendations to highlight vocational training skills, from a regulation perspective so as to improve cooperation to a greater extent at universities.

The task of reproducing the dual model in universities is extremely complex and there are doubts as to whether the Basque Country can reach the level of other countries who are at the cutting-edge of these learning systems. This is why the regional government advocates a different kind of dual learning at universities, with periods spent working in companies. In other words, a dual format, but with shorter stages and periods than those that currently exist.

Alejandro Arrasate (Aernnova) stressed that "excessive bureaucracy can impact on the flexibility needed in companies". In terms of adapting academic criteria to

technical professional requirements, he states that "we have significant scope for action and development". Asier Aloria (Confebask) was more optimistic. He said it was about continuing on the right path, as "we have some good experiences, particularly in faculties linked to science and technology, and especially engineering". For him the challenge is more about "how to export these success stories to other university teaching environments".

Iñaki Rodríguez (CAF) believes that any additional tools made available by government to create links between university and business are a good idea. "All new instruments must create more flexibility in terms of making easier transitions from the end of university to the beginning of a professional career in business", he stated. Meanwhile, Jon Altuna (UPV) highlighted the point of no return created by the Bologna Process with regards professional competitiveness. He did however speak in favour of "a second generation of education reforms to benefit timetable flexibility, entrepreneurship and multidisciplinary approaches".

The regional government's view



Adolfo Morais

(Gobierno vasco):

"It's not about creating something extraordinarily new. It's about integrating technical skills into a more theoretical programme, such as university, leading us to consider more flexible master degrees with higher success rates that meet the growing need for areas of professional expertise emerging in the business sector"

Iñaki Rodríguez:

"All interaction between the university and business spheres within the regulatory and legislative challenge is welcome: longer work experience placements in companies or a variety of models that alternate between work and education"



3. The ingredients for a 'great deal' between social and economic partners

The KPMG round table event threw up a range of possibilities and lines of negotiation for reaching a New Deal on Knowledge for the immediate future. This is a

summary of the comments made by the socioeconomic partners and politicians involved in the discussion.



The Basque Government representative, Adolfo Morais, assured participants that the Basque Government is committed to looking at and giving a more international edge to the teaching qualifications in our education systems, together with business, and to take important steps forward on an international level. "The policies needed to meet these objectives must involve all parties, be flexible and include approaches from university, business and global trends", he explained.



The business sector spoke about specific proposals. Alejandro Arrasate (Aernnova) stressed the need for an appropriate academic approach to technical professional skills and specific postgraduate programmes with objectives and goals based on productivity.

At the same time, Asier Aloria (Confebask) clearly stated that, in his opinion, reforms should be approached on three levels. An institutional level, including governance and a reform of the institutional body involved, the Basque Board of Universities (Consejo Vasco de Universidades), just like the vocational training board, which is very proactive and is where all regulations for teaching programmes are developed. On another level, there should be greater links between university and business. And a third level would link lecturers or the degree coordinator at universities with the company's trainer or instructor. "If all three levels work, we will have made much progress", he predicted.



University representatives highlighted several value adding elements. Víctor Urcelay (Deusto University) reminded participants that the best way of guaranteeing that professional and job objectives are met is to teach students both technical content and personal skills. He stated however that this is a task that can't be carried out by themselves. They need the help of all social and economic partners to successfully undertake this mission. We need to stop working as separate units and start encouraging university and society to work together: this includes companies and institutions, so that we achieve shared learning spaces. One clear example of this is the promotion of dual university programmes, just like the successful programmes seen in vocational training and international contexts.

Jon Altuna (Mondragón University) relies on modernising the dual Basque vocational training programme, "which can be transferred to tertiary education if a university act is created, public-private cooperation is specified" and shortcomings in the university teaching degree are addressed, where there is a lack of recognition for research work. In his opinion, a certain amount of political involvement should not be ruled out. He stressed that we should, at least, let the three models of Basque university (social vocational, private and public) rest in the hands of university advisors. "I'm not sure we can continue to be neutral if we have to deal with a lack of engineers, architects or any other discipline of knowledge" in the future. This is a call to leaders of the Basque Executive in this field. When looking at ways of reactivating partnership within the knowledge triangle, the discussion combined several lines of argument. The business sector demanded progress towards dual university education, with solutions based on areas of expertise, even if this means shedding the straitjacket of academic regulations.

This interaction between university and business must focus on developing online teaching courses that adapt to company dynamics; ongoing academic development of dual skills to meet employment demands so as to combine study and work or adapt teaching curricula to make them more flexible. Study programmes need to be created that look towards the future from both perspectives (university and business) aimed at universities anticipating the skills required of students ten years down the line, both in terms of business knowledge and business environments.

Companies also want to exploit academic products, but preferably being involved in programmes that are not too ambitious. Training programmes should be more practical and specific, instead of aiming for getting it right with macro master degrees. "Time management is important and all sides of the Basque knowledge triangle need to agree on this", stated the business sector.

University representatives stressed certain keys to the success of academic specialisation seen in Anglo Saxon countries, where this culture of teaching excellence centred on the business sector all began. They said that in Spain, "this challenge hasn't been dealt with properly yet". This is true to the extent that "we haven't accepted whether an old degree is equivalent to a degree plus a master's or not. And the same happens in companies. The role previously termed senior engineer is now someone with a degree, but is this an advanced qualification or not? And more importantly, does this level require a master's degree or not? Furthermore, what role do employment standards and PhDs play in this new scenario?". In their opinion, this has all led to an exodus of researchers to the private sector and a move away from specialisation, as once students have completed their degrees, they decide to do their master's abroad. The university representatives stated, "we need to hang on to our excellence if we want a country-wide teaching model".



4. Aptitude vs. attitude

One of the hottest and most lively areas of discussion, and perhaps the issue that generated the widest range of ideas regarding immediate solutions, was around attitude and aptitude. The debate covered the ability of students to learn the necessary academic knowledge (aptitudes, which is a value specific to universities) and the involvement or predisposition of graduates

to continue gaining experience and professional skills within the business environment they work in (attitudes that will enable them to adapt to a variety of challenges thrown at them in the future in any given competitive business environment). Below is a summary of the main ideas arising from this discussion.

The business person's view



Alejandro Arrasate (Aernnova): “We absolutely have to work on the skills of future employees. We understand that the level of skills (aptitude) teaching, i.e. the knowledge required, is excellent, and that attitudes, which are what determine 90% of job success and include the ability to adapt to international environments, the ability to adjust the cost of projects, competitive pressure, etc. are even more important. This is why it is a key area that has to be improved in the future”.

Iñaki Rodríguez (CAF): “As a group with a high technical professional component, we particularly value masters degrees and degrees. But we put more emphasis on CAF's business values than on the technical aspects. These are attitudes that have to be learnt throughout university and they help each new professional to slot in more quickly and more easily to the specific tasks and services within our organization”.

José Esmorís (CIE Automotive): “Either we are capable of quickly adapting business structures to industrial change or we will go back to demanding aptitudes as well as attitudes. This is what we need to be thinking about in terms of education now. Future

professionals won't only need to know how to handle "big data", they'll also need to know how to turn it into smart data, in other words, information that is relevant to the company. Aptitude adds and attitude multiplies. If you have no empathy with the group you manage, regardless of where the team is operating, it's unlikely that you'll be a good manager. Of course you need languages and attitude too. These need to be taught at university, on master's programmes, or in business. The importance of lecturers who truly understand the industrial and business sectors is unquestionable. This practical knowledge determines professional skills and competences. Recycling business knowledge in universities is a basic requirement for the private sector. To a large extent, our future depends on our experiences being understood in the academic sphere”.

Carlos Pereda (Confebask): “In the Confebask study on employment and qualification needs, companies told us that, regardless of the technical and industrial skills (universities or vocational training), what they most valued were well qualified people who were willing, interested, responsible, independent and proactive, etc.”.

The university's view



Victor Urcelay (Deusto University): “The need for continuing education is not a current need, it is a structural requirement that already forms part of general trends. That is why we must tackle this issue with a strategic plan. The only way of meeting the needs of constant change is to become a part of this change. We need to stop being passive and become active drivers of innovation. There is also a paradigm shift that affects the university institution and companies. Against this backdrop, universities need to make the programmes we offer more flexible and agile, encouraging an interdisciplinary approach across fields of knowledge so that we can effectively respond to the constant changes around us. We also need to adjust teaching programmes, fostering continuing education in the specific areas required by society and in partnership with the business sector”.

Jon Altuna (Mondragón University): “The dialogue between university and business still needs to tackle the issue of how to encourage greater partnership. The issue is a shared one: we need people with specific profiles. It is closely linked to the 20% of graduates with a postgraduate qualification who decide to do a master’s in order to tackle the problems they have encountered in their first professional experiences with aptitude and attitude. I would like to stress my support for university doctors and their technical skills, which are always essential in the business sector. The diversification of technical skills is therefore an essential part of the discussion around professional attitudes”.

Political involvement



Asier Aloria (Confebask): “20 years ago, university and business lived in parallel universes. This situation is currently very different. In 2012, the OECD encouraged universities to have closer ties to vocational training via teaching programmes and tools to foster cooperation which were aimed at finding shared interests with regards oriented basic research, specific to academia, and applied research, inherent in the business sector. Since then, solutions have been put forward to profile the attitudes required by companies and the educational

system can always play a role in this area. The dual system is therefore a good option, as it includes contributions from business. It is also a system that has been using and working with different learning methodologies for some time. This means that students have better developed attitudes towards team work, communication and other professional areas that will be important in their work”.

5. Conclusions

A number of conclusions from the discussion hosted by KPMG were reached and can be grouped into three main areas: initiatives to be undertaken by the Basque Government; tools to be implemented by business and the adaptation required by universities.

Measures to be adopted by Basque education authorities:

1

Lead the reforms, insisting on flexible dialogue between universities and business leaders to try and reproduce the successful dual model used in Basque vocational training in tertiary education. This will be done through study plans that are well put together, providing students with the specific knowledge and skills required to deal with the competitive nature of digital globalization.

2

The Bologna Process represents a point of no return in terms of professional competitiveness. A second round of education reforms is required to encourage flexible timetables, entrepreneurship and multidisciplinary approaches.

Tools for modernising teaching within the university community:

3

Lecturers must update their knowledge and experience of companies' current competitiveness levels on a national and global level, because a lecturer's private sector experience helps transfer knowledge and skills much more quickly to students.

4

Generate institutional links and create education plans together with companies and foster teaching research.

5

Achieve greater technical professional excellence on master's and undergraduate degrees and in terms of the international profile of lecturers and students.

6

Universities must make ongoing efforts to update their theoretical knowledge in line with strategic changes in the private sector.



The active role asked of companies:

7

More human and financial resources to be poured into teaching.

8

Take a more active role in sharing professional experiences within universities during postgraduate learning.

9

Universities to monitor more closely and better understand business needs.

10

The university should also take part in working on students' attitudes, including team work, financial management of projects and a multidisciplinary approach to business investments.

High quality 'dual systems' - international models

The UK

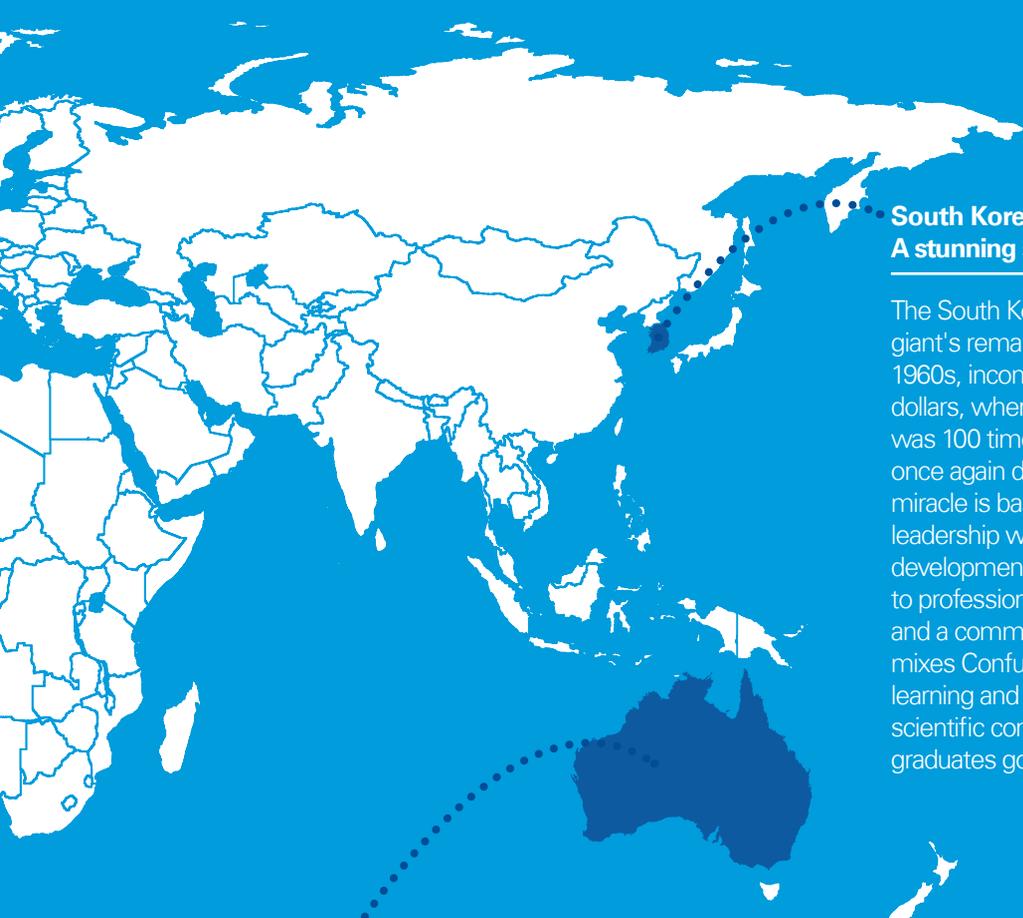
A traditional education system close to excellence

Few countries can boast excellence levels above the UK in terms of teaching quality and postgraduate courses to raise academic university knowledge in partnership with the private sector. The UK also maintains its VET system. This system has high levels of public financing, greater involvement from the private sector, programmes based on innovation, self-employment and entrepreneurship and there is greater flexibility to adapt to business hours.

The Basque Country

Successful in innovation and tradition

The Basque Country has been reaping the benefits of a dual system for years. The model is based on tradition and innovation, efficiency and flexibility and has hit the targets of highly qualified students required by Basque companies. This has been the case particularly since 1997, when the Basque Vocational Training Plan was approved. From the start, this plan was able to adapt its teaching programmes to changes in the professional skills needed and to business competitiveness. This strategy is based on three pillars: quality, innovation and the implementation of an integrated system of professional qualifications. This initiative has put the Basque Country's vocational training system at the top in Europe in terms of number of certified vocational training centres per inhabitant and extension. Another of the system's strong points is its emphasis on entrepreneurship and the creation of start-ups, technical professional and technological innovation learning and the use of new management models in its training centres.



Switzerland
The champion of decentralisation

The Swiss VET system is headed up by companies and works like a genuine Swiss watch in terms of organising resources between the federal government, authorities in the Cantons and professional organisations. Universities adapt to private sector needs and the teaching and technical material is updated fairly regularly. Students pay to enrol on courses, although the business sector bears the majority of costs. The system includes flexible timetables, job mobility and further training options.

South Korea
A stunning shift towards the knowledge society

The South Korean VET system is behind the Asian giant's remarkable shift towards modernity. In the 1960s, income per capita in South Korea was 100 dollars, whereas in 1995, 30 years later, this figure was 100 times higher and today, this figure has once again doubled. The South Korean economic miracle is based on three aspects: government leadership with intense, centralised 5-year development plans, a private sector contribution to professional training and learning by companies and a commitment to human capital. This system mixes Confucian principles with regards rigid learning and an academic commitment and scientific competitiveness 80% of secondary school graduates go on to university.

Australia
Innovative professionals

The OECD stresses that Australia's national employment skills strategy is "a perfect mix of job market knowledge, where the vocational programme starts during secondary education and which divides the costs between government, companies and students". Furthermore, there is an academic training agenda, which balances student preferences with business needs and includes incentives. This system provides students with generic knowledge, they are taught about job mobility and they are given a learning plan with specific skills to start them off in their professional career. The VET (Vocational Education and Training) system was set up over 40 years ago. During the 90s, the system moved towards a flexible method that acknowledges innovation.

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