Relations **University-Company**

We have wanted to listen to the opinion of 3 deans from Mondragon Unibertsitatea to find out what they think about the current state of the University-Company relations. With them, the President of ULMA Group offers his point of view from his position in the cooperative company.

>> L.B.: LANDER BELOKI

Dean of MU Enpresagintza

>> C.G.: CARLOS GARCÍA

Director of MPEG (Higher Polytechnic School of MU)

>> B.P.: BEGOÑA PEDROSA

Dean of MU Huhezi

>> R.G.: RAÚL GARCÍA

President of ULMA Group

What is your current diagnosis of the MU-COMPANY relationship? Do you think that any area needs to be strengthened? Where are the University-Company relations headed in our community? Are we well positioned?

L.B.: University-Company relations is a core element at Mondragon Unibertsitatea from its origin.

Mondragon Unibertsitatea was created in response to a district's need for training and also from the need of some companies located in the district; its history has always run parallel to the development of the district and its companies. We try to have all the university activity associated with this fact. The relationships with companies were included in the programmes, in the contents of research, in the transferring, in the development of what is worked on at the University.

Our main challenge is to accompany the companies and live up to their challenges. We are surrounded by companies with very important projects that are competing internationally with great challenges in technology, developing personnel, talent, etc. We are surrounded by companies with very ambitious challenges and this challenge is headed our way. We need to be up to the task, with dynamics, methodologies and ultimately students graduating from the university to

contribute to these companies. The great challenge is how to continue contributing to the company and how to help the company become more competitive.

C.G.: To continue with the last statement made by Lander, it is worth saying that we have just finished a strategic plan; the three faculties and MU overall, where two specific issues have come about from the talks with companies; the things we are not doing and the things that we should be doing. Companies see a need, in the mid and long term, to continue training their employees and specifically now there is a need for technological qualification; specifically in a great number of the cooperatives in this district. And this is where we need to be flexible and imaginative in order to be able to make it compatible for full time employees to be able to get training in a regulated manner. This is a need that we are not satisfying

Secondly, we have detected that we need to be more proactive in technology in order to adapt to the needs of the companies. The relationships we currently have with companies is very good. Some examples of this are: practices, end-ofdegree projects, end-of-master projects, continuous training activities, research projects with employment contract or transfer, provision of service, etc., but



I think we need to go further and stay ahead of their technology needs; we need to be more proactive and therefore we must seek ways to communicate with the companies, generate forums for meetings and establish strategic alliances so that they can tell us what they think about the new initiatives we wish to implement, tell us the needs that are not being fulfilled and in general, focus our efforts. To accomplish this we need the cooperatives to work with us.

B.P.: To revisit some of the ideas that have been discussed, we need to continue contributing, staying ahead of the



technology needs, but it is complicated. Nowadays it is almost impossible, we are overwhelmed, we do not know what is going to come down the pike in the technological sector.

From initial training, I think that one of the things we can do from the University is to train students in areas that are more intangible, which is also going to be very necessary. I am talking about social competencies; things we do not have a lot of in our Curricula because they are very hermetic. Many times we use bureaucracy as an excuse. We have to comply with processes that very much mark the limits of our curricula but we have margin to take better advantage of the time spent by future professionals with us, which is a lot; between four and eight years if we include doctors. And I still believe that we are not taking this as seriously as we should. Staying ahead is very difficult.

In the future everything is going to be digital and we need to reflect hard on this issue and this is why I also raise social issues; transfers of social issues is not fully exploited: communication, meeting points, getting to know ourselves better... We are well positioned but we can do much more.

R.G.: I think that the diagnosis is correct. The collaboration that exists is acknowledged and valued but the truth

Mondragon Unibertsitatea is

established in response to the need for training in the district and also the needs of some companies that are located in the district

>> L.B.

is that it falls short. We need to establish the necessary workings so that we can go deeper, so that the representatives of the companies and the university can share forums where we can systematically meet and talk about training and development, and realising it through training sessions, projects for developing products and technologies, management development projects and development of personnel... all of this with a system for identifying the needs and common points and from here, implement projects. There needs to be channels and mechanisms available to come up with ideas and projects.

((Our future is going to be tied to having highly capable and well trained personnel to manage our companies. What role do you think Mondragon Unibertsitatea plays on this subject? Do you think we are



going to have an important shortage of qualified personnel in the short term and that this will have a negative effect on companies?

C.G.: Without a doubt. The fight to find talent at companies is complicated, competition between companies is becoming fierce.

But that is not all, companies need to train their current employees and need the contents of the training to be continually adapted to their new requirements. And frequently, they require such a degree of specialisation that cannot be provided by traditional training and new training mechanisms need to be placed in motion. All of this requires the communication between the company and the university to be fluid and this is why we propose creating meeting forums with our strategic

MU is committed to being 100% reliable with these relations. Our best potential at MU is our long term actions; we must take into consideration that training in general takes time and therefore, from this point of view we are very persistent and therefore require stable actions and alliances.

One of the keys to the success of these alliances is their stability, providing them with order, systematics and in the end, to be predictable; otherwise the day to day business will distract us from our goal.

B.P.: In fact, this is one of the issues. Last year when we were drafting the strategic plan, that was precisely one of the things that interest groups would tell us: we trust you but your day to day business consumes you. The same thing happens with the company, we think that it is there, that it is being run properly but it is difficult to react quickly to requirements.

L.B.: Regarding training we need to know a lot about the company and what they are engaged in, what worries them, what are they up to and what is being proposed. This is not a visit, it is a



relationship in which we build trust and from that knowledge you can be capable of providing, without that highly restrictive distinction that is sometimes made, a contribution from training or from projects, there are many common elements.

We begin identifying specific themes where we contribute to each company and around a specific theme or challenge we focus the different instruments we have at the university such as end-of-degree projects, end-of-master projects, practices, alternation, programme modules in which the company can participate, doctorate programmes, research programmes, with an unlimited number of possibilities of combining all the above; in other words, we begin aligning academic learning instruments for students with challenges shared with companies in a long term collaboration.

R.G.: Also in this world, there is increasingly more uncertainty and less certainty and if there is a strong relationship, in this case with the university, we are going to be able to better respond as a company

I think that more than a distinction between training and project, I would say of shared challenges.

C.G.: Yes, I agree. Training is going to be key, we need a good mix between generic training and specialised training because on the one hand we are expected to produce multi-purpose professionals that are capable of adapting to all types of changing situations and which not only have technological training but also have developed transversal competencies, are good communicators, capable of displaying teamwork, synthesis capability, with an international profile of course, etc. And on the other hand, we are also asked to provide very specific technological specialisation, many companies need to hire people with very adhoc profiles for their needs.

The challenge is in the designing of learning processes that allow creating a multi-purpose profile with a highly specialised basis in some areas.

L.B.: Of the 10 MOST demanded careers by Basque high school students, 5 are being taught at MU and of those 5 I think 3 are engineering degrees.



Training is going to be key, we need a good mix between generic training and specialised training

>> C.G.

C.G.: But this is not enough. There is a shortage of technical degrees, we undoubtedly need to become more attractive to youths that are between 15 and 20 years old because we are going to need this in order to improve our companies and ultimately our society.

B.P: But are these attractive as we are currently teaching them? That is the question. This does not only occur at the Basque Country level, it is a pattern around the world, we have data from the OECD showing that technical careers are not attractive as we are currently teaching

C.G.: Well we are going to break a myth. That we don't graduate enough engineers to meet the needs of companies is a fact. According to the last survey from Lanbide regarding graduates in 2012, the unemployment rate of MU engineers is 7% when the university average in Basque country is 16.5%. The fact is we need more because we have an incredibly large industrial fabric and everything we do is not enough.

Clearly the goal is to become more attractive and show the kind side of the engineering degrees.

A myth says that Engineering degrees are difficult and I am absolutely in disagreement with this notion. These degrees do not require being super intelligent or a disproportionate effort.

B.P.: I am not posing this dilemma on engineering degrees, I am posing it in previous stages. What is being studied originates from lower levels.

We are getting requests in basic secondary education and high school that we have never had before; many processes are moving and changing.

There is a lot of innovation in early childhood and primary education but in secondary and high school, which is where people discover what they would enjoy doing, the road to follow... there is not a lot of innovation in the methodologies and we end up having to persuade students...

The issue is not the engineering degrees, the problem is at the lower levels.

C.G.: In fact, the choice is not made at age 18 when you enter the university, the choice is made at age 16 when you are in high school. This is when the choice is made.

And there is another reason that explains why we have so few engineers; the reason



is that we have given up on almost half our audience, which are women. At MU, 30% of engineering students are women and this is pretty good (the average in the country is around 20%); however, this is not enough. The myth that engineering is a masculine career has and is doing a lot of harm, not only to our society but to all the European and Western society as a whole.

We have not been capable of making these careers attractive to women and I do not have a rational explanation for this because women are just as good if not better engineers than men. Furthermore, what I am going to say can also be seen in the last survey from Lanbide; in engineering careers we don't see a noticeable difference in salaries between men and women and in some cases (specifically in automation, computers, telecommunications, industrial organisation, etc.) statistically we see that in time, women salaries progressively become higher than men's salaries.

R.G.: What we do have right now is a shortage of qualified personnel; for example, at ULMA Group and especially at the most technological companies of the Group.

Although we are still not out of the woods, a reality is that some businesses are experiencing a shortage of engineers, technicians and other technically trained

L.B.: There is an important job for all of this and I think that there is room for improvement, which is pre-university auidance.

It is essential to have all the information available to be able to decide what to study and where to study. Sometimes we find young people that want to change careers because they cannot find work. This does not mean that people cannot study the career of their choosing but it does mean that you should know what you going up against, what to expect in the future and what types of jobs will be available.

We are all very worried about the unemployment rate but I don't think that this is a factor that young people consider when deciding what to study, I think they base their decision more on their likes.

C.G.: Is there any way to make young people realise what it means to study engineering? A few months ago, a person that was just starting out asked me this guestion and I know that it is hard to

This week and next week we are organising an open house during Science Week at Mondragon as well as in ORONA Ideo and many ikastolas will attend every day. We are trying to show the light side of mechanics, electronics, computers... which are still very male dominated degrees.



A reality is that some businesses are experiencing a shortage of engineers, technicians and other technically trained personnel

>> R.G.

L.B.: This is an issue of roles, we experience this at the university. This is curious but this is relatively predictable. The percentage of women is much higher in Business Administration Degrees than in LEINN (Entrepreneurship).

In companies in general, women are a majority except in entrepreneurship. it may be associated with roles, character, from a cultural point of view, ... we need to see how to begin removing these barriers.

B.P.: This must be built in school and in society where student see and hear what is communicated to them, what they see on TV; the market projects a difference in roles. We work these issues with our students; in teacher training we have modules for working with gender but this is something we need to reinforce because we are seeing that in northern European countries, this is becoming the backbone of the curriculum. Serious problems exist with gender.

When many University students are asked what they think about this matter, they have assumed that it is not a problem, that this problem has been resolved and we are talking about future teachers.

We are saying that the university must be a mechanism for transformation. For this to actually be so, what challenges are on the table? And what challenges is MU facing?

R.G.: Viewed from the outside, MU's challenge in my opinion is on the one hand to articulate the collaboration with companies in order for all of us to benefit from everyone's contributions. Also, this would even help strengthen MU's prestige as a university that has been historically collaborating with companies, which provides a very important differentiating element with respect to other universities.

Other challenges would be to promote from MU changes in the teaching models, adapting to the needs of society, teaching gender equality, trying to influence and



make life easier for young people that need to decide what academic path to take and in general, assume a head role in innovative teaching methods, technology and management. Ensure the university is used to boost companies in order to make advancements in these fields.

B.P.: Regarding changes in the teaching methods, the other day in a school, the person that coordinated all the stages was telling us that there is a GAP between students that began high school last year and those that enter 1st of ESO (Compulsory Secondary Education), there is a GAP if the frameworking with respect to the attitude they have when in the classroom towards technology and they were finding it difficult to adapt to some of the changes.

They had prepared a strategy to adapt to changes in methodology and discovered that first year ESO students did not have any problems. We are talking about a 2/3 year difference. By when they reach the university we can imagine what will

For me this is one of the issues that must also be applied at the Universities. by the time they reach the position we are in, we either keep an open mind or they are going to run us out of the classrooms. We

have worked hard on this issue at MU, we are pioneers in innovation methodologies and we can project how we are shaping students professionally for the future.

In this regard, studies and research is available and the hypotheses are on the table, this is something that is there, it is not coming down the pike, it is there and has a great effect on how we are shaping people and professionals in the future.

C.G: I am going to say something that I though you would say, Begoña. We need to maintain and improve the paradigm that we are training young people and preparing them to work as a team: in cooperatives or not. This is what differentiates us, we do not prepare individuals to run; instead, we prepare people to lead and motivate others to run all together to work in cooperation as part of a team and this involves many competencies that must be taught during the learning process.

B.P: Yes, competencies such as being good, know-how; all those that have been written in CVs for some time now.

We have the LEINN Model at Enpresagintza and Lander can speak about it. this is just another tool and in the advanced models we are seeing (in methodologies), in the good models, in the good practices, we see how it is being applied and how it is influencing students to being much more motivated in the classrooms. We are not only talking about private schools, in fact we are talking about public school models in Europe, in the State, even here we also have good practices where we are working one-to-one and promoting very strong cooperative values and where conflicts in the teaching community have decreased significantly. This means that we have brought those students to work while motivated, they have applied themselves, they have committed and are hooked.

We are going to transfer this to companies. When we are talking



When we are talking about future workers with skills and competencies that still need to be developed, technologies of course as well as specialisation are necessary but also all intangible skills such as values, social skills ...

>> B.P.

about future workers with skills and competencies that still need to be developed, technologies of course as well as specialisation are necessary but also all intangible skills such as values, social skills ... people entering the work force in the next ten years are going to have other expectations and other needs and companies must be ready for this or it is going to be hard for them to manage.

L.B.: A main challenge of MU in the midterm is how to continue transforming the way students learn.

Teachers have changed from teaching students to organising dynamics and methodologies to help them learn. And our job and main contribution is to design this learning process; students learn in spaces and dynamics that are very different to those we learned in. The specific weight of the subjects taught as master classes is decreasing and learning is increasingly being accomplished by working as part of a team, outside the university classrooms, for example at companies or creating companies to go to the market, with stays at other countries... here we face enormous challenges.

This is not only a matter of incorporating these dynamics to curricula, we must ensure this is present in the evaluation system, in the reports, in the dynamics, because we are noticing that this method of learning is much more effective, coherent and powerful and the university needs to begin changing.

In certain things we have more of an advantage but we already know that the advantages are easily lost if we don't continue pedalling and strong.

One of the challenges of MU is how to be innovative in designing learning experiences, a learning experience where the classroom plays a role but there is another series of elements in the life of the University student where new values are going to need to be present as well as new dynamics; digitisation as well as everything else must be taken into account. In this regard we have an important and interesting challenge ahead of us. One of the advantages we have is that in society, knowledge and talent is gaining greater importance.

In order to maintain the generation of wealth standard, state of well being, generating talent is the great challenge and skilled people are going to be essential and the university is going to play a key role; so we must ensure we do this well.

R.G.: To continue with what you have said, I would add sustainability to the subject of the value of the cooperation. which for me is highly associated with

To cooperate for the common good, for whatever community, seeking the good of all, of the community, of the planet. This is a big challenge, to also work that sensitivity for cooperation and sustainability, to try to include it in the training of students so they will graduate already with this mentality incorporated and so that later in their professional lives, they can carry out their work with these principles in mind.

B.P.: The key issue is that education shapes people. And therefore we need to eliminate many contents we think are essential in curricula and include other items; I say items so that it may stand for competencies, values, contents ..., which are necessary for building a better future.

