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EDU-RAIL PROJECT EXPLOITATION PLAN

Leading partner:

TTK / Tallinna Tehnikakõrgkool / TTK University of Applied Sciences



Project partners:

KRAO / Kouvola Rautatie ja Aikuiskoulutus OY



TSI/TTI / Transporta un Sakaru Instituts / Transport and
Telecommunication Institute



HAMK / Hämeen ammattikorkeakoulu / Häme University of Applied Sciences



RTU / Rigas Tehniska Universitate / Riga Technical University



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1. Introduction

The focus of the EDU-RAIL project was on the harmonization and modernization of railway education in the education institutions of partner countries. For achieving this goal, we conducted comparative studies, prepared renewed study materials, state-of-the-art e-learning materials and we learned from each other by exchanging experiences of using railway simulators.

The main goal of the exploitation plan is to look to the future with supporting continuous activity for networking and using and updating the prepared learning and teaching materials.

The key objective of railway education development is to update study materials regarding the regulations and railway traffic management technology. It also includes the compliance of the learning outcomes of curricula with the requirements and expectations of railway companies.

2. Exploitation

The exploitation plan encompasses two main parts: the accessibility of prepared study materials of project partners in the future for cross-studying, and the updating of the system in the future after the project timeline is over. As we know, some teaching and learning materials are aging fast, some are becoming slower. Therefore, the same update deadlines cannot be foreseen and each project partner shall update their materials as needed. It is expected that upon the completion of the project timeline, the cross-studying will be supported by the fact that the teaching materials will be updated by partner institutions.

The project results also include the new virtual study and learning environment, which was jointly developed by EDU-RAIL partners. The digital courses will enable open, year-round studying and more flexible specialization and cross-study opportunities between the educational institutions, as well as a new way of matching work and studying to shorten study times, making study paths more versatile, and, ultimately, decreasing drop-out rate, and finally securing better employment. The following aims will be achieved:

- creation of the network of sectoral education and training institutions for offering cross-study opportunities for railway curricula;
- adaption of selected e-learning materials of partners for cross-national and virtual team work.

The more practical issue is how to ensure the availability of e-learning materials and the other facilities and simulators of developed study environments by partners.

The implementation of the exploitation plan can be supported by:

- extending international studies in the field of railway management
- enhancing cooperation and exchange of academic staff
- supporting student centred learning
- improving the quality of learning and teaching processes

A good way of creating fast, effective, forward looking learning design is to use a team-based learning design process called Carpe Diem. The idea behind Carpe Diem is that every moment of the time during the workshop is spent on designing something that can be put into immediate use with learners – so the term ‘Carpe Diem’, Latin for ‘Seize the Day’, is used.

<https://www.gillysalmon.com/carpe-diem-reports.html>

The essential outcomes of the EDU-RAIL projects are newly developed study materials as shown in Figure 1. Each project partner can provide 3 ECTS in e-learning courses today, but in the future it is planned to increase the volume of e-courses, which will support the implementation of international dimension of railway studies.

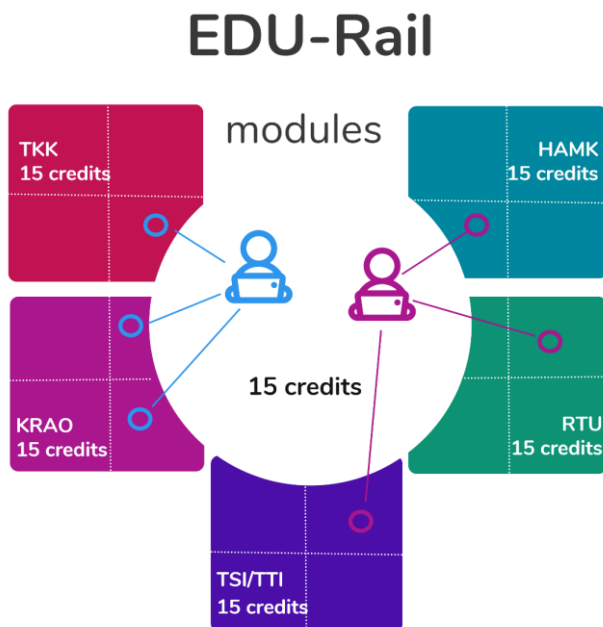


Figure 1: Blueprint for EDU-Rail modules (Source: HAMK presentation)

Moodle or Other E-learning Platforms

Course Deployment

Each course module will be deployed locally in the learning management system of the institution which created it. This will make it easier for institutions to maintain and develop their own modules (i.e., ensure they stay in good working order and keep the content up-to-date)

Course Registration

Local students can register for a local course module as they would for any other e-learning course offered by their institution. In the case of the partners which use Moodle as an LMS, this generally means providing students with a course key to be entered the first time they access the course.

Since non-local students will lack accounts in the local system, new accounts for them will have to be manually created. In the case of Moodle, the relevant department or faculty at the partner institution will compile a list of the students planning to enrol in the module (names and e-mail addresses) and forward this list to the Moodle administrator at the host institution. After the accounts have been created, the administrator will send back a list of usernames and temporary passwords. The administrator will also provide the course key or may also manually enrol the students in the course. The administrator will also set a date for the deletion of the accounts. Access to course modules could be further facilitated by creating network connections between the Moodle installations at different institutions (using MET, a well-established Moodle networking mechanism). This would make it possible for a student at institution A to enrol in a course module at institution B using his or her existing username and password. This would obviate the need for the manual creation of new accounts.

To provide the option of accessing course files only, a single anonymous guest account will also be created for each course module.

Course Delivery

All course modules will be carried out under the active direction of an instructor or instructors. The instructor may be an instructor at the institution hosting the course module or an instructor at a partner institution adopting its use. If the instructor is at the host institution and the students are non-local, the instructor will use a video-conferencing service (e.g., Skype, Zoom, Adobe Connect, or BigBlueButton) to deliver lectures online.

2.1 Simulators and Other Lab Facilities

The cross-use of simulators and other study facilities in the future will be based on the good intentions and willingness of the project partners. Terms and conditions of use are agreed between the partners and are stipulated by the bilateral agreement. The main objective of resource sharing is to support and harmonize railway education by using study environment and different competences of partner organizations.

Table 1. Networking activities and responsibilities

	Cooperation activities	Responsible persons of networking	Official persons of networking
1	Updating study material completed by partners	The authors of materials	-
2.	e-course registration	Administrator of e-learning platform	Head of e-learning unit
3.	E-course delivery	Instructors of partner institutions	Head of e-learning unit
4.	Simulators	Leading instructor or teachers	Head of department
5.	Other benchmarking activities	Leading instructor or teachers	Head of department