



European University-Industry Network

Contract Ref. 116343 – CP – 1 – 2004 – 1 – RO – ERASMUS – TNPP

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UNIVERSITY – INDUSTRY COOPERATION TUNING OF CURRICULA

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Leonardo meets Erasmus, Bonn, 28 November, 2005



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GENERAL OBJECTIVE

To create an European Network of universities and industrial partners -

for strengthening the U-I cooperation
in the fields of Education & Research.

Within EUI-Net:

“Industry” = enterprises, research centres, SMEs, NGOs etc.



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SPECIFIC OBJECTIVES

1. Defining and updating generic and specific competences relevant to the industrial sector by adopting the Tuning methodology;
2. Defining and updating generic and specific competences, as part of the curriculum, for students practical stages;
3. Promoting synergies between teaching – learning – research in universities, to integrate research results in the curricula to stimulate the innovation capacity.



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OUTPUTS

- **European workshops and conferences,**
- **web databases for graduates,**
- **available jobs in industry,**
- **promotion of research and innovation,**
- **permanent data updating in the view of a flexible and efficient curricula development in engineering.**



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PROJECT APPROACH

5 SIGs – Special Interest Groups

4 KAs – Key Action Groups

5 SIGs + 4 KAs = 9 WPs (workpackages)



PROJECT APPROACH - Special Interest Groups

SIG1

- **Generic and Specific Competences** in the subjects relevant to the industrial sector, using the Tuning methodology.

SIG2

- **Generic and Specific Competences for Practical Stages** of students as key component of the curricula in relation with the Industrial sector.

SIG3

- **Synergies between Teaching and Research**, to facilitate integration the results of research in teaching: upgrading syllabus, new supports & methods.

SIG4

- Enhancing **European Innovation Capacity, Research and Technological Transfer** using U-I cooperation.

SIG5

- **Professional Insertion** – key issue for the cooperation between University – Industry as main indicator for learning outcomes and competences.



PROJECT APPROACH - Key Action Groups

KA1

EUI-Net legal framework.

KA2

Dissemination of best practice in University – Industry cooperation within the EUI-Net.

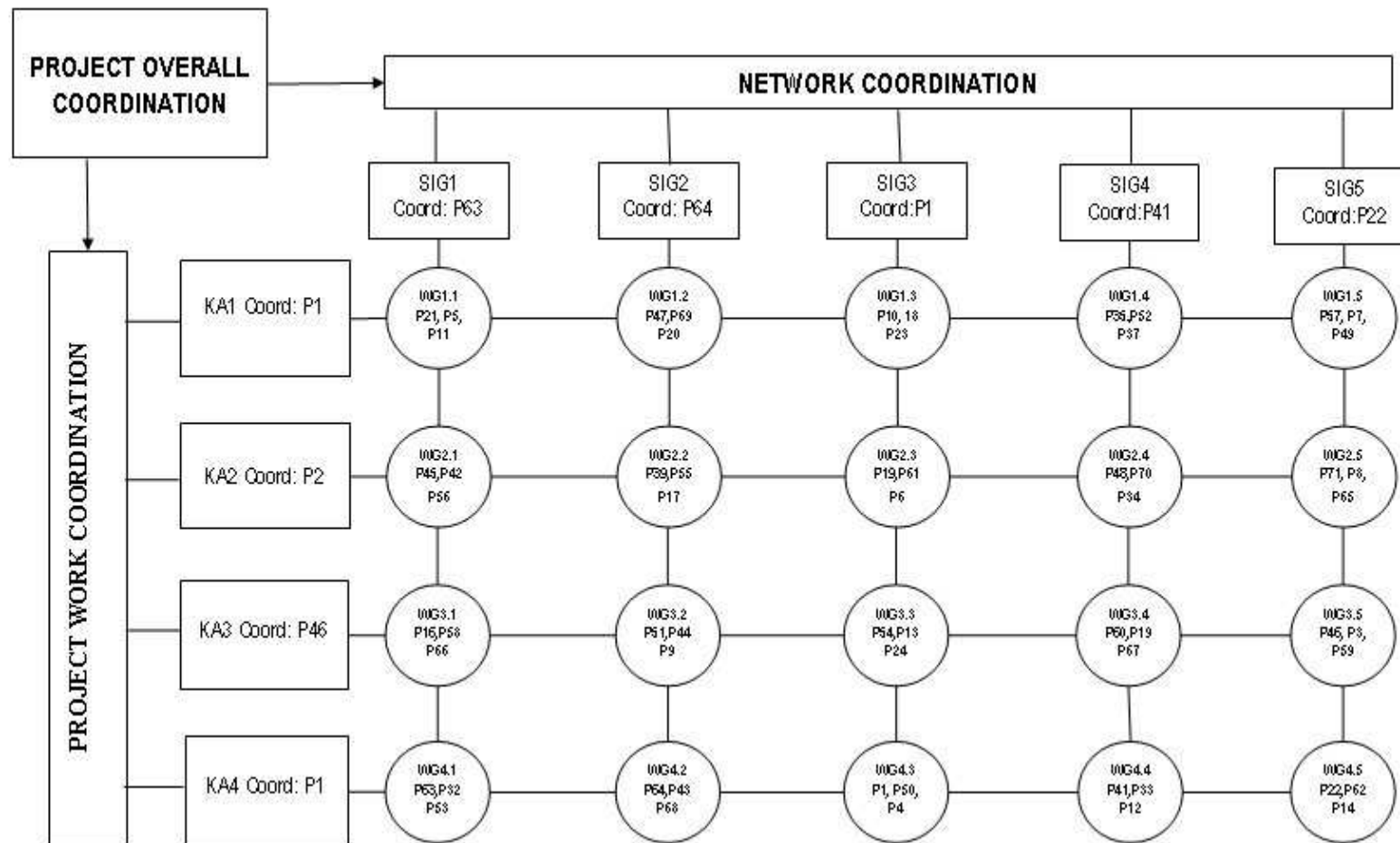
KA3

Network expansion, International cooperation, Links with other networks, services, fund rising.

KA4

Project activities & administration coordination and project reporting.

PROJECT APPROACH – Management Matrix





TUNING METODOLOGY

= tuning the educational system with the labor market requirements.

Experience from previous projects has been obtain in seven areas: business, geology, history, mathematics, physics, education and chemistry.

EUI-Net project

= tuning the engineering educational system with the labor market requirements.



TUNING METODOLOGY

Research Actions in EUI-Net project

- To analyze the **structure of European engineering education system**, mainly the similarities concerning:
 - the length of studies,
 - content of curricula,
 - compulsory and optional modules ratio, etc.
- To identify the **generic and specific competences** and skills required by each engineering domain at European level.
- To analyze the way in which universities prepare the graduates at the **first and second cycle level** for the requirements of the labor market, in terms of competences and skills.
- Recommendations and good practice examples of **curricula development**.



TUNING METODOLOGY – Research tools

Type of questionnaire	Generic skills	Specific competencies
Target level		
Graduates	GESKE-G/	SPECOE-G/
Employers	GESKE-E/	SPECOE-E/
Academics	GESKE-A/	SPECOE-A/



TUNING METODOLOGY

Research procedure

Questionnaires design - Romanian partners

Questionnaires testing – WP1 and WP2

Questionnaires launching – All partners present the questionnaires and ask for answers from the target groups in their country.

Questionnaires processing - The country reports will depict the panorama of engineering education at national level.

Result dissemination – The country reports will be presented in the book *Tuning Industrial Educational Structures in Europe* (Part I, Part II).



TUNING METODOLOGY –

The **book** *Tuning Industrial Educational Structures in Europe* will be similar to the TUNING REPORT [\[1\]](#) and will contain:

- **Coordinator's report** on generic skills, specific competences, perspectives on ECTS, approaches to teaching and learning, assessment, performance and quality, general conclusions and recommendations;
- **Country contributors' reports;**
- **Best practice examples** in engineering education curricula;
- **Appendixes** – the questionnaires used, length of studies / industrial engineering domains or / country and industrial engineering domain.

[\[1\]](#) Gonzalez, J., Wagenaar, R. eds. (2003). *Tuning Educational Structures in Europe*. Final Report. Phase One. University of Deusto & University of Groningen.



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At the end of first year - Results

- Development of research instruments for identifying the generic and specific competences in the industrial sector;
- Development of research instruments for identifying the generic and specific competences for student practical stages;
- Development of the EUI-Net project website and databases for graduates;
- Project management and meetings of EUI-Net (Brasov, 17-19 February, 2005; Bruxelles, 20-22 October, 2005);
- Dissemination and preparation of the 2nd EUI-Net International Event – Tallinn, 4-5 May, 2006;
- Address: www.eui-net.org



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At the end of first year -

Weak points

- Some passive partners,
- Some disfunctionalities at the 2nd level of management – low involvement of some SIGs and KAs coordinators,
- A small delay in some actions.

Solutions

- Improvement of communication at the network level,
- Management enhancement at the SIGs and KAs level,
- More intensive dissemination to attract new partners in the network and to connect to other networks.