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Erasmus+

iSECRET project

Implementation of Software
Engineering Competence Remote
Evaluation for Master Program Graduate

**e-CF User SUPPORT TELE-WORKSHOP
2020 April 29, Online**

**Transport and Telecommunication
Institute, Riga, Latvia**

Presented by Prof. Boriss Misnevs



Case Study C: "Implementation of Software Engineering Competence Remote Evaluation for Master Program Graduates"

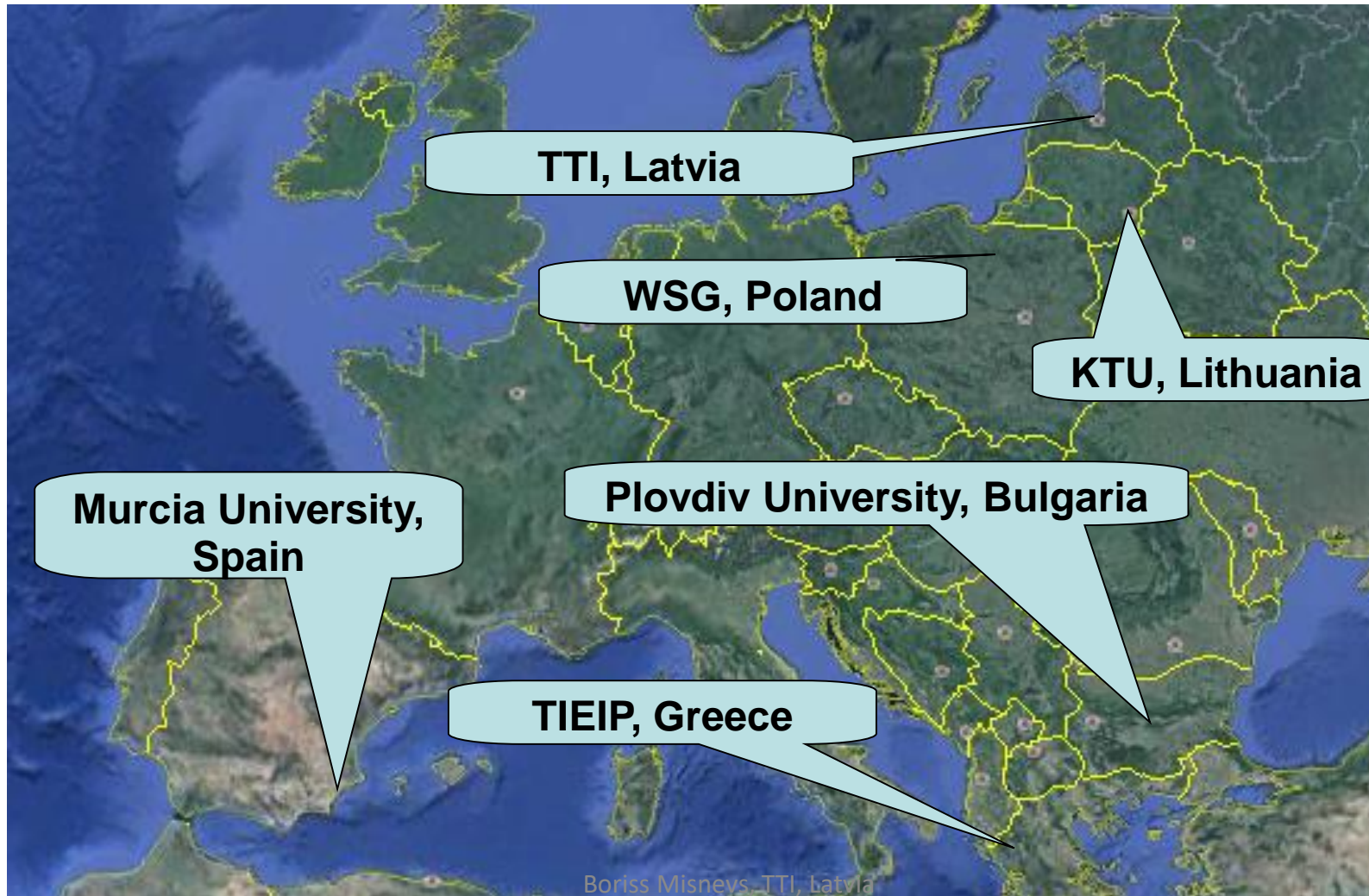
*e-CF based Learning Outcome usage for
Improving the Quality and Relevance of Higher
Education*

e-CF usage

Boosting innovation and digital skills in European universities in order to deliver the high quality education and digital skills.

SE Master Program's learning Outcome structuring on the base of e-CF competences.

iSECRET Project Partners



About TTI

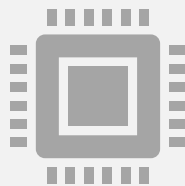
- **Transport and telecommunication institute** (lat. *Transporta un sakaru institūts – TSI*) – is a modern university with the centennial history.
- Nowadays **TSI** – is the only one private technical higher educational institution in Latvia, where you can get higher education in Latvian and English languages.
- The Institute provides with the academic programs in the following directions: transport and logistics, computer sciences, electronics and telecommunication, economics and management, aviation transport.



About Latvian ICT market



According to (<http://www.liaa.gov.lv/en/trade/industry-profiles/information-and-telecommunications-technology-industry>) in 2018, there were approx. 6,894 companies active in the ICT sector.



111 of companies were producing ICT equipment, 539 were operating in the telecommunications industry, while more than 5,000 companies specialized in other ICT services and 544 in ICT equipment sales. In 2018, the number of employees in the ICT sector was more than 36,000.

e-CF and ICT Professional Profiles usage

E-CF AND ICT PROFESSIONAL PROFILES DESCRIPTIONS WERE USED FOR DEFINITION OF MEASURABLE COMPETENCES' CHARACTERISTICS AS WELL AS FOR RUBRICS TEMPLATES DEVELOPMENT FOR PERSONAL COMPETENCES' SELF-ASSESSMENT.

SYLLABUS TEMPLATE FOR MASTER PROGRAM IN SOFTWARE ENGINEERING AND ON-LINE TRAINING COURSE WERE DEVELOPED.

TESTING MATERIAL FOR SE MASTER PROGRAM GRADUATES LEARNING OUTCOME EVALUATION WAS PROVIDED.

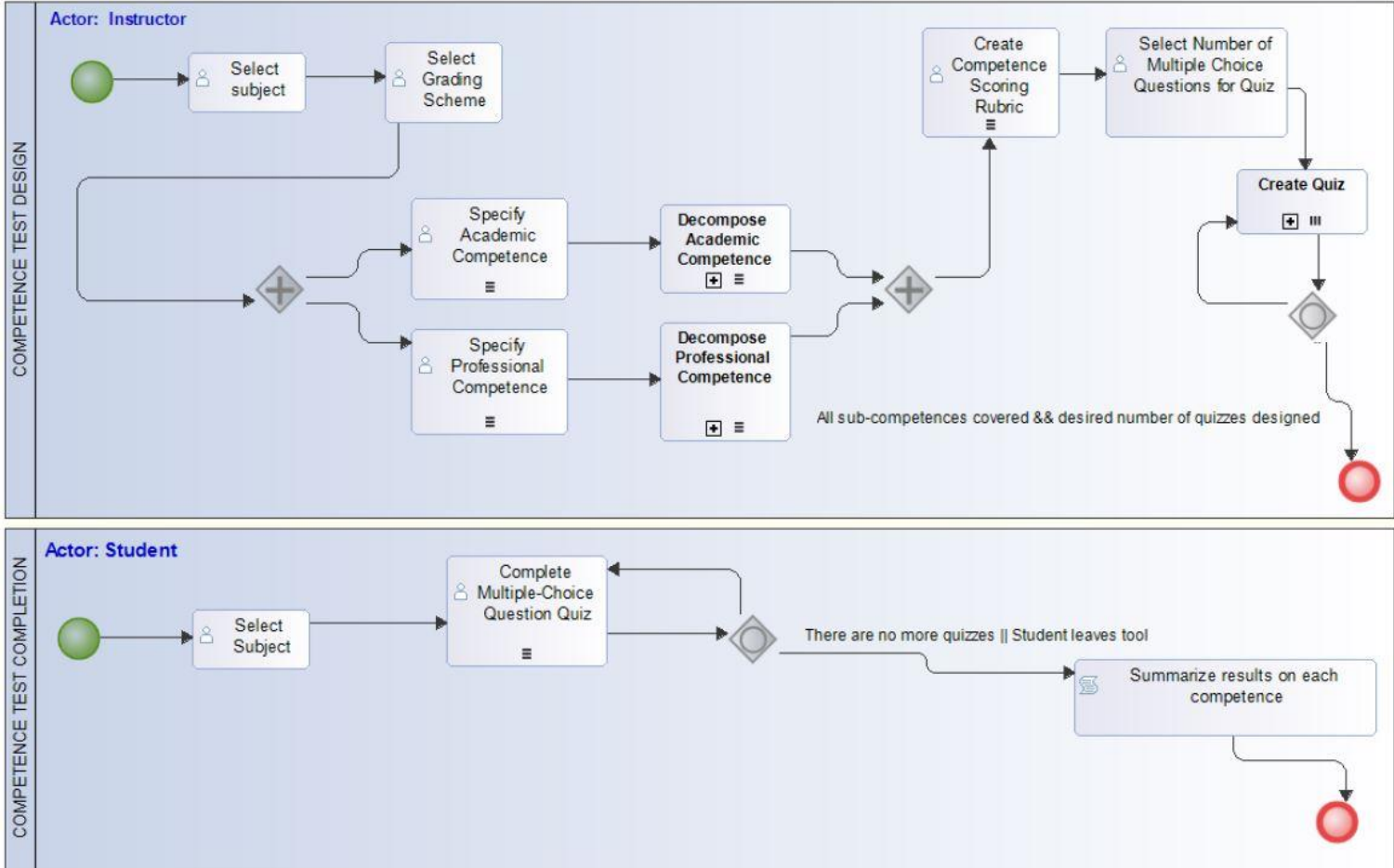
Facing challenges

The Case Study provides analysis of existing models for competence evaluation and suggests Software Engineering competence remote evaluation process model.

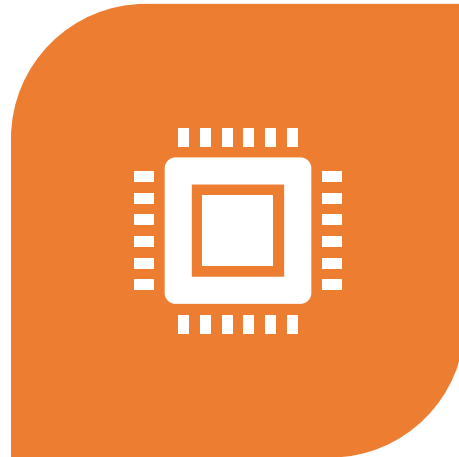
We separated competences into two domains: professional and academic.

The model was developed and implement for e-CF professional competence and academic competences evaluation for Software Engineering Master Program graduates.

BPMN (Business Process Model and Notation) model



Software Engineering Competence Evaluation Internet Portal (SECEIP)



THIS CASE STUDY IS BASED ON THE SOFTWARE
ENGINEERING COMPETENCE EVALUATION
INTERNET PORTAL (SECEIP) DESIGN AND
IMPLEMENTATION.



THE WEB PORTAL WAS DEDICATED TO JOINT
MASTER PROGRAM TRAINING CONTENT AND
SUPERVISION SYNCHRONIZATION BETWEEN
SEVERAL EUROPEAN UNIVERSITIES.

The functionality of the SECEIP portal (<http://isecret.tsi.lv/>)

- The functionality of the portal provides a common support service for learning outcomes information exchange, referring to a graduate's academic knowledge, skills and competence as well on e-CF professional competences upon completion of the Master of Science in Software Engineering (Information Technology) Programs.



Added value in summary (1)

- The model and description of SE&IT Master programs Learning Outcome including test material for graduates' competence evaluation in accordance to e-CF competences was developed and implemented as OER (Open Education Resource).

Added value in summary (2)

- Three localized copies of the e-CF oriented Software Engineering Competence Evaluation Internet Portal (SECEIP) were installed at three partner universities (in Riga, Arta, and Murcia) to serve as OER for SE&ST Master Program graduates' competencies evaluation.

Added value in summary (3)

- As an additional result, which was discovered as part of the Case Study, there was a better understanding and recognition of the skills and qualifications of graduates of the SE & IT master's program, increasing motivation and satisfaction in their daily work.



Thank you for your attention!

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