

**Experience report on the study visit to Royal Institute of Technology, Stockholm
6-13 October, 2013**

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Between October 6 to 13, 2013, together with a group of representatives from the Education Ministry and 8 higher education institutions from RM, we made a study visit to the Technological Royal University from Stockholm (KTH), Sweden, within the TEMPUS project "Consolidation of academic autonomy in Moldova ". The purpose of our visit was to get informed about the principles of academic autonomy from Sweden and to identify useful standards to be applied in the higher education system in Moldova.

During this visit we had the opportunity to become familiar with a large number of aspects of the higher education system from Sweden that is a developed country in northern Europe and a world leader in higher education.

With a population of about 10 million. inhabitants, Sweden has 40 universities, most of which are funded by the state or by the sources of investment funds . Education is free for both Swedish students and for the European students. As a model of higher education in Sweden it was proposed KNH University, Royal Institute of Technology, the largest technical university from Sweden, established in 1827. Currently the University has 5 campuses located in Stockholm and outside the capital. The University prepares engineers for all branches of the national economy from Sweden. KNH is one of the most competitive universities in Europe, ranking among the top 10 technical universities. Today at KNH study approximately 18,000 students. There activates more than 1,950 researchers from around 100 countries from the world. It is to mention the great cooperation between higher education institutions and economic agents, being deeply interested both in the results of scientific research and in the preparation of highly qualified staff in these institutions. Moreover, the research is a priority of the state, the annual budget allocated for research is up to 6 % of GDP. The research results are required by a number of world famous companies. This way KNH is working with 25 large companies from Sweden for which prepares labor forces and provides innovative products. 80 % of the KNH's budget come from the public, from here is the major responsibility of the university is to provide many qualitative services of social importance - good education, applied scientific results , close collaboration with companies and business elite .

The Universities in Sweden have 2 levels of management. Universities household management, including its financial management that is conducted by the Board of Directors, composed of 15 people: 8 members are representatives of large companies from the country, 3 teachers, 3 students and the rector (or the president) of the University.

The Chairman of the Board of Directors is a member of an investment company. The 8 outside members of the Council, are appointed by the Government at the proposal of the University. Academic administration is carried out by the rector of the University, which has a team formed by a vice-rector or vice-rector for research and academic director (chief of the

Board). There is to mention the election of the Rector that is effectuated by a Council expected for this procedure. This determines applications that are proposed for election by KNH staff. The candidate selected by the Board is to be confirmed by the Government. The government appoints him for a term of 6 years which may be extended for another 6 years and another 3 years only to their own desire.

One important thing , in my view, is that the Rector shall appoint one management team of the University: deans , heads of departments, etc. . At first glance university management seems to be very sophisticated, with a lot of structure , with a large staff , but each component has well-defined goals and objectives , so that the effectiveness of this management system is very high .About this we were convinced by the presentations made by Mr. Anders Lundgren, KNH's Chief of the Board, who informed us about the Sweden university administration system, Victor Kordas, senior project manager, who made us familiar with the educational system in Sweden and KNH activity ; Lisa Eriksson , Director of Innovation Department, by presenting the particularity of its subdivision activity; Klell Niver, Head of Civil Engineering and Architecture Department, presented useful information about the particularity of subdivision activity that leads , Alicia Berlanga , chief of UNESCO Chair for the academic management of the Technical University of Catalonia (Spain), which made us aware of implementing policies of academic autonomy from Catalonia , Anders Flodstrom informed us about trends in contemporary higher education development and research from Europe, Lennart Stahne , Swedish National Agency for higher Education , informed about the higher education organization and functioning in Sweden in the context of academic autonomy. There were some meetings (on October 10 and 11) at which we discussed in depth the subjects about university autonomy.

I was impressed by the meeting with Ms Cecilia Andrae, at the Swedish Institute for regional activities. She informed us about the opportunities of cooperation and participation that have Moldovan institutions, noting that Swedish Institute provides financial support for cooperation projects, scholarships etc.. We learned about various funding programs that could apply Universities in Moldova.

A special place occupies internationalization of universities from Sweden. This is a priority for them. For this reason most masters programs starts only in English. Qualitative knowledge and proficiency in English enlarge the employment opportunities of young professionals not only in Sweden but also abroad.

Higher education institutions from Sweden have an extended academic autonomy, which is manifested by establishing quantitative and qualitative organizations of education, opening up new programs, determining the content of educational programs, setting fees for studies, quantitative determination of potential science teachers, establishing wages etc. .

Financial autonomy is achieved by allocating funds per / student. As measure unit serves the cost of humanitarian education and to finance programs using advanced technological components include a coefficient of complexity. Funding is awarded in the amount of 60 % at beginning of studies and 40 % - at completion of studies. The funds are allocated by the

Ministry in full amount (not the items) for all types of expenditure: education, research, etc. . The Rector distributes the allocations depending on faculties' complexity. The criteria for obtaining funding are: the volume of external financing, the number of students / doctoral / graduate / doctoral theses quality etc.

Universities have no patrimony. They belong to the state, managed by an agency that basically maintains and exploits the patrimony in a very effective manner. This agency is responsible for buildings and land, the technical equipment of laboratories, classrooms, student dormitories, etc. . Universities pay for lease approximately 40 % from total revenue.

In Sweden research is carried out in universities. Of the 40 universities only 13 deals with research, others are in charge of training specialists. Special attention deserves attracting students on scientific research. In universities there are a number of structures designed to help students, PhD students, young researchers to obtain research project, construction and implementation of research results into practice. The training of a PhD takes 4 years. Universities are interested to seek employment for graduates, being in a close collaboration with various companies from the country and from abroad. The employment of young specialists depend on results of Universities admission and funding.

It is a good thing to attend the Union of Students in Sweden. About 90% of the students are members of the Union. It is headed by a president, student issued for one year to do his studies and 3 vice presidents also released during the mandate. Student Union staff is dealing with some didactic issues, maintaining dialogue between the students and administration at different levels, a special role being given to extra problems: housing, food, labor division enrolment, working in free time, participation in mobility programs etc.

The KNH students have a special place in Student Union. They organize a range of activities for fee. Money earned for services are handled by students. They pay a small fee to rent a place to activate in, remaining lease fee is paid by the University. KNH students have impressive participation in university governance.

Also was useful the experience of Universities empowering human resources. They use various methods for filling jobs, organized by some competition committee. In the composition of the Committees are included external experts and mandatory 3 students' representatives. It is to mention the active participation of students in all governing bodies of all university subdivisions and university work.

Teachers' salaries are determined based on negotiations between teachers, deans, heads of departments and unions. Salary depends on teacher performances and involvement in attracting external funding, teaching / research etc.

Number of persons employed depends on the number of students enrolled.

According to the visit to Sweden during the period October 6 to 12, within the EUniAM project I have reached the following conclusions:

- Is needed increased funding for educational system in general and education in particular from the Government. Universities should develop mechanisms and methodologies for efficient spending of public money invested in education;
- Also to develop the legislative basis and to create conditions for interested national companies in funding universities;
- To develop a funding mechanism per / student, well argued, that would take into account the real costs for preparing highly qualified specialists, the quality of its training and level of employment in labor division;
- To have a real academic autonomy is necessary legislative base performance, training a complex regulatory staff, an adjustment of all these acts. A special role plays changing the mentality of all components of the educational process, which can be adjusted with the legislative framework;
- To elaborate a legislation about effective use of university property;
- To create the National Agency for Quality Assurance in RM. To reduce the number of Universities from the country. Universities is to be responsible for increasing the quality of training specialists, their location in the labor division, creating conditions for competition between universities, specialties; to improve the quality of education. Elaboration of criteria on which to determine universities' rating and the amount to be funded;
- It is necessary to develop a single methodology for calculating tuition fees based on actual expenses, depending on the areas of training;
- To stimulate universities attracting foreign investments as well as foreign students;
- It is also necessary to increase the role of student's associations in universities' governance.

The experience gained during the visit to Sweden is benefic and I think it will help me to build a sustainable autonomy to State University "A. Russo" from Balti .

Experience report on the study visit to Royal Institute of Technology, Stockholm

6-13 October, 2013

Belostecinic Grigore, Academy of Economic Sciences of Moldova

“Enhancing University Autonomy in the Republic of Moldova” project

1. What did I learn (relevant for Moldova) ?

Recently, the higher education around the world has increased its internationalization degree, a tendency which was clearly seen from the very beginning of the meetings at the KTN Royal Institute of Technology in Stockholm.

Coming from the fact that the Republic of Moldova is a signatory country of the Bologna Accords and has announced its strategic orientation towards the eventual adherence to the European Union, this means that the universities in our country, in the future, will take part in a strong competition, due to the realization of an unique European space of the Higher Education with a constant growth rate of the academic mobility and greater opportunities for the young people to study in an European University. All of these require drastic changes and improvements of the Higher Education system, including the economic one, and it will impose the elaboration of strategies oriented towards the development and the insurance of abilities which will be competitive in the newly created educational environment. For the reasons mentions above, it becomes very important to learn the experience of the universities from the leading European countries in their way towards achieving better Higher Education standards and the increase of their competitiveness nationally, regionally and worldwide. Because of the facts mentioned above, the visit to the KTN Royal Institute of Technology in Stockholm proved to be very useful from the perspective of taking over some methods of organizing the processes (studies, researches, technology exchange etc) towards their adaptation and implementation in the universities from the Republic of Moldova.

2. Why is the new knowledge important?

The Higher Education system in the Republic of Moldova is dealing not only with financial problems, but also with problems such as the lack of mechanisms of insurance and control of quality, the weak interaction with the business environment, the poor motivation of the students and the teaching staff towards improvement, the lack, in some cases, of a qualitative management, but also the exaggerated centralization of the decision-making processes. Therefore, establishing a genuine autonomy of the Universities and the State will contribute to the improvement of the Higher Education System and the delivery of highly qualified and job-competitive specialists.

It should be mentioned that when it comes to the academic, organizational autonomy and the autonomy of the Human Resources, the Republic of Moldova has registered several accomplishments, more so, some rights concerning the financial autonomy stipulated in

Regulations concerning the functioning of the Institutions of Higher Education under financial approved through Government Decision Nr.983 from 22 decembrie 2012, have been accepted.

Despite the new Regulations, the following are still active : matriculation plans, the regulation of the admission procedure, the regulation of the teaching staff's salaries, the perception of studying taxes and fees, other mandatory coordination of decisions with the Ministry of Education, and the implication of the students in the Universities' governing process is just formal. If it were to ask the question: Is there an efficient mechanism of financing the Higher Education level in Moldova? The most appropriate answer will be – No, there isn't one, despite the attempts. The State is financing the Universities with regards to how much it affords to, not with regards to their needs, including the ones towards development.

All of the fields of activities mentioned above had been discussed during the meetings with the management staff and other person from the **KTN Royal Institute of Technology from Stockholm**, and certainly, there have already been identified the areas which after having been improved, will also be implemented in AESM. Or, autonomy means the right to govern by own laws, it means that the university has the power to decide upon its study programs, research directions, that the management personnel is chosen by the teaching staff and the students from the Senate, that the admission procedures and matriculation plans are decided by the Senate, it also means freedom of administration etc. In other words, the academic autonomy should touch all the areas of decision-making importance.

3. How can the new knowledge be applied/implemented in Moldova?

Through the willing to implement them, if those are considered to have a positive impact upon the quality of the studies, but also through operating some considerable amendments of the legal framework of the Republic of Moldova, preferably in the new edition of the Education Code. Regarding those mentioned previously, the following are being prepared to implementation in AESM:

- 1) The establishment of the AESM Students Association, as a juridical person, with AESM as the only founder but with the election in positions, including managing positions of AESM students during their studies.
- 2) The establishment of the AESM Technological Exchange and Inovationnal Support Centre, with the active participation of the teaching staff and students
- 3) The mandatory release of Doctoral Studies Certificates to the graduates of the Doctoral School that haven't managed to submit their dissertations during the studies (but have successfully passed all the other activities expected on the individual plan).

4. What challenges are expected during the application process?

Of course we need to continue the reforms in the Higher Education System of Moldova to improve it and make it competitive both regionally and internationally, therefore, the increase of social responsibility of the universities about what they do and how they do it is necessary, but we should also understand the fact that there cannot exist responsibility were there is no freedom to decide.

Last but not least, we need a higher degree of liberalisation of the educational services market. This will lead to a real competition between our universities towards attracting the best candidates for studies and qualitative financial resources, making them stronger and more competitive regionally and internationally.

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**Svetlana Borțoi, Ministry of Finance, Republic of Moldova
“Enhancing University Autonomy in the Republic of Moldova” project**

The TEMPUS project "Consolidation of university autonomy in Moldova" implemented by UTM during 6 to 12 October 2013 organized a study visit in Sweden, Stockholm city to familiarize with the system of higher education in Sweden, based on example of the Royal Technical University .

There are 40 universities in Sweden, which are funded mainly by the state through various mechanisms: per student, research projects through contest, sources of investment funds, etc.. Sweden prepares students without tax, except the students from other countries who are not members of the European Union, which is why there is a lack of private institutions.

Higher education in Sweden works tightly in collaboration with economic agents, who are interested in the outcome of both: scientific research and qualified personnel, trained in these institutions. In Sweden both basic research and the applied are a state priority. For researching funds are allocated annually up to 6% of GDP. The research results are required, primarily by world-renowned industrial companies established in Sweden like Siemens, Nordics, ABB etc.

In their activity, the institutions of higher education are guided by the provisions of Superior Education Law and Regulations of Superior Education Institutions. The strategic objectives of education in Sweden are determined by the Parliament and the Government. Higher education is coordinated by the Ministry of Education and Research. Along with it, function two important structures:

- 1) State Department of Superior Education;
- 2) The State Council Superior Education.

The first structure of state holds control functions, assesses the quality of education, determines the rights of universities to provide with scientific degrees and concentrates statistic indicators. The second state structure has the competences to ensure admissions in institutions, to place information regarding the superior education, to assess the degree of preparedness of the international graduates and to ensure international cooperation. The Higher Education follows the norms of the Bologna system.

Institutions of higher education have expanded university autonomy, which is manifested by the establishment and the organization of the admission of young people in education, opening up new programs and determining the content of educational programs.

Also universities have an administrative autonomy. University leadership is represented by its President, Vice-President and an Administrative Director, of a Board made up of 15 people, 7 of them from the university, and 8 from outside it. The University is made up of schools (faculties) led by deans(managers).

Financial autonomy is achieved by allocating funds per / student. As the basis of the cost per student serves humanitarian education, and the financing programs using advanced technological components where there is included a coefficient depending on the complexity. Example: Arts - 4.0 coefficient, engineering, medicine - 2.5-3.0. Funding is provided in the amount of 60% at baseline, 40% at graduation. The funds are allocated by the Ministry in the total amount of block grant for education, for research and for doctorate students, and the rector distributes on faculties depending on complexity. Each dean has a conversation with the rector on the university budget, perspectives of development, opening new programs, employment, etc.. The criteria for obtaining funding are: the volume of external financing, the number of students / doctorate graduates, doctoral theses quality measurement.

For obtaining external sources each dean stimulates persons / professors. The largest share of funding in external sources comes from EU Research Council and Industry Association. Only 60% of employees have core funding, the others have funding from external sources.

Universities are working practically without a balance of funds at the end of the year. The institution may have balance for a maximum period of three years, when they have to achieve a measure for the given period.

Universities have no patrimony. It belongs to the state, managed by the Agency, universities pay rent for the space about 40% of total revenue. The university is responsible for technical equipment, the Agency is responsible for buildings and land.

In Sweden research is performed in universities. Out of the 40 universities, only 13 do research, other only deal with teaching.

Particularly important in Sweden is attracting students in scientific research. In Swedish universities exist entitled structures designed to help students, doctorate students, young researchers, to propose and formulate research projects, to achieve them, and even to implement in practice their results. A doctorate preparation period is 4 years. Universities are interested in pursuing employment of graduates on labor market, having a faded collaboration with industrial companies from the country and abroad.

Taking into consideration the studied during this visit, I propose to be examined the following issues for the universities in RM:

1. Subordinate all higher educational institutions to the Ministry of Education.

2. The cost per student funding mechanism to be developed by applying the coefficients of complexity specialties;
3. The set out regulations in legislation across the Patrimony of universities.
4. To regulate the responsibility of universities to engage in employment of graduates, so that training specialists will be focused not on quantity, but on quality;
5. Creating Quality Assurance Agency for Higher Education in Moldova;
6. Opportunities for elaboration of universities budgeting at subdivisions level.

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**Olga Cernetchi, State University of Medicine and Pharmacy “Nicolae Testemitanu
“Enhancing University Autonomy in the Republic of Moldova” project”**

During the period of 6-12 October 2013, I had the opportunity to visit Stockholm, Sweden, in order to get informed with the higher educational system from Sweden, on the example of KTH.

Sweden is one of the most developed countries of Northern Europe and one of the world's leaders in education. Now, for a population of 10 million people, there are 40 universities, of which more than 80% are funded by the state or by sources of some investment funds, and the rest are privately funded or funded by extra-budgetary university sources. By 2011, higher education was free for all students, including international ones. Over the past 2 years, international students from other countries than European Union members pay fees for studies. Based on this decision, the Swedish government put the consideration that the country needs to be competitive on education dimensions namely through its quality and not by the release of tuition fees.

Sweden is one of the economically advanced countries where both fundamental research and applicative one is a state priority. Annually, for research are allocated to 6% of GDP. The research results are required, primarily by world-renowned industrial companies which have their centers in Sweden as Siemens, Nordics, ABB, etc.

Objectives of higher education are determined in Higher Education Law and Regulation about higher education institutions. Thus the studies must provide students' knowledge and practical skills in the chosen field, critical thinking skills, skills to establish, the capacity to formulate and solve scientific problems and ability to adapt to business environment.

The strategic objectives of education in Sweden are determined by Parliament and Government, but higher education is coordinated by the Ministry of Education and Research. Along with this, work other 2 bodies as State Department of Higher Education and State Board of Higher Education. The first state body holds control functions, appreciates the quality of education, determines the rights of universities to award scientific degrees and focus on statistical indicators. The second mentioned state body has power to ensure admission process in the institution, places information with reference to higher education, appreciates the preparedness of the international students and issues of international collaboration.

The structure of higher education in Sweden is as follow:

I- study level:

- university diploma (2 years, 120 credits)
- Baccalaureate diploma (3 years, 180 credits)

II – specialization level (only after obtaining the baccalaureate diploma):

- Master (2 years, 120 credits) with the Master title

III – research level (PhD)

- degree (2 years, 120 credits)
- PhD (4 year, 240 credits)

Swedish universities have expanded university autonomy, which manifests through the establishment and organization of admission of young people at studies, opening up new programs, the content of educational programs.

As basis in allocating funds is humanitarian education (approximately 100000 SEK or 200000 MDL) per student but when financing programs using advanced technological components is included a coefficient depending on its complexity. For example: Arts - 4.0 coefficient, engineering, medicine - 2.5-3.0. Point out that financing is granted in the amount of 60% since the beginning of the studies and 40 % when the student finishes them.

Higher Education follows the Bologna system. The academic year is credited with 60 ECTS credits and study programs are flexible, which allows students to form independently their educational path, rating system, etc.

During the visit, we paid a particular attention to KTH activity (Royal Institute of Technology) - one of the most prestigious institutions of higher technical education in the country. This University was founded in 1827, gathers approximately 13,000 students, masters and PhD and about 2200 teachers. The number of teachers is governed by very Universities. Draws attention the high degree of assurance with teachers (1:6) .It must be mentioned that in medical universities this ratio is about 1:4 (ex. Karolinska Institute).

Based on the example of KTH were studied as well forms of administration in Swedish Universities. Thus, University leadership is represented by its President, Vice-President and a Director of a Board made up of 15 people, including 7 within the university, and 8 abroad it. Achieving the 50 educational programs that the University proposes occurs in 10 schools (faculties) headed by deans (managers).

In Sweden, research is carried out in Universities. At the same time, there are universities (institutes) which deal only with teaching process.

Hiring teachers, their remuneration, is in close relation with the result of scientific researches, research projects obtained, funding prospects for few years ahead.

Based on the Bologna Process stipulations, in which PhD is the third level in higher education, in Sweden is especially important, is attracting students in scientific research. In Swedish universities (especially KTH) there are entitled bodies designed to help students, PhD students, young researchers, to propose and formulate research projects, to achieve them, and even to implement in practice their results. Draws attention the numerous master programs from all fields (up to 120) that are realized both in Swedish and English.

In Swedish universities, a wide activity is performed by the Students` Union. In KTH this union consists of about 90% of the studying youth who make their studies in this university. Students` Union is led by a president and three vice presidents released during the

period of his function. The Union is dealing with educational issues through permanent dialogue between students and university administration and, especially, with extracurricular issues: housing, food, the possibilities of finding a job.

Particularly interesting was briefing that took place inside Swedish Institute, a government agency that develops interest for Sweden abroad. This institute has a big range of activities: Baltic Sea cooperation, mobility schemes, exchange and development, scholarships and grants for studies and research in Sweden for international students.

Conclusions:

After the visit to Sweden following conclusions can be drawn:

1. The Republic of Moldova is required to redefine the role of the Ministry of Education by changing its name in the Ministry of Education and Research, empowering it for coordinating research activities in Universities
2. The success of higher education in EU countries, including Sweden, is determined by the fact that it is completely student-centered, but not on institution's capacity to offer him studies.
3. There is a mismatch between qualifications obtained after the completion of various stages of education in Republic of Moldova and European countries, e.g. baccalaureate, license degree. This leads to difficulties in the equivalence of diplomas, employment process or continuation of further education abroad.
4. At the financing university from the state budget, must be approved by law coefficients financing different specialties according to their complexity and needs to ensure achievement of teaching.
5. The RM is required to increase the role of student organizations in educational institutions in accordance with the Bologna process (student self-government).

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**Gaugas Tatiana, Academy of Economic Sciences of Moldova,
“Enhancing University Autonomy in the Republic of Moldova” project**

During the period 10.06.2013 - 10.12.2013, according to the work schedule of the TEMPUS project "**Enhancing University Autonomy in Moldova (EUniAM)**" was held a study visit in Sweden, Stockholm. In the program was organized a study visit to the KTH Royal Institute of Technology. The main purpose of the study visit was to accumulate knowledge and successful experience regarding implementation and development of university autonomy in a European country.

KTH Royal Institute of Technology (KTH) is the largest technical university from Sweden, founded in 1827. Currently the university has five campuses located in and out of Stockholm. Each of these campuses is closely correlated with different industries. At the beginning, KTH was created as a research university that today became one of the most competitive universities in the European area in obtaining research funding and located in top 10 technical universities from Europe. Currently at KTH are studying over 18,000 students from which 4,000 undergraduates and 13,000 Master's degree, 3,300 employees and more than 1950 researchers from over a hundred countries. Swedish government takes care about higher education, so this branch is growing faster than the others, reaching an increase of 5-10 % annually. Thereby in 2007 KTH had 3,000 employees in 2011--3900 and in 2013--5000 employees. It should be noted that the education system is organized in such a way as to be more correlated with local industries and to provide solutions to their problems. Therefore, KTH graduates are appreciated throughout the world, more than half of the students find job offers before graduation, and over 86 % find jobs within 6 months after graduation.

KTH is a university with a well-developed strategy for internationalization : in the university is created an International Advisory Group, composed of the vice - president , vice - dean of the faculty responsible for the educational component, vice president of international affairs, chief international relations, admissions office and business related office. This group meets every two weeks and twice per semester organizes meetings with school representatives. At international level, KTH focuses on students' worldwide exchange, so in 2011, there are 1535 foreign students from different universities of the world, and in 2013 reaching 5000 (69% from Europe (Erasmus) and 31% of non -European countries). KTH offers a wide range of exchange programs for both students and for master's students with over 1000 subjects taught in English, and over 50 master programs. It is to note that undergraduate studies are offered in Swedish and programs master are in English. KTH prioritize EU programs Erasmus Mundus, Tempus and Marie Curie - these are basic tools for internationalization strategy. The University has four priority areas for creating Centers of Excellence: China, India, Brazil and Southeast Asia. We can observe that these areas are industrial areas with rapid growth rates, with high interest for transnational companies, so once again we were able to convince ourselves that not only the curriculum, but also internationalization strategy is closely linked to real industry needs and companies involved in international exchange. This experience

could be very useful for Moldovan universities, taking into account the low number of students in recent years. As follows, here appears the necessity of developing internationalization strategies, including diversification of education, especially of objects and programs taught in English, and also increasing the quality of education offered. Another advantage of KTH's university is that it is part of the CLUSTER - international excellence network in science and technology. Association members are technical institutions from Europe, USA, Canada, Israel, Brazil, Russia and China, and also here participate world-class private partners companies such as Siemens, Philips, Nokia, Ericsson, etc. The advantage of this network is the diplomas and master's degree mutual recognition awarded by participating universities, this way quality standards are recognized and accepted as equivalents of academic level. Graduates of a Cluster university will be accepted to master programs under the same conditions as local students of the institution, and master degree diploma holders will be eligible for doctoral studies on the same criteria as the internal master students. Vertical mobility within Cluster has created the most competitive Master programs, involving 13 companies, 10 research institutes and 13 universities.

KTH University can serve as an example of academic autonomy on various components. If we refer to financing funds of the university, they are: public funding representing 80-85 % (because Sweden is a country with a highly developed social system, these sources are formed from taxes payment). It is to mention that public funding is divided 50 % for education and 50 % for research. If we refer to the method that underlies government base funding is applicable the cost per student method (about 100000SEK per student) calculations are based on the previous year, but negotiations are possible depending on the number of performances obtained and number of applicants. It is important to mention that the university has the autonomy to decide about the number of students admitted to study. Swedish authorities can post the number of students that the state may need, but the final decision belongs to the university. KTH total funding amount to 410 mln. Euro annually, 13,8% private funding and 6.6% come from EU-funded programs . The most important private funders are: Swedish Research Council 242mlnSEK, EU programs 173mlnSEK, Vinnova with 165mlnSEK etc. This funding model would be very useful for universities in Moldova, it is a competitive one that focuses on research and development, but if we analyze the typology of private donors we see that they are specialized in research foundations and associations that cannot be found in our country and of course it should be noted the high degree of state participation in financing university. Financial autonomy of the university is that the sharing and distribution of funds received are related to university, so it should be noted that KTH is intensely involved in attracting private financing sources and as follows their shares are growing. As a technical university, KTH focuses on researches, having five major research platforms and 64 research teams.

Regarding to institution organization, KTH has a governing body called the University Board, formed by 15 people: 7 from the university - the rector, 3 teachers and 3 students) and 8 external including notorious people from society (business people, researchers, representatives of leading market companies) they are submitted by the university, but must be approved by the Government. The Board has a Chairman who is appointed and approved

by the Government. Rector (President) is elected within the university and can remain on this position no more than 3 terms (6 years, 3 years and another 3 years). Vice-rectors are usually appointed by the rector. KTH also has University Administration team and the department dealing with academic tasks and activities - Faculty Council.

The University is organized into 10 schools (similar to the faculties from our education system), each school may have several departments up to 7-11 departments. The head of the school is the dean that also has administrative function, the dean reports directly to the Rector and has important managerial function because he is in charge of departments and autonomy leaders related to management of financial resources. This is a useful practice for Moldovan universities, as our financial autonomy is not reflected at the level of faculties and departments. Each school from visited university is treated as a company that requires investment, but it must bring profit as well, so there is a struggle in attracting grant funds not only at school level but also at university level. Obtained schools' funding is based on the following criteria: external funding weight, the number of doctoral students who graduated, thesis quality, the activity of the school (research topics must be actual and meet the needs of the society). Dean negotiates with department leaders the funding: the amount allocated for departments, the funding percentage for research, etc., there is a system of delegation of responsibilities at the department level. There is an idea promoted that successful development depends on the efforts of each employee of the department, there is a direct link between results and funding.

The experience of this university was useful in the field of human resources too: the head of schools is responsible for hiring, for every position is chosen a Search Committee. It is initiated an international open competition, if you want to hire someone it is need to contact the dean, and the faculty council then rector. Competition commissions vary depending on the area and it is composed of external experts and mandatory of 3 student representatives. So we can conclude that students have a very important role in university's activity, taking part in the recruitment of teachers and in the governing body of the university.

Teachers' salaries are determined by negotiations between teachers, deans, heads of departments and unions. Teacher salary depends on the achievements, involvement in attracting external funding, teaching, etc.. Number of persons employed depends on the number of students admitted to study. So we can see that the payroll system used at this university is based on performance indicators, which motivates teachers to be active not only in teaching but also in research, collaboration, involvement in projects etc.

Very interesting was the presentation of the KTH Innovation Department, this department is subordinated to the Rector and it has the following tasks: organizing workshops (providing support to students and to researchers in launching business ideas and marketing research), legal issues related to intellectual property, market research, testing, startup, etc. . It is composed of 9 individuals with experience and knowledge in technical areas, annually they support 130 ideas and realize 35 commercial projects. Since 2007 they had a stream of 409 new ideas, they have worked with 616 people, including 199 students and 417 PhD students

or researchers, and 149 of them are teachers. This example could be followed in our country especially in circumstances where there is a gap between academic medium and business, and is hard to develop an innovation and harder to find eager to commercialize it, a such department could ease the task of researchers and especially encourage students and young researchers to launch new ideas and innovations.

It is also welcomed to be implemented in Moldova's universities the working experience with the business department of the Alliance. The task of this department is to establish collaborations and partnerships with business medium for developing innovations in regions. Particularly important is attracting funding companies, with the purpose to identify companies, society's needs and to seek different types of collaboration. Department works with large companies such as SAAB, NOKIA, SCANIA etc. , There are also regular meetings between students and companies. What I especially liked is that it works very closely with graduate students, they creates databases for university graduates, maintain relations with notorious graduates, organize clubs for graduates (over 15 worldwide). Despite of the fact that the indigenous academics are discussing about involving graduates in university's projects, in building partnerships, promoting the image of the institution, there is no formal structure responsible for this.

As implementing recommendations for Moldovan universities could be:

- Active participation of the state in funding universities, especially in research fields.
- Developing partnerships and collaborations with companies from business area.
- Attracting foreign funds for universities financing, active involvement in European programs.
- To adapt the studies, the articles, the research topics to society's and business's needs.
- Supporting the new ideas and innovations and their commercialization on the market.
- Developing internationalization strategy in order to attract foreign students.

Conclusions:

This visit allowed us to deepen our knowledge and gain more experience and practices in implementing university's autonomy following the Sweden, KTH example.

Experience report on the study visit to Royal Institute of Technology, Stockholm

6-12 October, 2013

Loreta Handrabura, Deputy Minister of Education, Republic of Moldova

“Enhancing University Autonomy in the Republic of Moldova” project

1. What have I learned? (important for Moldova)

- I've learned how the structures that provide extended autonomy in universities work and how do activities coordinate among themselves have lead to quality training results.
- How to ensure effective management and contribute to the development of the institution, which must have a market oriented approach economic.
- How to ensure/implement innovation in learning-teaching-research development process.
- How do student organizations contribute to decision-making and their implementation, the Alumni Association helps in collaboration with the enterprises, organizations where they work, attract funding, identify companies interested in investing in research.
- Being competitive, due to the quality of internationalization, universities offer dual qualifications (the case of the University of Catalonia from Spain, that offers dual degrees with 90 universities in the world).

2. Why what I've learned is important?

- Because our reforms, initiated or at least planned to be implement, aim the discussed subjects during the visit.

3. How what I've learned can be applied / implemented in Moldova?

- 1) In the situation where we have began the discussions about the Draft Education Code project and one of the updates on IS it refers to the establishment of a new structure in the institutional management, namely Strategic and Institutional Development Council, the KTH experience, having this structure is extremely useful, because it serves as an additional argument in our attempt to introduce it in the new law.

I refer, in particular, the following relevant provisions:

- Of the 15 people in the Coordination Council, eight people are from companies.
- The university's representatives are 3 students and 3 professors.
- The Chairman of the Board is a director of a company, a rich person.
- They have a nominating committee and the government approves those 8 members.

- 2) The subject of the Swedish legislation is an analysis model for drafting changes in HG regarding the regulation of the rectors election:

- The mandate for the rector is for 6 years, after this, another 3 years and if he

wishes he may extend it for an additional 3 years.

- Only Swedish citizens can participate in the rectors elections.
- Rector's salary is set by the government.

- 3) In KTH, innovation ensured and developed by Business Development Coaches, offers consulting those teams of teachers-students-scientists-practitioners who come up with ideas for business, working with external resources connecting good researchers with good entrepreneurs.

Also Moldovan universities should encourage inventions which create value.

The change of thinking that creates commercial value, technology transfer through analyzing the ideas in order to determine if it is a business idea, coordinating the people who generated the idea, will contribute to the initiation of start-ups, technology transfer, having won additional financial resources.

4. What are the anticipated challenges in the application process?

- Failure to inform adequately, respectively misunderstanding the sectoral and cross-sectoral benefit by direct and indirect beneficiaries.
- Institutional strength, managerial or even by the central authorities.
- Enough money from the state to support the early stage of academic research.

**Experience report on the study visit to Royal Institute of Technology, Stockholm
6-12 October, 2013**

Andrei Popa, State University of Cahul

“Enhancing University Autonomy in the Republic of Moldova” project

Purpose of the visit : Based on the data collected to outline the university’s autonomy principles from Sweden and to identify useful aspects for academic higher education system from Moldova.

I have conducted the following activities:

On **October 7**, 2013, 9.30 - 10.00, I had a meeting with **Mr. Anders Lundgren**, KTH Head of the Board of Directors, that informed us about the Sweden university administration system.

He mentioned that globally there is an increase of 6% annual academic output, thus KTH is to maintain the same rate of growth to remain competitive.

KTH aim is to provide an annual increase of 5-10% that would be the equivalent of the GDP growth in Sweden. A further support to this growth rate is the internationalization of university’s activities - at the moment there are over 3000 international students.

In terms of scientific research five years ago KTH had 3000 employees and 5000 employees at present. The institution collaborates closely with 25 large companies from Sweden, for which it prepares trained staff and provides innovative products.

80% of KTH budget comes from public purse, so it is a major public responsibility for KTH to provide as many services of social importance - quality training, applied scientific results, collaboration with companies.

KTH has 18 000 students. 50% of the budget is for research. They have 300 core teachers. KTH is organized into 10 schools headed by deans.

The Top Management of KTH - rector, one pro-rector, one pro-rector specialized in research, academic director (head of the board of directors).

The Head of the Board of Directors is responsible for managing the household, including finances.

The Board of Directors - 15 people, with 8 people from outside (most come from companies). President of the Council is the representative of the richest investment company from Sweden.

The outside Council members are appointed by the Government.

Inside members – 3 teachers, 3 students, the rector.

It was explained the procedure for appointment of the rector: a Council election of the rector (teachers, students, trade unions, members of the Board) determines the candidates for election to KTH members. The candidate chosen by KTH team is submitted to be approved by Government. The Government appoints the Rector for a six year term which can be extended through the same competition procedure for 3 years and another 3 years. A person can be on Rector's position no more than for 12 years.

10.00 - 12.00 - meeting with **Mr. Victor Kordas**, senior project manager, I was made aware of the educational system in Sweden and KTH activity (power point presentation) that informed about:

- KTH's budget structure
- Administrative structure - in particular was explained the role of the Administrative Council (the Board) of KTH
- Relationships between Schools and Rectory – annually, is signed a contract between the school and KTH's rector indicating how many students plan to educate the school in that year, what expenses will need to be covered, what research projects are planned, how many financial resources the projects requires, other activities (purchase of literature, conferences, publications, students..), including expenses for student's dormitory.

KTH is a research university with priority areas - transport, energy, materials, biomedical technology and biotechnology, information technology. In these areas are involved all the schools, from which are formed research teams with teachers from different schools (eg.: In biomedical and biotechnological technology area operates 64 research groups). In such a way the research adopts a interdisciplinary character.

At the same time, KTH organizes joint research centers abroad (eg Sweden - China) that activates in all the fields mentioned. Typically, their funding is 50/50 participatory or joint venture.

The Research groups are formed according to the projects.

13.30 - 14.30 **Ms Lisa Eriksson**, Innovation Department Director, presented the peculiarities of subdivision activity. As a basic task, the Department supports the implementation of project ideas submitted by students and KTH researchers. Department offers expertise assistance, identifying funding sources- legal (including preparation and signing of contracts) and patent. The department has the motto: we do not identify the winners, we grow winners. An idea is to become an invention, and then to be transformed into innovation. It happens that ideas make their way to the invention, but don't become innovations (know-how). Not all ideas are for innovations trading (business) market, as follows financing cannot happen. That's why the KTH's Innovation Department go with each applicant through the following path:

- Initial contact- during some meetings is established the essence of the project idea.

- The development of the idea- during 2-3 weeks, with the assistance of one of the 6 trainers, the author makes the description of project idea.
- Feasibility Study – Department's specialists analyze the submitted idea, including finances, economic cost, economic effect, the demand of this idea on the market, potential consumers. In case of positive results of the feasibility study, it is obtained permission to launch the project.
- The project development- it is written the project based on the approved idea. With the Department's help is performed the plan of project implementation - setting the purpose, implementing strategies, implementing phases, activities, project management, risk, resources, results.
- Project Contracting and legal adjustments of intellectual property – is performed the contract for realizing the project, which is signed by the author, entrepreneur that implements the project and the project beneficiary (the company where know-how is implemented).

In case the student comes up with the idea, all these stages pass through Student ICUBE, led by the Department, which provides the student an office where he works with Department's trainers.

The authors of the idea shouldn't be entrepreneurs or to seek for entrepreneurs. The Department is the one who searches for entrepreneurs that will materialize their ideas. As a result, the Department stimulates students and researchers to submit more and more ideas from which are chosen the most feasible one.

15.00 - 16.00 meeting with **Mr. Klell Niver**, Head of Civil Engineering and Architecture Department, he presented information about the work particularities of the division he heads.

School (college) in which he operates, has 7 Departments.

Department of Civil Engineering and Architecture (one of seven) has a total of 107 employees, of which:

7 Teachers

5 Teacher's Assistants

2 Professor's visiting

1 Teacher Affiliate

4 Professors emeritus

4 Speakers (associate professor)

9 Lecturers

50 PhD students, who are considered employees

The department has 9 divisions, which are also lines of research:

- Building materials,
- Construction technology
- Construction services and energy systems,
- Fluids and climate technology
- Concrete structures,
- Structural (roads) and bridges engineering,
- Soil and mining mechanics
- Hydraulic Engineering
- Building Technology and design

To Department's Chief are subordinated:

- Deputy
- Student's leader
- The finance officer, who issues the financial documentation to the Department, but in fact, is subordinated to school's Finance Leader
- Human resource manager, which maintains the department employees, but in fact, is subjected to Human Resources
- Informational system manager, which manages the Department network, but in fact, is subjected to Informational System Chief
- Head of Administration, who runs seven directors of specialized courses in specialized programs guided by the School.

The Department leads programs of:

- 2 years - higher short - technicians
- 3 years - higher education license
- Masters programs - Civil and Architecture Engineering
- PhD programs - currently have 50 PhD

Budget Department - 100 498 000 Swedish crowns per year.

On **October 8**, 2013, 10.00 - 11.00 at the meeting with **Ms Alicia Berlanga**, Head of UNESCO Chair for the academic management of the Polytechnic University of Catalonia, Barcelona, Spain, I was informed about implementing policies of university autonomy in Spain and Catalonia

She made an introduction for the Polytechnic University of Catalonia. It is to note that the University operates within a university cluster formed by 12 technical universities from Europe. This allowed the increase of institution's competitiveness and internationalization of it. The University has gained access to the best teachers from Europe and attract an increased number of students as a result of the internationalization of the activity.

The university has 8 campuses in 8 cities in Catalonia. Each campus has a Rector agent and an University's Manager agent. The Rector and the Manager are on the same level of competence.

The Rector is elected by teachers and students. He is responsible for the entire academic process.

The Manager is responsible for administrative, non-academic and finance problems and is elected by the University's Social Council.

University Structure consists of schools (faculties) and Departments. The Departments with specialized disciplines ensures all schools in all 8 campuses. Thus, a department (eg.: Department of Economics) has sometimes larger number of employees than a school because of teaching specialty courses (eg.: Economic theory) for more schools in the 8 campuses. This principle was approved by the University to further specialization Departments.

The University has 2867 basic teachers 31,000 students and 3,000 PhD.

- 69 undergraduate programs
- 62 master's programs, of which 13 - Erasmus Mundus and 23 - taught in English
- 48 doctoral programs, of which 25 - scholarships for excellence and 5 - Erasmus Mundus

With reference to the academic cluster of 12 European universities, it was mentioned that the purpose of this meeting was to cooperate on three components: education, research, technology transfer and knowledge. They focus on communication and information exchange. This allows enriching experience and finding optimal solutions by learning best practices and benchmarking conducted at the partner university.

Spain is going through a deep crisis. Spain Universities enjoy autonomy for over 20 years, but under current conditions where some of the freedoms have to be redefined, especially the financial aspect and management.

13.00 - 14.30 together with Prof. **Anders Flodström** we determined the contemporary development trends in higher education and research in Europe. There is a motion of a world

with globalized challenges. In terms of demography, population - falls in Europe and rises in Asia and Africa.

In Europe, the population is aging. As a result, a decrease in productivity is expected. Fewer young people will have to maintain much more of old persons. Maintaining the elders' health to extend their productivity and enhancing children's health, this way reducing their losses, is the scientific purpose in that region.

Current trends indicate a considerable increase of urban population that determines new researches for developing new models of organization of urban life - transport, water supply, sanitation, education, etc. All of them are closely related to the issue of ensuring food and reducing poverty growth.

Industrial development tends to robotics. Education goes into a wide open computerized area.

However, technological change is faster than the social one and it causes conflicts as well.

So today, the main development concept changes - from a knowledge-based society to a society based on skills and abilities.

Some of the reference literature recommended:

- Geoffrey Moore, "Crossing the Chasm"
- Ralf Jensen "Dream Society"

Contemporary university doesn't focus on accumulating new knowledge but pays more attention to skills improvement (skills - professional skills) and to the ability to use these skills.

14.30 - 16.30 during the discussion with **Mr. Lennart Stahle**, from the Swedish National Agency for Higher Education, I was informed about the organization and functioning of higher education in Sweden in the context of academic autonomy.

University's Autonomy doesn't mean isolation but a leverage for university's management modernization. University governance and state relations with universities are seen as an important prerequisite for the modernization of European universities.

"Universitas" from medieval Latin means "brotherhood, guild" and a correct interpretation of "universitas magistrorum et scholarium" is "teachers and students' caste".

There are 4 dimensions of university's autonomy: organizational, financial, staff policy and academic. Each of these dimensions has certain embodied aspects / characteristics of autonomy, which serve as indicators for assessing University's Autonomy Index, that represents the rating score set by the European University Association.

Further, each element of the dimensions was explained

It was explained the election of the rector.

It was cleared up the importance of The Board - the Administration Board of the University. In Sweden the board is composed of 15 people, 8 - are from outside. Those 8 are nominated by the university, but are approved by the Government. There are still 3 students, 3 teachers and 1 rector.

Regarding the financial autonomy, we found out that in most EU countries (25 of 28) universities are funded type "blok grant" and only 3 – by funding lines. Universities are able to keep the balance, which cannot exceed 3% rate of annual allocations.

EU universities' heritage is public property, except Germany, Hungary.

In EU, undergraduate and graduate studies, EU citizens are free of charge.

Personnel policy (setting staff, recruitment, hiring, payment, promotion) – in 18 EU countries is made by the university's own rules. In other countries - regulated by law, and in some - Government establishes even the number of positions for each university.

Academic autonomy involves freedom of universities to establish criteria for studies' admission, launch new programs of study with preventive authorization from the Education Ministry/ Swedish Higher Education Authority content curricula.

In Sweden activates:

- 14 universities with PhD and research right.
- 14 colleges - for undergraduate and professional-technical - as a result of movements of political and business influence that have obtained the right to master studies. 4 of them claim to obtain the right to doctoral training. It will be possible only after their evaluation by the Swedish Authority for higher education and accreditation.

On October 9, 2013, 9.30 - 11.00, at the Swedish Institute for regional activities, we had a meeting with **Ms Cecilia Andrae**, we spoke about cooperation and opportunities for participation of Moldovian institutions. The Institute's activity extends also in Moldova by providing financial support for cooperation projects, scholarships, etc.. I am aware of the various funding programs that could apply the universities from Moldova.

13.00 - 13.30 inside the KTH's administrative block I attended the Professor **Peter Gudmundsson** meeting, Rector of the Royal Technical University from Stockholm. During the meeting it was mentioned the importance of developing academic autonomy - a solution that allows universities freedom but also responsibility about formulation of strategies and policies for institutional and academic development. Also, KTH's rector informed the delegation members, about the current situation and prospects of development of the university's financial autonomy.

On October 10 and 11, 2013 I attended several meetings at which were deepened previous discussion threads.

As a result of the working visits from 6 -12 October in the consortium Tempus EUniAM, we came to the following conclusions:

1. University's autonomy is a process that correlates into a unique system the aspects of academic, financial and organizational activity. Sweden Universities combines these responsibilities aimed to increase the institution's attractiveness and visibility.
2. Universities' rating is formed mainly on research results, on the ability to attract finance from various funds of research and development, involvement degree in social partnership.
3. University's entrepreneur activity is important. It includes specialized training services at the request of the companies. Also, an essential chapter presents intellectual property commercialization of universities - inventions, discoveries, new technologies developed by science body.
4. As a part of the university's visibility is the internationalization activity of studies, including attracting foreign students learning on contract fee.
5. Implementation of university autonomy in Moldova requires issuance of a complex regulatory framework that would highlight the following:

- Legal status of universities
 - University property right
 - The right to the intellectual property of the university, related with compliance for copyright researchers.
 - Institutional academic organizing dividing representative competences from executive ones.
 - Workloads of the teaching science framework, combined with research and development activity.
 - Establishment of performance and excellence criteria on which is to be established the universities' rating and the level of funding.
6. It is necessary to develop the vision and mission of higher education system, linked to regional development processes and universities' place in economy complex based on knowledge.
 7. Based on Vision it is to be determined the development Strategy of higher education from Moldova.
 8. Only after clarifying the Vision and the Strategy it is reasonable to be developed The Education code adequate to society's requirements.

Experience report on the study visit to Royal Institute of Technology, Stockholm

6-12 October, 2013

Sadovei Nicolae, State University of Moldova

“Enhancing University Autonomy in the Republic of Moldova” project

Working visit to KTH University was very beneficial for the State University of Moldova, that was represented by the group that was in that visit during a week. Higher Education system from Republic of Moldova is very different from that existing in EU, and of course from that existing in Sweden. Personally, the following aspects from academic activity at KTH were of the bigger importance for me:

1. The functioning of the academic system as an autonomous entity in terms of combining educational elements with social and commercial (business) ones.
2. University autonomy in terms of employment and dismissal opportunities of academic teaching, research and support (technical and administrative) stuff.
3. Solving social problems through the ratio between cost-income-effectiveness
4. Student self-governance and its mode of functioning

These aspects have been achieved through meetings and discussions that we had with the KTH University representatives, but as well with public authority representatives from Swedish educational system. At the same time, it was very beneficial the presentation of university system from Catalonia, Spain, specially, in terms of opportunities to see and hear from direct sources not only beneficial aspects of academic functionality in an autonomous system, but as well system deficiencies of functioning in such conditions.

Learned things from this visit to KTH University, through the aspect of taking over the positive experience and implementing it in Republic of Moldova are most related with the first mentioned aspect: the functioning of the academic system as an autonomous entity in terms of combining educational elements with social and commercial (business) ones. Here is necessary to be mentioned that in both Sweden and Republic of Moldova, higher education (university) domain is a part of national socio-economic system and operates as a part of that system. In this sense, for a stable country like Sweden, without shock transitions from a political, social and economic system to another one, university functionality is an inherent normality of the system itself centered on the concept of the *social state*.

Learned things, as the result of this visit, could be taken by universities from Republic of Moldova, but taking into account the specific particularities of our country: low level of economic development, the massive exodus of young people from the country, high and almost institutionalized corruption.

Some components will not work in the existing system from Moldova, even if all legal aspects would allow this thing, such as, for example, the “two-chamber” system of universities administration. In the case of Moldova, the administrative bodies from university system, formed on the principle of inclusion in its composition business people, present- at

least at the moment- an obvious risk: these people would be tempted to take under their control these universities and use them as something adjacent within their business.

Important for universities from the Republic of Moldova is KTH University experience in staff autonomy in terms of the possibilities offered university to decide exclusively on the way and method of teaching staff employment. In terms of universities from Moldova, the possibility of applying this principle is limited by legislation in force, but in terms of openness and internationalization of our universities is very important and the liberalization of legislation in force in order to allow announcement of open (international) contests of employment. This would open the possibility to participate in those contests to the professionals from outside the university system, with experience, and with a new vision on high education system, which would allow on the one hand, the development of the university by taking the experience of other people without perception of higher costs in terms of training outside the country a native citizen with teaching and scientific experience from abroad.

It is important for universities from Moldova and experience of KTH University in the field of student's self- governance, taking into account the involvement of KTH University students in the act of academic administration for more than one hundred years. From this point, possibilities offered bodies of student self- governance are impressive, especially in terms of freedom for students to manage their own library, dining room, polyvalent hall, etc., which shows a high degree of confidence that University offers its own students. Under this aspect is important and KTH University experience in terms of providing a "sabbatical year" for students involved full time in the management of student self- governance.

The university system in Moldova is, in many aspects, quite rigid and reluctant to essential modifications, of system, such as the university's functionality under the conditions of university's autonomy. Due to these considerations, the experience of other universities is very welcomed, especially in regard to sensitive issues for the university domain in Republic of Moldova: applying for university studies, the university's administration reorganization from the organizational aspect, the opening of the university in terms of attraction for foreign students, the real organizing of contests to fill didactic positions, etc. An open- to- changes university, is a modern and attractive university.

The university's autonomy also presupposes systemic functional capacity of the university to attract funds for covering the inherent needs of its activities. Moldovan universities are not yet able to attract funds for the development of projects system, most of the projects won by Moldovan universities are earned because of, primarily, the people involved, and not because of the universities' ability to attract funds. KTH University experience, in this regard, is very useful.

Another aspect of the experience of KTH University, which needs to be taken or, at least, started as a pilot project in some faculties of the universities, is to offer financial and organizational autonomy to university academic subdivisions - faculty, departments, chairs. In this regard, the respective divisions of the university will be empowered in order to be

more effective, not just to require resources for the payment of the costs of education and remuneration of professors. The autonomy offered to academic structures (faculties, departments, chairs) could provide an additional boost to the structures that today are enclosed and inaccessible, and the university in its complexity system should have the ability to redirect funds raised centrally (budgetary resources) depending on those sectors that are not so attractive for applicants to studies, but are important for its functioning as a juridical entity.

**Experience report on the study visit to Royal Institute of Technology, Stockholm
6-12 October, 2013**

**Aliona Teacă, Academy of Economic Sciences of Moldova
“Enhancing University Autonomy in the Republic of Moldova” project**

In accordance with the activity calendar related to the Tempus program "Enhancing the University Autonomy in Moldova (EUniAM)" during 06/10/2013 - 10/12/2013 was organized a study visit in Sweden, Stockholm, within the KTH Royal Institute of Technology.

Swedish education system is free for EU members. Sweden is a part of the EU, but it still has a closer connection with the Nordic countries (Norway, Finland).

Given the population of 9 million, Swedes consider it necessary to export their own products and services, therefore the purpose of the 40 technical universities in Sweden is to provide specialists in engineering for the 25 Swedish companies that depend on the country's economy. Technical universities are more correlated with those companies than other universities.

KTH was founded in 1827. It is the biggest technical university in Sweden, located on five campuses in Stockholm and beyond. At KTH are studying more than 17,000 students; 1,500 doctoral students. The superior education is growing faster than in other sectors. It tries to increase 5-10% every year. (For ex. KTH in 2007-3000 employees, in 2013-5000 employees). It became an institution more open to internationalization: 5-6 years ago - 1000 foreign students, in 2013 - 5000 foreign students.

KTH is a component of the social system. Therefore core funding comes from the state \approx 80-85% (of tax payment), 15-20% from other companies. State funding is based on funding from the previous year, but can be negotiated, depending on the results obtained, the number of students enrolled (in Sweden the number of students admitted is decided by the university). Swedish authority publishes information on how many students the country needs, but the university decides how many students to register and assumes the risk), the cost of a student (about 100,000 cr.sued. / student). KTH's total income is 410 million Euro. It is assigned 50% for education and 50% for research.

The organization is similar to the organization of universities in the UK. Coordinating council of the institution (the Board) consists of 15 people: 7 from the University (Rector, 3 teachers, 3 students) and 8 external (large companies mentioned above). Persons from outside are proposed by the university, but approved by the Government. The chairman of the board is, usually, a member of an investment company called and confirmed in the post by the Swedish Government. Is elected the Rector within the university and can occupy this position three terms (six years I, II-3 years III-3 years), Vice-Rectors, usually appointed by the rector, but also can be recruited from outside.

KTH has 10 schools (Faculty Council) and 5 platforms (domains) of research. KTH tends to focus on research: in the sphere of logistics, information technology etc..

Each school can include 7-11 divisions (departments) and each department is also divided into subdivisions. The school is also divided into Group of communications and discussions (includes representatives from different schools), Committee on Education, Allocation of resources, Personnel hiring committee. These schools have autonomy on hiring staff, on financial resources management, etc.. Each school, department is as a company and must make a profit.

Deans are subordinated directly to the Rector, and he has in its subordination departments heads. The basic function of the dean is to manage the school, having meetings with the Rector where he reports and negotiates specific things. Deans, in their turn, meet with department heads and discuss the most important issues of the school, then negotiate on financing (% of funding for education, research) for each department.

The criteria for obtaining funding per school are: the volume of external financing, the number of doctoral students who have graduated the school, the importance of quality of the doctorate thesis (matter of quality, but not quantity). Very important is that the themes of the doctorate thesis wouldn't be chosen randomly, but they must be chosen depending on the issues that society faces.

It is important to have several criteria for obtaining funding, but it depends on the activity of the school, because if the school is new it focuses on the teacher productivity, but if the school is older it focuses on quality. Funding varies from one school to another.

The teaching staff salaries are negotiated by schools, heads of departments, unions. The salary of a professor depends on the cost/ student, considering their performances. The number of students determines the number of employees.

Responsible for the number of employees is the dean of the school, but the decision belongs to the rector. Pedagogical staff is employed through contest. There are certain requirements for each category of professors and specific recruitment targets regarding the gender equality. To be mention is that contest commissions are different, depending on the field (engineering, information technology, etc..) , in the contest commission are involved experts from outside and obligatory three student representatives. Committee members are chosen so that the committee would have the opportunity to evaluate both research and education experience and other skills of the candidate.

The internationalization of universities is a priority for the educational institutions in Sweden. KTH develops the strategy for internationalization within the university, having an International Advisory Group, consisting of vice president, vice dean of faculty (on education), vice president of international business, international relations chief, Office of Admission, Office of business

connections (business alliance). International cooperation results from the exchange of students worldwide, the large number of exchange agreements, active collaboration in Erasmus Mundus and centers of excellence in China.

KTH prioritizes EU programs Erasmus Mundus, Marie Curie, Tempus – represent key instruments for internationalization. It has four priority regions: China, India, Brazil, Southeast Asia.

Note that KTH is part of the CLUSTER - international network of excellence in science and technology. Association members are: technical institutions in Europe, USA, Canada, Israel, Brasilia, Russia, China. Mutual recognition of diplomas of bachelor and master issued by universities from CLUSTER, meet the same high standards of quality and excellence and, therefore, can be considered as equivalent by academic level. Students with a bachelor degree from a university from Cluster will be treated for admission to masters in another institution in the same way as local students of this institution. Master diplomas within universities from Cluster will be considered eligible for application to the doctoral in another institution in Cluster with the same rules as local students of this institution.

Cluster partners are world leading strong partners: SIEMENS, PHILIPS, NOKIA, ERICSSON etc.

A special interest aroused with our meeting with the head of the Alliance of Business. It is welcomed to be implemented and in the universities of Moldova the Alliance experience. The purpose of this department is to establish connections in business. In Stockholm, they work together with the Government, Health protection and other universities to develop innovations in the region. The Alliance encourages a lot the notorious graduates and keeps in touch with them via social networks. They organize graduates clubs (currently 15 graduates clubs around the world). Students can start business in the industry, can collaborate with different organizations from the industry.

Attracting financing is a new segment of the department. They deal with finding different companies to fund research. They did a survey to identify the types of collaboration with the society. Since every company needs different types of collaboration. Collaborates with big companies like: Saab, Scania, ERICSSON, NOKIA etc. They want long-term partnerships, so they are reviewed annually. They have teams within universities and in companies that meet regularly. In the department are held meetings to discuss problems between students and companies from industry and research. The process occurs as follows: partners (companies) can post on-line questions, and young scientists can solve their resolution. These conferences are open to all researchers in Sweden and abroad. Issues to be explored: science, sustainable development, and science of life. Advantage: they can participate in both, large transnational companies as well as small. Industry partners find these meetings very attractive and are willing

to collaborate. The link with graduates is a fact that helps to increase the university's position in the international ranking. For the university graduates are ambassadors, because it helps a lot to promote the image of the institution.

As proposals for implementation in universities in Moldova, consider:

1. An increased funding in education and research from the Government;
2. Ministry of Education to become a collaborative partner, but not of imposing restrictions;
3. Attracting external funding sources (stimulating large companies, have business to allocate financial resources in education and research);
4. Promote research for the development of industry and society in general (research topics should result from the problems of society);
5. Enhancing the quality of teaching (to form the Competition Commission to hire those specialists in specific fields (law, management, finance, information technology, etc..), to include experts from outside the institution, and mandatory student representatives);
6. Set up collaborative agreements with several institutions, in terms of the internationalization of students.

Conclusions: The visit to Sweden allowed us to deepen our knowledge and to learn new aspects about university's autonomy.

Experience report on the study visit to Royal Institute of Technology, Stockholm

6-12 October, 2013

Sava Turita, State Agrarian University of Moldova

“Enhancing University Autonomy in the Republic of Moldova” project

Due to the fact that the role of the visit was to study the present situation of the university autonomy and the Human Resource Department in Sweden, and also to identify solutions that could be applied in the Republic of Moldova, we can conclude the following :

1. What did I learn (relevant for Moldova) ?

- The System of Schooling and especially the Higher Education System in Sweden;
- The legislation and regulations in the Educational field;
- Governing bodies and methods of governing in the Higher Education Institutions;
- The Election Regulations for the Management Personnel, Teaching Staff and the requirements towards the candidates;
- Planning, recruitment and position appointment procedures;
- Autonomy of recruiting employees;
- The rights and the obligations of the academic personnel;
- Salary payment principles, criteria and sources;

2. Why is the new knowledge important and how can it be applied/implemented in the Republic of Moldova?

The importance of the problems studied consists of the following:

- Coming from the provisions of the Legea Învățământului RM about the University Autonomy, it is necessary to initiate some real changes to the university autonomy in the Republic of Moldova, an university management reform and the modernization of the services provided by universities;
- On the basis of the study done during the project locally and also in Sweden and other countries, I can initiate proposals towards the improvement of the legal framework and the Regulations about the management and the university autonomy from the Republic of Moldova, also the modernization of the governing process and the university autonomy;
- The improvements which will be done to the *Autonomy of the Human Resources* should be in regards to the following :
 - *The Mechanisms and criteria of recruitment and appointment of the personnel*
 - *The mechanisms of salary payments*
 - *The mechanisms of monitoring of the personnel*
 - *The mechanisms to motivate the personnel*

3. What challenges are expected during the application process?

Towards achieving the set goals we will have to face several challenges including:

- The implementation of many changes concerning the university autonomy requires a change in the mind-set of all the people involved in the process (management staff, teaching staff, students etc);
- The monitoring of all the internal regulations (internal acts of Higher Education Institutions) and the national regulations (laws, Government Decisions, Regulations, Decisions about the university autonomy – Human Resources).

Experience report on the study visit to Royal Institute of Technology, Stockholm
6-12 October, 2013
Nadejda Velişco, Department for Higher Education and Science Development
“Enhancing University Autonomy in the Republic of Moldova” project

1. What have I learned? (important for Moldova) I got acquainted with the Swedish higher education system with reference to the university autonomy. It is important that those four university's autonomy components are implemented. Regarding financial autonomy, it occurs at the level of the faculty. The Governing Board, is the one who chooses the rector of an educational institution, after which the Government confirms their decision. Universities are funded 50% for education and 50% for research.

Fees are set by universities independently and usually they are determined by the board. The Board has a President as well as a Vice President. The University Council is formed of 15 members, 7 of whom are from inside the institution and the remaining 8 are from large companies. The President himself is a member of an investment company. People are designated by the Government. Those 7 members are teachers as well as students (three students, three teachers and the president of the university). The mandate for the president is for 6 years, after this, he can stay in charge for 3 years and another 3 if he wishes.

The KTH University has:

- Five funding sources: the State, economic agents, for research.
- Five research areas: transport, materials, ICT, Medical biology, energy. Total of 64 research topics.
- The elaboration of a new plan of study, new courses and disciplines is made by the deans.
- At faculties, professors may have an indeterminate number of students, because students choose elective courses by themselves. This determines the professor's salary.
- The analysis of each course: number of students who entered and graduated, questionnaires for students, the professor analyzes the results and tells how he will develop his course in the following year. This is notified for the vice dean and faculty's board.
- Internationalization is a priority (Europe, China, Brazil, India, and South Asia). Professors and students have the advantage of participating in exchange programs. To receive a Swedish diploma, the candidate should spend at least one year in Sweden.
- Cooperates with 12 European Universities.

2. Why what I've learned is important?

First of all, universities from Moldova have passed to financial autonomy since January 1, 2013. In the newest project of the Education Code is clearly stated on the creation of the Councils, strategic and institutional development in universities as well as their responsibilities. We are at the beginning of establishing the 3rd cycle of higher education and this Swedish experience in this regard is welcome. It was important to clarify how financial planning is made for universities – per student and by specialty / area. Organizing research is an important pillar in the development of other studies: graduate and postgraduate. A special role lies and university management, well placed and well organized. Students Association was another confirmation about their participation in university's governance. KTH students have shown this through the university's organisation, which is sufficiently large and concerned with student's problems: library, providing various textbooks, organizing the canteen with a profitable cost etc.

3. How what I've learned can be applied / implemented in Moldova?

I developed a methodology for funding per student and using this experience we will define it nationwide. The establishment of the 3rd cycle, PHD studies should be secured with normative acts as well as programs of study etc. The establishment of the strategic development in universities after the Swedish model. Strengthening the research segment in universities and attracting financing to this area.

4. What are the anticipated challenges in the application process?

A new methodology for calculating tuition fees to be developed in the coming years based on professional formation and educational forms. Implementing a real university autonomy based on the normative acts adjustments.

The external evaluation of study programs at all levels especially the 3rd cycle, for the allowance of universities to organize such programs.

