

THE UNIKM PROJECT: COMPARATIVE RESEARCHES CONCERNING KNOWLEDGE MANAGEMENT IN ROMANIAN ENGINEERING EDUCATION

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Abstract: In our country, there are very few researches in the field of knowledge management in the engineering education institutions. In 2008, the project 92074/2008 "Comparative researches concerning knowledge management in Romanian engineering education-UNIKM" has begun within Romanian Partnerships in Priority S&T Domains Programme. The main objectives of this project, the activities and its main results are presented in this paper.

1. INTRODUCTION

In the early 21st century Romanian universities must carry out their activities in a global society, and they have to manage their knowledge more efficiently. Knowledge management may be a solution at challenges which higher education institutions are confronted today [2, 3].

Although the idea that knowledge management might be used in Romanian engineering education institutions is provocative, there are very few researches in this field in Romania. In 2008 a projects called "Comparative researches concerning knowledge management in Romanian engineering education-UNIKM" has begun within Romanian Partnerships in Priority S&T Domains Programme.

2. THE UNIKM PROJECT

This project gets together in a consortium academics from University of Oradea (CO), Politehnica University of Timisoara (P1), Politehnica University of Bucharest (P2), Technical University of Cluj-Napoca (P3) and the researchers at the Romanian Economic-Social Research and Survey Institute in Bucharest - IRECSON (P4).

All these researches have agreed to share their competences and knowledge, to sustain research and development activities carried out in collaboration by the consortium members, in order to develop an environment based on knowledge management in Romanian engineering education.

The stimulation of team research creation in the priority fields, the development of managerial capacity in research and the development of human resources, with a special attention in the including on young researchers in the common activities, are among the general objectives of the project.

For this aim, the following specific objectives were formulated:

- 1) The creation and development of the research consortium;
- 2) The development of common researches, to study how engineering education institutions develop their knowledge management dimensions. The establishment of the correlations and differences of these dimensions within the research consortium.
- 3) The transmission and valuation of results.

The project's work plan is presented in table 1.

Table 1. The UNIKM work plan

<p>Stage I. The creation of consortium <i>Deadline: February 2009</i></p> <p>Budget (lei) <i>Government allocation: 44500</i> <i>Co-financing: 0</i></p>	<p>Activity I.1. Creation of consortium Participants: CO, P1, P2, P3, P4</p> <p>Activity I.2. The establishment of the actual stage of knowledge management use in engineering education Participants: CO, P1, P2, P3</p> <p>Activity I.3. Dissemination and transfer of the results Participants: CO, P1, P2, P3</p> <p>Activity I.4. Research report of the stage Participants: CO, P1, P2, P3</p>
<p>Stage II. The establishment of the consortium competences <i>Deadline: November 2009</i></p> <p>Budget (lei) <i>Government allocation: 64035</i> <i>Co-financing: 7045</i></p>	<p>Activity II.1. The establishment of the partners competences Participants: CO, P1, P2, P3, P4</p> <p>Activity II.2. Dissemination and transfer of the results Participants: CO, P1, P2, P3, P4</p> <p>Activity II.3. Research report of the stage Participants: CO, P1, P2, P3, P4</p>
<p>Stage III. The identification of the knowledge management dimensions in engineering education <i>Deadline: November 2010</i></p> <p>Budget (lei) <i>Government allocation: 235441</i> <i>Co-financing: 11750</i></p>	<p>Activity III.1. The identification of the knowledge management dimensions in engineering education Participants: CO, P1, P2, P3</p> <p>Activity III.2. Development of the architecture of the knowledge management system Participants: CO, P4</p> <p>Activity III.3. Research report of the stage Participants: CO, P1, P2, P3, P4</p>
<p>Stage IV. Comparative analysis of the knowledge management in engineering education <i>Deadline: September 2011</i></p> <p>Budget (lei) <i>Government allocation: 261172.77</i> <i>Co-financing: 3752</i></p>	<p>Activity IV.1. The establishment of correlations and differences in using the knowledge management at education engineering institution within the consortium Participants: CO, P1, P2, P3, P4</p> <p>Activity IV.2. Dissemination and transfer of the results Participants: CO, P1, P2, P3, P4</p> <p>Activity IV.3. Research report of the stage Participants: CO, P1, P2, P3, P4</p>

The main results of the project are shown in table 2.

Table 3. The UNIKM research results

STAGE	RESULTS
Stage I. The creation of consortium	<ul style="list-style-type: none"> - 1 study concerning the human capital: " The actual stage of knowledge management use in engineering education " - 2 scientific articles - the Web site of consortium
Stage II. The establishment of the consortium competences	<ul style="list-style-type: none"> - 1 study concerning the human capital: " Structuring competences and intellectual capability of consortium " - 6 scientific articles, of which: <ul style="list-style-type: none"> - 1 article in ISI indexed Journal; - 2 articles in journals indexed in other recognized international databases; - 2 articles in ISI indexed conference
Stage III. The identification of the knowledge management dimensions in engineering education	<ul style="list-style-type: none"> - 1 study concerning the human capital "The identification of the knowledge management components in engineering education" - 2 scientific articles, of which: <ul style="list-style-type: none"> - 1 article accepted for publication in ISI indexed Journal - 1 article in a journal indexed in other recognized international databases - 1 book chapter in a book published by an international publisher
Stage IV. Comparative analysis of the knowledge management in engineering education	<ul style="list-style-type: none"> - 1 study concerning the human capital "Correlations and differences in using the knowledge management at education engineering institution within the consortium" - 4 scientific articles

4. CONCLUSIONS

In 2008, an association of some representative academics and researches from Oradea, Bucharest, Cluj-Napoca, Timisoara and Romanian Economic-Social Research and Survey Institute in a research consortium was established, in order to study the way the higher Romanian technical education institutions may apply knowledge management. The main objectives of this project, the work plan and its main results are described in this paper.

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References:

1. Hilton, J.(2006). The Future for Higher Education: Sunrise or Perfect Storm?, EDUCAUSE Review, 41(2), 58–71.
2. Kindwell, J., Vander Linde, K., Johnson, L. Applying Corporate Knowledge management Practices in Higher Education, Educause Quarterly, 4, 2000
3. Metaxiotis, K., Psarras, J. (2003). Applying Knowledge Management in Higher Education: The Creation of a Learning Organisation, Journal of Information and Knowledge Management, 2(4), 353-359
4. Serban,A., Luan, J. (eds.) (2002). Knowledge Management: Building a Competitive Advantage in Higher Education: New Directions for Institutional Research, San Francisco, Jossey-Bass
5. Townley, C.T. (2003). Will the academic learn to manage knowledge, Educause Quarterly, 2, 8-11