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Framework for monitoring and evaluating educational and training program in Latvia

alliance

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LIST OF ABBREVIATIONS

Abbreviation	Description
CSUM	Conference on Sustainable Urban Mobility
EU	European Union
KPI	Key Performance Indicators
KS	Knowledge Sharing
RelStat	International Conference on Reliability and Statistics in Transportation and Communication
SAP	Scientific excellence and innovation Assurance Panel
TTI	Transport and Telecommunication Institute
UTH	University of Thessaly
YR	Young Researcher

Executive Summary

This deliverable includes the description of the framework for monitoring and evaluating educational and training program that is developed and implemented during ALLIANCE project. The aim of this deliverable is to identify the target groups involved in the monitoring and evaluation process, to set out evaluation criteria and relevant indicators per criterion, to present methodology for data collection, as well as to provide time framework for program activities to be monitored and evaluated.

The document presents the methodology for the data collection process and evaluation of the program's coherence with the goals and objectives of the project. The core element of the evaluation framework is the assessment of the educational and training program which will be developed and implemented during ALLIANCE project.

In this Deliverable a list of relevant evaluation areas and criteria are identified in order to allow the monitoring and evaluation of the educational and training program. The criteria areas are chosen to reflect the rationale and aims of the program, the study process and environment, the staff involvement, the use of resources, and the learning outcomes. At the same time they allow to assess improvements in the three main aspects of ALLIANCE project: knowledge transfer, strengthening of research capacity and international collaboration.

This Deliverable will be updated along with the educational and training program in December 2017 and in December 2018, in the following deliverables:

- D2.9 Updated framework for monitoring and evaluating educational and training program in Latvia (M24);
- D2.10 Final framework for monitoring and evaluating educational and training program in Latvia (M36).

1 Introduction

1.1 Background

The ALLIANCE project's purpose is to strengthen the scientific and technological capacity of TTI as an advanced research and higher education institution in the field of smart interconnecting sustainable transport networks in Latvia.

In Deliverable 2.1 existing gaps have been identified between the transport industry and the research, education and training programs in Latvia which constitute the basis for subsequent tasks. The analysis focused on in-depth investigation of the current situation and trends that exist in Latvia about the planning and operation of intermodal terminals. These trends were compared to the current state of good practices of intermodal terminals and the smart solutions at EU level. In parallel, an in-depth analysis of existing educational programs in Latvia was conducted. This analysis helped to identify gaps in educational program of TTI and provided a basis for the development of the educational program that will be presented in subsequent deliverables.

ALLIANCE will deliver a coherent educational/training program addressed to enhancing the knowledge of current and future researchers and professionals offering their services in Latvia and the wider region. Developed to meet all needs, the program shall cover the needs of post-graduate students and PhD candidates studying at TTI, through a set of courses offered as part of the existing graduate programs (Master of Social Sciences in Transport and Logistics, Doctoral Degree Programme "Telematics and Logistics"), through the ALLIANCE summer schools and other joint training schools and seminars running in parallel with established Conferences by the consortium members. It shall also cover the need of those who are business professionals through a training course and life-long educational program offered on-line through the ALLIANCE distance-learning platform.

In this Deliverable, the framework for monitoring and evaluating the educational and training program of the project is described. This framework identifies:

- Target groups (trainers, trainees, program managers, other stakeholders)
- Evaluation criteria
- Indicators per criterion and target group category
- Tools to be used for evaluation
- Time planning for monitoring and evaluating the program

This Deliverable will be updated along with the educational and training program in December 2017 and in December 2018, in the following deliverables:

- D2.9 Updated framework for monitoring and evaluating educational and training program in Latvia (M24);
- D2.10 Final framework for monitoring and evaluating educational and training program in Latvia (M36).

1.2 Deliverable scope and structure

The scope of Deliverable 2.4 is the development of the framework for educational and training program monitoring and evaluation. It identifies the target groups involved in the monitoring and evaluation process, sets out evaluation criteria and relevant indicators per criterion, and provides time scheduling of activities to be monitored and evaluated.

The document presents the methodology for the data collection process and evaluation of the program's coherence with the goals and objectives of the project. The core element of the evaluation framework is the assessment of the educational and training program which will be developed and implemented during ALLIANCE project. Also, it provides a basis for systematic monitoring and evaluation of other educational and training activities described in Deliverable 3.1 "ALLIANCE knowledge sharing strategy".

Following the introductory chapter, the subsequent sections of this deliverable include: Chapter 2, which describes the target groups involved in program evaluation; Chapter 3, which describes the methodology and data collection; Chapter 4, which defines evaluation criteria; Chapter 5, which sets out indicators per criterion; Chapter 6, which presents evaluation timeline; and Chapter 7, which presents data collection methods and development of electronic platform for data collection.

2 Target groups

The responsibility of enhancing technological, academic and research capacity of TTI is shared among faculty, students, advisors, researchers, guest lecturers, administration and others. Main target groups to be involved in program evaluation are identified as follows:

- Trainers;
- Trainees;
- Program managers;
- Scientific excellence and innovation Assurance Panel (SAP)

Target groups are coherent to knowledge sharing target groups as mentioned in D3.1 (ALLIANCE, 2016a), and can be grouped in internal and external bodies. Staff and students of TTI are considered to be internal, and all the rest coming from other academic and research institutions, public sector or business environment and participating in educational program are considered to be external. The involvement of each group in the program is described in the Table 2.1.

Table 2.1 Target groups involved in program monitoring and evaluation

Target group	Sub-group	Expected benefits of involvement in the program
Internal		
Trainers	Academic staff	Increased knowledge necessary to raise the quality of teaching of PhD and master students in defined research area Strengthened skills of supervising student' work on PhD and master thesis and research Initiated new research topics for possible master and PhD thesis Collaboration in international environment
	Research staff	Enhanced knowledge in the given topic Strengthened skills on how to do research in defined area Collaboration in international environment
Trainees	Research staff	Enhanced knowledge in the given topic Initiated new research topics Transferability of the subject to local environment Collaboration in international environment
	PhD, master students	New knowledge acquired Skills to do research activities Skills required in a complex profession of transport inter-modality Team work Collaboration in international environment Initiated new topics of master and PhD thesis
Program managers	Administrative staff	Program support with necessary organisational and technical resources

Target group	Sub-group	Expected benefits of involvement in the program
	Director of the programme	Development and modernization of the program, follow-up the needs of the market Program coherence with the project objectives Availability of the program
External		
Trainers	Academic staff	Increased knowledge necessary to raise the quality of teaching of PhD and master students in defined research area Strengthened skills of supervising student' work on PhD and master thesis and research Initiated new research topics for possible master and PhD thesis Collaboration in international environment
	Research staff	
	Guest lecturers	
SAP		Program compliance with market requirements
Trainees	Local and regional authorities	New knowledge regarding case studies, best practise and trends of new developments in the field of smart interconnecting sustainable transport networks
	Transport and terminal operators	New knowledge regarding case studies, best practise and trends of new developments in the field of smart interconnecting sustainable transport networks
	Transport policy makers and influencers	New knowledge regarding case studies, best practise and trends of new developments in the field of smart interconnecting sustainable transport networks
	Small and medium-sized enterprises (SMEs), business and industry	New knowledge regarding case studies, best practise and trends of new developments in the field of smart interconnecting sustainable transport networks
	General public/demand side users	New knowledge regarding case studies, best practise and trends of new developments in the field of smart interconnecting sustainable transport networks

3 Methodology

3.1 Basic concepts

As management tools, monitoring and evaluation are used to help keep track of the progress of the educational and training program and to assess its performance towards the overall ALLIANCE project goals.

Monitoring is a continuous process with systematic collection of information on specific indicators that allow to manage the implementation of the program. It helps to provide up to date information on educational program development to project management and stakeholders.

Evaluation is an assessment of an educational/training program at various stages of its development including design, implementation through educational and training activities scheduled in the ALLIANCE project and its use after the project. Evaluation is done on a systematic basis using defined criteria and performance indicators.

The main tasks of monitoring and evaluation are described in the Table 3.1.

Table 3.1 Monitoring and evaluation tasks

Monitoring	Evaluation
Clarifies program objectives	Assess if the objectives are met
Links activities and resources to the objectives	Assess contributions of specific activities to the results
Sets targets for performance indicators	Analyse implementation process
Reports progress to project managers and alerts to problems	Highlights accomplishments and offers recommendations for improvements

Source: modified from Goyder, H., Marriott N., (2009).

3.2 Methodological approach

As presented in the previous paragraphs, this deliverable focuses on developing a framework to be used for the monitoring and evaluation of ALLIANCE's educational and training program. Program monitoring and evaluation framework addresses the design and implementation of all educational and training activities foreseen by the ALLIANCE project including training schools, young researchers' seminars, "train-the-trainers" seminars, etc. An analytical list of these activities, the date that will take place, the audience targeting and the type of the evaluation that will be used, is shown in chapter 6.

Monitoring and evaluation will be conducted at different implementation stages and different levels, depending on the training activity, and relevant impacts will be assessed (Figure 3.1). As shown in the Figure below, at each stage, i.e. curriculum design, courses development, activities during ALLIANCE and activities after ALLIANCE, expected, estimated and real outcomes will be assessed, which will then feed the evaluation of the project's Key Performance Indicators (KPI's). The evaluation of the activities and KPI's is part of the knowledge-sharing assessment.

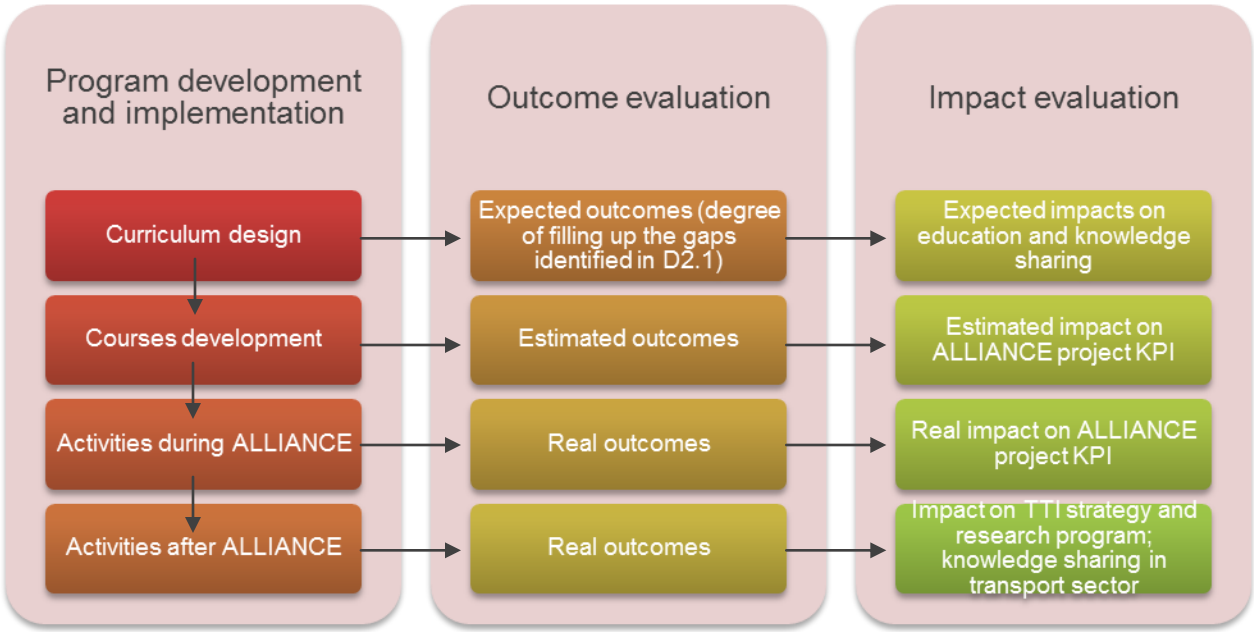

Figure 3.1 Evaluation levels of educational and training program

The framework for monitoring and evaluating educational and training activities is depicted in Figure 3.2. The process is distinguished into five discrete steps, and once these steps are carried out, the cycle is considered as complete. Based on the conclusions that have been drawn from the program implementation and evaluation, feedback can be given for the next program cycle. Analytically, each step is presented and discussed in the following paragraphs.

Figure 3.2 Framework for monitoring and evaluating educational and training activities (modified from Delhomme et al., 2009)

Step 1: Analyzing the situation

Before designing the educational/training activity, hereinafter program, background information on the topics to the addressed, needs to be collected, reviewed and analyzed. This enables the collection of the appropriate data, the definition of the target groups, and the structure of the generic program context.

In ALLIANCE, situation analysis was carried out through the data collection and analysis for:

- The state of practice in interconnecting transport networks in Latvia and the region, and research, educational and training programs in Latvia and the region.
- The state of art in interconnecting transport networks in Europe, and research, educational and training programs in Europe.

The findings revealed from the above process, enabled the assessment of the present situation by comparing the state of art in Europe and the state of practice in Latvia and the region in terms of interconnecting transport networks. This assessment resulted to the first level gap analysis, which outlined the features and differences between Latvia and the region and Europe (Gap analysis 1).

In addition, the outcomes of the situation analysis were assessed against Latvia's current research, educational and training programs, resulting to the second level gap analysis. This analysis outlined the educational deficiencies in Latvia and the region as compared to the requirements of the transport networks interconnection (Gap analysis 2).

Step 2: Designing the program and evaluation

The program strategy, including its design and evaluation, should be based on the achievement of specific objectives, and the determination of the audience to be targeted. In ALLIANCE, the latter has been achieved within the knowledge-sharing strategy, which clearly defined the project's target groups, i.e. trainers, trainees and program managers.

Regarding the program design, and based on the situation analysis (Step 1), a first set of curricula has been drafted for the project's two main clusters of activities (during and after the project's lifecycle):

- Educational and training program, which will be implemented during the lifecycle of the project. This program is addressed to students attending Master's and PhD courses in programs offered at TTI, on "Transport and Logistics" and "Telematics and Logistics" and on developed in future PhD program "Transport Economics and Management".
- Long-Life Educational (LLE) program, addressed to university graduates who practice their profession in the transport industry.

To this end, 20 educational areas were defined, which, based on their content, were then combined to shape 12 courses for passenger and freight transport interchanges:

1. The European policy on intermodal transport
2. Building business models for intermodal transport interchanges
3. Sustainable development and transportation planning
4. Operation and management of intermodal transport systems
5. Optimization of intermodal transport systems
6. Smart solutions for passenger transport interchanges
7. Smart solutions for freight transport interchanges
8. Design of passenger transport interchanges
9. Design of freight transport interchanges
10. Smart equipment for freight transhipment

11. Decision making methodologies
12. Data collection methods

In addition, when designing the program, it is important to pre-schedule all activities, define the involved target groups and prepare the courses' material. In ALLIANCE, a pre-scheduling of all educational and training activities has been done from the beginning of the project, and the exact time schedule is presented in Chapter 6 of this deliverable. The courses' material is planned to be ready by the end of September 2016.

Pre-testing the material in their full context, is another significant parameter that can enhance the program dynamics and ensure the program's success. In ALLIANCE, a pre-testing of the material will be partially done within the framework of the "train-the-trainers" seminar, which will be conducted in Riga, Latvia in October 2016. This activity will enable the consortium to receive feedback and proceed to potential required modifications, before the ALLIANCE first training school, which is planned to take place in July 2017.

Focusing on the program evaluation, the following sub-steps should be followed:

- Definition of the evaluation objectives and measurement variables

The objectives should be related to the measurement variables, i.e. evaluation criteria and indicators, the assessment of which will enable to determine whether the program was successful or not. In ALLIANCE, 6 evaluation areas have been defined, namely: program design, curriculum design, teaching, program management, program extroversion, and facilities and hardware & software. These areas resulted in 13 criteria and 39 indicators. Analytically, the evaluation areas, criteria and indicators are presented in chapters 4 and 5.

- Definition of the data collection techniques and analysis methods

In this sub-step, the methods (qualitative or quantitative) and tools need to be selected, taking into account their feasibility and the required time and resources. In ALLIANCE, questionnaire surveys will be conducted in order to collect the data needed for the evaluation. For this reason, and in order to make the process as efficient as possible, an electronic platform will be developed for data collection and analysis. This concept is analytically described in chapter 8 of this deliverable.

- Evaluation planning

Lastly, it is important to set up the evaluation according to the activities that will be evaluated and the type of data that need to be collected. In ALLIANCE, this is ensured through the overall time scheduling of the educational and training activities (chapter 6).

Step 3: Conducting the ex-ante evaluation and implementing the program

Before implementing the program, the ex-ante evaluation should be conducted, which can work as a baseline measurement for the ex-post phase of the evaluation. The objectives and the pre-selected evaluation method need to be considered, and the relevant indicators should be assessed. The timing and the activities that ex-ante evaluation will be conducted for, is presented in chapter 6.

The next sub-step regards the production of the material (digital or print), which will be used for the program implementation. Timing is once again a very important parameter, and especially in cases that the program is combined with other actions, like in ALLIANCE, careful coordination of all activities is required.

Step 4: Conducting the ex-post evaluation

This step can be further distinguished into the following sub-steps:

- Realization of the ex-post evaluation, according to the pre-defined timing, the pre-selected criteria and indicators, the list of applicable activities and the relevant target groups.
- Processing and analysis of the collected data, with the use of the ALLIANCE electronic platform.
- Drawing clear conclusions about the program realization, based on the evaluation results.

Step 5: Reporting feedback

The last step of the framework regards the writing of the evaluation report, which can provide significant feedback for people involved in the design, implementation and evaluation of the program, i.e. managers, trainers, trainees, etc. Key questions should be answered in this report like why and how the program was implemented, how many trainers and trainees participated, was the program successfully coordinated etc., according to the variables (criteria and indicators) measured and assessed.

4 Evaluation criteria

The task of this Deliverable is to identify a list of relevant evaluation areas and criteria in order to allow the monitoring and evaluation of the educational and training program. The criteria areas are chosen to reflect the rationale and aims of the program, the study process and environment, the staff involvement, the use of resources, and the learning outcomes. At the same time they allow to assess improvements in the three main aspects of ALLIANCE project: knowledge transfer, strengthening of research capacity and international collaboration.

Evaluation criteria are structured in the following areas:

1. Program design

   This area allows to evaluate whether

   - the program aims and learning outcomes are well defined and meet the objectives of the project;
   - the program helps to initiate new research activities;
   - the program aims and learning outcomes are consistent with the business needs and public needs in the field of smart interconnecting sustainable transport networks.

2. Curriculum design

   This area allows to evaluate whether

   - the scope of the program is sufficient to ensure learning outcomes;
   - the course material's quantity and quality cover the topics identified in the situation analysis (Gap Analysis II)
   - the content of the program reflects the latest achievements in the field of smart interconnecting sustainable transport networks.

3. Teaching

   This area allows to evaluate whether:

   - the qualifications of the teaching staff are adequate to ensure learning outcomes;
   - the number of the teaching staff is adequate to ensure learning outcomes;
   - the trainers are involved in research related to the educational and training programme;
   - the organisation of the study process ensures an adequate provision of the program and the achievement of the learning outcomes;
   - students are encouraged to participate in research,
   - teaching methods are adequate and innovative

4. Program management

   This area allows to evaluate whether:

   - responsibilities for decisions and monitoring of the implementation of the program are clearly allocated;
   - information and data on the implementation of the program are regularly collected and analysed;
   - the outcomes of internal and external evaluations of the program are used for the improvement of the programme;
   - the evaluation and improvement processes involve stakeholders (e.g. SAP)

5. Program extroversion

   This area allows to evaluate whether:

   - the program is transferable to local community ;
   - the program enhances networking and international collaboration;
   - Students have opportunities to participate in student mobility programs
   - staff has opportunities for networking.

6. Facilities and hardware & software

   This area allow to evaluate whether:

   - the premises for studies are adequate both in their size and quality;
   - the teaching and learning equipment (laboratory and computer equipment, consumables, software) are adequate both in size and quality.

5 Description of indicators per criterion and target group category

Relevant indicators per criterion are identified and described in the Table 5.1. Indicators will be assessed by designated target groups using appropriate evaluation methods.

Table 5.1 Indicators for educational/training program per target group

No.	Evaluation area	Criterion	Indicator	Explanation	Data/unit	Target group
1	Program design	Objectives	Skills development	Development of essential skills on transportation inter-modality and establishment of engineering profile that is needed to address issues in society, environment and economy	Grade (examination result) or number of ECTS	Program director, trainers
					Likert scale	Stakeholder, trainees, trainers
2			Career advancement	Advancement of career to a higher position of responsibility by acquiring professional judgment and critical thinking of everyday transport related problems.	Grade (examination result) or number of ECTS	Program director, trainers
					Likert scale	Stakeholder, trainees, trainers
3			Familiarization with advanced methods and tools	Familiarization with methods and tools that are prerequisites to fulfil the program and have not been covered in previous earned degrees or are required in the development of PhD thesis.	Grade (examination result) or number of ECTS	Program director, trainers
4		Outcomes	Knowledge and understanding	In-depth knowledge and understanding of programs' topics	Grade (examination result) or number of ECTS	Trainer
					Likert scale	Trainee
5			Engineering analysis	Ability to identify, formulated and solve complex problems in new and emerging areas of the programs' topics	Grade (examination result) or number of ECTS	Trainer
6			Engineering design	Ability to develop and design new and complex processes and systems within the programs' topics	Grade (examination result) or number of ECTS	Trainer

No.	Evaluation area	Criterion	Indicator	Explanation	Data/unit	Target group
7			Investigation	Ability to identify, locate and obtain required data. Ability to conduct searches of literature, to consult and critically use databases and other information sources.	Grade (examination result) or number of ECTS	Trainer
8			Engineering practice	Comprehensive understanding of applicable techniques and methods of analysis. Demonstration of practical skills, e.g. use of computer tools, etc.	Grade (examination result) or number of ECTS	Trainer
9			Making judgements	Ability to integrate knowledge and handle complexity. Ability to manage complex technical or professional activities or projects.	Grade (examination result) or number of ECTS	Trainer
10			Communication and team-working	Ability to use diverse methods to communicate clearly their conclusions. Ability to demonstrate project-teamwork.	Grade (examination result) or number of ECTS	Trainer
11			Life-long learning	Ability to engage in independent life-long learning. Ability to undertake further study autonomously.	Grade (examination result) or number of ECTS	Trainer
12	Curriculum design	Thematic areas	Coverage	Coverage of the three thematic areas: governance and policy, smart solutions, decision-making	Proportion of coverage per thematic area	Program director, trainers
13		Courses	Quantity	Courses per thematic area	Number of courses per thematic area	Program director
14			Quality	Topics covering GAP Analysis II	Coverage proportion of GAP Analysis II topics	Program director
15			Material	Material is adequate, well-written, understandable, up-to-date, helpful, accessible	Likert scale (1-5)	Trainers, trainees
16			Theory coverage	Degree to which courses covered theory on specific topic	Likert scale (1-5)	Trainers, trainees
17			Practice coverage	Degree to which courses covered practice on specific topic	Likert scale (1-5)	Trainers, trainee
18			Duration	Sufficiency of time allotted to course	Likert scale (1-5)	Trainers, trainees

No.	Evaluation area	Criterion	Indicator	Explanation	Data/unit	Target group
19			Bibliography	Additional recommended literature and material to be studied	Likert scale (1-5)	Trainers, trainees
20	Teaching	Teaching methods (lecture, demonstration, hands-on, exercises, visits at facilities)	Adequacy	Adequacy of teaching methods	Likert scale (1-5)	Trainers, trainees
21			Variety	Variety of teaching methods	Likert scale (1-5)	Trainers, trainees
22		Teaching staff	Staffing	Academic personnel to undertake the program implementation	Number of professors, lecturers and guest lecturers	Program director
23			Advisory board	External advisors/tutors	Number of advisors/tutors	Program director
24			Qualifications	Diplomas, teaching background, experience, expertise	Likert scale (1-5)	Program director
25			Knowledge	Degree of knowledge required for raising the quality of teaching to PhD and master students	Likert scale (1-5)	Program director
26			Research capacity	Participation in research projects	Likert scale (1-5)	Trainee, trainer
27			Extroversion	Participation in international conferences, cooperation with academic staff from other institutions	Likert scale (1-5)	Program director
28	Program management	Coordination	Coordination	Coordination of the program design and implementation	Report	Program director
29		Administration	Support	Administrative support	Report	Program director
30			Feedback	Feedback form trainees and trainers	Report	Program director
31	Program extroversion	Program transferability	Transferability	Transferability of the program to the local community	Number of trainees coming from local community	Program director
32		Collaboration with international institutions	International cooperation	Cooperation with other international institutions in terms of external lecturers, student mobility programs and networking	Number of partnerships	Program director
33		Opportunities for student	Student mobility	Student mobility programs	Number of students	Program director

No.	Evaluation area	Criterion	Indicator	Explanation	Data/unit	Target group
		mobility programs and staff networking			participating in mobility programs	
34			Staff networking	Networking of teaching staff	Number of staff members networking	Program director
35	Facilities, hardware and software	Facilities	Adequacy	Adequacy of teaching rooms and laboratories	Likert scale (1-5)	Trainers, trainees
36			Comfort	Comfort of teaching rooms and laboratories	Likert scale (1-5)	Trainers, trainees
37			Cleanliness	Cleanliness of teaching rooms and laboratories	Likert scale (1-5)	Trainers, trainees
38		Hardware and software	Adequacy	Adequacy of equipment (pcs, etc.)	Likert scale (1-5)	Trainers, trainees
39			Up-to-date	Modernization of equipment	Likert scale (1-5)	Trainers, trainees

6 Evaluation timeline

In order to monitor the implementation of the program, feedback analysis will be performed for each activity of ALLIANCE project presented in the Table 6.1 and described in knowledge sharing strategy (ALLIANCE, 2016a). Data collection will be based on questionnaire surveys, which will be conducted right after the end of the activity and will run for 2 weeks. A summary of data collected will be used to assess the activity and its impacts within two weeks. The results will be presented to project management committee to evaluate the outcomes of the activity and the overall program till then, as well as the impacts of the ALLIANCE key performance indicators (ALLIANCE, 2016).

The first ALLIANCE training activity thus the training school that took place in Volos, Greece in May 2016 within the interdepartmental postgraduate program of UTH "Project Management, Transportation and Regional Planning", has been assessed and the findings have been documented in Deliverable D3.2 (ALLIANCE, 2016b).

For the assessment of the program, an online questionnaire survey was conducted, while additionally and in order to fulfil the requirements of the training school, students that participated, were asked to complete a form for two out of the six in total presentations-topics of their choice. For each selected topic, students were asked to complete the objectives, methodology and conclusions sections. An overview of the findings is included in Annex A.

The ex-ante evaluation of the educational and training program will be performed in October 2016 after the "train the trainers" seminar, which will take place during the 16th International Conference on Reliability and Statistics in Transportation and Communication (RelStat' 16). Responses to the pre-defined questionnaires per target groups will be collected in two weeks after RelStat' 2016. The analysis of the collected data will be carried out during the next two weeks, and the relevant ex-ante evaluation report will be prepared. Similarly, ex-post evaluation will be conducted at the end of the program in December 2018.

Based on the interpretation of the evaluation results, the educational/training program will be revised, updated and supplemented, if needed during ALLIANCE, as scheduled in Table 6.1.

Table 6.1 Activities to be evaluated during ALLIANCE project

Activity	Date	Target groups	Evaluation
Training school within UTH's graduate program during 3rd CSUM	May, 2016	PhD and master students, researchers, lecturers	Feedback analysis
Young researchers seminar during RelStat 2016	October, 2016	PhD and master students, researchers	Feedback analysis
"Train the trainers" seminar during RelStat'2016	October, 2016	Academic staff	Ex-ante evaluation of the program
International Logistics Doctoral Student Workshop	June, 2017	PhD students, researchers	Feedback analysis
1st Summer School	July, 2017	PhD and master students, researchers, lecturers	
Special Session during RelStat'17	October, 2017		Feedback analysis
Trainers seminar during RelStat'17	October, 2017		Feedback analysis
Revision and update of educational/training program	**December 2017**		
Special Session during 4th CSUM	May, 2018		Feedback analysis

Activity	Date	Target groups	Evaluation
2nd Summer School	July, 2018	PhD and master students, researchers, lecturers	
Special Session and ALLIANCE Final Conference during RelStat'18	October, 2018		Feedback analysis, ex-post evaulation of the program
Revision and update of educational/training program	**December 2018**		

7 Data collection and electronic platform development for data collection and analysis

In order to make monitoring and evaluation a continuous process during the life cycle of the program and ensure continuous development, it is proposed to use electronic platform for data collection and analysis. The main purpose of the platform is to aggregate in one integrated tool all data regarding the program development. The platform by itself is a set of tools, which actually are the questionnaires, designed using internal tools of the Moodle platform, which was used as a development tool of the e-ALLIANCE platform (available on http://e-alliance.tsi.lv/). The collected data obtained using Moodle can be automatically visualized and analysed providing useful information to ALLIANCE partners to improve the program by itself or even improve the content of the courses. In the same time the data can be easily exported to "Excel" files for further analysis of the results. The platform includes the following questionnaires:

- Trainee feedback questionnaire
- Trainer feedback questionnaire
- Program director questionnaire
- SAP questionnaire,

which correspond to the designed questionnaires presented in annexes B,C,D,E. The architecture of the platform is demonstrated in Figure 8.1 below. As could be seen the monitoring and evaluation platform is a part of the already developed e-ALLIANCE platform. The platform provides access to the different types of evaluators. The evaluators based on the monitoring and evaluation timeline fill in the questionnaires assigned to them and collected data is stored in one single database, which is a part of e-ALLIANCE platform.

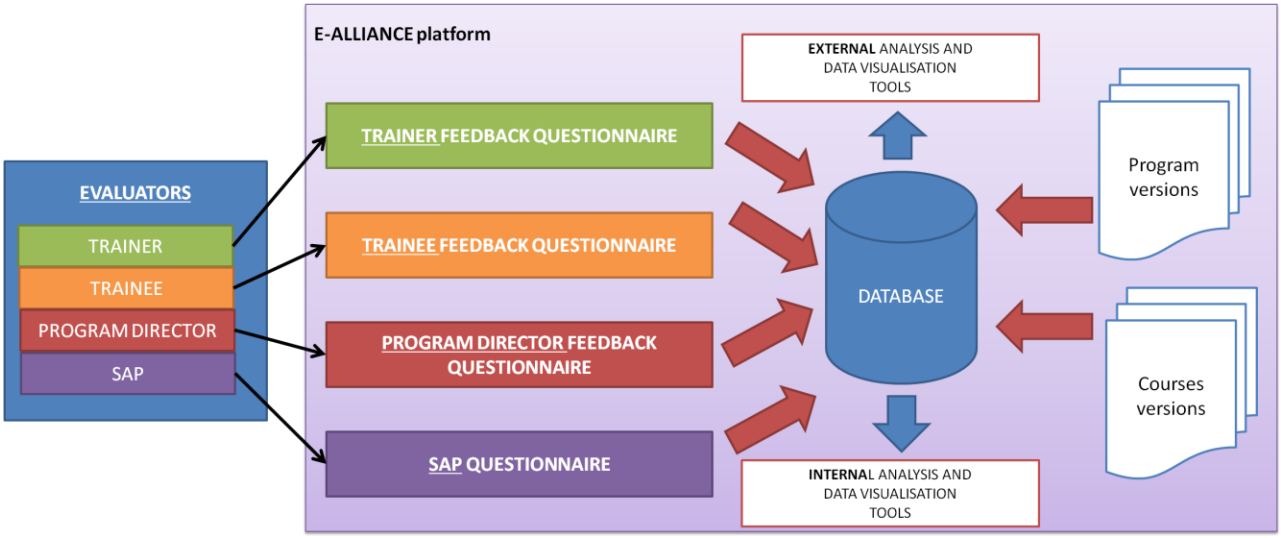

Figure 7.1 Evaluation and monitoring platform architecture

8 References

1. ALLIANCE, 2016a. Deliverable D3.1. ALLIANCE knowledge sharing strategy.

2. ALLIANCE, 2016b. Deliverable D3.2. Assessment of educational/training program implementation with updates by UTH.

3. Delhomme, P., De Dobbeleer, W., Forward, S., & Simões, A., Adamos, G., Areal, A., Chappe, J., Eyssartier, C., Loukopoulos, P., Nathanail, T., Nordbakke, S., Peters, H., Phillips, R., Pinto, M., Ranucci, M–F, Sardi, G.M., Trigoso, J., Vaa, T., Veisten, K., Walter, E., (2009). Manual for Designing, Implementing, and Evaluating Road Safety Communication Campaigns**.** Cast Project. Belgian Road Safety Institute (IBSR-BIVV), Brussels, Belgium.

4. Goyder, H., Marriott N., (2009). Manual for Monitoring and Evaluating Education Partnerships. International Institute for Educational Planning, Paris, France.

9 Annexes

Annex A:

Students' feedback report overview

The topics of the presentations and the share of students' selection per topic is shown in Figure A.1.

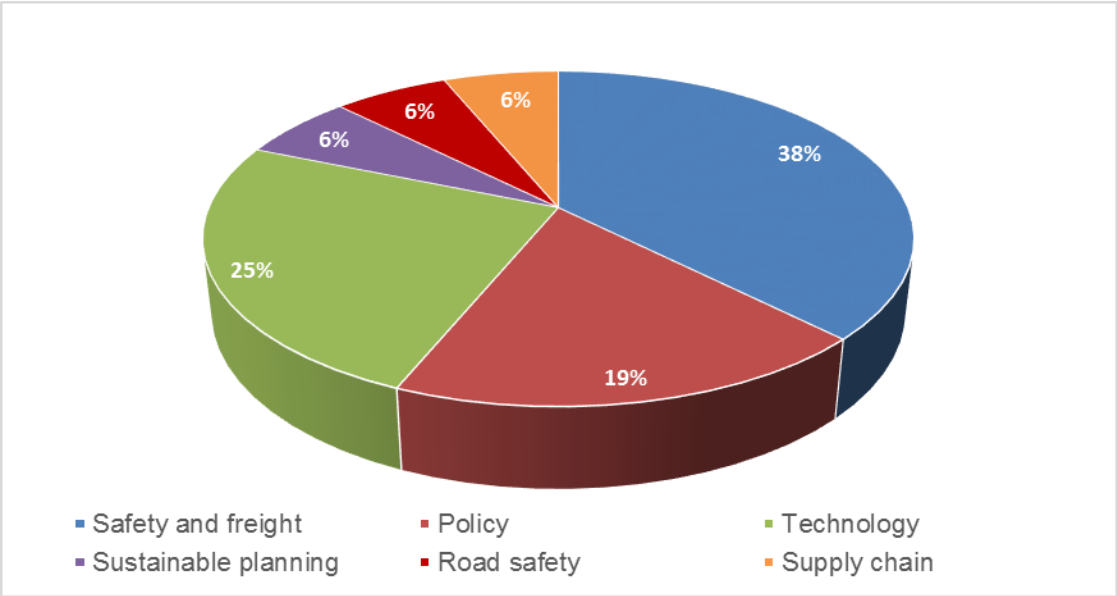

Figure A.1 Presentation topics and share of students' selection per topic

In total 16 feedback reports were submitted by students. Following the students submission, lecturers were asked to review submitted forms, assess the feedback that was written by each student that attended a series of lectures during the Training School Program "Urban and Transportation Planning" in Volos, Greece, and to provide comments to students based on a set of criteria. Based on lecturers' assessment the share of passed reports (56%) and revised (44%) is shown in Figure A.2.

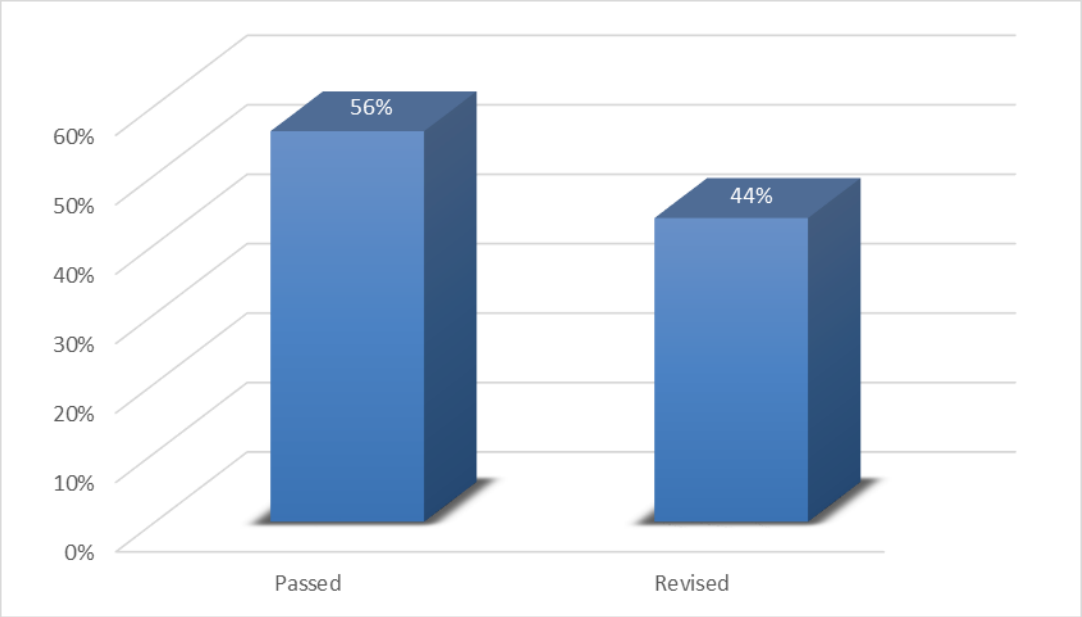

Figure A.2 Share of passed and revised reports

Annex B:

Trainee Feedback Questionnaire

1. **Name, Surname (Optional) :**

2. **Level:**

3. **Home institution:**

4. **Please describe your motivation to take part in ALLIANCE program:**

5. **Keywords of your research**

6. **Please indicate your level of agreement with the statements listed below:**

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. The program increased knowledge and understanding in the field of smart interconnecting sustainable transport networks	○	○	○	○	○
2. The program helped to acquire professional judgement and critical thinking of everyday transport related problems	○	○	○	○	○
3. Course material was adequate, well-written, understandable, up-to-date, helpful, accessible	○	○	○	○	○
4. Courses fully covered theory on specific topic	○	○	○	○	○
5. Courses fully covered practice on specific topic	○	○	○	○	○
6. Time allotted to the program was sufficient	○	○	○	○	○
7. Additional literature and materials were recommended for further studies	○	○	○	○	○
8. Teaching methods were adequate and diverse	○	○	○	○	○
9. The program encouraged participation in research activities	○	○	○	○	○
10. The program provided opportunities for academic or professional networking	○	○	○	○	○
11. The program provided opportunities for international collaboration	○	○	○	○	○
12. Teaching rooms and laboratories were adequate (if applicable)	○	○	○	○	○
13. Teaching rooms and laboratories were comfortable (if applicable)	○	○	○	○	○

14. Teaching rooms and laboratories were clean (if applicable)	○	○	○	○	○
15. Hardware and software used in study process was adequate	○	○	○	○	○
16. Hardware and software used in study process was up-to-date	○	○	○	○	○

7. What did you like most about this program:

8. What aspects of the program could be improved?

9. How do you hope to change your research as a result of this program?

10. How do you hope to change your carrier as a result of this program?

11. Any comments

Annex C:

Trainer Feedback Questionnaire

1. **Name, Surname:**

2. **Position:**

3. **Home institution:**

4. **Keywords of your research (areas of expertise)**

5. **Please indicate your level of agreement with the statements listed below:**

	Strongly agree	**Agree**	**Neutral**	**Disagree**	**Strongly disagree**
1. The program increases knowledge and understanding in the field of smart interconnecting sustainable transport networks	○	○	○	○	○
2. The program helps to acquire professional judgement and critical thinking of everyday transport related problems	○	○	○	○	○
3.The program covers three thematic areas: governance and policy, smart solutions, decision-making in the field of smart interconnecting sustainable transport networks	○	○	○	○	○
4. Course material is adequate, well-written, understandable, up-to-date, helpful, accessible	○	○	○	○	○
5. Courses fully cover theory on specific topic	○	○	○	○	○
6. Courses fully cover practice on specific topic	○	○	○	○	○
7. Time allotted to the program is sufficient	○	○	○	○	○
8. Additional literature and materials are recommended for further studies	○	○	○	○	○
9. Teaching methods are adequate and diverse	○	○	○	○	○
10. The program encourages participation in research activities	○	○	○	○	○
11. The program provides opportunities for academic or professional networking	○	○	○	○	○
12. The program provides opportunities for international collaboration	○	○	○	○	○
12. Teaching rooms and laboratories are adequate (if applicable)	○	○	○	○	○
13. Teaching rooms and laboratories are comfortable (if applicable)	○	○	○	○	○
14. Teaching rooms and laboratories are clean (if applicable)	○	○	○	○	○
15. Hardware and software used in study process is adequate	○	○	○	○	○

16. Hardware and software used in study process is up-to-date	○	○	○	○	○

6. What do you like most about this program:

7. What aspects of the program could be improved?

8. Any comments

Annex D:

Program Director Questionnaire

1. **Name, Surname:**

2. **Position:**

3. **Home institution:**

4. **Please indicate your level of agreement with the statements listed below:**

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. Diplomas, teaching background, experience, expertise of academic staff are sufficient.	◯	◯	◯	◯	◯
2. Degree of academic staff knowledge required for raising the quality of teaching to PhD and master students is sufficient.	◯	◯	◯	◯	◯
3. Participation of academic staff in international conferences and cooperation with academic staff from other institutions are sufficient.	◯	◯	◯	◯	◯

5. **What do you like most about this program:**

6. **What aspects of the program could be improved?**

7. **Any comments**

Annex E:

Scientific excellence and innovation Assurance Panel Questionnaire

1. **Name, Surname:**

2. **Position:**

3. **Home institution:**

4. **Keywords of your areas of expertise**

5. **Please indicate your level of agreement with the statements listed below:**

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. The program increases knowledge and understanding in the field of smart interconnecting sustainable transport networks	○	○	○	○	○
2. The program helps to acquire professional judgement and critical thinking of everyday transport related problems	○	○	○	○	○
3.The program covers three thematic areas: governance and policy, smart solutions, decision-making in the field of smart interconnecting sustainable transport networks	○	○	○	○	○

6. **What do you like most about this program:**

7. **What aspects of the program could be improved?**

8. **Any comments**