



TALLINN UNIVERSITY OF
TECHNOLOGY



European Union
European Social Fund



Investing in your future

INNOVATIVE METHODS FOR IMPLEMENTING INTERDISCIPLINARY IN CAREER COUNSELING (IMATE II)

Project managing organisation:

Rezeknes Tehnologiju Akadēmija (Latvia, Rezekne)

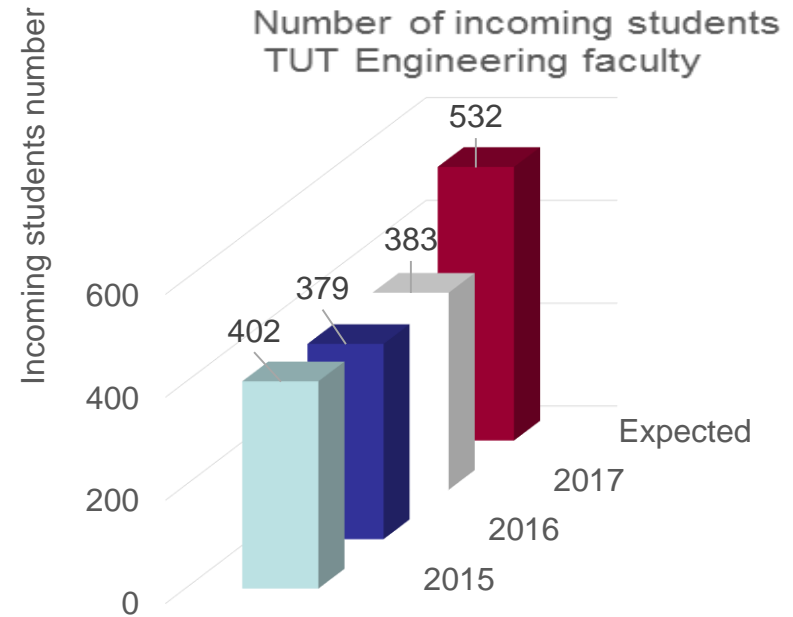
Partners:

- Vytauto Didžiojo Universitetas (Lithuania, Kaunas)
- Tallinn University of Technology (Estonia, Tallinn)



Problems

Problem 1: deficit of students in technical specialties in higher educational institutions.



Decision: Development a new approach for preparing schoolchildren to choose the right profession through joint efforts of university, schools and enterprises.

Problems



Problem 2: the gap between the needs of companies in the region and university education.

Decision: For synchronisation the needs of engineering enterprises with the curricula of universities of the Baltic sea region authors have examined firms on three core competencies: design, technology and economics.

Project: Innovative methods and technologies of education for implementing interdisciplinary (IMATEII)

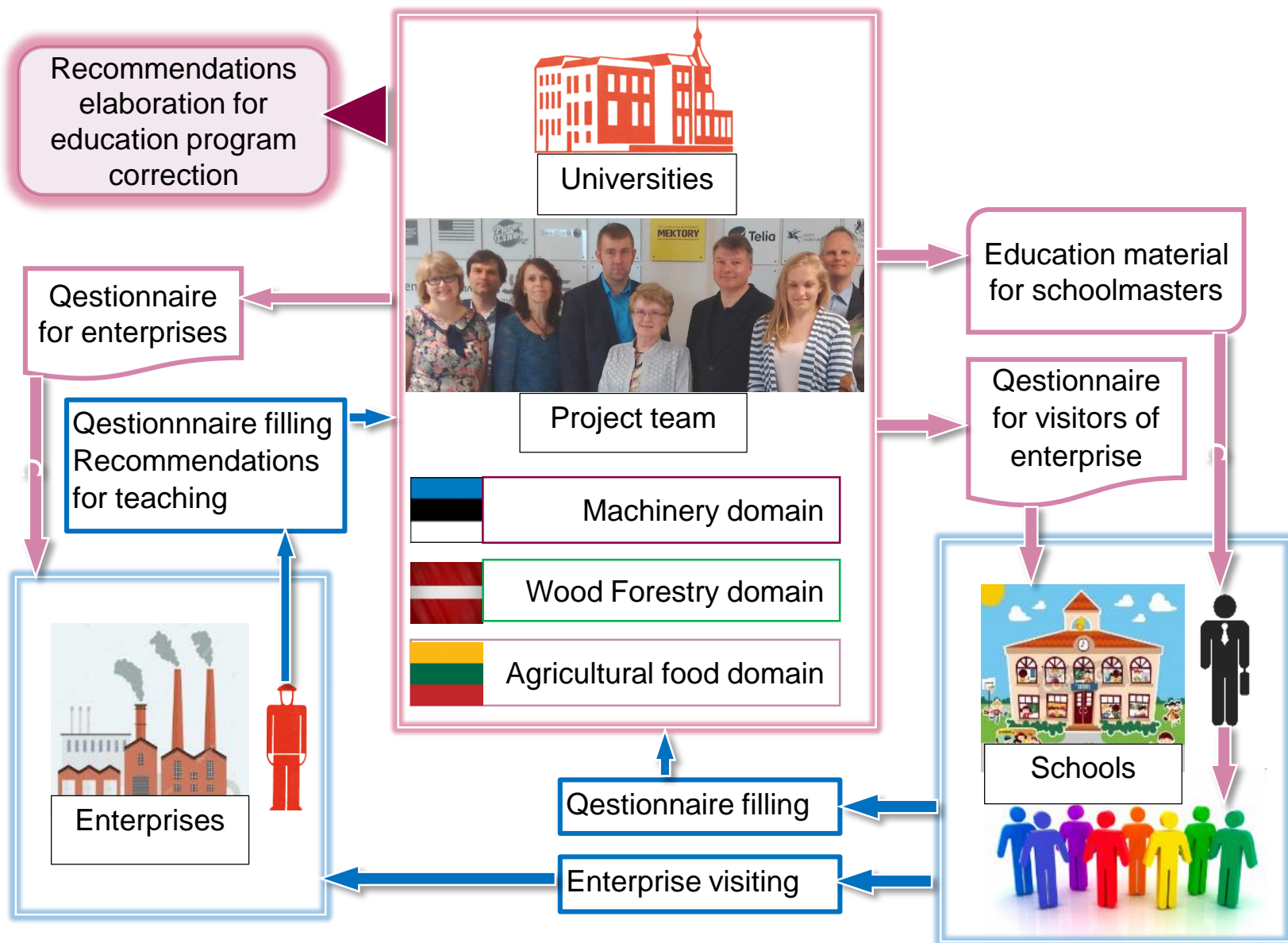


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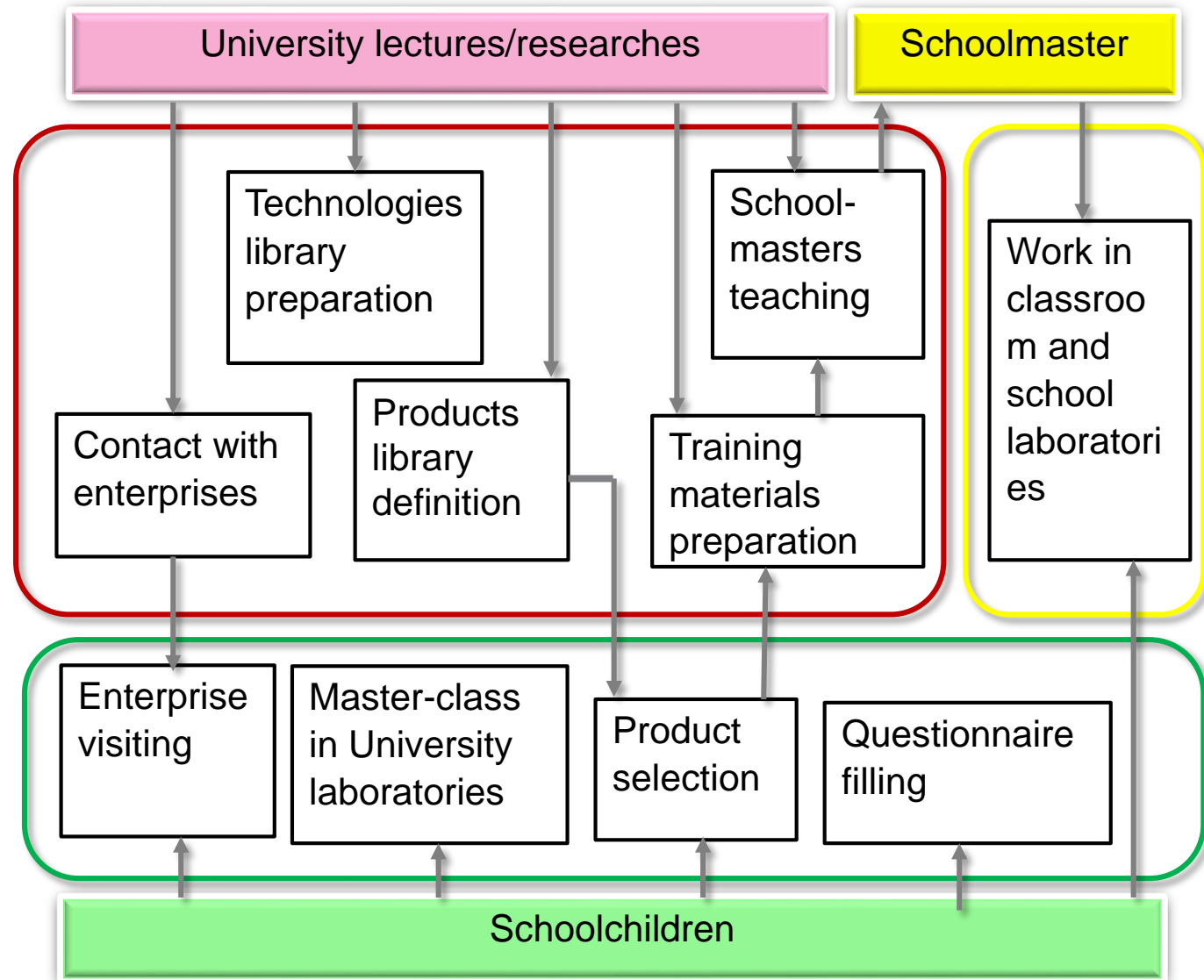
Objectives of the current project:

- develop and implement innovative practices in career education at secondary school,
- promote secondary school teachers the career guidance competence based on interdisciplinary among design, technology and economics,
- facilitate motivated and targeted career choice of learners in selected fields of industries.

General scheme of project implementation



The primary functions of university and school



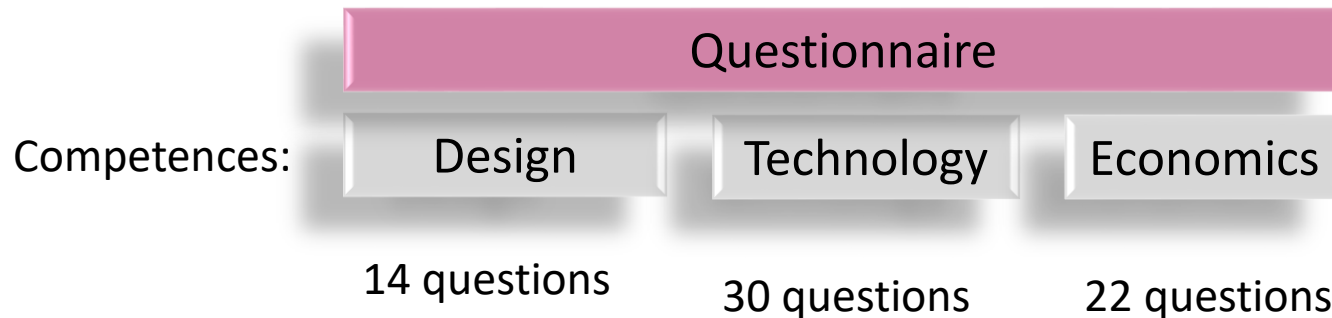
Questionnaire for enterprise visitors



Sense	Attitude			
	Like	Mostly like	Mostly don't like	Don't like
Smell				
Touch				
Visual				
Temperature				
Wet				
Dust				
Safety				
Staff attitude				

Analysis of Enterprises needs for machinery industry in the Baltic region

The target of the project is to synchronise the needs of engineering enterprises with the curricula of universities



In machinery domain questionnaire took part:



11 respondents from 8 enterprises in Latvia;

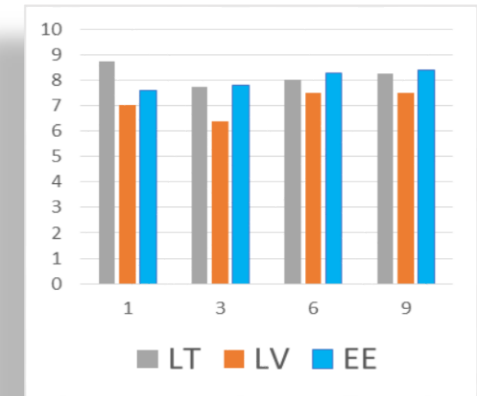
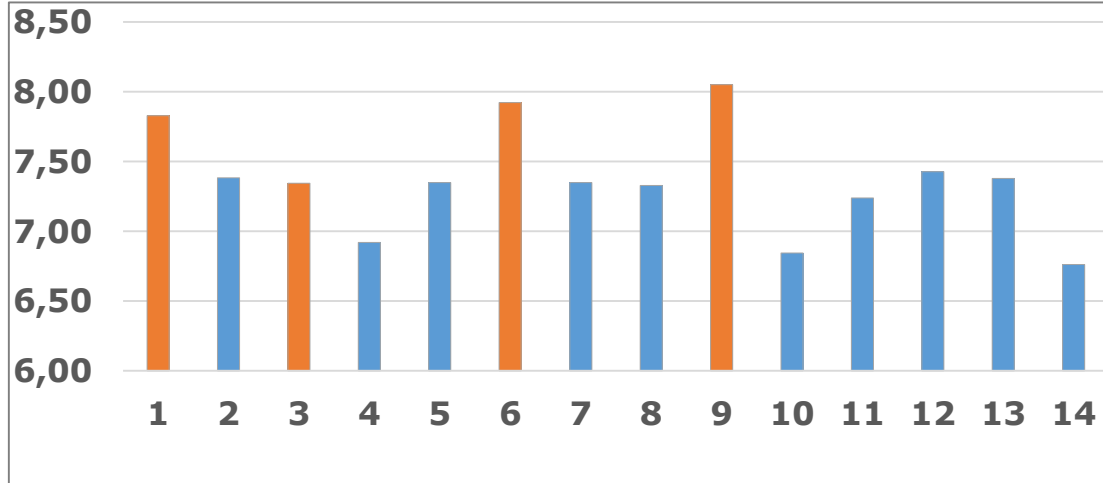


4 respondents from 2 firms in Lithuania;



15 respondents from 7 businesses in Estonia.

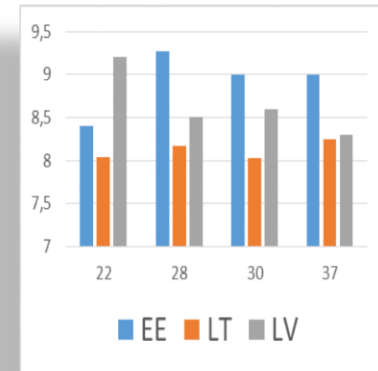
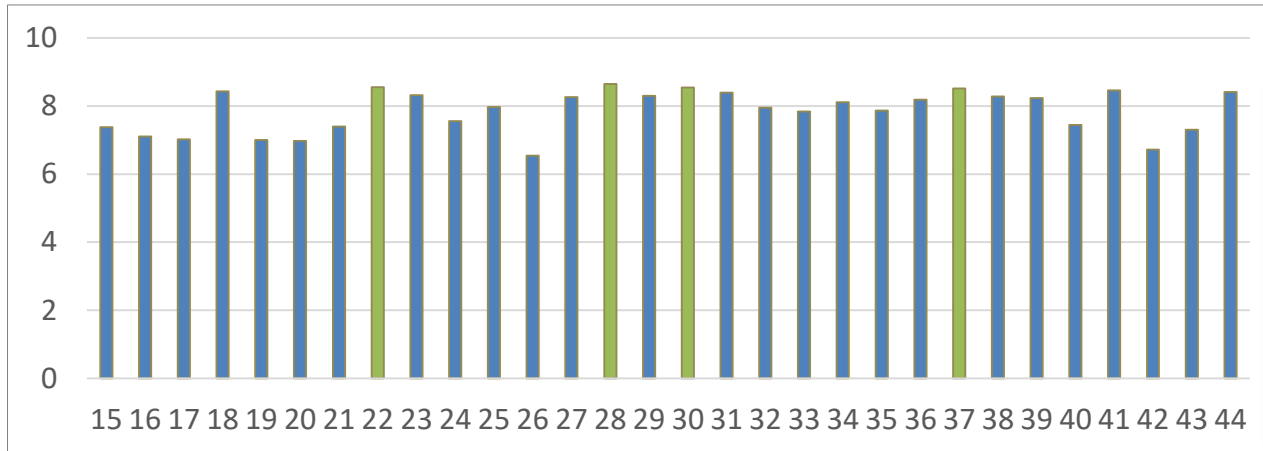
Questionnaire results in DESIGN competence



Recommendations for design competence:

- Developing of projects by using CAD and CAM technologies (9: avg. 8,03).
- Navigating and managing used materials, to analyse their improvement and development trends (6: avg. 7,6).
- Creative and independent development of existing and new products (1: avg. 7,57).
- Creating long-term product: innovative, functional, produce in a rational and cheaper way (3: avg.7,36).

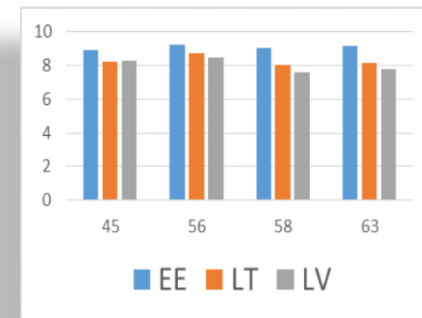
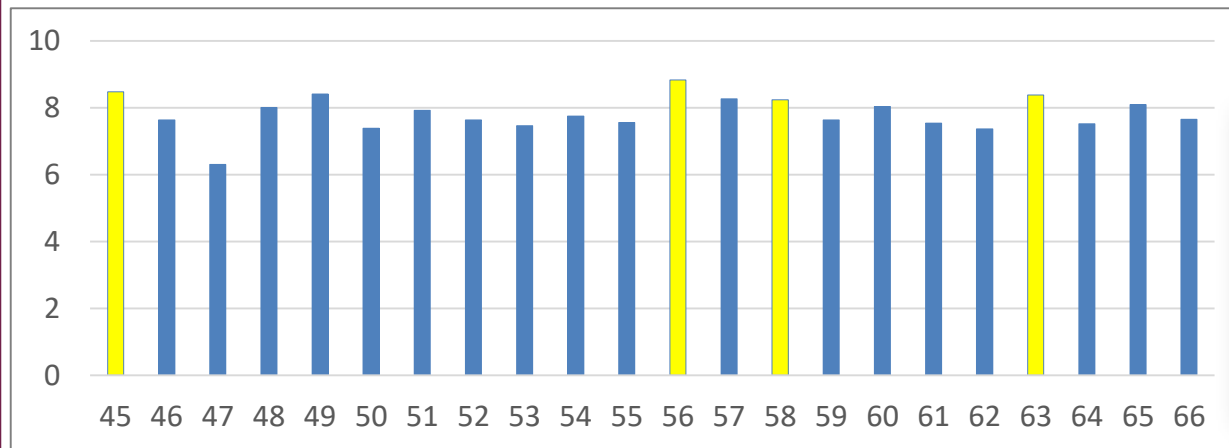
Questionnaire results in TECHNOLOGY competence



Recommendations for technology competence:

- Choosing the most rational technique and technology (28: avg. 8,64).
- Contributing to the introduction of new technologies (37: avg. 8,5).
- Developing the technological planning of production (30: avg. 8,54).
- Managing the production technology of Products and Services (22: avg. 8,54).

Questionnaire results in ECONOMY competence



Recommendations for economy competence:

- Handling problem situations adequately and timely adopting necessary decisions (56: avg. 8,8).
- Evaluating the calculations of the cost of services to be performed, the necessary investments and workforce consumption (45 : avg. 8,48).
- Development and management of projects (58 : avg. 8,2).
- Using the necessary technical and normative documentation for the work, carrying out applied and professional documents (63 : avg. 3,8).



Conclusions

1. The project gives the new technical knowledge and educational material to teachers of secondary schools and professional training from qualified researches of universities.
2. A possibility to communicate with enterprises gives a real vision of a profession to schoolchildren.
3. The analysis of the needs of enterprises has shows the most important aspects of the production that need to be developed in technical university.
4. This analysis should become a guide for universities in the preparation of teaching programs.



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