Institutional Evaluation Programme

Performance in Research, Performance in Teaching – Quality, Diversity, and Innovation in Romanian Universities Project

Technical University, Cluj Napoca

EVALUATION REPORT

November 2012

Team:

Helena Nazare, chair

Edward Jezierski

Erdal Emel

Nadja Kiiskinen

Airi Rovio-Johansson, team coordinator

Table of contents

1. Introduction

The evaluation visits of Technical University at Cluj Napoca (henceforth TUCN) took place from 3 to 5 June 2012 and from 7 to 10 October 2012 in the framework of the project "Performance in Research, Performance in Teaching – Quality, Diversity, and Innovation in Romanian Universities", which aims at strengthening core elements of Romanian universities, such as their autonomy and administrative competences, by improving their quality assurance and management proficiency.

The evaluations are taking place within the context of major reforms in the Romanian higher education system, and specifically in accordance with the provisions of the 2011 Law of National Education and the various related normative acts.

While the institutional evaluations are taking place in the context of an overall reform, each university is assessed by an independent IEP team, using the IEP methodology described below.

1.1 The Institutional Evaluation Programme

The *Institutional Evaluation Programme (IEP)* is an independent membership service of the European University Association (EUA) that offers evaluations to support the participating institutions in the continuing development of their strategic management and internal quality culture. The IEP is a full member of the European Association for Quality Assurance in Higher Education (ENQA) and is listed in the European Quality Assurance Register for Higher Education (EQAR).

The distinctive features of the Institutional Evaluation Programme are:

- A strong emphasis on the self-evaluation phase
- A European and international perspective
- A peer-review approach
- A support to improvement

The focus of the IEP is the institution as a whole and not the individual study programmes or units. It focuses upon:

- Decision-making processes and institutional structures and effectiveness of strategic management.

- Relevance of internal quality processes and the degree to which their outcomes are used in decision-making and strategic management as well as perceived gaps in these internal mechanisms.

The evaluation is guided by four key questions, which are based on a 'fitness for (and of) purpose' approach:

- What is the institution trying to do?

- How is the institution trying to do it?

- How does it know it works?

- How does the institution change in order to improve?

Technical University at Cluj Napoca (TUCN) was evaluated for the first time in 2008 by the IEP. It has now been evaluated for the second time by an IEP team (henceforth team).

1.2 The Technical University of Cluj Napoca and the national context

Romania has 112 universities of which 56 are public and 56 are private universities. Of the private universities, 35 are accredited higher education institutions and 21 are provisionally authorised (background paper, 2012).

In public universities, most of the students are enrolled in full-time programmes. In private universities 52% of students are enrolled in distance-learning courses, while 30% of them are registered for full-time studies (background paper, 2012).

The Ministry categorised higher education institutions into three groups, which was the first indirect visible result produced (http://chestionar.uefiscdi.ro) according to the Law of National Education (2011). With the assistance of the European University Association (EUA), all Romanian higher education institutions are going to be evaluated, according to the three categories (2011): (a) 12 teaching and advanced research universities; (b) 30 teaching and scientific research universities or teaching and artistic/creative universities; (c) 48 teaching universities.

The ranking of study programmes was released soon after. The evaluation comprised 1074 study programmes that were divided into five specific types (A>B>C>D>E, where > means better results than) (background paper, 2012). According to the Law of National Education (2011), Romanian

higher education programmes at BSc, MSc and PhD-level are regulated in terms of comprehensiveness, content and forms of examination.

According to the national classification exercise (2011), the Ministry categorised TUCN into the group of "teaching and advanced research university", which includes twelve universities. According to TUCN Self-Evaluation Report (2012, p. 2): "The latest national and international events demonstrate a change in the paradigm related to the way universities have to cope with the needs of the society. From the very moment when ranking of universities and specialisation fields has become a reality, universities entered a new „era"; that of the direct competition to get access to the public funding, to be able to develop study programmes for higher level cycles (M.Sc., Ph.D., and post-doctoral programmes) and to run various types of study programmes."

The new "era" also meant the competition to get the best students to apply to TUCN, since more than 60% of public universities in Romania are offering at least one Bachelor's degree in engineering (Self-Evaluation Report, p. 6). The paradigm change also meant efficiency in terms of: (a) developing new study programmes for higher level cycles; (b) developing research-related activities with direct consequences for attracting students; and (c) improving partnerships in education, research and technological development at national and international level (Self-Evaluation Report, 2012, p. 2).

Established as an industrial college in 1920, it rapidly developed and in 1953 it was renamed Cluj Polytechnic Institute. In the beginning of the 1990s, it was re-established as Technical University at Cluj Napoca. It currently has 9 faculties, 27 departments, and 60 research teams. TUCN offers 64 BSc programmes, 60 MSc programmes and attracts more than 1300 PhD students; altogether about 21,000 students are enrolled at TUCN. Several faculties offer entire curricula in English as well as postgraduate programmes as lifelong learning (Self-Evaluation Report, p. 7). The staff consists of about 700 academics and about 2000 administrative personnel (Self-Evaluation Report, 2012, p. 16).

TUCN comprises four main sites in Cluj-Napoca and one in Baia Mare as well as regional satellites located in neighbouring counties, i.e., Alba-Iulia, Bistrița, Satu-Mare and Zalău (Self-Evaluation Report, p. 7).

Today TUCN has a prominent status among the higher education institutions in Cluj Napoca, a region that attracts more than 100,000 students. To consolidate and succeed, TUCN has developed a mission statement (Self-Evaluation Report Addendum, 2012, p. 4):

In a knowledge-based society like the one characterizing the European and international environment, the Technical University of Cluj-Napoca aims to become an important player at a national and international level and wishes to contribute at the wellbeing of the citizens and

the social and economic environment by generating and transferring knowledge by means of education, scientific research and innovation, as well as creating added value at an international level by intelligent specialization which can bring complementarily and niche trends in the international space of education and scientific research.

The Mission Statement (Self-Evaluation Report Addendum, 2012, p. 4) emphasises the following priorities for the next four years:

- *Advanced scientific research, visible at international level*

- *Innovation in collaboration with companies*

- *Focusing more on the needs of Romanian and international companies when designing the educational process – at all three levels*

- *Creating new post-graduate educational programmes, including online programmes and programmes based on occupational standards*

Whilst playing in a competitive environment and acting in the framework of its own mission statement and increased university income, TUCN has to fulfil the region's demands of higher qualified human resources, able to quickly adapt to the demands of a constantly changing national and European labour market. TUCN is planning to offer a number of educational opportunities for previous graduate students and other qualified applicants: "[…] there are other forms of post-university training that have not yet been dealt with by the university (i.e. the specializations based on occupational standards). Thus, we see the need for an integrative approach of continuous education, based on a consolidated strategy that could lead to an increase in efficiency and a better management of continuous education" (Self-Evaluation Report Addendum, 2012, p. 16). In trying to comply with these demands, the academic community of TUCN has to rely on the university's core values, such as "academic freedom, decisional transparency, academic solidarity and fellowship, professionalism, initiative, equal opportunities, unconditioned observance of academic behaviour and constraints, commitment towards academic values, high quality assurance in all enterprises, entrepreneurial spirit, diversity in action and individual and collective accountability" (Self-Evaluation Report Addendum, 2012, p. 4-5).

1.3 The self-evaluation process

The self-evaluation process was undertaken by a cross-sectional group consisting of representatives of the university management and various faculties and one MSc student, for a total of ten people. The group was appointed by the Rector Aurel Vlaicu and chaired by Professor Stelian Brad, Vice-

Rector of University Management, Master and Doctoral Studies (Self-Evaluation Report Addendum, 2012, p. 5).

The Self-Evaluation Report (2012) gave an honest and good description of the TUCN. However, the Strategic Plan of TUCN for 2012-2016 was under development when the IEP team made its first visit to TUCN from 3 to 5 June 2012. After the first visit the team asked for some additional material before the second visit. The new Strategic Plan 2012-2016 was introduced to the team as part of the additional material (Self-Evaluation Report Addendum, 2012) sent to the team before the second visit from 7 to 10 October 2012.

1.4 The evaluation team

The Self-Evaluation Report of the TUCN along with the appendices was sent to the evaluation team about a week before the first visit, from 3 to 5 June 2012. The team's second visit to TUCN was from 7 to 10 October 2012. In between the visits TUCN provided the evaluation team with some additional documentation (Self-Evaluation Report Addendum, 2012).

The evaluation team consisted of:

- Professor Dr. Helena Nazaré, former Rector, University of Aveiro, Portugal, Chair
- Professor Dr. Erdal Emel, former Vice-Rector, University of Uludag, Turkey
- Professor Dr. Edward Jezierski, former Vice-Rector for education, Technical University of Lodz, Poland
- Ms Nadja Kiiskinen, Student,Tampere University of Technology, Finland
- Professor Dr. Airi Rovio-Johansson, University of Gothenburg, Sweden, Coordinator

The team would like to thank Rector Aurel Vlaicu, the Vice-Rectors, the Self-Evaluation Group, the liaison officer Professor Mircea Radulescu, deans, department heads, President of the Senate, Senate members, academics, students, executive officials, administrative staff and external representatives for useful discussions, their kindness and interests during both visits at TUCN.

2. Governance and institutional decision-making

Rectorate level

The Rector and seven Vice-Rectors have great possibilities to initiate various activities and improvements in the organisation through the Administration Council. However, regulations related to the Law of National Education (2011) request that the Rector and Vice-Rectors need the Senate's confirmation of changed or new activities and related costs. The implementation of this law seems to influence relations and communication between the Senate, the Rector and the Administration Council as well as the management's strategic planning process.

In order to overcome potential communication difficulties and to build strong relations between the Rector and the Senate, the Rector has a standing invitation to take part in the Senates meetings, and the President of the Senate has a standing invitation to take part in the meetings of the Administration Council.

Senate level

According to the Law of National Education (2011), TUCN students must have at least 25% representation and faculties/departments must have Senate member representation proportional to the number of their students/academic staff. The Senate at TUCN consists of 82 elected academic staff representing all departments, 25% of which is students (Regulamentul, TUCN, 2012, p. 7). The deans are no longer members of the Senate.

The number of academics representing a faculty is related to the size of the faculty, and in terms of the number of students. In the team's opinion, the total number of Senate members seems high, amounting to almost 10% of the academic staff.

Faculty level

Programmes are organised at department level and approved by the faculty board before the Senate takes the final decision. The Law of National Education (2011) also requires the faculty management to be responsible for teaching organisation at BSc and MSc level. The content of these programme offerings are the responsibility of departments. Teaching assignments, student examinations and course evaluations are organised and followed up by the deans.

The deans are selected through a competition: the faculty council chooses three out of five candidates, and the decision after election is taken by the Rector's commission appointed by the Senate. The deans whom the team met complained that they did not have votes or any influence on the selection of electors and they seemed to have little power to act on behalf of the faculty; their possibilities to influence the development of the faculty's research activities, study programmes,

economy and human resource decisions seemed restricted. Consequently, due to restricted autonomy according to the Law of National Education (2011) and to existing "accounting principles" (Riahi-Belkaoui (2004, p. 217), all costs incurred during the budget year have to be attested by the Chief Financial Officer (CFO) in the Administrative Council.

There seems to be good cooperation between faculties in educational matters, but it seems not to be the same in research matters. There seemed to be insufficient communication within TUCN among faculties and departments, for instance in developing and starting interdisciplinary projects involving several faculties.

Department level

According to the academics and students whom the team met during both visits communication among departments needs to be improved. The Strategic Plan 2012-2016 (Self-Evaluation Report Addendum, 2012) approved by the Senate in September 2012, mentions that TUCN intends to implement an internal administrative structure in order to facilitate communication among the departments and different administrative levels. That opens possibilities for cooperative interdisciplinary activities in education and in research.

Overall view on the university's governance and institutional decision-making
The approved Strategic Plan 2012-2016 (Self-Evaluation Report Addendum, 2012) is being implemented at the TUCN. The team's opinion is that Strategic Plan 2012-2016 needs to be closely linked to the decentralized decision making process and financial resources. Therefore, an integrated management system has to be implemented. Of particular importance is full integration of Baia Mare (Self-Evaluation Report Addendum, 2012, p.10 and p. 18) as well as the consolidation of the Interdisciplinary Research Institute (Self-Evaluation Report Addendum, 2012, p. 18). The team also recommends the university to facilitate communication among the departments in order to strengthen interdisciplinary programmes and enhance initiatives to start interdisciplinary research projects (Self-Evaluation Report Addendum, 2012, p. 7).

3. Teaching and learning

Undergraduate level

According to the Self-Evaluation Report (2012, p. 23), the majority of Bachelor of Science programmes on offer have been accredited and ranked in categories A and B by the Ministry (Self-Evaluation Report Addendum, 2012, p. 7). Previously all faculties had entrance examinations, but only some programmes have kept this procedure.

According to the students whom the team met there are means-tested grants provided to students by the government when they apply to higher education studies. After that, students who earn 30 credits in a semester with a Grade Point Average (GPA) test result of at least 7.5 (on the scale of 1 – 10) can get a grant. The amount of this grant also depends on the students' GPA test results. The best performing students in a programme, about half of the group, are exempt from paying fees.

The team's question "What do learning outcomes mean to you?" was answered by the students as: (a) matching the content of courses with the needs of the labour market, not just teaching something "because we happen to have someone who can teach this" and; (b) that they are provided with the curriculum of the programme and the syllabus for each course, but not learning outcomes in terms of skills and competences to be reached in a given course or degree programme.

For the last two years of the Bsc programmes, students can only choose between two curriculum alternatives. Students expressed the wish to have more electives in BSc programmes the last two years in order to get more diversified educational opportunities.

At the end of each semester the students fill in course evaluations (questionnaires) including an assessment of teachers (Self-Evaluation Report Addendum, 2012, pp. 167-170; 180-182). These evaluations are mandatory for the students. Results of evaluations are compiled at faculty level. However, the students complained of insufficient feedback from these evaluations. There were also some teachers who expressed wishes to get improved feedback about the students' evaluations of their performances. The team would recommend the university to give students and teachers who have been evaluated systematic feedback on students' evaluations of courses, education programmes and teachers.

The students are confident in finding a job corresponding to their education and stated that they had a fairly good amount of practical training within their studies. In every BSc degree there is a

mandatory practical training of a minimum 240 hours in a company. In the fourth year of the BSc students carry out project work under supervision of their teachers, for instance in a company.

According to academics met by the team, all students at TUCN are provided with accommodation in the university's dormitories. Students, however, claimed that whilst accommodation is provided to all first-year students, 80% of students can get accommodation after the first year based on study performance and study success (GPA test results).

MSc-level

According to the students whom the team met, MSc programmes are mainly evening programmes with courses starting at 6 p.m. daily; sometimes there are classes to attend even on Saturdays and Sundays. MSc students said that they would welcome MSc programmes as daytimes study programmes instead of MSc programmes starting at 6.00 pm. The MSc-programme includes 14 hours of lectures per week, excluding laboratory work, which depends on the content and subject matter chosen by the student for the MSc thesis. About 95% of MSc students work full-time outside the university during their degree. This seems to be one of the reasons why the students complained of the late teaching hours.

PhD-level

TUCN offers nine doctoral study fields and nine MSc fields (Self-Evaluation Report Addendum, 2012, p. 74-75). So far, there are few 4-year PhD programmes at TUCN; the most common are the 3-year programmes introduced in 2007 when the Bologna system was implemented in Romanian Higher Education. The Board of the Doctoral School consisting of heads of each department has the administrative responsibility for PhD programmes. Only full professors can be accepted as supervisors of PhD students. Full professors at TUCN have the scientific responsibility for PhD students' studies and academic work. The Senate decides how many PhD students each supervisor can have each year.

Approval of a dissertation firstly requires the approval of the supervisor and the department, and then the approval from the Vice-rector for research, who also decides the composition of the examination committee consisting of five people, usually two from TUCN and three external members. A PhD student is awarded the title of Doctor of Philosophy/Science/Technology (depending on the faculty) after a successful defence of the doctorial theses. The national commission appointed by the Ministry has to approve the thesis afterwards.

Teaching staff

Department heads and teachers mentioned the lack and the need of young teaching staff and opportunities for development of existing staff (Self-Evaluation Report Addendum, 2012, p. 27). An assistant teacher position requires applicants to have a PhD degree. According to the Law of National Education (2011), the salary is set by the government and in this specific case it is set at 1000 lei/month.

The Law of National Education (2011) prescribes the teaching norms/loads per academic category, the salaries for different academics and administrative staff. Skilled academics are often drawn to working in industry because of the higher wages. Universities have to follow the Law of National Education (2011) and its prescriptions. The criteria for promotions of teaching staff are set by the Law of National Education (2011), and include very demanding criteria according to several teachers. Some of the teachers the team met were interested to do research. However, the teaching load regulated by the Law of National Education (2011) was too heavy to manage which made it difficult to also be involved in research projects.

According to the university, its autonomy is restricted due to regulations in the Law of National Education (2011) in terms of economy and funding (Self-Evaluation Report Addendum, 2012, p. 30), getting new teaching positions, improving the salaries to staffs, education and changing study programmes at undergraduate and graduate level and in terms of the final approval of the PhD thesis – all of which was noted by the team.

4. Research

National research funds exist, but the team was told by researchers that it is hard to get funding for research from the government and from European research funds. However, most of these available European research Funds, for instance FP7 and the new Horizon and other funds, require involvement in established cooperation networks with several countries and established institutional research backup, which is missing at TUCN. The administration and bureaucracy involved with international funds are constraints that are difficult to manage by a small research group or a single researcher at department level at TUCN. There are successful researchers at the university, but the missing administrative support to researchers and research projects is evident.

There are opportunities to build research relations with national and international industries in the Cluj Napoca region, although some of these, such as Siemens and Nokia, have moved to other areas in Romania (Self-Evaluation Report Addendum, 2012, p. 30). Other industries have come to Cluj Napoca and there will be more in the future. Good relations between the university and the industries were affirmed among the external stakeholders whom the team met. Students from TUCN were encouraged to undertake their obligatory weeks of work experience in different companies. A few companies also made available to teachers information about new developments in complex areas of computational sciences.

The team noted the lack of international researchers. It was further observed that a few researchers do their training abroad and have kept good contacts with their international colleagues. The culture of publishing research papers seems to differ among faculties. For instance, both the departments of mathematics and physics have an established culture for publishing research papers, while the engineering departments have been focusing more on practical projects and products and therefore produced mainly reports and conference presentations.

Until 2008, TUCN had research programmes funded by the Romanian Government, but due to the European and Romanian economic crisis, these funds have been terminated. For the same reason some of the research centres at TUCN, which previously had been funded by companies, have been shut down. Every research project has to pay 25% of the total grant as an overhead cost to TUCN, while EU- and FP7- projects are charged 10%.

Research has the highest priority in the TUCN's Strategic Plan 2012-2016 (Self-Evaluation Report Addendum, 2012). The team supports this priority and considers the research at TUCN as a fundamental core activity. The team recommends further internal networking and inclusion of

interdisciplinary modules in educational programmes as well as more internal interdisciplinary research. The team is aware of the fact that there are insufficient possibilities to get money for research from the Romanian government and the difficulties to get research money from national and international research funds. The team met some researchers who were members of international research networks and who participated in writing application to get money from European research funds. However, the team's opinion is that possibilities to build and strengthen relations and improve communication with local, national and international industries and research groups and researchers must be further explored by TUCN (Self-Evaluation Report Addendum, 2012, p. 8).

The team recommends facilitation of researchers' membership in international research networks and participation in international research applications and global research communication. It further recommends that the University create a central administrative post to support researchers and research projects in getting access to research information, new application opportunities and international research data bases. The team also recommends the university to review the teaching load among academics in order to make it easier for teachers to develop their possibilities to be involved in serious research projects.

5. Service to society

The good relations between the university and regional industries guarantee knowledge development and knowledge transfer between the university and industry (Self-Evaluation Report Addendum, 2012, p. 22). Stakeholders whom the team met were satisfied with the students and graduates of TUCN they trained at their companies. The team recommends that the university strengthen these relations and stimulate academic entrepreneurship to facilitate departments and academics engaging in continued education programmes. The team also recommends that the university develops any necessary and transparent communication that would support their collaboration with industries and companies interested in getting engaged as partners in research projects with TUCN (third-party projects). These actions are related to priority areas 2 and 3 in the Strategic Plan 2012-2016 (Self-Evaluation Report Addendum, 2012, p. 4).

The TUCN Rector serves as chairman of the union of higher education institutions in the region; this opens the possibilities to develop educational and vocational programmes for the workforce in the region, for instance, Programmes for Continuous Education (at different educational levels) and to initiate new lifelong learning programmes.

6. Quality Culture

There is a Quality Assurance Department, which validates study programmes before they are delivered for accreditation by ARACIS. Every programme has to be re-accredited every five years. The accreditation is based on thresholds, half of which concerns teaching (curriculum, staff, infrastructure, student feedback) and the other half, research. If the programme does not pass the accreditation, it is closed.

Student evaluations are mandatory at the end of each semester. Evaluation questionnaires are used in these evaluations (Self-Evaluation Report Addendum, 2012, pp. 167-170). After the students have done the evaluation, the questionnaires are delivered to the Dean's office for compilation. Deans discuss the results with department heads. Some teachers claimed that it is easier to implement changes in the curricula in MSc programmes based on the student feedback.

According to the teachers the feedback system to students and teachers seems to vary in content and depth among faculties. Students claimed that young teachers in general receive higher marks in student evaluations than the older teachers. It would appear that the feedback is taken into consideration as professors and students at department level discuss the evaluation results and decide what changes or improvements have to be made before the next semester starts. According to the students, some department and faculties arrange feedback sessions for students, but these do not seem to be popular since only a few students show up.

There are several weaknesses to TUCN's stated interest in developing a quality culture. For instance, there is no functioning Quality Assurance system. Using old questionnaires and the same questionnaire every semester and every year does not contribute to reinforcing students' interest in taking evaluations seriously. The lack of a functioning feedback system to students and teachers does not contribute to strengthening the responsibility among students to be constructive in their evaluations or the teachers to take students' comments seriously. The team's conclusion is that this is an area for great improvement, since the new Strategic Plan 2012-2016 (Self-Evaluation Report Addendum, 2012), approved by the Senate in September 2012, aims at building a quality culture in TUCN.

7. Internationalisation

Internationalisation at TUCN is an important issue because "this is the most developed region in Romania", according to several teachers and researchers.

Teachers in English programmes are almost entirely Romanians and very few visiting teachers from abroad are working at TUCN. The students who selected English programmes felt that they had better job opportunities and that the teachers in these programmes were better because they were, in general, younger and more open-minded.

It was stated that information about international exchange possibilities was readily available from the international office and websites, but applying for an exchange itself was very bureaucratic and time-consuming, and only students with high grades are accepted. BSc students would like to go abroad but partner universities do not offer BSc programmes in English and other languages. There are a number of incoming international students (Self-Evaluation Report Addendum, 2012, p. 31), but very few outgoing students. The students pointed out that one of the obstacles is the lack of recognition of credits earned abroad.

The team met very few international students at TUCN. According to the university, Erasmus funds for student exchanges were mainly for MSc students at thesis stage because of time limitations. Master students are not interested in going abroad because some of them already have a job and sometimes families too. The team was told that some teachers are interested in Erasmus programme, but there is not enough funding for staff exchange.

The team noticed that there are very few non-Romanian staff and a low exchange rate of academics at TUCN.

Research at TUCN is a fundamental core activity, and closely related to internationalisation (Self-Evaluation Report Addendum, 2012, pp. 30-31). The team recommends that the university stimulates internal networking among its researchers, stimulates international networks and exchange activities among researchers and academics. The team also recommends the development of a systematic exchange system for PhD students and the utilisation of existing European exchange possibilities for Bsc, Msc and PhD students. In order to realise these activities, the team recommends the university to implement an advanced administrative support post and an advanced administrative support system to support researchers at TUCN.

8. Conclusions and summary of recommendations

In conclusion, the team would like to offer a summary of recommendations as expressed throughout the report:

Governance and institutional decision-making

- Finalise the decentralisation of a decision making system to faculties and departments;

Teaching and learning

- Give students and teachers systematic feedback on students' evaluations of courses, education programmes and teachers;
- Include more electives in the two last years of BSc programmes, in order to diversify the educational opportunities for the students;
- Offer some MSc programmes as daytime study programmes;
- Review the teaching load among academics in order to make it easier for teachers to develop their possibilities to be involved in serious research projects;

Research

- Stimulate internal networking among the TUCN's researchers and academics;
- Support researchers in becoming members of international research networks and become partners in international research applications;
- Appoint a central administrative position to support researchers and research projects in getting access to research information, new application opportunities and international research data bases;

Service to society

- Strengthen the relations with regional and local industries and companies, to stimulate academic entrepreneurship and academics to engage in continuous educational programmes;
- Develop improved communication channels inside TUCN to industries and companies in order to get them involved as partners in research projects;

Quality Culture

- Develop a Quality Assurance System and a Quality Management System to attain the Quality Culture planned in the Strategic Plan 2012-2016;

Internationalisation

- Develop a systematic exchange system for TUCN's students in the three cycles;
- Utilise existing European exchange possibilities (for instance the Erasmus Programme) for BSc, MSc, PhD students, as well as mobility and learning opportunities for researchers and academics.

References

http://uefiscdi.gov.ro

Law of National Education (No. 1/2011). Ministry for Education, Research, Youth and Sport. Bucharest, Romania: Ministry of Education, Research, Youth and Sport.

Regulamentul, de Organizare si Functionare a Senatului Universitatii Technice din Cluj-Napoca. Cluj Napoca, Romania: Technical University.

Riahi-Belkaoui, A. (2004). *Accounting Theory.* Fifth Edition. United States: Thomson.

Self-Evaluation Report, Technical University, Cluj Napoca (2012, May). Cluj Napoca, Romania: Technical University.

Self-Evaluation Report Addendum, Technical University, Cluj Napoca (2012, September). Cluj Napoca, Romania: Technical University.