



Project Economics, Ecology and Infrastructure at High-Speed Railways (EEIHSR)

Programme and Work Package of Project EEIHSR

Introduction

The objectives of EEIHSR project are pursued through a set of focused actions organised in 7 interrelated work packages (WPs), which follow a logical sequence, leading to concrete tangible and intangible results.

Within the project both academic and administrative work is performed. The administrative work is aimed at working out a national and European standard EEIHSR master double degree (master programme EEIHSR) and qualification upgrade courses for employees. The academic work is aimed at preparing and accumulating a unique knowledge base which will be used during training qualified EEIHSR specialists.

The project structure reflects a detailed As-is-analysis in the phase preparation in the 1st project years and development of curriculum and modules, training of lecturers and test run of project EEIHSR in the phase development in last three years. Project monitoring, dissemination & sustainability and project management run through the entire project period, even after the project, in order to maximize project results and develop sustainably.

Partners' respective experience and profiles have been taken into account for the division of tasks and responsibilities. Facilitating project ownership & sustainability of outputs has been another criterion for assigning roles.

After the project ends, all project participants will continue to maintain a stable and close partnership, and the stakeholders of project EEIHSR will also benefit from it in long term. In order to ensure the successful implementation of project, all project activities during the whole project live time are allocated to 7 work packages and the tasks are also clearly and fairly distributed. The following is a brief description of the contents of these seven work packages:

WP 1 Preparation

In Work Package 1, under the leadership of TUD, the experts and lecturers of TUD, PGUPS, KazATC, UPM und UEK experts have analyzed the current curricula, teaching and learning methodologies and assessment criteria, conduce the results of As-Is-analyze and propose the improvement strategy.

WP 2 Development

Work Package 2 is one of the key Work Packages, aiming at working out the curriculum and teaching modules for the proposed master programme. The work group is composed of the professors and experts from TUD, PGUPS, KazATC, UEK and UPM, responsible to work out and determine the curricula and module for master programme EEIHSR based upon the findings of WP 1. The four-semester bilingual (Russian, English) dual degree master programme contains 120 ECTS and is shaped to comply with the Bologna process.

Combining their own strong disciplines and development needs, SKSU, ENU, FESTU und USUSRT select suitable modules or part of the content from the established master programme EEIHSR. The selected modules and content are integrated into existing programmes.



In accordance with the developed master programme and the integrated courses by project partners, PGUPS, USURT, FESTU, KazATC, ENU and SKSU build up High-Speed Rail laboratories based on the existing laboratory facilities.

WP 3 Training of the Lectures

In order to exchange the knowledge and experience among the lecturers, in particular to ensure the quality of teaching and strengthen teaching ability, the work package 3 aims at implementing mutual intensive training for the lecturers from all partner universities. The teaching materials of the intensive training were developed based on the determined curricular of dual degree master programme, the modules and teaching contents integrated into curricula of USURT, FESTU, ENU and SKSU.

According to the curriculum structure and start time, the intensive training for the lecturer is divided into two sessions. The first lecturer training took place in St. Petersburg in September 2019. Due to the COVID-19, the second session are held digitally from June to January 2021.

WP 4 Test run of project EEIHSR

Work Package 4 as the key Work package within project, focus on run of activities EEIHSR and implementation of project outcomes. The following activities are undertaken sequentially:

- Development and run of master programme EEIHSR
- Implementation of integrated modules at USURT, FESTU, SKSU and ENU
- Development and run the qualification upgrade courses

The first pilot run of master programme EEIHSR started in September 2019 at the PGUPS and KazATC. The second run was put into operation in September 2020.

The teaching contents of the proposed master programme are disseminated widely by implementing it into the curricula of the universities USURT, FESTU, ENU, SKSU. The Courses, in which are imported teaching content from master programme EEIHR are implemented successfully from 2019 along with the existing programmes.

The pilot qualification upgrade courses, the contents of which are derived from the proposed master programme EEIHSR, are developed for the staffs of railway-related companies and will run in Russia, Kazakh and Germany.

WP 5 Quality Plan

To ensure the quality of the project development the QA board will monitor the project along the whole duration. The quality of the curriculum will be ensuring the accreditation. TUD is leading WP 5, with the support of the Project Internal and External Quality Control Groups created at the beginning of the project.

WP 6 Dissemination and Sustainability

In work package 6, all diversified measures are implemented to ensure the impact of the project and realize the continuous development of the project efforts after the end of the project. The short-term and long-term dissemination and sustainability strategies are identified by work group led by UEK with support of TUD.

WP 7 Project Management

Finally, the Project Management is targeted by Work Package 7 with the aim of ensuring effective and smooth project implementation and the necessary reporting to the EACEA. The leader is TUD as a grant-holder, who bears the financial and legal responsibility for the proper operational, administrative and financial implementation of the entire project. All



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partners play an active role in collective management, reporting and providing timely feed-backs.

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