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D3.4

Assessment of educational/training program implementation with updates by TTI

alliance

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FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG EV – Fraunhofer	Germany

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

Abbreviation	Description
BSR	Baltic Sea Region
D	Deliverable
EU	European Union
Fraunhofer	Fraunhofer Institute for Factory Operation and Automation
GA	Grant Agreement
MSc	Master of Science
P	Paper
PhD	Doctor of Philosophy
PO	Project Officer
SAP	Scientific Excellence and Innovation Assurance Panel
STIP	Sustainable Transport Interchanges Program
STSE	Short-Term Staff Exchanges
TTI	Transport and Telecommunication Institute
UTH	University of Thessaly
VGTU	Vilnius Gediminas Technical University
WP	Work Package

ABSTRACT

The present deliverable regards the assessment of the 1st Summer School "Sustainable Transport Interchanges Program (STIP) - Part 1: Freight transportation" realized in Riga, Latvia by the Transport and Telecommunication Institute (TTI) with the active support of the University of Thessaly (UTH) and the Fraunhofer Institute for Factory Operation and Automation (Fraunhofer IFF). The deliverable gives an overview on the 1st summer school activities and presents the findings of the assessment of the summer school, which was conducted through online questionnaires addressed to students, trainers and SAP members. Based on respondent' feedback, an analysis was performed for the quantitative data, while for the qualitative, a summary with the most interesting findings is given.

1 Introduction

1.1 Contents of the deliverable

This document is the fourth deliverable of WP3. The objective of this WP is to define and implement a knowledge-sharing strategy. The strategy clearly defines the activities and plans for activities execution, which aims at maximizing the transfer of knowledge between partners of the project. Knowledge-sharing strategy targets the following groups of users: researchers and academic staff of TTI; master and PhD students.

Deliverable D3.4 constitutes the assessment of the 1st Summer School "Sustainable Transport Interchanges Program (STIP) - Part 1: Freight transportation" realized in Riga, Latvia by TTI together with UTH and Fraunhofer IFF. The 1st Summer School was held from 16 July to 22 July 2017 on TTI premises.

For the assessment, an online-questionnaire survey was conducted, and the feedback of 19 students was received (more than 75% of all students). Additionally, the online-questionnaire was developed to receive feedback from trainers involved in the specific courses presentation. As the 1st Summer School is one of the core activities of ALLIANCE, two of the SAP members were officially invited to participate in the school. Both members kindly provided their feedback about this activity.

Based on respondents' feedback, a statistical analysis was performed for the quantitative data, while for the qualitative data, an overview of the most interesting findings is also provided.

1.2 Project overview

ALLIANCE aims at developing advanced research and higher education institution in the field of smart interconnecting sustainable transport networks in Latvia, by linking the Transport and Telecommunication Institute – TTI with two internationally recognized research entities – University of Thessaly – UTH, Greece and Fraunhofer Institute for Factory Operation and Automation – Fraunhofer IFF, Germany. Close collaboration of TTI with UTH and Fraunhofer IFF will enable the achievement of the goals through the following activities:

- Organization of young researchers' seminars.
- Organization of workshops.
- Organization of summer schools for trainers and young researchers.
- Development of educational programme for graduate and post-graduate students.
- Development of training programme for trainers and practitioners.
- Provision of grants for participation as authors of peer reviewed publications in conferences.
- Facilitation of Short-Term Staff Exchanges (STSE's) with the aim of international collaboration, mainly publications.
- Establishment of a guidance strategy for preparing scientific publications.
- Creation of an educational forum as on-line tool for distance learning and knowledge sharing.

The overall methodology of the project is built around the analysis of the needs of Latvia and the

surrounding region of the Baltic sea (Lithuania, Estonia, Poland) on knowledge gain about intermodal transportation networks and the development of the tools to attain this knowledge, providing at the same time excellence and innovation capacity. The analysis to be conducted during the first stages of the project, steps on the overarching relations among policy makers, industry and education/research.

Structured around three main pillars, organizational/governance, operational/services and service quality/customer satisfaction, 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.

The expected impacts on the overall research and innovation potential of TTI and Latvian research community will be of high importance and TTI will benefit from ALLIANCE by:

- Improving its knowledge in methodologies for preparing, writing and publishing scientific papers.
- Strengthening its research capacity.
- Establishing international research teams in specific areas of interest.
- Generating new innovative ideas for future research work through the project's activities.
- Setting up the fundamentals for the young generation of researchers.
- Being integrated in a number of existing international transportation research networks.
- Being incorporated in the European research system of transport and logistics.

In addition, the cooperation of TTI with UTH and Fraunhofer IFF will induce benefits into several domains of everyday life at regional, national and international scope. New bases will be established concerning knowledge transfer procedures, education and interdepartmental collaboration amongst research institutes. The innovative organizational framework, which will be structured for this purpose during the project, is expected to constitute a best practice application with tangible and well estimated progress results, which will be disseminated and communicated through social events to the research community and to the respective business sector as well.

Lastly, an important benefit will be the configuration of an integrated framework pertaining to the knowledge transfer techniques and the generic upgrading of the educational system with use of networking, staff exchange, webinars and other knowledge transfer methods and techniques based on a well-structured and well-tried schedule.

2 First Summer School setting up and implementation

The 1st Summer School organized by TTI is a part of WP3 activities. The 1st Summer School was organised with intensive support of the ALLIANCE partners UTH and Fraunhofer IFF. The title of the 1st summer school was defined as "Sustainable Transport Interchanges Program (STIP) - Part 1: Freight transportation".

The common vision for the Summer Schools of ALLIANCE is the preparation of a new generation of transportation researchers and professionals in the area of transport interchanges.

The objectives are:

- to enable the international networking of young transport researchers
- to train young researchers on specialized topics, defined as vivid for Baltic States through intensive courses.

The outcomes of these Summer Schools are scientific excellence, along with skills and ability to put science into practice.

The 1st Summer School was focused on **Freight Transportation,** and offered the following courses:

- The European policy on intermodal transportation
- Sustainable development and transportation planning
- Building business models for intermodal transport interchanges
- Operation and management of intermodal transport systems
- Optimization of intermodal transport systems
- Design of freight transport interchanges
- Information systems for intermodal freight transportation
- Smart technologies for efficient transport logistics
- Decision making methodologies
- Data collection methods
- Research methodology and team work setup.

Additionally, to the courses developed in the framework of ALLIANCE (listed above) the summer school had additional activities, like:

- students' project
- technical visit to the Riga Commercial port
- special invited lecturers:
    - Dr. Jens Klauenberg (DRL, Germany) "Current status and future trends in freight transport"
    - Mr. Graham Ellis (United Kingdom) "Freight terminals – facing the challenges, a real-world perspective"
- and other collaboration activities.

The full agenda of the 1st Summer School is presented in the Annex A while Table 1 gives the data on courses presented to the participants of the 1st Summer School. To give practical skills to participants, significant amount of time during the school was dedicated to the students' project, prepared by UTH. Annex B presents the description of the students' project in detail. As a result of the students' project, 6 presentations (one from each team) were prepared and presented to auditorium.

Also, the Consortium formulated the conditions and set the relevant deadline (1st September 2017) for those students willing to receive 6 ECTS points from the summer school. In this case, students need to prepare a technical report based on the analysis conducted in the framework of the students' project, according to the structure proposed in course C0 of the Summer School. The report should be uploaded to the e-alliance system for evaluation.

Table 1: 1st Summer school course data

No	Title	Presented by	Partner
C0	Research methodology and teamwork setup	Prof. Irina Yatskiv (Jackiva)	TTI
C1	The European policy on intermodal transportation	Dr. Giannis Adamos	UTH
C2	Building business models for intermodal transport interchanges	Dr. Ing. Henning Strubelt	Fraunhofer IFF
C3	Sustainable development and transportation planning	Dr. Lambros Mitropoulos	UTH
C4	Operation and management of intermodal transport systems	Dr. Giannis Adamos	UTH
C5	Optimization of intermodal transport systems	Prof. Eftihia Nathanail	UTH
C7	Information systems for intermodal freight transport	Dipl.-Wirt.-Inform. Oliver Meier	Fraunhofer IFF
C9	Design of freight transport interchanges	Prof. Eftihia Nathanail	UTH
C10	Smart technologies for efficient transport logistics	Mr. Olaf Poenicke	Fraunhofer IFF
C11	Decision making methodologies	Prof. Eftihia Nathanail	UTH
C12a	Data collection methods: Surveys	Prof. Eftihia Nathanail	UTH
C12b	Data collection methods: Historical and observed data	M.Sc. David Weigert	Fraunhofer IFF

In total, according to the attendance list 44 persons took part in the school, including:

- 25 Trainees: 20 from BSR (19 from TTI and 1 from VGTU), 2 from Germany (Fraunhofer IFF) and 3 from Greece (UTH)
- 2 representatives of the Ministry of Transport of Latvia (incl. 1 SAP)
- 8 Trainers (1 from TTI, 3 from UTH, 4 from Fraunhofer IFF)
- 2 invited lecturers (incl. 1 SAP)
- academic and research staff of TTI (incl. post-doc. researchers).

3 Training program assessment

3.1 Survey design and participants

The following target groups of ALLIANCE 1st Summer School were considered:

- Trainers
- Trainee
- SAP members.

For each target group, specific questionnaire survey was designed:

- for SAP members, the questionnaire was provided in form of MS Word document, which should be filled in and returned to the organizers of summer school (see Annex E)
- for Trainers (see Annex D) and Trainees (see Annex C) an online-questionnaire survey was designed using Google Forms and was provided in electronic form.

The SAP members' questionnaire consisted of three sections: general information about SAP, level of agreement under several statements (a five level Likert scale was used, ranking from "strongly agree" to "strongly disagree") and free-text fields for the members to express their opinion about the summer school.

The SAP members' questionnaire was delivered to two SAP members, who took part in the 1st Summer School, and feedback was received from both of them (response rate of 100%).

The Trainers and Trainee questionnaires consisted of 3 sections: general information (gender, level, home institution, etc.), level of agreement under several statements (a five level Likert scale was used, ranking from "strongly agree" to "strongly disagree") and free-text fields.

The Trainers and Trainee questionnaire was delivered in the last day of the 1st Summer School. In total questionnaire was addressed to eight trainers and 25 trainees. The response rate for the trainers reached 100%, and for the trainees was higher than 75%.

Based on the feedback received from SAP members, trainers and trainees, the statistical analysis was performed for the quantitative data, while the results of the qualitative data are discussed in Chapter 4.

3.2 SAP members feedback results

Figure 1 depicts the results of SAP members' feedback regarding the level of agreement with statements listed in questionnaire. The analysis of this feedback shows the positive evaluation of the event by the SAP members. The results of the evaluation are presented in Annex F and Annex G. Comments from the SAP members are also provided in Chapter 4 of this Deliverable.

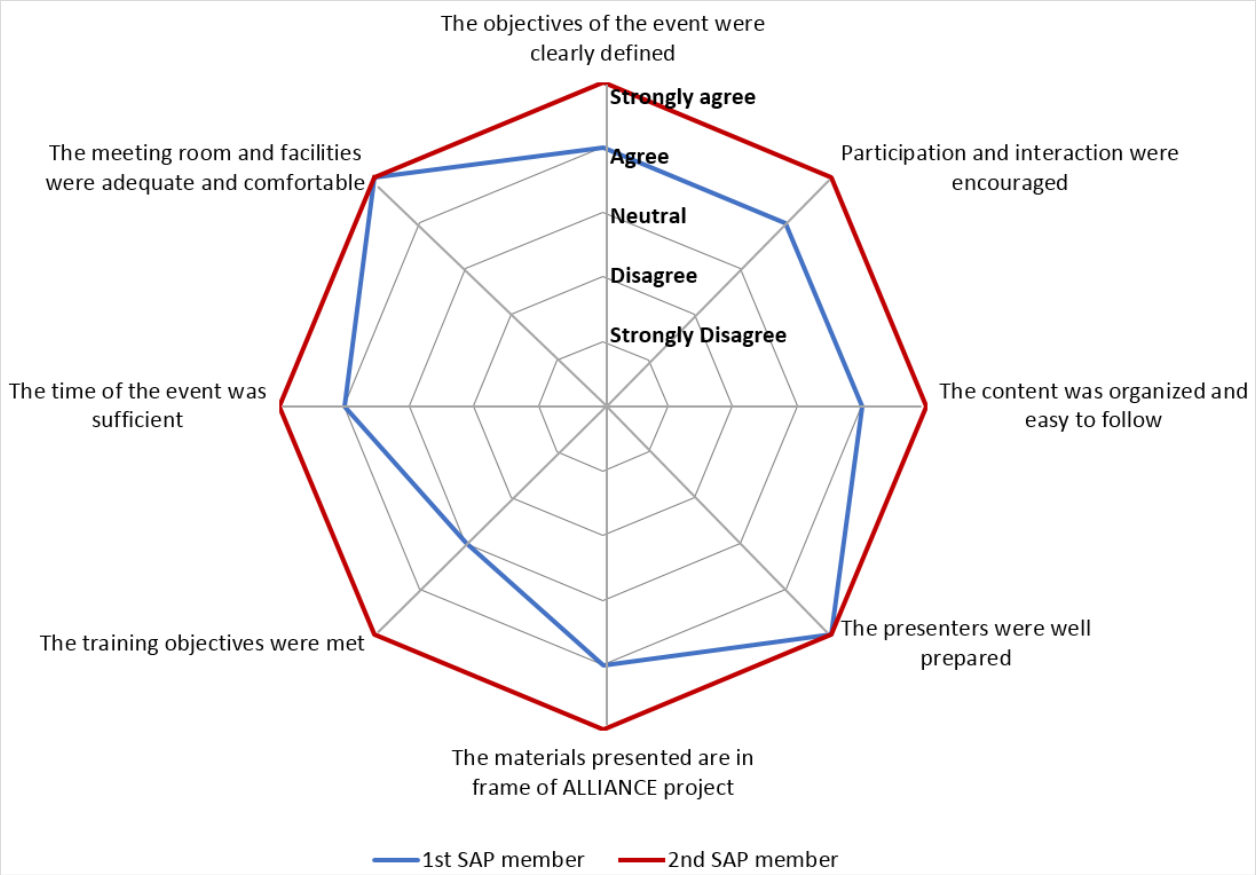

Figure 1: Level of agreement with statements

3.3 Trainers feedback results

This section of the deliverable presents the feedback of trainers regarding their participation in the 1st summer school.

Figure 2 below shows the distribution of trainers by home institution. As ALLIANCE targets knowledge transfer, most of the trainers are representatives of UTH and Fraunhofer IFF.

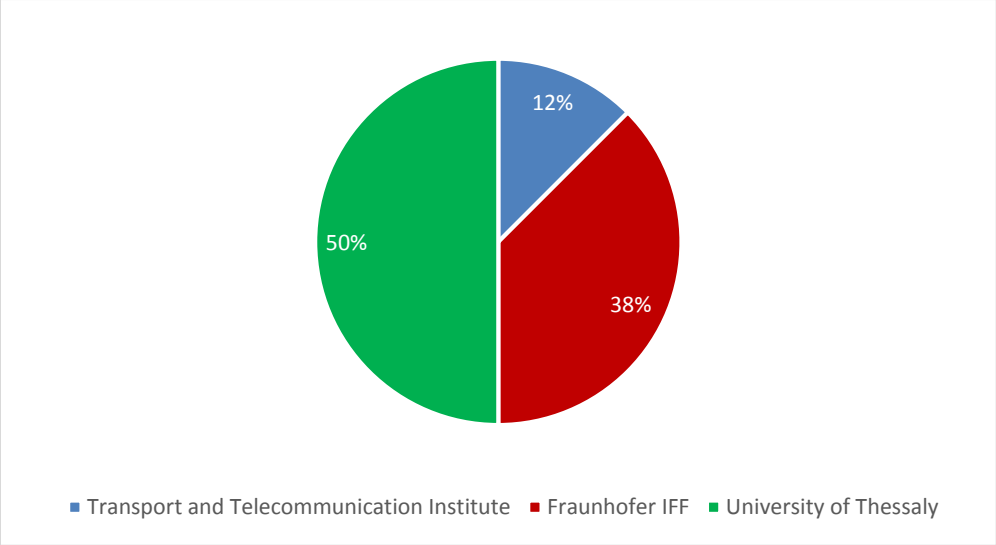

Figure 2: Trainers' home institution

3.3.1 Results

In this subsection, the results of the assessment for specific variables addressing the level of agreement of trainers on several statements are presented. The first statement regarded whether the program increased the level of knowledge and understanding in the field of smart interconnecting sustainable transport networks. It was observed that 100% of the trainers agree or strongly agree with the statement.

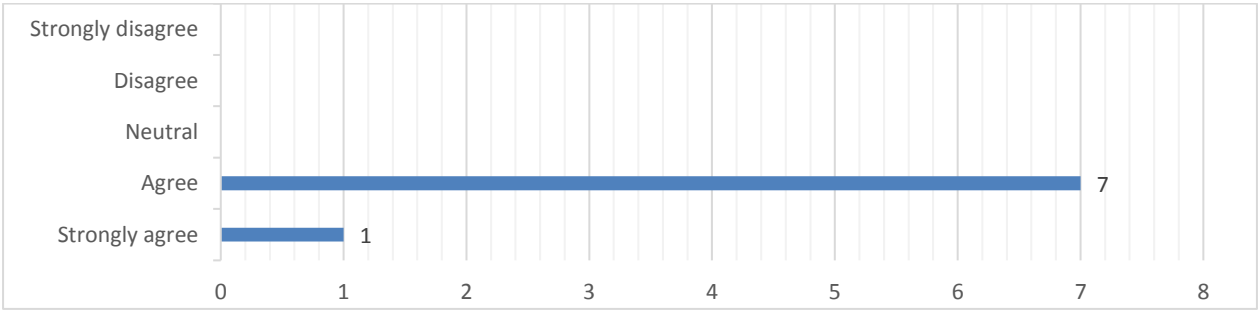

Figure 3: Level of agreement to the statement "The program increased knowledge and understanding in the field of smart interconnecting sustainable transport networks"

In addition, 100% of the respondents agree or strongly agree that the program helped to acquire professional judgement and critical thinking of everyday transport related problems.

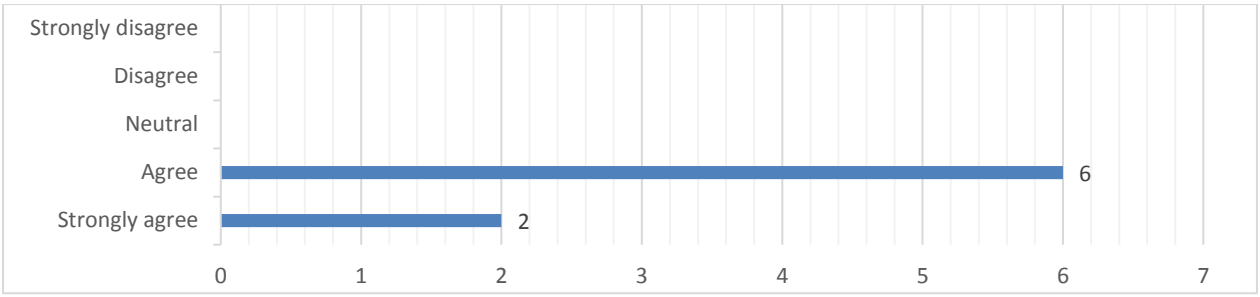

Figure 4: Level of agreement to the statement "The program helped to acquire professional judgement and critical thinking of everyday transport related problems"

Meanwhile, 62% of participants stated their agreement that the program covers three thematic areas: governance and policy, smart solutions, decision-making in the field of smart interconnecting sustainable transport networks, while 38% evaluated this statement in neutral way.

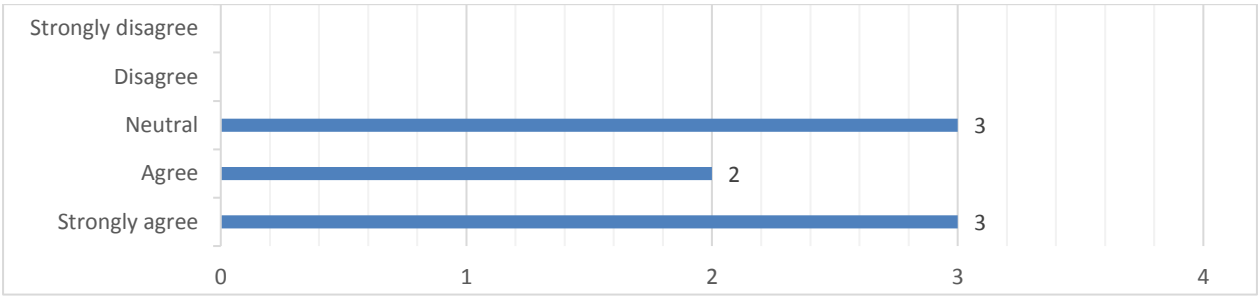

Figure 5: Level of agreement to the statement "The program covers three thematic areas: governance and policy, smart solutions, decision-making in the field of smart interconnecting sustainable transport networks"

The high majority of the participants – 75% agree or strongly agrees that the courses' material was adequate, well-written, understandable, up-to-date, helpful and accessible, while 25% of participants indicated neutral level of agreement with the statement.

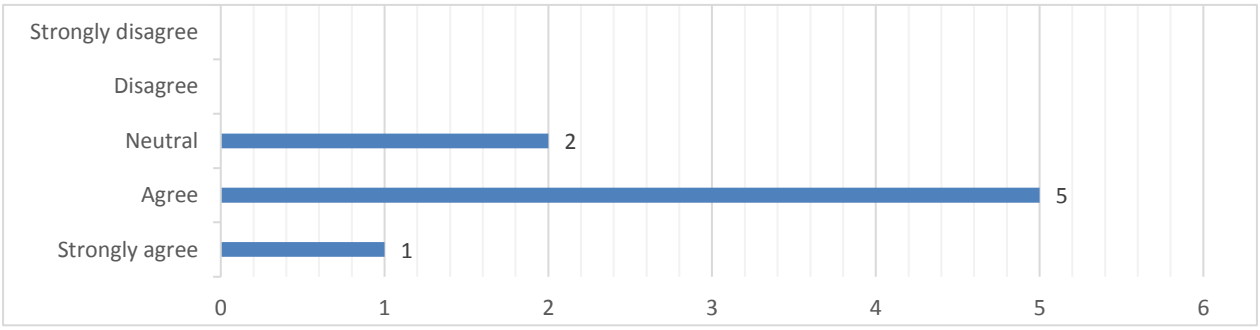

Figure 6: Level of agreement to the statement "Course material was adequate, well-written, understandable, up-to-date, helpful, accessible"

Also, the 75% of participants showed high level of agreement with statement regarding course coverage of theory on specific topic. The level of agreement of the rest 25% was neutral.

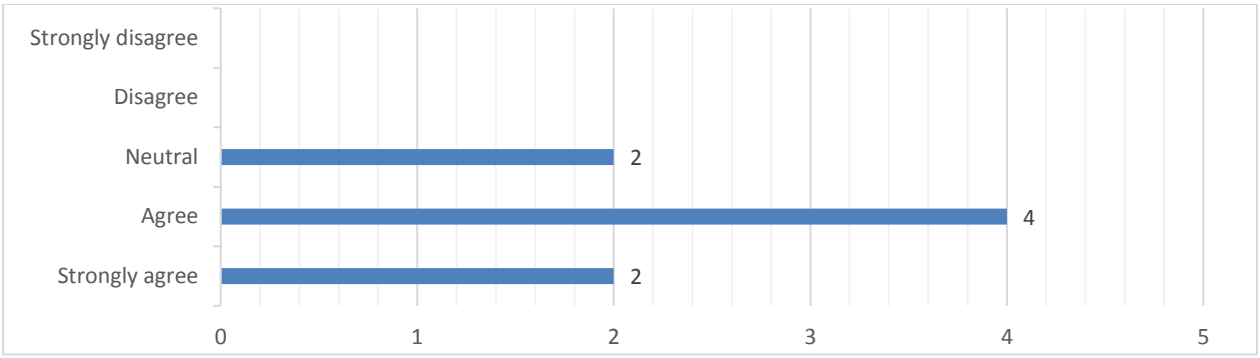

Figure 7: Level of agreement to the statement "Courses fully covered theory on specific topic"

Meanwhile, 75% of participants stated high level of agreement regarding course coverage of practice on specific topic and 25% claimed neutral level of agreement.

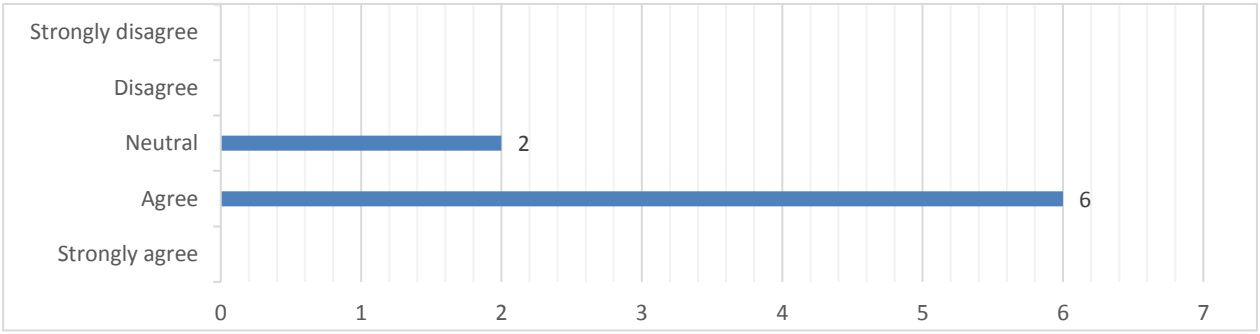

Figure 8: Level of agreement to the statement "Courses fully covered theory on specific topic"

Next, 25% of the participants claimed that they strongly agree or agree with the statement, that time allotted to the program was sufficient, meanwhile 50% indicated neutral level of agreement, 25% disagree with the statement.

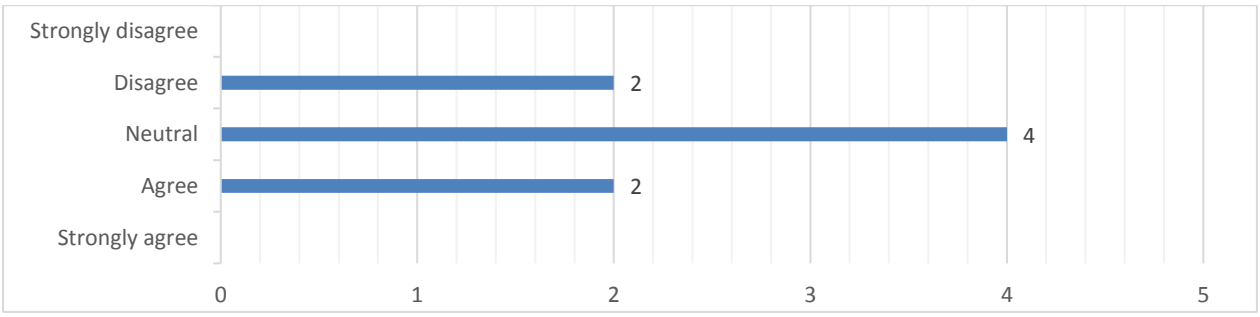

Figure 9: Level of agreement to the statement "Time allotted to the program was sufficient"

The majority of the respondents (88%) agreed or strongly agreed with statement regarding additional literature and materials for further studies. The rest 12% had neutral level of agreement.

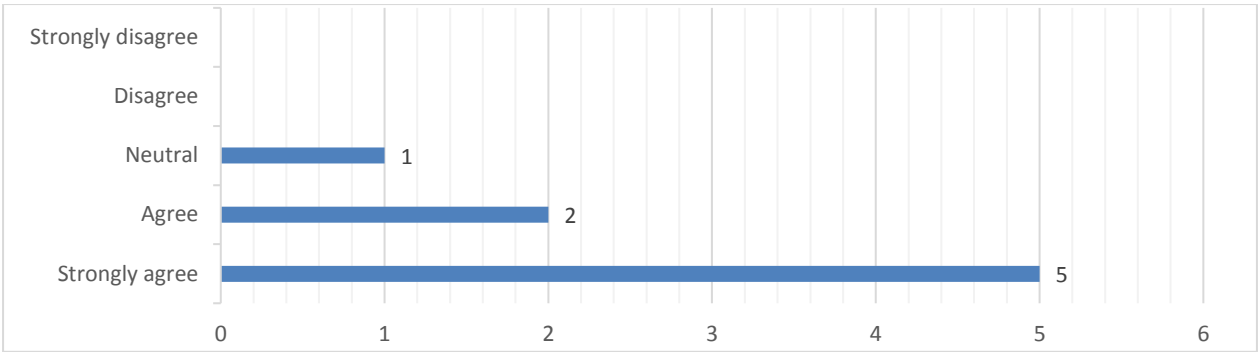

Figure 10: Level of agreement to the statement "Additional literature and materials were recommended for further studies"

Meanwhile 75% of respondents indicated, that teaching methods were adequate and diverse, 25% answered in a neutral way.

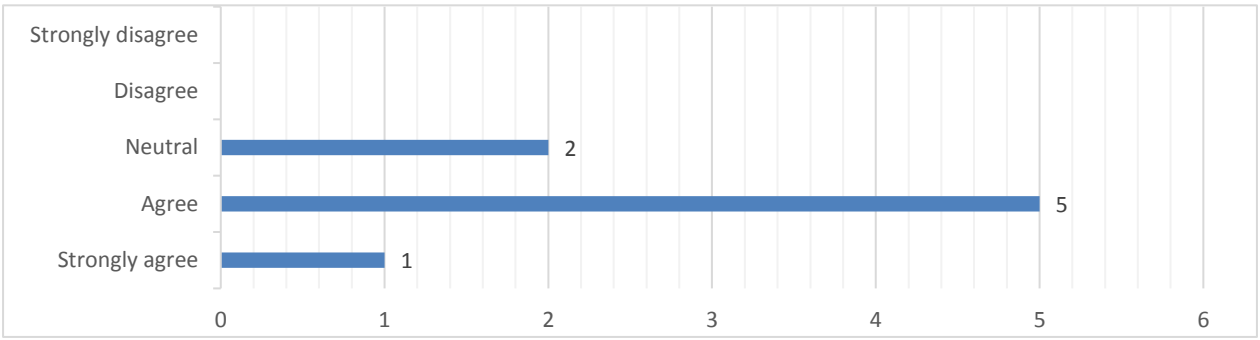

Figure 11: Level of agreement to the statement "Teaching methods were adequate and diverse"

In addition, 75% of respondents agreed or strongly agreed that the program encouraged participation in research activities, and 25% had neutral level of agreement.

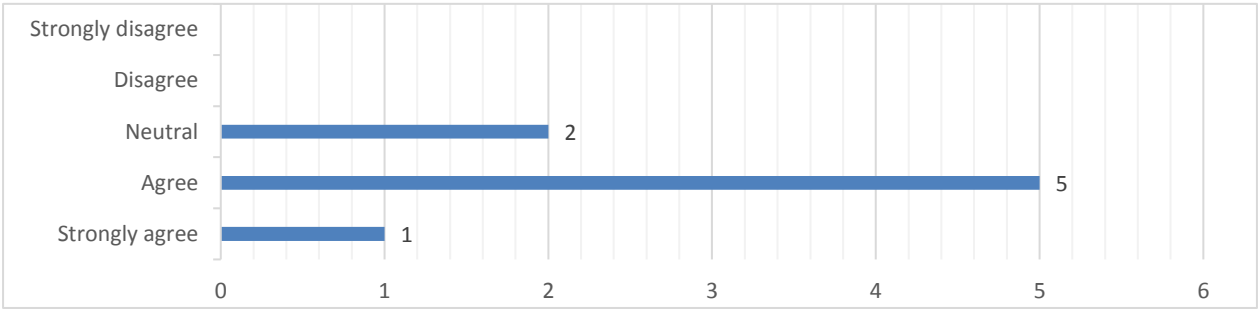

Figure 12: Level of agreement to the statement "The program encouraged participation in research activities"

The majority of the respondents (88%) claimed that they strongly agreed or agreed with the statement that the program provided opportunities for academic or professional networking, and the 12% had neutral answers.

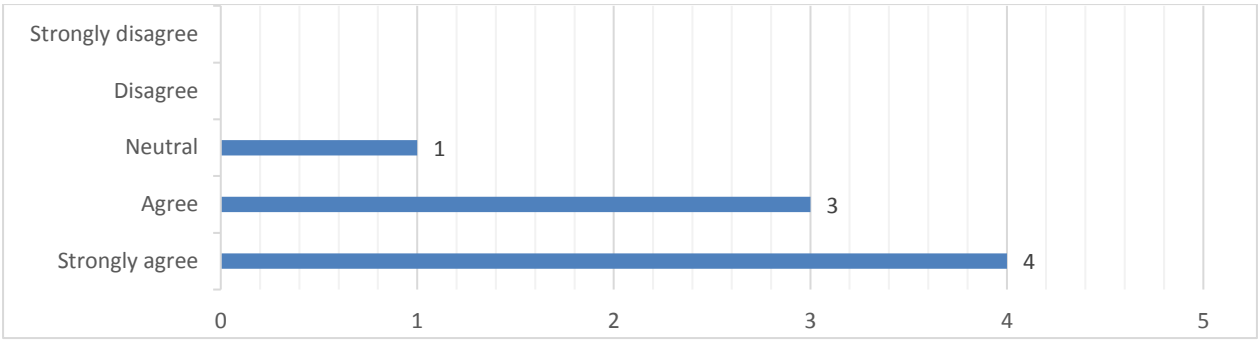

Figure 13: Level of agreement to the statement "The program provided opportunities for academic or professional networking"

As in the previous question, most of the respondents (88%) claimed that they strongly agreed or agreed with the statement that program provided opportunities for international collaboration, and the rest 12% had neutral answers.

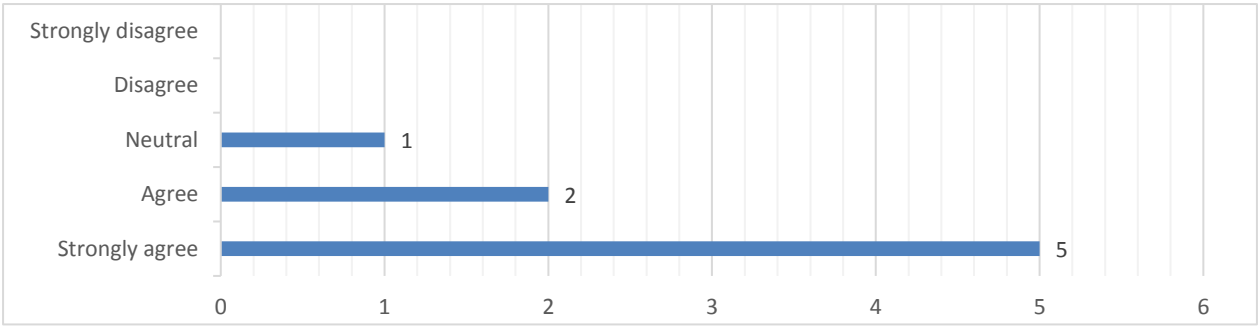

Figure 14: Level of agreement to the statement "The program provided opportunities for international collaboration"

Next the results of the survey regarding teaching room are presented. This pool of questions asked respondents about the cleanness of the rooms, comfortability and adequacy. As it can be seen from Figure 15 most of respondents agreed, that room was clean (88%), comfortable (50%) and adequate for the event (75%).

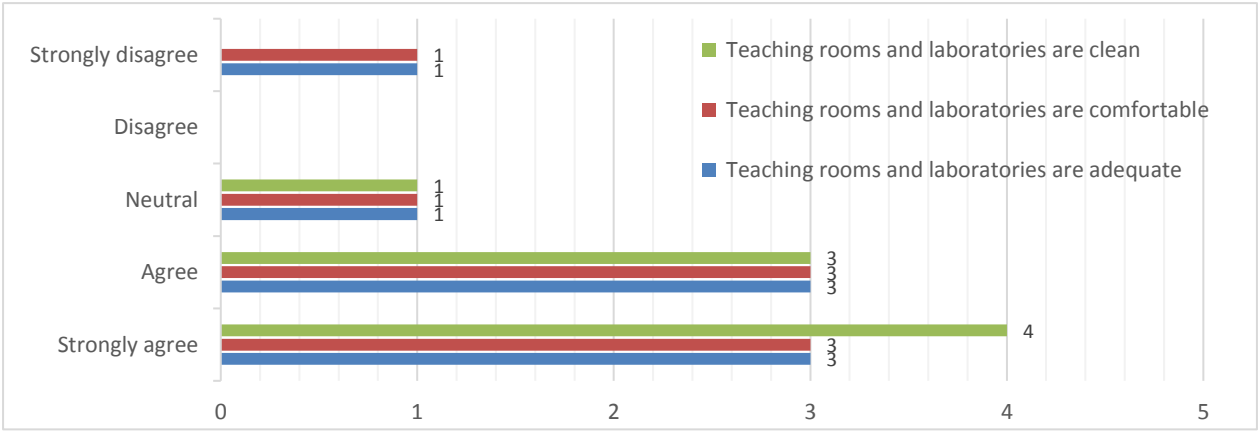

Figure 15: Level of agreement to the statement about cleanness of the rooms, comfortability and adequacy

Finally, respondents expressed their opinion about hardware and the software used in the framework of the summer school. The results of the survey can be seen below. Most of the respondents (95%) believe, that hardware and the software was adequate, meanwhile 90% of them indicated, that software and hardware was up-to-date.

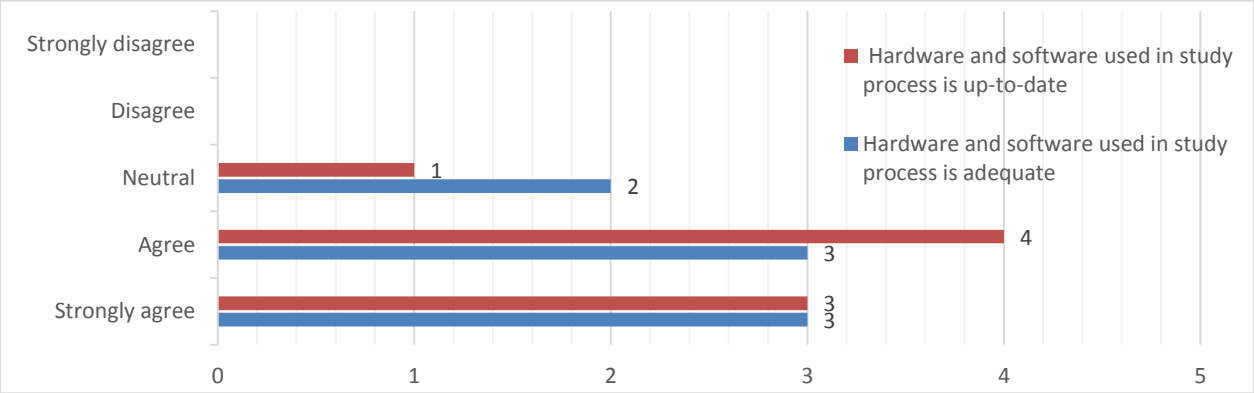

Figure 16: Level of agreement to the statement about hardware and software issues

Figure 17: Research profile of the trainers

3.4 Trainees feedback results

This section of the deliverable presents the feedback data from trainees regarding their participation in the 1st Summer School. Figure 18 presents gender distribution of the respondents, who provided the answers.

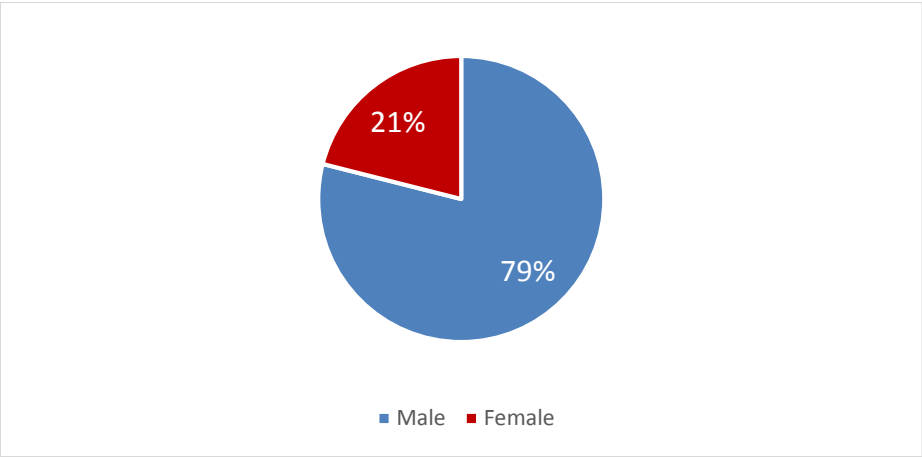

Figure 18: Respondents distribution by gender

As it can be seen from Figure 18, the distribution of respondents is not uniform, since the majority part 79% are male, while only 21% are female.
Focusing on the educational level of the participants, 58% of them are PhD students, 32% are Master level students and 5% are Post doc and Professionals.

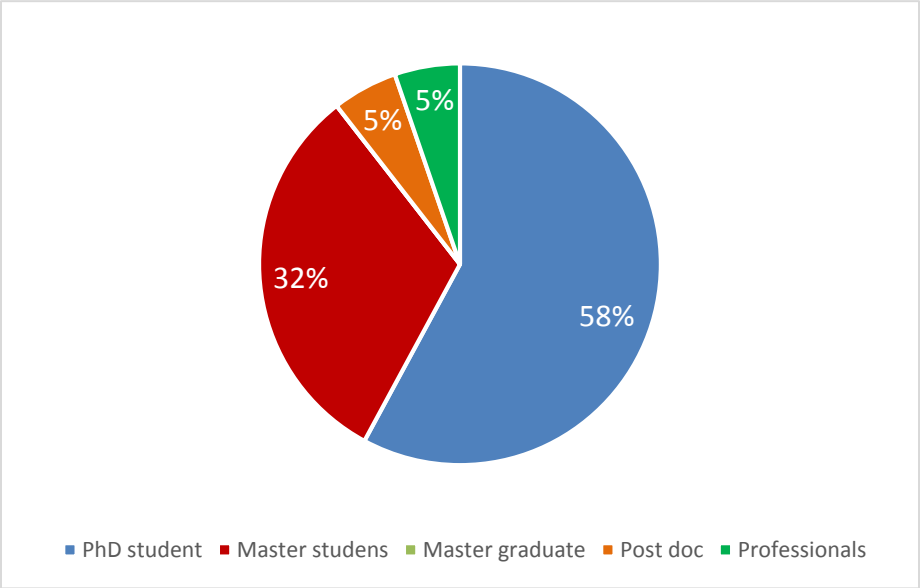

Figure 19: Respondents' education level

It is remarkable that 90% of respondents are PhD and master level students, which is in line with Summer School target audience.

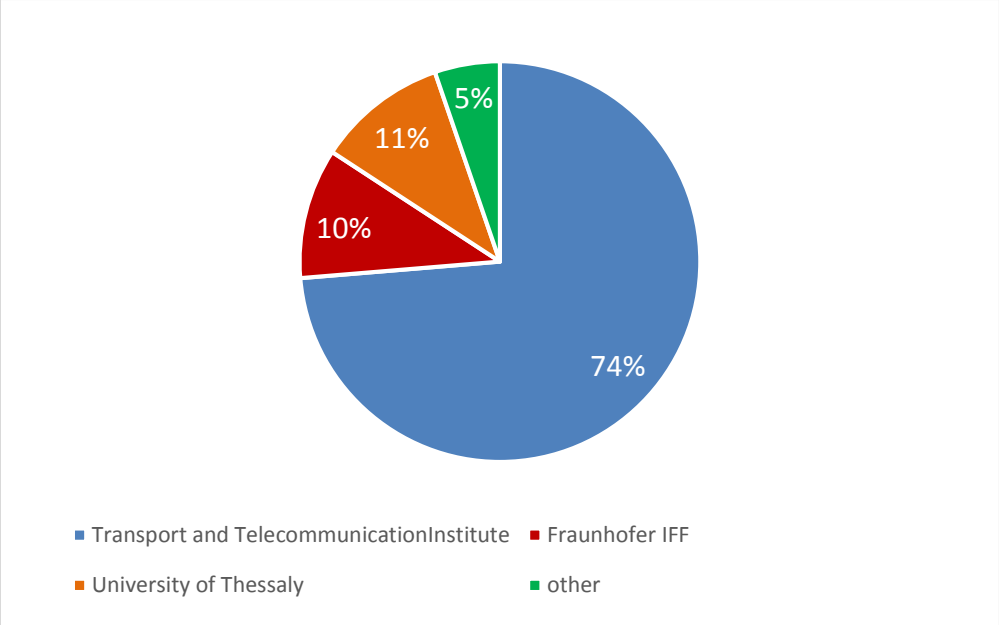

Figure 20: Respondents' home institution

Lastly, the home institution for 74% of the respondents is Transport and Telecommunication Institute and for the remaining: 10% are representatives of Fraunhofer IFF and 11% are from University of Thessaly., while 5% are from other home institution.

3.4.1 Results

In this subsection, the results of the assessment for specific attributes addressing the level of agreement of participants on several statements, are presented. The first statement regarded the contribution of the program to the increase of knowledge and understanding in the field of smart interconnecting sustainable transport networks. It was observed that 95% of the participants agreed with the statement, while 5% had neutral attitude.

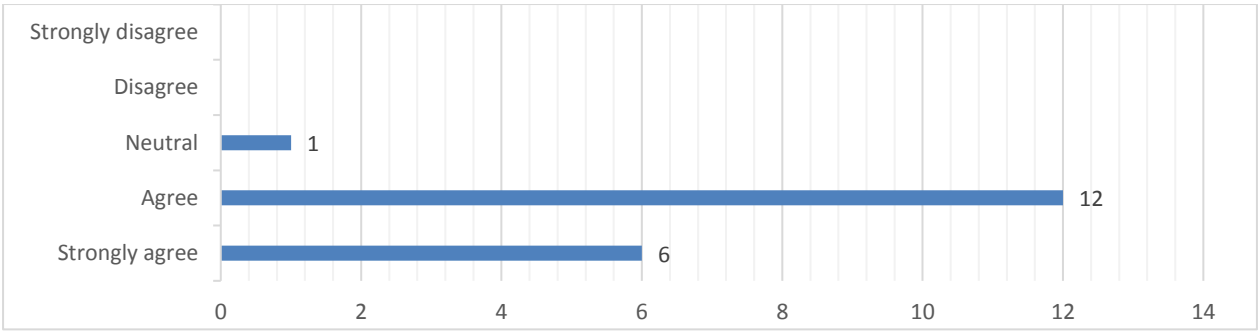

Figure 21: Level of agreement to the statement "The program increased knowledge and understanding in the field of smart interconnecting sustainable transport networks"

In addition, 74% of the respondents agreed or strongly agreed that the program helped to acquire professional judgement and critical thinking of everyday transport related problems (see Figure 22).

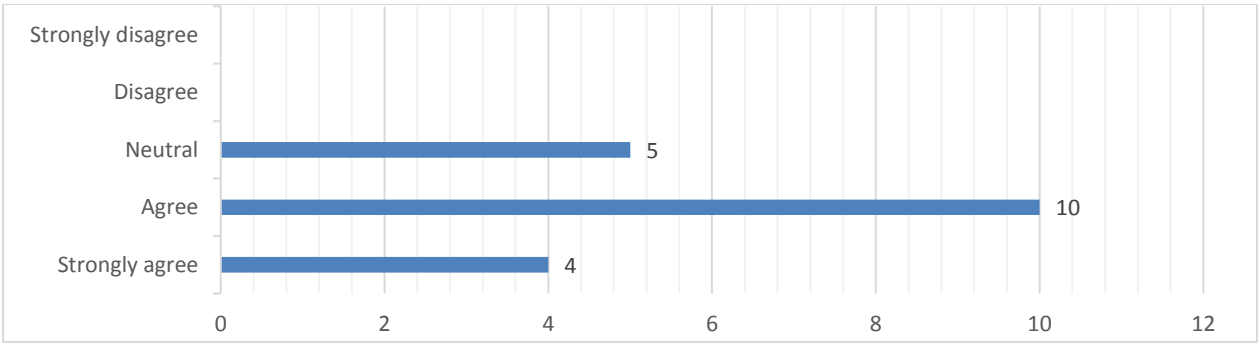

Figure 22: Level of agreement to the statement "The program helped to acquire professional judgement and critical thinking of everyday transport related problems"

Meanwhile, 26% of participants showed neutral level of agreement with the statement indicated in Figure 22.

The high majority of the participants (95%) strongly agreed that the course material was adequate, well-written, understandable, up-to-date, helpful and accessible, while the opinion of the rest 5% of participants was neutral.

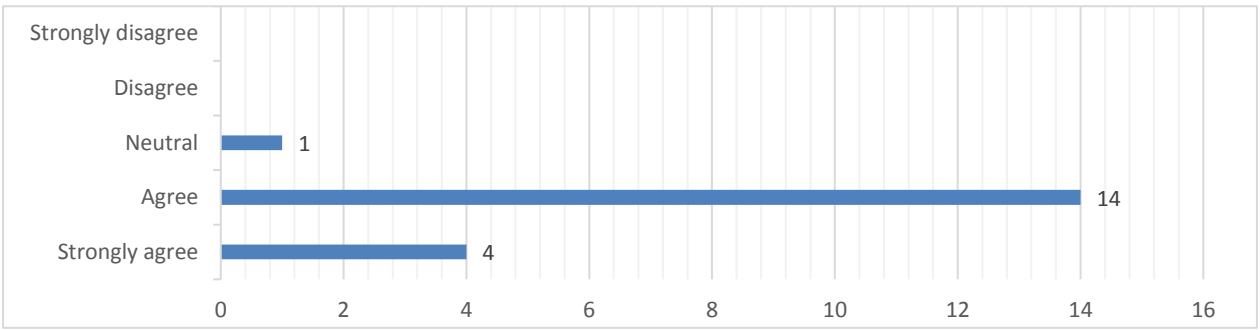

Figure 23: Level of agreement to the statement "Course material was adequate, well-written, understandable, up-to-date, helpful, accessible"

Also, 84% of participants had high level of agreement with statement regarding course coverage of theory on specific topic. Only 16% had neutral level of agreement here.

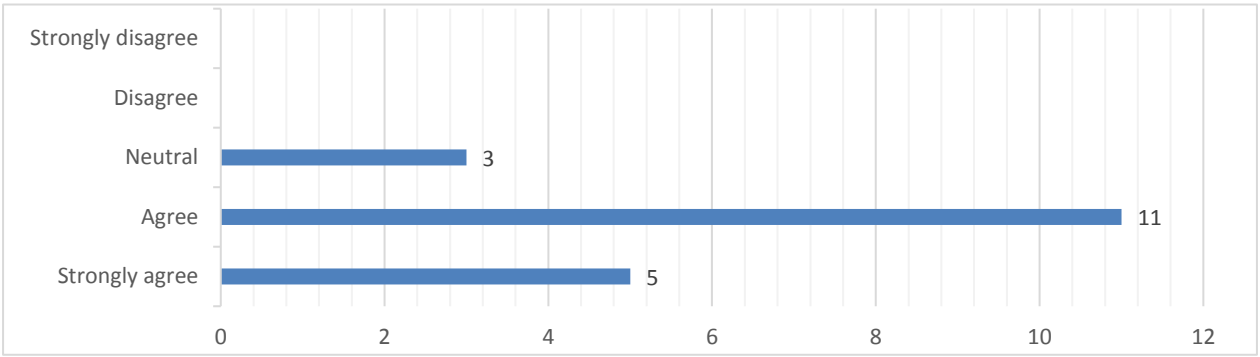

Figure 24: Level of agreement to the statement "Courses fully covered theory on specific topic"

Meanwhile, 68% of participants stated high level of agreement regarding course coverage of practice on specific topic, 21% claimed neutral level of agreement and 11% disagreed with this statement.

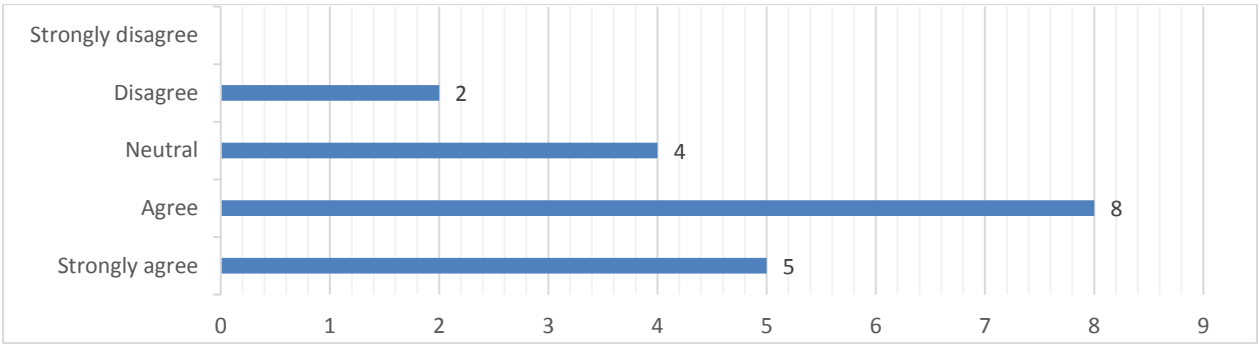

Figure 25: Level of agreement to the statement "Courses fully covered practice on specific topic"

Next, 79% of the participants claimed that they strongly agreed or agreed with the statement, that time allotted to the program was sufficient, meanwhile 21% indicated neutral level of agreement with the statement.

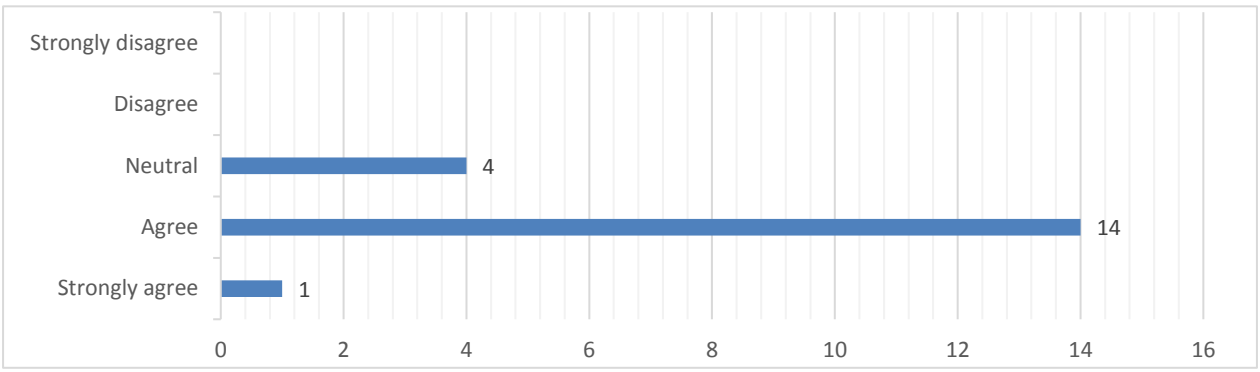

Figure 26: Level of agreement to the statement "Time allotted to the program was sufficient"

The majority of the respondents – 79% replied that they are agreed or strongly agreed with statement regarding additional literature and materials for further studies. The opinion of the rest 21% was neutral.

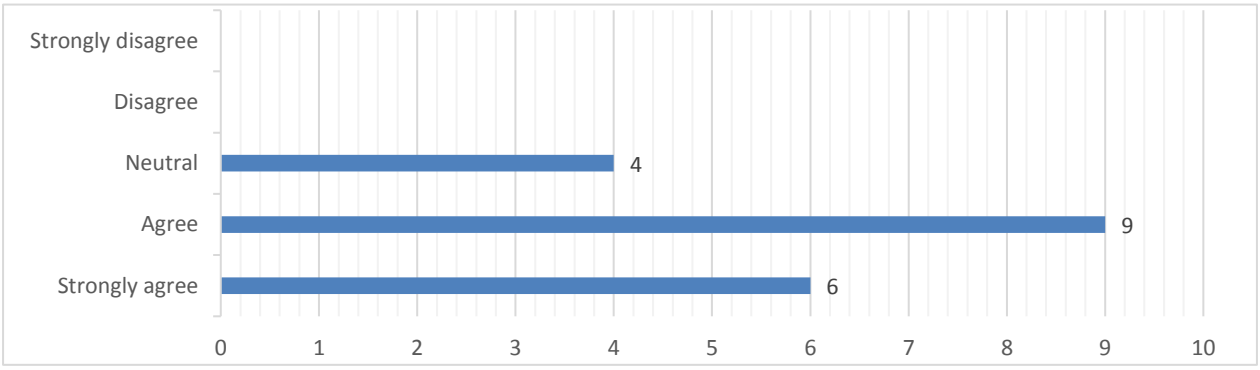

Figure 27: Level of agreement to the statement "Additional literature and materials were recommended for further studies"

Meanwhile, 95% of participants responded that teaching methods were adequate and diverse, 5% answered in neutral way.

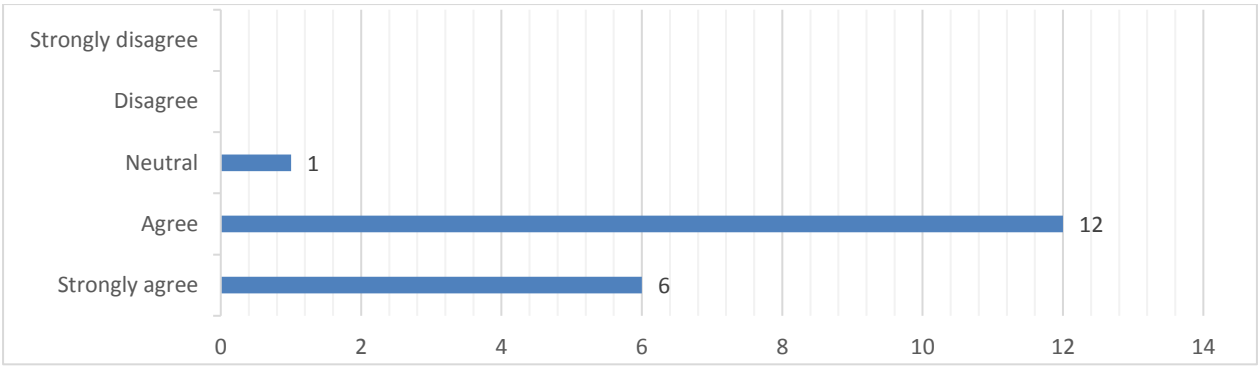

Figure 28: Level of agreement to the statement "Teaching methods were adequate and diverse"

In addition, 84% of respondents agreed or strongly agreed that the program encouraged participation in research activities, and 16% had neutral level of agreement.

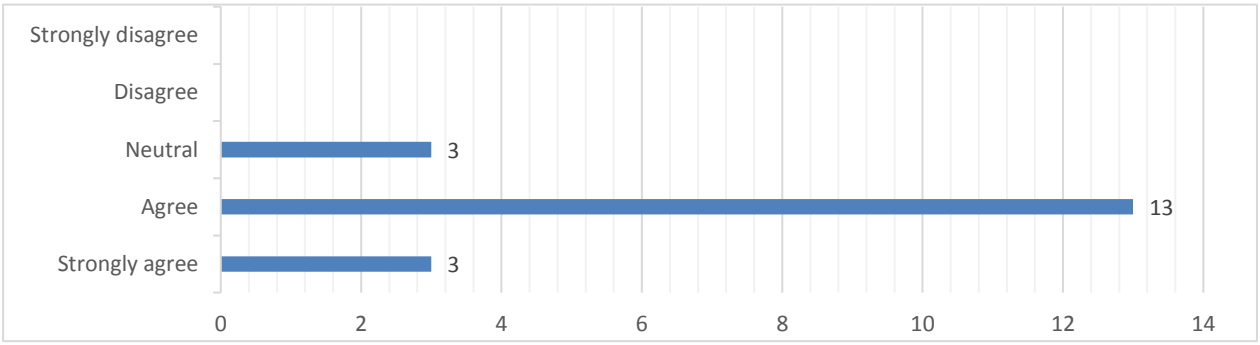

Figure 29: Level of agreement to the statement "The program encouraged participation in research activities"

All respondents claimed that they strongly agreed or agreed with the statement that the program provided opportunities for academic or professional networking.

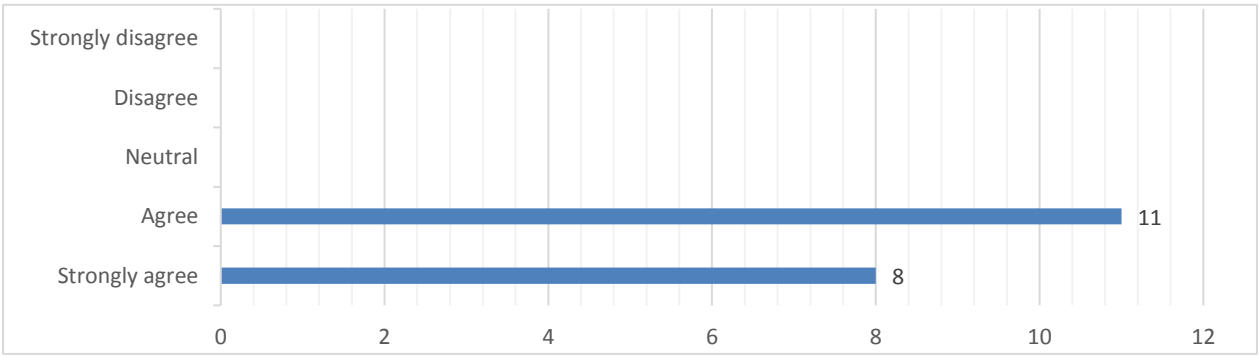

Figure 30: Level of agreement to the statement "The program provided opportunities for academic or professional networking"

As in the previous question, all respondents claimed that they strongly agreed or agreed with the statement that program provided opportunities for international collaboration.

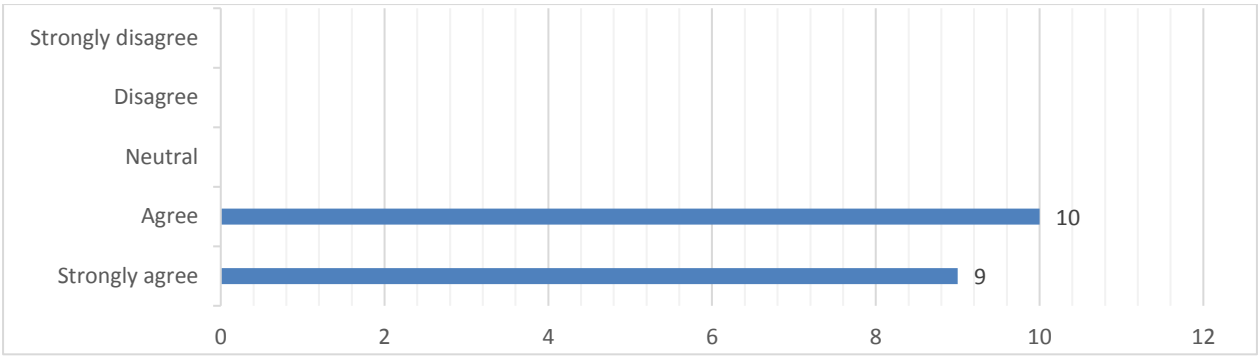

Figure 31: Level of agreement to the statement "The program provided opportunities for international collaboration"

Next, the results of the survey regarding teaching room are presented. This pool of questions asked respondents about cleanness of the rooms, comfortability and adequacy. As it can be seen from Figure 32 all respondents agreed (that room was clean, comfortable and adequate for the event.

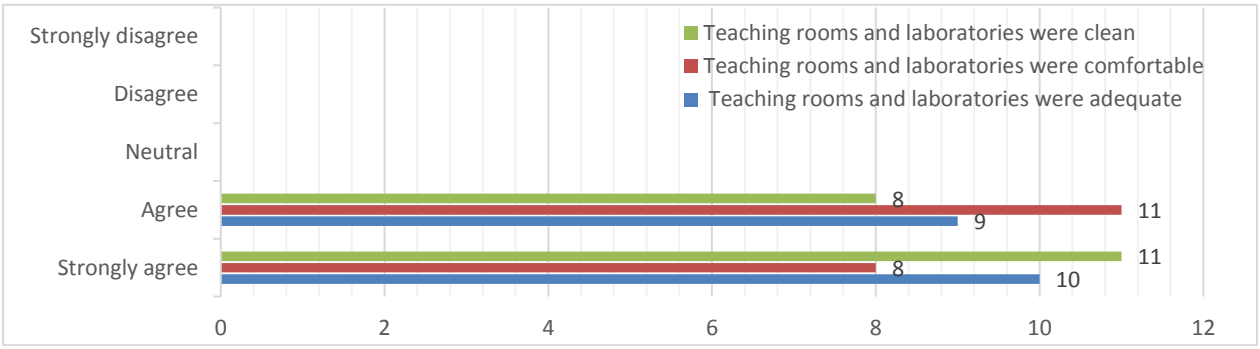

Figure 32: Level of agreement to the statement about cleanness of the rooms, comfortability and adequacy

Finally, respondents expressed their opinion about hardware and the software used in the framework of the program. The results of the survey can be seen below. Most of the respondents (95%) believe, that hardware and the software was adequate, meanwhile 95% stated that software and hardware was up-to-date.

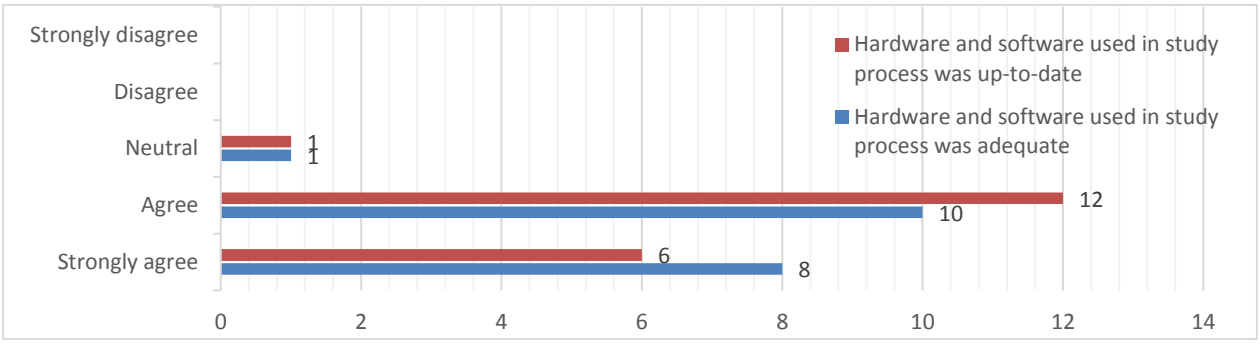

Figure 33: Level of agreement to the statement about hardware and software issues

Figure 34 depicts the word cloud, which is generated based on respondent's answers regarding key words of their research.

Figure 34: Research profile of the participants

4 Synopsis

Based on the closed questions in surveys for SAP, trainers and trainees all 3-questionnaire contained the fields their respondents were able to express their attitude to the 1st summer school, as well to provide valuable recommendations for future and of course point out to advantages and disadvantages of the conducted event.

SAP feedback results

The SAP members were also welcomed to provide their opinion about the summer school and the courses in free form. As a result, SAP members mentioned the advantage to combine theory and practical issues in the framework of one event. SAP members also recommended to provide some initial materials before summer school (as a home task) to save time during the event, and spend more time to more advanced issues of the courses. Also, SAP members recommended to begin the summer school with social events to make the relationship between participants more open.

Trainers feedback results

Trainers were able to express their opinion in free form in the survey. As a result, most of trainers provided their recommendations how to improve the summer school and the courses in general. Some of trainers pointed out that they would like to be more free in presentations' contents during summer school (not just using courses developed in frame of ALLIANCE).
Some of the trainers pointed out that student project could be more structured and more time should be provided to students. Also, it was recommended to organise the social event before the summer school, to provide lectures and students the opportunity y to get familiar with each other.

Trainees feedback results

The trainee questionnaire had several fields to provide the deeper understanding about their motivation to take part in the 1st summer school and to evaluate the event in free form.

Most of the participants stated that their primary motivation to take part in the 1st summer school was to obtain new knowledge and ideas regarding the topic of the summer school, some highlighted the opportunity to do collaboration in research, few participants pointed out that the topics of the summer school are in-line with their PhD thesis and they hope to have a close communication with leading researchers in this area.

Following the question, what participants liked most in the summer school, the following can be mentioned: invited lectures, opportunity to communicate with rest students and trainers. Some of the students pointed out the courses, which were most interesting for them, as example courses C2, C11 etc. Some of respondents underlined the good organisation of the event.

Regarding the question, what could be improved, participants pointed out that some of courses could be shorter, students' project could be more "creative", and more case-studies were expected.

In question regarding change of the research as a result of this program the participants pointed out that they have received a number of useful literature reference necessary for their thesis. Some are pointed out that they a going to include decision support methods in their research.

5 Annexes

Annex A: 1st Summer School Agenda

Enhancing Excellence and Innovation Capacity in Sustainable Transport Interchanges
ALLIANCE
(Grant agreement no.: 692426)

1st Summer School "Sustainable Transport Interchanges Program (STIP) - Part 1: Freight transportation"

Venue: Transport and Telecommunication Institute, Lomonosova street 1, Aud. 130
Riga, LV-1019, Latvia, 16-22 July, 2017

16 July 2017	
ARRIVAL	
17 July 2017	
Time	**Topic**
09:00 – 9:30	Registration and welcome coffee
9:30 – 9:40	Moderator: Mihails Savrasovs **Opening of the 1st Summer School** **Department of Finance and Development Planning of Ministry of Transport, Deputy Director,** Inta Rozenšteine **TTI vice-rector** Dr.sc.ing., Prof. Irina Yatskiv (Jackiva)
9:40 – 10:00	ALLIANCE project presentation **(**Prof. Irina Yatskiv (Jackiva), **TTI)**
10:00 – 10:30	STIP presentation **(**Prof. Eftihia Nathanail, **UTH)**
10:30 – 11:00	Participants' presentation
11:00 – 11:10	Coffee break
11:10 – 13:00	C1: The European policy on intermodal transportation **(**Dr. Giannis Adamos, **UTH)**
13:00 – 14:00	Lunch
14:00 – 16:00	C11: Decision making methodologies **(**Prof. Eftihia Nathanail, **UTH)**
16:00 – 16:15	Coffee break
16:15 – 17:15	C0: Research methodology and teamwork setup **(**Prof. Irina Yatskiv (Jackiva), **TTI)**
17:15 – 18:30	Team organization and introduction to students project **(**Prof. Eftihia Nathanail, **UTH)**
End of Day 1	

18 July 2017	
Time	**Topic**
9:00 – 11:00	C2: Building business models for intermodal transport interchanges **(**Dr. Ing. Henning Strubelt, **Fraunhofer IFF)**
11:00 – 11:10	Coffee break
11:10 – 13:00	C4: Operation and management of intermodal transport systems **(**Dr. Giannis Adamos, **UTH)**
13:00 – 14:00	Lunch
14:00 – 16:00	C3: Sustainable development and transportation planning **(**Dr. Lambros Mitropoulos, **UTH)**
16:00 – 16:15	Coffee break
16:15 – 17:15	C11 (cont.): Decision making methodologies **(**Prof. Eftihia Nathanail, **UTH)**
17:15 – 18:00	Project time
	Social Event: Old Riga Tour
End of Day 2	

19 July 2017	
Time	**Topic**
9:00 – 10:00	**Invited lecture:** Freight terminals –facing the challenges, a real world perspective **(**Graham Ellis, **UK**)
10:00 – 11:00	C9: Design of freight transport interchanges **(**Prof. Eftihia Nathanail, **UTH)**
11:00 – 11:10	Coffee break
11:10 – 13:00	C9: Design of freight transport interchanges **(**Prof. Eftihia Nathanail, **UTH)**
13:00 – 14:00	Lunch
14:00 – 16:00	C10: Smart technologies for efficient transport logistics **(**Mr. Olaf Poenicke, **Fraunhofer IFF)**
16:00 – 16:15	Coffee break
16:15 – 18:00	Project time
	Social Event: Spikeri Tour
End of Day 3	

20 July 2017	
Time	**Topic**
9:00 – 10:00	**Invited lecture:** Current status and future trends in freight transport **(**Dr. Jens Klauenberg, **Germany)**
10:00 – 11:00	C5: Optimization of intermodal transport systems **(**Prof. Eftihia Nathanail, **UTH)**
11:00 – 11:10	Coffee break
11:10 – 13:00	C5: Optimization of intermodal transport systems **(**Prof. Eftihia Nathanail, **UTH)**
13:00 – 14:00	Lunch
14:00 – 16:00	C7: Information systems for intermodal freight transport **(**Dipl.-Wirt.-Inform. Oliver Meier, **Fraunhofer IFF)**

16:00 – 16:15	Coffee break
16:15 – 18:00	Technical visit: Riga Commercial port
18:30	Social event and outdoor dinner
End of Day 4	

21 July 2017	
Time	**Topic**
10:00 – 11:00	C12a: Data collection methods: Surveys **(**Prof. Eftihia Nathanail, **UTH)**
11:00 – 11:10	Coffee break
11:10 – 13:00	C12b: Data collection methods: Historical and observed data **(**M.Sc. David Weigert, **Fraunhofer IFF)**
13:00 – 14:00	Lunch
14:00 – 18:00	Project time
18:00	Closing ceremony
End of Day 5	

22 July 2017
DEPARTURE

Annex B: Student Project

1st Summer School

Sustainable Transport Interchanges Program (STIP) – Part 1: Freight transportation

ALLIANCE STUDENT PROJECT

Project title	Before and after assessment of smart urban freight transport solutions
Responsible Institute	University of Thessaly
Version	Final

1. Scope

The scope of the project is to assess a number of selected Urban Freight Transport (UFT) solutions through a before and after analysis. The assessment of the solutions will be conducted with the use of a web-based platform ("evalog"), which is composed of several components, i.e. stakeholders, objectives, lifecycle stages (creation-construction, operation, maintenance, closure-disposal), impact areas and criteria-indicators. Based on the selected components, the process generates multi stakeholder multi criteria evaluation results.

2. Methodology

A step-by-step approach will be followed for the realization of the project, distinguished into four main parts: a) running multiple scenarios in "evalog", b) analyzing data, c) preparing a class presentation and d) writing a final report.

Each student will be able to choose among indicators that are related to stakeholder categories, formulate the respective scenario and assess the performance of UFT solutions. Predefined stakeholder categories are the following (**Table 2**):

Table 2: List of stakeholder categories and stakeholders

Stakeholder Category	Stakeholders
Supply chain stakeholders	Freight Forwarders, Transport Operators, Shippers, Major Retail chains, Shop owners
Public authorities	Local Government, National Government
Other stakeholders	Industry and Commerce Associations, Consumer Associations, Research and Academia

The list of UFT solutions that will be assessed is presented in **Table 3**.

Table 3: Assessed UFT solutions

No.	Solution	Secondary solution
1	Multimodality for urban freight	Transshipment facilities
2	Urban consolidation centers	-
3	Lockers introduction (city lockers)	-
4	Loading/unloading areas and parking	-
5	Businesses recognition scheme	-
6	Public transport for freight	-
7	ITS for freight monitoring and planning/routing	Remote monitoring

For each of the above solutions, the student will prepare a scenario, by completing a number of steps, i.e.:

- Selecting impacts areas (economy and energy, transport and mobility, society, policy and measure maturity, social acceptance, user uptake)
- Selecting criteria per impact area
- Selecting indicators per criterion
- Weighing impact areas
- Weighing criteria
- Weighing indicators
- Entering data values for the “before” and “after” phase of the solution implementation.

Then, based on the outputs of “evalog” (i.e. indices, graphs, etc.), students will conduct a “before-after” statistical analysis, by comparing the results of the two phases.

3. Team organizing

Each student will be assigned to a specific stakeholder and formulate scenarios in “evalog” for all UFT solutions of Table 2. For the data analysis and the writing of the reports, students will work together in teams Each team will be responsible of analyzing one solution, through the use of the collected data.

4. Results

The platform aggregates selected parameters, i.e. indicators, criteria, impact areas, etc. into indices to enable the assessment of the selected UFT solutions for a “before-after” based scenario and comparisons between solutions. For each solution, indicative indices are:

- Index per impact area for the solution's lifecycle
- Logistics Sustainability Index (LSI).

5. Tools and applications

For the successful completion of the project, students will use the following tools and applications:

- Web-based platform "evalog": http://evalog.civ.uth.gr/
- "evalog" manual: http://evalog.civ.uth.gr/docs/Manual.pdf
- "evalog" demonstration video: http://evalog.civ.uth.gr/DemoVideo.aspx
- Microsoft EXCEL.

6. Overview of project work during the school

An overview of the project work during the school is presented in **Table** 3.

Table 3: Overview of project work

Date	Time	Tasks
17 July 2017	17:15 – 17:45	Team organization and introduction to students' project (students' obligations, structure and content of the report, evaluation, etc.)
	17:45 – 18:30	Hands-on practice (AHP exercice)
18 July 2017	17:15 – 18:00	"evalog" framework set up for all assessed UFT solutions and data entry (individual work)
19 July 2017	16:15 – 17:00	"evalog" framework set up for all assessed UFT solutions and data entry (individual work)
	17:00 – 18:00	Database consolidation per UFT solution and data analysis (team work)
21 July 2017	14:00 – 16:00	Data analysis (continuation) and preparation of "powerpoint" file
	16:00 – 18:00	Project presentation

7. Evaluation

Successful completion of the project requires data entry by each student, as described above, data processing and analysis, and class presentation. Time schedule of the above activities is depicted in **Table** .

Having attended STIP, students are eligible to gain 6 ECTS. In order to do so, students should prepare and submit a final report, based on the project findings. The report should be written according to the format and structure presented in course C0, and be submitted until one month after the completion of the summer school.

Annex C: Trainee Feedback Questionnaire

ALLIANCE 1st Summer School "Sustainable Transport Interchanges Program (STIP) - Part 1: Freight transportation"

Trainee Feedback Questionnaire

* Required

1. Name, Surname (Optional):

Your answer

2. Gender *

- Female
- Male

3. Level: *

- PhD student
- Master student
- Master graduate
- Post doc
- Professionals
- Other:

4. Home institution: *

- Transport and Telecommunication Institute
- Fraunhofer IFF
- University of Thessaly
- Other:

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

Your answer

6. Keywords of your research: *

Your answer

7. 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	○	○	○	○	○

8. What did you like most about this program:

Your answer

9. What aspects of the program could be improved?

Your answer

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

Your answer

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

Your answer

12. Any comments

Your answer

Annex D: Trainer Feedback Questionnaire

ALLIANCE 1st Summer School "Sustainable Transport Interchanges Program (STIP) - Part 1: Freight transportation"

Trainer Feedback Questionnaire

* Required

1. Name, Surname (Optional):

Your answer

2. Position: *

Your answer

3. Home institution: *

- ○ Transport and Telecommunication Institute
- ○ Fraunhofer IFF
- ○ University of Thessaly
- ○ Other:

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

Your answer

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	○	○	○	○	○
13. Teaching rooms and laboratories are adequate (if applicable)	○	○	○	○	○
14. Teaching rooms and laboratories are comfortable (if applicable)	○	○	○	○	○
15. Teaching rooms and laboratories are clean (if applicable)	○	○	○	○	○
16. Hardware and software used in study process is adequate	○	○	○	○	○
17. Hardware and software used in study process is up-to-date	○	○	○	○	○

6. What do you like most about this program:

Your answer

7. What aspects of the program could be improved?

Your answer

8. Any comments

Your answer

Annex E: SAP evaluation form

Enhancing Excellence and Innovation Capacity in Sustainable Transport Interchanges
ALLIANCE
(Grant agreement no.: 692426)

1st Summer School "Sustainable Transport Interchanges Program (STIP) - Part 1: Freight transportation"

Venue: Transport and Telecommunication Institute, Lomonosova street 1, Aud. 130
Riga, LV-1019, Latvia, 16-22 July, 2017

1st Summer school Event Evaluation by SAP member

1. **SAP Name, Surname:**

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

Issue	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The objectives of the event were clearly defined					
Participation and interaction were encouraged					
The content was organized and easy to follow					
The presenters were well prepared					
The materials presented are in frame of ALLIANCE project					
The training objectives were met					
The time of the event was sufficient					
The meeting room and facilities were adequate and comfortable					

3. **What did you like most about this training:**

4. **What aspects of the training could be improved?**

5. **Any comments**

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 692426.

2

Annex F: 1st SAP evaluation form

1st Summer school Event Evaluation
by SAP member

1. **SAP Name, Surname:**

****

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

Issue	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The objectives of the event were clearly defined		**x**			
Participation and interaction were encouraged		**x**			
The content was organized and easy to follow		**x**			
The presenters were well prepared	**x**				
The materials presented are in frame of ALLIANCE project		**x**			
The training objectives were met			**x**		
The time of the event was sufficient		**x**			
The meeting room and facilities were adequate and comfortable	**x**				

3. **What did you like most about this training:**

Invited lectures

4. **What aspects of the training could be improved?**

As the training was primarily for doctoral students, I can't objectively evaluate, as I did not participate in the student's project.

5. **Any comments**

For me – as a representative of the Ministry (decision makers) - this school was a possibility to improve my understanding and knowledge about theoretical basis of transport planning. Very good introductory presentation about the European transport policy and invited lectures, which inspire us to think of the link between theory and practice.

Annex G: 2nd SAP evaluation form

1st Summer school Event Evaluation

by SAP member

1. **SAP Name, Surname:**

****

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

Issue	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The objectives of the event were clearly defined	✓				
Participation and interaction were encouraged	✓				
The content was organized and easy to follow	✓				
The presenters were well prepared	✓				
The materials presented are in frame of ALLIANCE project	✓				
The training objectives were met	✓				
The time of the event was sufficient	✓				
The meeting room and facilities were adequate and comfortable	✓				

3. **What did you like most about this training:**

It enabled participants from different countries to come together and to learn best practice from across the wider European environment. It gave participants the latest tools and techniques when considering freight interchanges.

4. What aspects of the training could be improved?

There is a need to look at timings; I thought that there was too much information available for the time available. I have suggested that a pre-attendance reading list would be beneficial to participants so that they were fully aware of what was going to be presented to them.

There also need to be a pre-school social gathering so that participants can meet fellow attendees and their lecturers; this will aid matters when the participants are spilt into teams for project work.

5. Any comments

This was a well-attended school but it may be possible to increase the number of participants by utilizing the wider network [provide by lecturers as well as student attendees.