The Third Mission of Universities in the Development Strategy of Vienna City

Mihaela-Cornelia DAN
Bucharest Academy of Economic Studies
mihaela.dan@fabiz.ase.ro

Vienna City is one of the most attractive cities in Europe and according to different rankings [1], [2]it is placed on the top ten in the list of cities with best living conditions, excellent education, infrastructure and good urban planning. This is the result of a systematic approach of the local government, companies, universities and public in the development and modernization of the city. Since 2000 the city has known a growth in different areas (number of researchers, number of patents, joint programs for the popularization of science etc.) and evolved into a network point not only for business but also for research and innovation. In this paper we investigate the strategy of Vienna City regarding research and development and the extensive and complex role of universities in the city.
Keywords: *Regional Innovation System, Third Mission of Universities, University Business Cooperation, Vienna City*

1 Introduction

The role of higher education institutions in the modern economy changed dramatically in the last 30 years. Universities face now new challenges and a new strategy orientation in a context of globalization and increased international competition.

In her work, Urayaa[3] analyses the role of universities at regional level and describes the different forms of universities. First, the university was a knowledge factory concentrated on the innovative results. After that, the university moved to the model of relational university which is more market oriented and concentrated on the exchange of information and knowledge. Next the entrepreneurial university became very popular. The function of commercialization is very significant and comprises forms of technological transfer, founding of spin-offs, contracts with the industry, participation in policy making etc. The fourth form of systemic university is specific to the triple helix model, it fits the regional networks, like clusters, the university is a reliable partner of the SMEs in the region. The newest model is about the engaged university preoccupied for development, the university plays an important role as partner of the regional stakeholders, and is an active promoter of regional development. According to Urayaa [3], all these forms can co-exist in the same country or region.

In the last 25 years, universities were confronted with challenges and pressure. On one hand, some universities, especially in Eastern European countries, returned to autonomy and academic values and had to learn again about their role in the society. For the Western European universities the challenges came from the expectations of the society to give solutions for the economic development. On the other hand, universities were "thrown" in the global competition to struggle for funds, students, staff, research projects etc.

Globalization and international competition influenced the mentality and approach of countries. They had to think about a new way of doing business and surviving in a turbulent context. It was clear for everybody that the traditional production factors (work, capital and land) are not enough for competitiveness. Information and knowledge became important assets. This fact moved governments at different levels to think and develop policies for attracting, sustaining and updating knowledge-intensive products and services. In this context the concept of Regional Innovation System (RIS) was observed and analyzed. Several authors [4], [5], [6] consider that a RIS is a necessary tool in the global context and assures a better positioning of the country and its regions. A RIS is a set of relationships between universities, industry and local authorities that share infrastructure, knowledge and funds with the scope of production, distribution and placement of product and services. The ultimate scope is growth and development of the region and its actors.

In conclusion, the local university becomes an important node in the regional development, and this role is influenced by the relationships with the business environment, traditions, and norms inside and outside the institution.

After 1990s Vienna City transformed into a platform where the Western and the Eastern European culture meet and became an important economic, social and political node for both parts. In this paper we analyze the strategy of Vienna City in the development process and the role of higher education institutions in the Regional Innovation System.

2 The Third Mission of Universities

The third mission of universities is a disputable term and the question about the role of the university in the society gives place for many pro and cons. In English speaking countries universities have strong relationships with the industry, strategic partnerships are build permanent and are consciously cultivated by a specific behavior. On the other hand, in continental Europe this type of link is weak or inexistent. The European universities were "obliged" to look also at the industry because of the budget cuts and not because of a natural behavior of being connected to the real world.

One driver in this way was the decision of the European Union (EU) to diminish the gap between the global players and its Member States by improving the capacity for innovation, research, education and development. Under the umbrella of Bologna Process the Member States made efforts towards an efficient and modern education system, especially in the area of higher education, were due to the new standards and rules it is much simple to compare and make compatible studies from UK and Malta, or from Germany and Russia. It is interesting that the Bologna Process was not an exclusive initiative of the EU but was very quickly embraced by all EU Member States and non-members.

Starting with 1999 the EU prepared the so called European Higher Education Area with the purpose of facilitating the mobility of students, researchers and staff, developing interdisciplinary study programs, strengthening the cooperation between higher education institutions and industry, authorities and society.

Coming back to the role of universities in the modern economy, we emphasize that its functions expanded from teaching and research (first and second mission) to a third mission of "commercialization". We may understand the term in a pragmatic sense as the economic use of research, IPRs, patents, spin-offs, technological transfer, and in a broader sense everything in the direction of the society.

According to Montesions et. al. [7] the third mission means "services to society" and is a complex notion that has three sides:

1) *The social third mission* – the university offers services without a monetary benefit, these services improve the image of the university and bring a contribution to the society, e.g. services for the retired senior personnel, non-academic dissemination of the research results, social networking, art exhibitions;
2) *The enterprising third mission* - the universities are delivering services with the scope of increasing the income, e.g. consultancy to the industry, patent registration, contract and collaborative research;
3) *The innovative third mission* – universities are active in searching for venture capital, consulting for governments, develop and innovate in specific industries.

From the list above we mention that the entrepreneurial type of mission is very controversial because of the fact that many universities are public funded and use these funds in order to generate profit. In the same time, the social and the innovative type of the third mission are clear and expected by the entire society [7].

The entrepreneurial acts of the universities give the possibility to link to the "real world" especially for Eastern European universities who because of the hard international competition have to think now as economic actors. They are now enterprises, employers and taxpayers, they offer products and services (in form of study degrees), interested in the commercialization and looking for customers (students that will pay tuition fees, companies interested in research etc.). The expectations in this context are very high, the university must think for the future, show entrepreneurship skills, move from knowledge production to knowledge and information sharing, be active in regional networks, be part of a regional or national innovation system etc. [8].

The third mission of universities has been in debate since 1990, and is the subject of many official documents that establish rules, a way of thinking and strategies for promoting this function and evaluating and recognizing the quality and excellence of performance.

"*The Green Paper - Fostering and Measuring Third Mission in Higher Education Institutions*" [9] is a result of an EU funded project under the

Lifelong Learning Program. This paper analysis the definition of the third mission; it is stated that this must be included in the mission statement of the universities. It may be defined as a single function or as a part of the core values. The authors divide the third mission into activities related to research, education and to social engagement, and recognize that higher education institutions' contribution to the society must be encouraged and improved. In the same time universities must improve the visibility of its activities focused on services to society and industry. The Green Paper gives some recommendations to:

- *Institutions and their leaders* – they should make a commitment with the society, influence the culture of the university and motivate students and staff to engage with society, fostering trust;
- *Academic staff* – they should bring their personal share to the "social contract with society", behave entrepreneurial, establish relationships also with non-academic people, and people outside the university for knowledge share;
- *Business people* – it would be good to consider trusting, engaging and working with universities, share and exchange organizational culture, thinking on a medium and long-term horizon;
- *Public authorities* – should facilitate "the recovery" of the social contract between higher education institutions and society, and "abstaining from rapid/or repeated changes in funding or policy regimes" [9].

As we mentioned before, the third mission refers mainly to the commercialization of the results, and one important way to achieve this is by fostering the university business cooperation.
Further we will analyze the approach and strategy of Vienna City for the development of a platform for excellent education and research.

3 Higher Education and Research in Vienna City

Vienna City is the capital of Austria (Fig. 1) and has a population of 1.731.236 inhabitants and a surface of 41.487 ha. More than 20% of population is immigrant; the most of them are coming from European states (outside and inside EU).
Vienna is the most productive and competitive region in Austria. According to the statistics of 2009 Vienna registered a Gross Regional Product of 42.600€/inhabitant (total 72.063 million €), almost 30% more than the national average of 32.900€ (Table 1)

Fig. 1: Map of Austria
Source: http://www.weltkarte.com/europa/oesterreich/oesterreichkarte.htm, Accessed March 2012

The economy in Vienna has a very high proportion in the service industry (more than 80%) and the companies located here have less than 10 employees, which corresponds to the structure of microenterprises. The most important sectors are trade, science and technological services, real estate, construction, goods production.

Table 1. Gross Regional Product (EURO) per inhabitant in 2009

Bundesland (Region)	GRP (EURO)
Wien	42.600
Salzburg	37.500
Vorarlberg	34.700
Tirol	34.600
Oberösterreich	32.800
Steiermark	28.500
Kärnten	27.400
Niederösterreich	27.000
Burgenland	22.200
Austria (total)	32.900

Source: Statistik Austria – Regionale Gesamtrechnung und Berechnung MA 23, www. statistik.at, accessed November 2012

The number of business start-ups shows the entrepreneurship and wish for becoming independent; in the last ten years Vienna recorded 7700 genuine start-ups per year, and nearly half are founded by women. Also, the

Viennese enterprises make important investments in and outside the city. This shows the attractiveness of the region for investors and the economic power of it. More than 69% of all foreign investments flow to Vienna. Simultaneously, nearly 60 % of all investments abroad are made by Viennese enterprises. In parallel, the majority of the investments going out of Vienna were directed to Eastern and South-East Europe. In 2009, Romania attracted the highest volume, followed by the Czech Republic, Hungary and Slovakia [10].

Vienna has 9 public universities, 6 private universities and 6 universities of applied sciences (so-called Fachhochschulen). The number of students enrolled in the university year 2010/2011 was 165.176, from which 38.417 were foreigner students. It is interesting to observe that from 1997/1998 the total number of students in Vienna increased with 29% (from 127.338 to 165.176 students), and the number of foreigner students increased with 147% (from 15.537 to 38.417 students) [11]. This is a consequence of the fall of the Communist Wall which opened the access for the young people to study in foreign universities, but also a result of the new strategies for transforming Vienna into a platform for international students and researchers.

The higher education system in Vienna is in a time of change in all aspects. Many institutions adopted the Bologna process (it is still not compulsory for all higher education institutions), introduced studies in foreign languages, especially English, changed their strategic orientation towards becoming an international university by attracting international students (the majority of the international students in Austria come from Eastern European countries because the country is at the border between East and West), some of them are active in partnerships or clusters with the industry.

The research landscape in Vienna has also registered a significant development. Between 2002 and 2009 the number of the research institutions and organizations in Vienna increased from 1032 to 1329 units. The allocated resources for research are situated over the national average; the budget for 2009 of 2,846.6 Mill. Euro was funded by the private sector (33%), the public sector (44.52%), NGOs (0.88%), international organizations (19.77%) and EU (1.83%). The research projects focused mainly on fundamental research (22.72%), applied research (33.59% and experimental research (43.69%) [11].

According to the *Innovation Union Scoreboard (IUS) 2011*[12] made by the EU every two years Austria belongs to the group of innovation followers, together with Belgium, Cyprus, Estonia, France, Ireland, Luxembourg, Netherlands, Slovenia and UK. This means that their performance is close to the average of EU27; Austria ranks actually higher than the average. For instance, the country spends 2.7% of the GDP for research and development and it exceeds the EU average of 2.0%. Only the Scandinavian countries and Germany have higher expenditures for R&D [10]. Vienna scores very good in the number of people employed in R&D activities 1,2% of the labor force (the EU average is by 0,5%) and in the number of patents per 1 million inhabitants, in 2007 Vienna registered 415 patents and was overtaken just by four regions (Stockholm, Copenhagen, Helsinki and Paris) [10].

The Innovation Union Scoreboard analysis every two years the innovation policies and their success, practically the results of the funds spent by universities, businesses and state in order to increase the capacity of these parts to develop and become competitive on the international market. Based on innovation indicators it is a tool for comparison between the Member States and the global players, and gives information about the strengths and weaknesses of the national innovation systems. The IUS contains three types of indicators and for each a list of innovation dimensions. These are the enablers who capture the main drivers external to the firm responsible for innovation (human resources, international scientific co-publications, R&D expenditure in the public sector and venture capital); firm activities that give information about the internal activities for innovation, research and development (R&D expenditure in the business sector, and non-R&D innovation expenditures, innovation in-house and outside of the SMEs, public-private scientific collaborations, number of the patent applications, community trademarks and community designs), and the outputs that show the effects of company's innovation activities and give information about the innovators and the economic effects (number of SMEs introducing products, process, marketing or organizational innovations, employment in knowledge-intensive activities, medium-high and high-tech product exports).

Based on the results of the IUS the Member States are divided into "four performance groups", the innovation leaders, the innovation

followers, the moderate innovator and the modest innovators. Romania is a "modest innovators" together with Bulgaria, Latvia, and Lithuania. Its performance is much below the average of EU27.
The data presented place Vienna in a top position in Austria and also between other Member States. One reason is the systemic approach of the local authorities in the field of research and education and the objective to become an attractive pole for excellent students, professors and research fellows.

4 The Development Strategy of Vienna City

The development strategy of Vienna is based on excellent education by building a modern educational system and on research that should give answers for a smart and sustainable growth. One important decision belongs to the government of the country who decided to act in order to move Austria from the group of Innovation Follower to the group of Innovation Leader, the most innovative countries of the EU[13]. The fundamental of this objective is the idea that prosperity comes through research and innovation [14] and the dialog between science, business and society which in many cases is translated into the university business cooperation facilitates the fulfillment of this objective. In the same time the research activity is focused on solutions not only for technological innovations, but also for business and social development.
The strategy of Vienna regarding education and research had several stages in time. In 2002 many privatizations in R&D were concluded, the Center for Innovation and Technology was founded with the scope of helping business and universities to get into dialog and to transfer technology and knowledge. In the time period 2002-2005 many decisions were taken, we mention here: the division of the strategic and operative fields, the introduction of control instruments in order to avoid overlapping research projects, focus on the main competences which brought also the need for in depth analysis of the competitive advantages, the budget control on short and medium term, customer orientation by simplifying the application forms and methods and giving chance for everybody to apply for funding [15]. After 2005 the principles of the Lisbon strategy and newer the flagships of Europe 2020 strategy were put into documents of the city institutions, e.g. the City Hall, Vienna Science and Technology Fund, Vienna Chamber of Commerce, Economic Agency of Vienna.
These institutions and other complementary public and private organizations act on different fields, the most important are: Human Resources (e.g. increase the percentage of the students in nature and technological domains, a better inclusion of migrants, a public understanding of science etc.), increase the expenditure for primary research, improve the competitiveness and diminish the barriers for new entries on the research market, a better governance, a structural change of the R&D institutions in order to respond to the new challenges regarding economic, ecological and social expectations.
In the strategy paper "Wien denkt Zukunft" ("Vienna thinks future") from 2007 [16], the city emphasized also the major fields of research and innovation, these are life science/medicine, information and communication technology (ICT), creative industries and multimedia, mobility, city development and technologies, mathematics, social sciences and business studies.
Another significant decision for the development of Vienna was in 2006 with the creation of the CENTROPE region [17]. This region comprises the areas between Vienna and Bratislava (a unique situation in the EU – two capitals at a distance of 60km) and another three regions from the neighborhood countries Hungary and Czech Republic and makes a population of 6 million inhabitants. The region acts as a cooperative region and it is an area for cross-border knowledge. As a result Vienna is seen as a hub for international networks and becomes attractive for international young professionals and researchers.
As we mentioned before one important mechanism in the regional development is the university business cooperation, which means at the end knowledge interactions between students and academic staff, employees, organizations, public authorities, the public, in general, and at one level the regional stakeholders. All are interested in good jobs, market information, connectivity to the market reality (via trainings, internships and research projects), licensing patents, development of new products and services, innovation etc.
This type of cooperation was adopted by the Viennese universities and it established a new indicator for performance evaluation of the higher education institutions and of the academic staff.

5 The University Business Cooperation in Vienna City

Mainly the university business cooperation is an important element in the mission statement of all Viennese universities and it is included as a way for development in the strategic papers of the actual management.

There are eight types of cooperation with the business environment [18]. Collaboration in R&D projects, academic and student mobility, commercialization of R&D results, curriculum development and delivery, lifelong learning programs, entrepreneurship and governance can be found more or less in each university of Vienna. The differences come from the general objective and positioning of the university (the University of Vienna is mainly a research university), internal structure, number of the international exchange agreements, number of the international students, number and value of the registered patents, joint study programs, number of spin-offs, technological transfer activities or the implication of the academic staff in the activity of companies or the presence of business people in the administration board of the universities.

The Vienna Business and Economic University establishes in the Development Plan [19] some aspects and steps to do for strengthening the university business cooperation. First, the university has to act as an entrepreneurial university and sustains the joint projects with business partners. Second, the university wants to popularize its research results to the business environment and society, in general. Third, the university is changing the internal structure in order to make easier the access of the potential business partners to the projects and results. Further, the university will develop an Intellectual Property strategy, be more active in the society and support its academic staff in the knowledge transfer. Similar approaches we find also at the Technical University of Vienna or the Medical University of Vienna.

By fostering the university business cooperation faculties develop their program design together with companies and this leads to the improvement of the disciplines content and the specialization of the graduates. Students have extracurricular opportunities for entrepreneurial activities, which improve their enterprise skills and business experience. In the same time, universities have a dedicated department for knowledge transfer who is acting towards promoting and marketing the research results; there is a proactive behavior towards the companies.

Austria is one of the first countries in the EU who adopted the cluster policy and understood the need for a strong linkage between local and international companies and universities. We find successful examples also in Vienna. In 2002 the LISA Vienna Life Science Cluster was founded. It is a joint venture between the Republic of Austria and the city of Vienna with the scope to promote the economic potential of life sciences and transform results in concrete products, improved processes and new services. It delivers tailor-made consultation services and gives support to innovative companies.

Other similar examples we find in the University of Vienna and the Medical University of Vienna which built together with some companies a cluster with five main research topics: biology, psychiatry, immunology, oncology, and pharmaceutical chemistry [20]. Besides this, the University of Vienna has 17 research platforms based on interdisciplinary research and formed between two or more faculties. Based on the research activities and results they have the potential of transforming in clusters [21].

Another interesting instrument designed for the university business cooperation is the so-called Research Studio Austria. With headquarters in Vienna, it has also a network in the main university cities of the country. The objective is to bring together higher education institutions and companies through applied research and to give solutions to problems like urban planning and demand for housing, attracting students for entrepreneurship, or business planning models.

Another successful example of the university business cooperation is the partnership between the Vienna University of Technology and the Wiener Linien, the public transportation company. Their main projects focus on infrastructure development, increasing the number of passengers in the public transport, decrease of energy usage and pollution. Another main topic regards the ecological footprint and the results and arguments brought influenced the decision of the City Hall to extend the subway line U2 and the development and modernization of the railway.

The education system of Austria includes also the Universities of Applied Sciences (Fachhochschulen) which were launched 20 years ago to foster cooperation between academia and the business environment. They were inspired by similar institutions in Germany and Netherlands

and are more vocational institutions that challenge now the universities. Contrary to the traditional universities that don't cooperate sufficient with industry and companies, these higher educational institutions intend to bring academic research and study programs closer to the needs and expectations of the industry. One particular thing that is done on regular basis is when launching a new study degree is the employability analysis that gives information about the future of the graduates on the labor force market.

The Viennese universities have more or less the same scheme of university business cooperation comprising the following activities:

- Cooperation on research projects (funded by the private sector, searching for solutions, or by the state and EU, mainly primary research projects)
- Technology transfer (here are two options the university can establish a business incubator for young entrepreneurs and spin-offs, have a technology transfer office or both)
- Involvement of business people in teaching activities (besides guest speakers, there are many professors or researchers with a bright industrial experience, in the universities of applied sciences more than 50% of the teaching staff has a practical experience of minimum 5 years)
- Involvement of business people and industrial representatives in the curricula development (there is a permanent dialog especially in the technical sciences programs to prepare the students with the necessary skills and competencies)
- Mandatory internships (the stage of internship/practice is very important for the students because it gives opportunities for a career and for universities means potential partners for research; in Austria the internships has a duration between 9 and 15 weeks)
- Student projects, bachelor and master dissertation (this projects are expected to deal with concrete situations and to be carried out in cooperation with companies; especially in the fields of economic and technical sciences, this aspect is compulsory)
- The integration of soft skills in curricula (almost all universities in Vienna provide now study degrees in English, courses for foreign languages, or specific courses for teamwork, presentations, time management, leadership, moderation etc.)
- Alumni association (universities maintain contact with former students; they come back later for teaching activities, conferences or sharing experience with students).

As we mentioned before the balance between fundamental and applied research and the degree of university business cooperation depends on the internal structure, centralization of the decision making process, openness of the academic staff and companies for a permanent dialog and collaboration.

6 Conclusion

With this paper we analyzed the education and research landscape of Vienna city and emphasized the role of the university business cooperation as part of the third mission of the universities. In the new context influenced by the economic crisis, the globalization and international competition, the budget cuts of the public funds, we consider that strengthening the role of universities in the society can be an important step toward economic, political and social development.

Vienna as capital of Austria but also as a major player in the CENTROPE region developed to an international hub for researchers, academic staff, and students, national and multinational companies. The partnerships with the industry, the expenditures for education and research place the region of Vienna among the firsts in the EU rankings.

The reason for this change relies in the systemic approach on all sides (public authorities, universities and business) and in the permanent analyzes and update of the needs and expectations of the society.

The understanding of the third mission concept is still to be cleared. The pressure on universities to act more as companies than as "knowledge deposits" is a challenge that has to be answered not only by the higher education institutions but also by the society, in general.

Acknowledgement

This work was co-financed from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/89/1.5/S/59184 „Performance and excellence in postdoctoral research in Romanian economics science domain".

References

[1] V. Ram, "Europe's 10 Best Places To Live" , Forbes [Online], 21.07.2008, available at: http://www.forbes.com/2008/07/21/cities-europe-lifestyle-forbeslife-cx_vr_0721europe.html

[2] S. Rappaport, "The World's Highest Quality Of Life Is Still In Europe", Business Insider [Online], 06.07.2011, available at: http://www.businessinsider.com/monocle-quality-of-life-2011-6?op=1

[3] E. Urayaa, "Conceptualizing the Regional Roles of Universities, Implications and Contradictions", *European Planning Studies, 18*(8), 2010, pp.1227-1246

[4] P. Cooke, M.G. Uranga, G. Etxebarria, „Regional Innovation Systems: Institutional and Organisational Dimensions", *Research policy, 26*, 1997, pp. 475-491

[5] P. Cooke, „Regional Innovation Systems, Clusters and the Knowledge Economy", *Industrial andCorporate Change10*(4), 2001, pp. 945-974

[6] B.T. Asheim,andA. Isaksen, „Regional Innovation Systems: The Integration of Local 'Sticky' and Global 'Ubiquitous' Knowledge". *Journal of Technology Transfer,27*(1), 2001, pp.77-86

[7] P. Montesinos, J.M.Carot, J.M. Martinez, F. Mora, "Third Mission Ranking for World Class Universities: Beyond Teaching and Research", *Higher Education in Europe*, *33*(2-3), 2008, pp.259-271

[8] M. Prejmerean, "The Role of Universities in Regional Development Process", paper presented at the Conference "*Performance and excellence in postdoctoral research in Romanian economics science domain*", Bucharest Academy of Economic Studies, 2012, Bucharest

[9] *The Green Paper: Fostering and Measuring Third Mission in Higher Education Institutions*, http://e3mproject.eu/docs/Green%20paper-p.pdf, accessed April 2012

[10] „Wirtschaftsstandort Wien", Statistik Journal Wien [Online], 1, 2012, http://www.wien.gv.at/statistik/pdf/wi-standort2012.pdf

[11] „Bildungsstatistik", Statistik Austria, [Online], 2011, www.statistik.at

[12]"Innovation Union Scoreboard", [Online]http://ec.europa.eu/enterprise/policies/innovation/files/ius-2011_en.pdf, 2011, accessed April 2012

[13] Bundesregierung von Österreich, "Potenziale ausschöpfen, Dynamik steigern, Zukunft schaffen. Der Weh zum Innovation Leader", [Online], 2011, www.bka.gv.at

[14] Austrian Council, „Vision 2005. To the best through innovation", [Online], 2002, http://www.rat-fte.at/tl_files/uploads/Strategie/vision2005_final_eng.pdf

[15] Austrian Council, "NationalerForschungs- und Innovationsplan", [Online], 2002, http://www.rat-fte.at/tl_files/uploads/Strategie/nationaler_Forschungs-_und_Innovationsplan.pdf

[16] Stadt Wien, "Wien denkt Zukunft", [Online], 2007, www.wiendenktzukunft.at

[17] Centrope Region, [Online], 2012, http://www.centrope.com/en/centrope-region/centrope-at-a-glance

[18] European Commission, "The state of European university business cooperation", 31.08.2011, http://ec.europa.eu/education/higher-education/doc/studies/munster_en.pdf

[19] Vienna University of Business and Economics, WU Entwicklungsplan, 2012, http://www.wu.ac.at/structure/management/senate/documents/entwicklungsplan_30.4.2012.pdf

[20] University of Medicine Vienna, Forschungscluster [Online], 2012, http://forschungscluster.meduniwien.ac.at/en.htm

[21] University of Vienna, Forschung, 2012, http://rektorat.univie.ac.at/forschungsplattformen/

Mihaela-Cornelia DAN has graduated the Faculty of Economic Studies in Foreign Languages in 2000. After that she joined the staff of the UNESCO Department for Business Administration within the Bucharest Academy of Economic Studies. She has a PhD in Strategic Marketing. Her professional interests and experience focus on issues in management and marketing, European business environment, role of universities in the regional development process and published more than 15 scientific articles in these areas.