

University and industry- Strange bedfellows or birds of a feather?

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ABSTRACT

Expressions like “more and better jobs” are blooming during one of the most difficult economic times that Europe has endured. A quick analysis of how industry, (HEI) cope with the subject, leads us to different visions. The big question is whether universities should be giving emphasis to knowledge management or to knowledge acquisition. A plain employability discourse conditions the entrepreneurial university and overlooks several important issues such as the overall crisis, decision-making, resources, capabilities, internal management structures, and local communities.

The authors’ goal is twofold: to manage this university / industry relationship and to point out the importance of consortia as a driving force for the economic growth and the competitiveness. Consortia are growing in almost all of Europe but what are they?

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INTRODUCTION

"In this world, there is no absolute good, no absolute evil," the man said. "Good and evil are not fixed, stable entities, but are continually trading places. A good may be transformed into an evil in the next second. And vice versa. Such was the way of the world that Dostoevsky depicted in The Brothers Karamazov. The most important thing is to maintain the balance between the constantly moving good and evil. If you lean too much in either direction, it becomes difficult to maintain actual morals. Indeed, balance itself is the good."

[Haruki Murakami, 1Q84](#)

We have to admit that one of the paradigms of the second half of the 20th century and the first years of the 21st is without no doubt globalization. This key concept arose sometimes as a threat and sometimes as inevitability or even a good consequence of the information technology.

It can take many forms depending on the way we look at the overall society – economical, political, migration and geographical aspects, but actually this paper intends to focus the social hierarchies, domination relations between institutions that are consequence of globalization and the ever changing world.

After examining the convergence thesis in what relates to the two separate institutions, Higher Education Institution (HEI) and Industry, we intend to establish some common features between them and what changed in the last years.

In the second chapter we are going to focus on the crisis in Europe and the strategy 2020, specially focusing on the key action 2- cooperation for innovation with the crown jewels – strategic partnerships and knowledge alliances.

The third chapter will emphasize the pros and cons of consortia and the case study of the Consortium Erasmus Centro.

THE FUTURE AIN'T WHAT IT USED TO BE- THE BIG AND CONFUSING PICTURE!

Theorizing about globalization is something that occurred even before it happened. Aldous Huxley with "Brave New World" and George Orwell with "1984" and recently Murakami's 1Q84, are specifically grounded in historical contexts of dramatic changes in a dystopian world but with different messages - Orwell feared those who would deprive us from information, Huxley feared those who would give us so much that we will be reduce to passivity and egotism and Murakami in a future world where one can hear "little people" and the individual and collective memory is so important.

Giddens and Rosenau describe our society as being more aware, more empowered by the information society and this increasing ability to be aware of events that shape our life, but strangely the way future appears in partly is only partially what Orwell thought, because even with information the late crisis offers not a future of passivity and egotism but of conscious hard work being us... the "little people".

Information in the other hand give us the possibility to think clearly, to be less compliant and more demanding and ironically that “knowledge society” arose in crisis time, when we have shorter budgets and less financial aid from the state. A direct consequence it is of course a competition between those who think that the state should support and protect the institutions and the ones who see as benefice in the freedom of state intervention. In the other hand individualist cultures like the Anglo-Saxon tend to believe in universal values shared by all and collectivist cultures - like the Asian ones- tend to think that different groups have different values. The people of late modernity are cultured to expect mass consumption but are increasingly sufficiently well informed to develop doubts about its benefits. (Spybey, 1996: 153). In fact globalization seeks to homogenize but also increases the awareness of social heterogeneity.

Schmitter refers to another paradigm that appeared with globalization – regionalization. A region refers to a spatial entity that shares specific characteristics. Regionalization, as it is often discussed under the heading of globalization, refers to a spatial entity that shares specific characteristics. Even though regionalization is based in several common elements like history, geography, religion and culture in the past decades we have been emphatically invaded by regionalization around economic issues, especially as the creation of free trade areas.

Schmitter suggest several forms of political and economic integration using the Latin terms: *Federatio*, *Confederatio*, *Condominio*. Schmitter analyses the EU presence and future in different situations as: *Condominio*, *Consortio*, *Confederatio* and *stato/federatio* (Schmitter, 1992, Schmitter/Torreblanca, 2001). The *stato/federatio* seems to be the system at European level or at least what was intended to the EU-a standardization of political.

The *Confederatio* is based in the elimination of political barriers, the members agree to give up to one structure the harmonization of practices but they maintain a certain degree of freedom in all matters regarding the territorial diversity. The *Consortio* is a form of collective action practiced more by consenting organizations than polities. The *Condominio* multiple regional institutions acting autonomously

It is in regard to corporate and economic power that the term "globalization" is most frequently used and invoked and the more skeptical emphasize specially the importance of culture and corporations. Corporations and capital have acquired the means to move and operate on a much broader scale and nation-state cannot cope effectively with these new developments, and finds its own priorities and policies heavily influenced, if not dictated, by them. Within the generic technology's life cycle, major technological opportunities decline over time as upon arrival of new developments. Competition to incremental product improvements tied to shorter times to commercialization and to process innovations as the basis of competition. Therefore, it's easy to understand that technology drives the connection and complementary role of industry and HEI, and its impact on economic growth is necessary, but is it as much necessary to HEI as it is to industry? Partly de economic development strategies and partly crisis is important to understand that HEI have lesser and lesser support from the State and need to find the support in private stakeholders especially from industry, depending funding in there R&D capability.

There is a central conflict between competitiveness and economic catching up, especially in times of 0 economic growth in some EU less develop countries. A rather significant overlap exists between the stability and convergence programs and the national action programs that serve the implementation of the Lisbon Strategy in terms of the timeline and substance alike.

Taking a closer look to the objectives of the Europe 2020 the importance given to research and development it's somewhat different of the one of investigation. The goals of the 2020 strategy are mainly focused in employment rate and the improvement of the educational and training

level. Nevertheless, investments on innovation and productivity is missing in the 2020 strategy. It strikes our attention the huge importance research and development expenditures and comparably the much lesser role if innovation. Competitiveness it's geometrically proportional to innovation but not the same as R&D. The role of universities in the globalized world changed mainly from the 80s on, by evolving perspectives of R&D and the new concept of knowledge society new words for a new and changing societal paradigm that forced HEI to adapt and leave their "ivory tower" disconnected from society and accept the knowledge driven economy.

European higher education reveals a system where multiple levels are in action and interaction, mapping the nature of governance of European integration in its complicated and complex but much more when we link it with national governments and industry. "supra national developments in combination with the trans-national forces, and trends towards delegation and institutional autonomy, a changing balance between market and hierarchy in higher education, and the strengthening of the regional authority level (Gornitzka et al. 2005). Slowly and steadily the relationship between economy, production, R&D and HEI changed and created an hybrid organization business-entrepreneurial HEI. Economically it functions but risks to change students in customers and put economical advantage before the main function of HEI, education and knowledge not only for the sake of economy but also for the sake of pure knowledge.

THINK GLOBAL ACT LOCAL

Regionalization from below' versus 'top-down regionalization'. A region refers to a spatial entity that shares specific characteristics, we can speak of "regionalization from below" versus "top-down regionalization". Terms as glocalization, europeization, denationalization, regionalization, are often used referring to integration or globalization. Although regional blocks are often based on common cultural back ground, the past decades show however an increased regionalization around economic issues. The homogenization or convergence thesis, which is often used in globalization, can refer to many aspects of higher education: the management, leadership, higher education the structure, teaching methodology, etc.

According to Simon Marginson (2002: 413-414) what we are experiencing is a complex relationship of the national dimension and with the global dimension:

"In some industries, global corporations may detach themselves from their founding national context and operate in the same manner anywhere. (On the other hand,) universities are too context dependent for this. Even when partly globalised, they remain grounded in 'thick' and complex relations within the local societies they serve".

Recently attention has shifted to innovative regions high-tech areas, science and technology parks, clusters of knowledge based industries and knowledge spillovers. There are regions per country more industrialized concentrated in particular locations, linked through networks. This is really a new policy model and regional policy, eclectically capitalize on the best ideas, stressing several aspects- high-tech, knowledge based or "creative" industries; building up of research excellence; attraction of global companies; and stimulation of spin-offs.

Regions have of course very specific strengths and weaknesses in terms of their industries, R&D and innovation potential and so far there is as enormous lack of studies of the impact in

the regions and they are dealt with in an isolated manner or using an undifferentiated one for all regions. Specific problems are not taken into account like the relationships with other regions and the national and international are left outside the picture when this is an interactive process requiring networking, communication between different actors trust based which are facilitated by geographical proximity.

Clearly regions differ with respect to their industrial pattern and their innovation performance, knowledge spillovers, which play a key role in the innovation process, are regionally bounded. It becomes notorious that regional, national and European policy actors, using a systems of multi-level governance can shape the development and dynamics of regional innovation systems. Regarding the distribution of concrete competencies at the regional level we can often identify competencies for the lower and medium levels of education, incubation and innovation centres, transfer agencies and, more recently, cluster policies. A central issue within the “knowledge distribution power” perspective of an innovation system, are therefore, the links between industry and science.

SOME MUST OF THE NEW GENERATION OF PROGRAMS

To understand the necessity of some of the must-dos for the next generation of higher education programs we have to go back a few years to the launch of the Lisbon strategy in 2000 with the “modest” goal of becoming “the most dynamic and competitive knowledge-based economy in the world by 2010”. The failure of the strategy was based not only in its ambition but also by the fact that it was something that could not be reached by the EU alone it should involve all EU countries. EU countries however have different levels of integration, some are new democracies some are old, some new comers some belong to the first countries to enter in the European project, so competencies at national level vary. Of course long before the lifespan of 2010 the strategy showed its failure, through the lack of governance and complex structure with so many goals and actions that it was disturbing and confused.

So what really changed for the strategy 2020? Did Europe learn with its errors? Partly yes – the big problem was governance and the European Council is now clearly in charge to put in action the proposals of the European Commission (EC). The EC has also new tools to issue policy warnings but actually what made the big difference was to settle different goals to different countries depending on the different characteristics the stability and Growth Pact, legally binds the Member States. We know that the strategy will be at the center of EU action, and that it will strongly influence almost all upcoming EU policies and initiatives in this economic strategy, without reducing the importance of arts and culture to a solely economic argument.

The 2020 strategy has specific deadlines for the 3 goals, being the 3 of them connected with education – smart, sustainable and inclusive growth. EU was in the good path until 2008 when the international crisis burst. In times of crisis obviously those countries with feeble structures or new democracies or new incoming in the EU showed more difficulty to even approach the general “bidding” targets.

New political situation leads to new changes- to react and adapt in a quite disturbing time when what it is real today might not be tomorrow. Better coordination between EU countries is needed, especially in economic terms to achieve the main issue “more and better jobs”,

unfortunately besides the economic coordination we need to have social cohesion and already started out there a wave of social instability that will pay it's dos in this final achievement.

Nevertheless the main targets of smart growth are focused in mobility – helping students and trainees to study/work in a foreign country (key action 1- learning mobility), prepare the youth for the labor market and increase de attractiveness of European University (Key action 2- cooperation for innovation) and finally (Key action 3 –Policy reform).

We intend to focus our attention in two sub-areas of cooperation for innovation – strategic partnerships and knowledge alliances. The green paper was adopted in 2011 and proposed the concept of the Common Strategic Framework to bring research and innovation closer together through Strategic Partnerships joining together education organizations/youth organizations and others putting together activities for both mobility and cooperation with institutions and other stakeholders to implement activities in order to achieve the objectives of the Modernisation Agenda. These activities can be supported by experts – a separate work programme with clearly defined activities and clear measures for monitoring impact – but countries will not be required to put such a team in place. Knowledge alliances refers to transnational projects between universities/corporate in order to promote creativity, innovation and entrepreneurial activities.

When strategic partnerships work well they manage to merge the research driven culture of the HEI with the innovation driven culture of the industry. Most of all gives universities the autonomy to operate in a win-win situation, and form partnerships. Who better than the HEI board and faculty heads to know the best strategy to its own institution? Without freedom we cannot fly, be creative and operate – with appropriate checks and balances – to achieve effective partnerships and strive for our main goals-excellence and job-creating partnerships.

The benefits of this marriage between HEI and Industry in the present picture seems to be an option needed for both parts to survive in hard times- Comprehensive activities that stimulate 2-way knowledge exchange between HEIs and enterprises and foster excellence and innovation + bridge the gap between HEI and world of work. Simplification, openness and flexibility, closer market activities, bottom-up initiatives. This would reflect in more lump sum and flat rates and simplified cost-reimbursement. Knowledge actors are varied and they invest to pursue material interests shaped by resources dependencies and problem perceptions. Organizational bases include scientific associations, think-tanks, HEI, autonomous investigation centres, professional associations and consultancy firms as well as non-governmental organizations (NGOs). With the advances in technology and communications of the last century knowledge have become global.

The cultural divide between University/Industry could be overcome with strong university leadership, a develop strategy and a share vision promoting a multidisciplinary approach to research and learning. HEI who understands market, and different incentives and structures for academics provided for the best outcomes to bridge the gap by developing a pool of academics who have worked in industry which is easiest to a Polytechnic more professional driven than the Universities.

Strategic management theorists explore efficiency and effectiveness from the perspective of the firm, given product, firm, and industry characteristics. HEI on the contrary seek to obtain and retain a competitive advantage over their competitors. The analysis of competitive advantage focused on the study of the external environment's influence on a firm's strategy. Firms operating in the same industry receive identical inputs and are forced to adopt identical strategies. All the firms operating in the same industry have the same opportunities and obtain the same results. Diversity is possible only in the short term, just the inverse of HEI who are focused in differentiation. What we've been noticing it's an increasing embeddedness which

expresses the idea that the economy is not autonomous, but subordinated to politics, culture and social relations.

BUSINESS AS USUAL

A first categorization of international arrangements comes from Neave (1992) who divides the different forms of cooperation in five stages in network development:

- 1- monodisciplinary linkages,
- 2- exchange partnerships,
- 3- network partnerships,
- 4- multidisciplinary networks
- 5- consortia

The final stage, the *Consortio*, is characterized by the existence of a coordinating unit common to all partner institutions with its own financial competencies, which mean that the coordination will not be performed by each unit but is constitutes a new layer in the chain. According to De Wit “*suchlike consortia will continue to be the most common form of international organization in higher education, and increasingly as part of academic associations or institutional networks*”.

A *Consortio* can be defined as a group of higher education institutions and possibly other organizations (enterprises, associations, chambers of commerce etc.) working together in facilitating Erasmus placement mobility. What is going to change from now on is that consortium as option will be almost compulsory even for studies if the strategy of one HEI is expanding outside Europe. A new and fruitful area of cooperation between Industry and HEI, enabling them to better understand what is going on in the professional world, and helping corporation world to evaluate and attract candidates and small and medium sized industry to be in touch with technological evolutions.

It is clear for us the benefits of creating a *Consortio* in Europe today:

- 1- We are cleared fulfilling some the main goals of the 2020 Strategy, focusing in strategic partnership University/Industry;
- 2- Stronger involvement between Higher Education institution - knowledge alliance
- 3- Partnerships sustainability
- 4- Fighting the lack of leadership through the coordination of one institution at a time
- 5- Keep peer-to-peer approach
- 6- Cope with the budget cutbacks, sharing resources.

The *Consortio Erasmus Centro* started to be regional even though some of the Polytechnics involved are located in different regions of Portugal. The idea further to join together a group of polytechnics and corporations in the centre of Portugal was to establish a quality net that could provide excellent working experience to our students. Definitely the idea was to cover one of the regions in Portugal more industrialized and that's why one can confirm the number of 125 corporations involved. Some elements were raised and tackled like the size, partnership, roles, coordination, funding, paper-work, application preparation and communication.

A well-organized management model with a clear division of roles and responsibilities makes the basis of the Consortio. Good relationship between members, defined leadership with a rotation system, quality and transparency of the services that are provided for the students and solid steering group.

The steering group of the *Consortio Erasmus Centro* has several meetings per year to decide the distribution of budget between members, events and common exhibits, communication and management, marketing activities monitoring and others. The group has besides the Coordination in a rotating system, one contact technical staff and one Vice-President of each one of the institutions involved. Working in a *Consortium* enables you to communicate through one channel and under one clear marketing image and promotion materials. Focused on internal and external communications and an well planned action is the key of our success.

IN TWO YEARS SO MUCH ACCOMPLISHED

8 Polytechnics in the centre of Portugal
46.000 students universe
41 business corporate associations
40.000 companies universe
26 business associations
15 city halls
5 business incubators

Quadro 1-membros e potencialidades regionais

Consortio Erasmus Centro	2011-012	2012-13
Placement	230	300
Months	868	1200
Grants	324.461,00€	420.000,00€
Mobility Organization	18.430€	23.050€
Total Budget	342.891€	443.050€
Execution	95%	Final data not available yet

Quadro 2 - apuramento

The students benefit due to a larger EU-wide labor market offer further to normal benefits of a placement abroad that has to do with improving language skills, knowing other markets and cultures, work experience. Mainly it is clear that they return more prepared, more open minded and more qualified. Tailor-made placements, constant tutoring, Common definition, regulatory frameworks, selection criteria, supervision and evaluation mechanisms/recognition

CONCLUSION

Even though a Consortium also has its weaknesses, it is a fact that the benefits are bigger. Shared resources and jointly planned activities enable member to provide more and better services, more effectively.

The costs in several actions like marketing, guides, events, exhibits are lower if one thinks in each institution *per se*. Particular strengths for administration procedures, collaboration and synergies, horizontal integration, acquisition of common methods shared responsibilities, common promotion actions among students that would not be available individually, one only placement system avoiding confusion, less financial and resource support, investment in documentation mainly on the first year, potential attraction for corporations, a good international channel.

Consortia helps members to speak in one voice, reduce costs and maximize resources, creates opportunity to better negotiate favorable terms. An interesting paradox is that *Consortia* alliances or networks are based on compatibility as well as complementarity. Compatibility implies an institutional fit between the partners.

HE *Consortia* are involved in a multitude of activities. Cooperating on intended rationality and thus aimed at the utilization and exploitation of common features but it is complicated by the different backgrounds of partners. The resource base of universities will obviously not always be optimal. In order to gain access to important sources of competitive advantage, universities can try to buy or internalize these resources (e.g. through the market or through acquisition).

Universities, unlike multinational firms, are still mainly national institutions operating in a governmentally regulated system. The individual context has its dynamics and beliefs, but is also embedded in the wider organizational or national context. Individuals therefore have multiple institutional affiliations on different levels. All have developed routines, and the routines, norms, and patterns can create obstacles when collaborative arrangements are established with nations, organizations and groups that are not compatible with these institutionalized practices and ideas.

Coping with cooperation in some areas and competition in others, seems to be the great problem to overcome, mentalities are changing so one as the notion that sooner or later and compromise situation will be normal. We have still though a surplus of paper-work that it is for the moment difficult to overlap.

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