# EUROPEAN UNION HORIZON 2020 RESEARCH & INNOVATION PROGRAMME

D5.8

## Dissemination Material 4



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PANEPISTIMIO THESSALIAS – UTH	Greece		
FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG EV – Fraunhofer	Germany		

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## **LIST OF ABBREVIATIONS**

Abbreviation	Description		
Fraunhofer IFF	Fraunhofer Institute for Factory Operation and Automation		
М	Month		
STSE	Short-Term Staff Exchange		
TTI	Transport and Telecommunication Institute		
UTH	University of Thessaly		

## **ABSTRACT**

The present deliverable provides an overview of the fourth part of the dissemination material that has been developed for the ALLIANCE project, addressing material that has been designed during the last six months of the project's lifecycle, and including: three press releases, the poster of the 1<sup>st</sup> ALLIANCE Summer School, the 3<sup>rd</sup> and 4<sup>th</sup> Fact Sheets and the 2<sup>nd</sup> ALLIANCE newsletter. In addition, the project's events and activities for the same period are presented.

## 1. Introduction

### 1.1 Contents of the deliverable

University of Thessaly, acting as the dissemination manager of ALLIANCE, is responsible to develop the appropriate material for promoting the project to the wider audience, through events, activities and media channels, including international, European and national Conferences, Workshops and Forums.

Deliverable D5.8 includes the fourth part of the dissemination material of ALLIANCE. New material for the last semester includes three press releases, the poster of the 1<sup>st</sup> ALLIANCE Summer School, the 3<sup>rd</sup> and 4<sup>th</sup> Fact Sheets and the 2<sup>nd</sup> ALLIANCE newsletter.

This deliverable also documents the monitoring of the impact of the project, with the use of key statistics for the website (visits, users, page views), and the presentation of the project's events and extroversion activities.

A synopsis is presented in the last part of the deliverable, and seven annexes follow with the new dissemination material.

## 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, Germany. Close collaboration of TTI with UTH and Fraunhofer 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 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. Dissemination material

The material that has been produced during the fourth semester of the project is presented in this chapter.

## 2.1 Press Releases

To communicate the achieved progress and disseminate information about forthcoming events, ALLIANCE distributes press releases at specific milestones. During the fourth semester of the project, three press releases have been issued. The first press release of this semester (8<sup>th</sup> press release) reported the outcomes of the 1<sup>st</sup> Summer School "Sustainable Transport Interchanges Program (STIP) – Part I: Freight Transportation", which was organized in July 2017 in Riga, Latvia. The second press release (9<sup>th</sup> press release) promoted the organization of the Young Researchers' and Trainers' Seminars in the framework of the 17<sup>th</sup> International Conference on Reliability and Statistics in Transportation and Communication (RelStat-17) and the last press release (10<sup>th</sup> press release) summarized the main findings of the Seminars. The press releases were translated in the three national languages of the ALLIANCE partners (Latvian, Greek and German) and were promoted through the project's social media accounts.



## Press release #8

Tuesday 05/09/2017, Volos, Greece

## Successful realization of the 1<sup>st</sup> Summer School "Sustainable Transport Interchanges Program" in Riga, Latvia

With great success was realized in Riga, Latvia the 1<sup>st</sup> Summer school entitled: "Sustainable Transport Interchanges Program (STIP) – Part I: Freight Transportation" from 16<sup>th</sup> to 22<sup>nd</sup> July, 2017. The Summer School was organized by the Transport and Telecommunication Institute (TTI), Traffic, Transportation and Logistics Laboratory of the University of Thessaly (TTLog) and Fraunhofer Institute for Factory Operation and Automation (IFF). In total 25 young researchers from Latvia, Lithuania, Greece and Germany participated in the School.

The School was implemented at the premises of TTI and concerned a number of selected courses focusing on Freight Transportation:

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

In addition, students had the opportunity to visit Riga's Commercial port, attend two special lectures by Mr. Graham Ellis (UK) "Freight terminals – facing the challenges, a real world perspective" and Dr. Jens Klauenberg (Germany) "Current status and future trends in freight transport" and form collaboration teams for the students' project.

For further information about the project, please contact:

#### Project coordinator:

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Figure 1: 8th Press release



Friday 13/10/2017, Volos, Greece

#### ALLIANCE Young Researchers' and Trainers' Seminars in Riga, Latvia

In order to further support sustainability of the educational/training activities, ALLIANCE Consortium organizes a Trainers' Seminar and a Young Researchers' Seminar in Riga, Latvia on 19-20 October, 2017, during the 17<sup>th</sup> International Conference on RELIABILITY and STATISTICS in TRANSPORTATION and COMMUNICATION (RelStat-17), which will be held from 18-21 October, 2017.

During the Trainers' Seminar entitled "Experience and impressions after 1st Summer School", tutors and participants of the 1st ALLIANCE Summer School "Sustainable Transport Interchange Program (STIP) – Part 1: Freight transportation" will provide feedback on the program, while presentations will be made about the impacts of TTI. In addition, a round table will be organized and discussions for further improvement will be made, in order to cover the future needs. Participants of the round table will be ALLIANCE partners, representatives from Latvian public authorities. TTI tutors and Professors from Lithuanian and Estonian Universities.

In the framework of this year's Young Researchers' Seminar entitled "Sustainable Transport Interchanges", 20 postgraduate and PhD students from Latvia, Greece and Germany will present their collaboration team's research work. In total, eleven presentations will be given, moderated by Assoc. Prof. Eftihia Nathanail and Prof. Irina Yatskiv (Jackiva).

For further information about the project and the seminars, please contact:

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Figure 2: 9th Press release



## Press release #10

Friday 02/11/2017, Volos, Greece

## Successful realization of ALLIANCE Young Researchers' and Trainers' Seminars in Riga, Latvia

ALLIANCE Consortium organized a Trainers' Seminar and a Young Researchers' Seminar in Riga, Latvia from 19 to 20 October, 2017, during the 17<sup>th</sup> International Conference on RELIABILITY and STATISTICS in TRANSPORTATION and COMMUNICATION (RelStat-17).

During the Trainers' Seminar, tutors and participants of the 1st ALLIANCE Summer School "Sustainable Transport Interchange Program (STIP) – Part 1: Freight transportation" provided feedback on the program while professors from Transport and Telecommunication Institute (TTI) presented their vision on introducing STIP courses to the TTI existing or new study program. During the round table that was attended by ALLIANCE partners, Latvian public authorities and academicians from the Baltic states, and Ms Inta Rozenšteine, Deputy Director of the Department of Finance and Development Planning, Ministry of Transport, Latvia and member of the Scientific Excellence and Innovation Assurance Panel of ALLIANCE, discussions for further improvement and future steps also took place.

During the Young Researchers' Seminar entitled "Sustainable Transport Interchanges", 20 postgraduate and PhD students from Latvia, Greece, Germany, Kazakhstan and Japan successfully presented their collaborative research work in eleven interesting presentations which were moderated by Assoc. Prof. Eftihia Nathanail and Prof. Irina Yatskiv (Jackiva).

For further information about the project and the seminars, please contact:

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or visit the website: http://alliance-project.eu/

Figure 3: 10th Press release

## 2.2 Poster of the 1st ALLIANCE Summer School

A dedicated poster was designed (Figure 4), in order to be used at the 1st ALLIANCE Summer school.



Figure 4: 1st Summer School poster

## 2.3 Fact sheets

The third and the fourth ALLIANCE fact sheets, entitled "Towards a coherent knowledge-sharing strategy" and "Preliminary survey on transport interchange design and operation", respectively, have been prepared. The scope of the 3<sup>rd</sup> fact sheet is to present a coherent knowledge sharing strategy to measure the effectiveness of all relevant activities that will take place during and beyond the lifecycle of the project, linking them to the general TWINNING programme goals, the specific ALLIANCE objectives and the Transport and Telecommunication Institute (TTI) Strategy and Research Programme for the period 2016-2017 (Figure 5). The 4<sup>th</sup> fact sheet aims to present the relevance of the existing knowledge, importance and requirements for skills and competence on career development in the area of designing and operating transport interchanges, taking into account the perceptions of different stakeholders: policy makers, transport operators and service providers, and academia (Figure 6). The visitors of the project's website are able to download the fact sheets.

ALLIANCE Fact sheet No 3

## **ALLIANCE Fact Sheet N° 3:**

Towards a coherent knowledge-sharing strategy











Figure 5: 3<sup>rd</sup> ALLIANCE fact sheet (cover page)

ALLIANCE Fact sheet Nº 4

## ALLIANCE Fact Sheet No 4:

A preliminary survey on transport interchange design and operation









Figure 6: 4<sup>th</sup> ALLIANCE fact sheet (cover page)

#### 2.4 Newsletter

The 2<sup>nd</sup> ALLIANCE newsletter has been produced (Figure 7). It will be available for downloading from the website, and will be sent by email to the project's contact database.



Figure 7: 2<sup>nd</sup> ALLIANCE newsletter (cover page)

## 3. Impact monitoring system

## 3.1 Website

Key statistics presenting the use of the project's website for the period 01/03/2016 - 8/12/2017 are as follows (Figure 8):

Visits (sessions): 4,433Users (unique IPs): 2,536Page views: 13,944

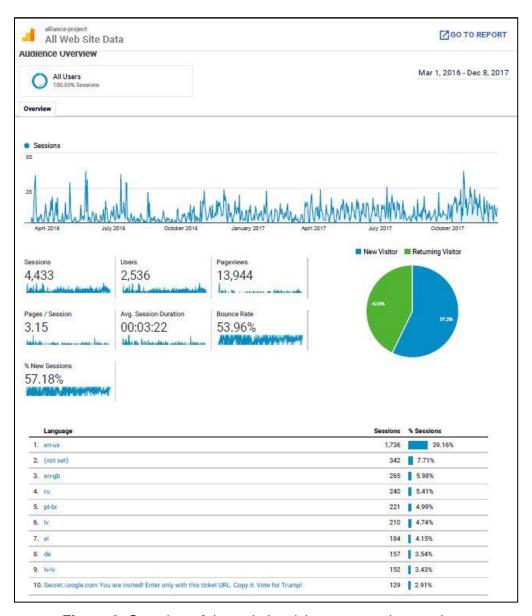


Figure 8: Overview of the website visits, users and page views

In addition, in Figure 9, for the same time period, the location (country) of the visitors is presented.

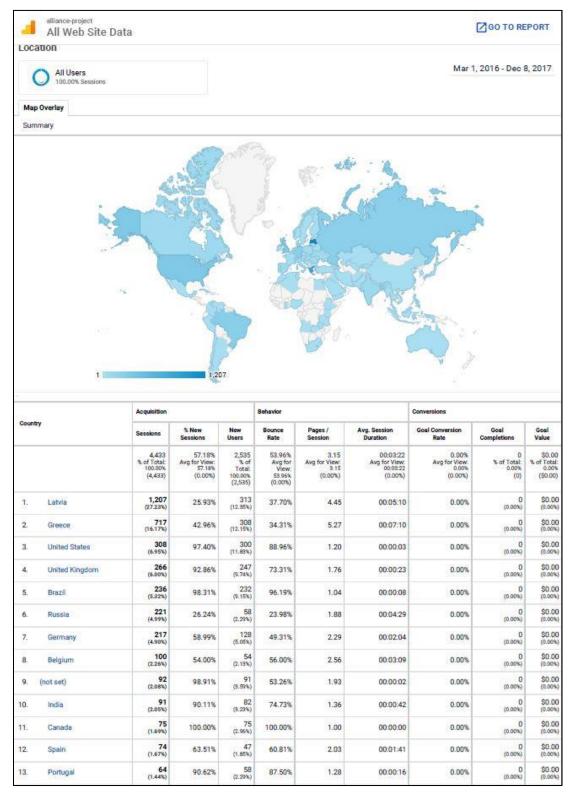


Figure 9: Analytics of the visitors' countries

## 3.2 Press releases

The three press releases have been distributed through the official website of the project (http://alliance-project.eu/), the official partners' websites and the social media of the project. The posts of the press releases translated into Latvian, Greek and German language and the posts of press releases at the social media of the project (Twitter and LinkedIn), are presented from Figure 10 to Figure 21.



## Preses Relīze #8

2017. gada 5. septembrī, Volos, Grieķijā

Veiksmīga 1.vasaras skolas "Ilgtspējīgo transporta mezglu programma" realizācija, Rīgā, Latvijā.

No 2017. gada 16. līdz 22. jūlijam ar lieliskiem panākumiem noslēdzās 1. vasaras skola **"Ilgtspējīgo transporta mezglu programma (STIP) – 1.daļa: "Kravu pārvadājumi"**. Vasaras skola tika organizēta Transporta un sakaru institūtā (TSI) sadarbībā ar projekta ALLIANCE partneriem: Thessaly Universitātes Satiksmes, transporta un loģistikas laboratoriju (TTLog, UTH) un Fraunhofer Institūtu (IFF). Kopumā 25 jaunie pētnieki no Latvijas, Lietuvas, Grieķijas un Vācijas piedalījās vasaras skolā.

Skola tika īstenota TSI telpās un bija saistīta ar vairākiem izvēlētiem kursiem, uzsvaru liekot uz Kravu pārvadājumiem:

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

Turklāt, studentiem bija iespēja apmeklēt Rīgas Tirdzniecības ostu, noklausīties divas īpašas Graham Ellis (Lielbritānija) lekcijas "Kravu termināli – saskaroties ar izaicinājumiem, reālās pasaules perspektīvas" un Dr. Jens Klauenberg (Vācija) "Pašreizējais stāvoklis un nākotnes tendences kravu pārvadājumos" kā arī izveidot sadarbības komandas studentu projektam.

Lai saņemtu sīkāku informāciju par projektu, lūdzu, sazināties:

#### Projekta koordinatore:

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Figure 10: 8th press release (Latvian version)

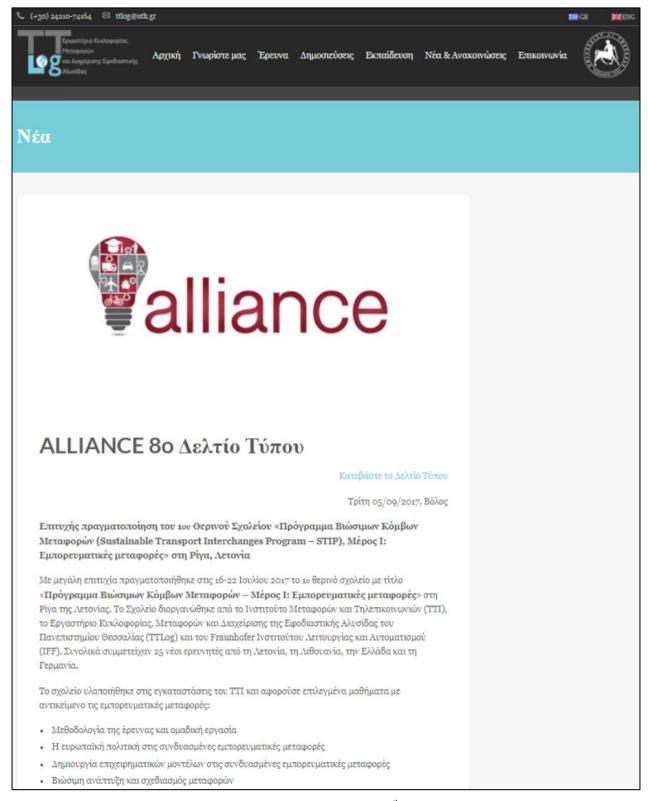
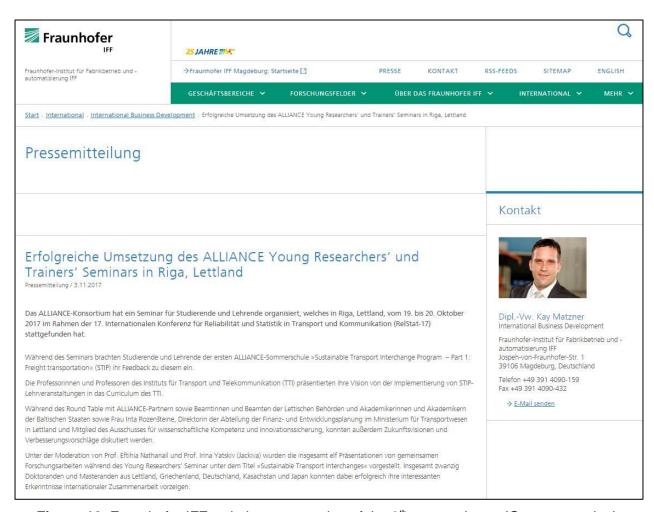


Figure 11: UTH-TTLog website presentation of the 8th press release (Greek version)



**Figure 12**: Fraunhofer IFF website presentation of the 8<sup>th</sup> press release (German version)



## Preses Relīze #9

2017. gada 13. oktobris, Volos, Griekija

#### ALLIANCE "Young Researchers" un "Trainers" semināri Rīgā, Latvijā.

Lai atbalstītu ilgtspējīgās izglītības/apmācību aktivitātes no 2017. gada 19. līdz 20. oktobrim, Rīgā, Latvijā, ALLIANCE konsorcijs organizēs "Trainers" un "Young Researchers" seminārus 17. starptautiskās konferences RELIABILITY and STATISTICS in TRANSPORTATION and COMMUNICATION (RelStat-17) laikā, kura norisināsies no 2017.gada 18. līdz 21. oktobrim.

"Trainers'" semināra "Experience and impressions after 1st Summer School" laikā projekta ALLIANCE 1. vasaras skolas "Ilgtspējīgo transporta mezglu programma (STIP) — 1.daļa: "Kravu pārvadājumi" pasniedzēji un dalībnieki sniegs atgriezenisko saiti par programmu, kamēr tiks sniegtas prezentācijas par TSI ietekmi. Turklāt, tiks organizēts apaļais galds un veiktas diskusijas par tālāko pilnveidošanu, lai aptvertu nākotnes vajadzības. Apaļā galda dalībnieki būs ALLIANCE partneri, pārstāvji no Latvijas valsts iestādēm, TSI pasniedzēji un profesori no Lietuvas un Igaunijas universitātēm.

Šī gada "Young Researchers'" semināra "Sustainable Transport Interchanges" laikā, 20 maģistrantūras un doktorantūras studenti no Latvijas, Grieķijas un Vācijas prezentēs savu sadarbības komandu pētniecisko darbu. Kopumā tiks prezentētas vienpadsmit prezentācijas, moderatoru Assoc. Prof. Eftihia Nathanail un Prof. Irina Yatskiv (Jackiva) vadībā.

Lai saņemtu sīkāku informāciju par projektu un semināriem, lūdzu, sazināties:

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Figure 13: 9th press release (Latvian version)

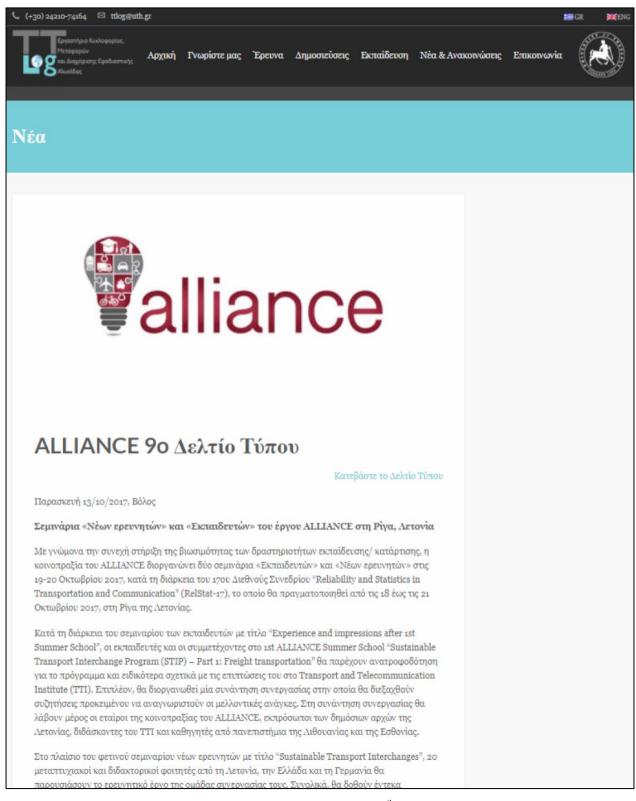


Figure 14: UTH-TTLog website presentation of the 9<sup>th</sup> press release (Greek version)

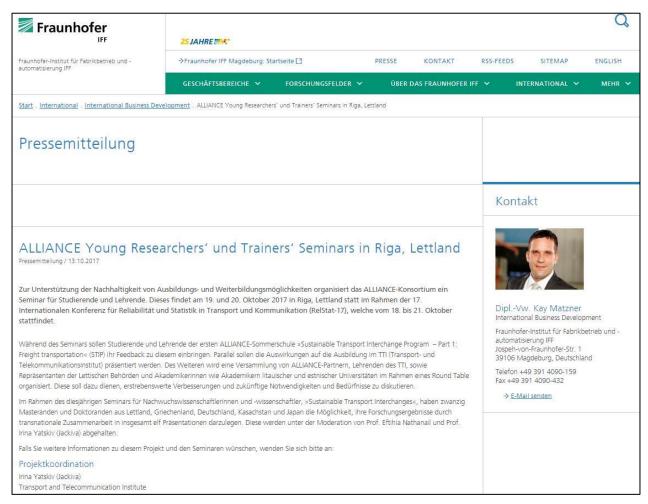


Figure 15: Fraunhofer IFF website presentation of the 9th press release (German version)



## Preses Relize #10

2017. gada 02. novembris, Volos, Grieķija

## ALLIANCE "Young Researchers" un "Trainers" semināru veiksmīga īstenošana Rīgā, Latvijā

No 2017.gada 19. līdz 20. Oktobrim, Rīgā, Latvijā, 17. starptautiskās konferences RELIABILITY and STATISTICS in TRANSPORTATION and COMMUNICATION (RelStat-17) laikā, ALLIANCE konsorcijs organizēja "Trainers" un "Young Researchers" seminārus.

"Trainersi" semināra laikā, projekta ALLIANCE 1. vasaras skolas "Ilgtspējīgo transporta mezglu programma (STIP) — 1.daļa: "Kravu pārvadājumi" pasniedzēji un dalībnieki sniedza atgriezenisko saiti par programmu, kamēr Transporta un sakaru institūta (TSI) profesori iepazīstināja ar savu redzējumu par STIP kursu ieviešanu TSI esošajai vai jaunai studiju programmai. Apaļā galda laikā, kurā piedalījās ALLIANCE partneri, pārstāvji no Latvijas valsts iestādēm, pasniedzēji no Baltijas valstīm un Inta Rozenšteina - Finanšu un attīstības plānošanas departamenta direktora vietniece, LR Satiksmes ministrija un ALLIANACE Scientific Excellence and Innovation Assurance Panel (SAP) komisijas locekle, notika diskusijas par turpmāko pilnveidošanu un nākotnes soļiem.

"Young Researchers" semināra "Sustainable Transport Interchanges" laikā, 20 maģistrantūras un doktorantūras studenti no Latvijas, Grieķijas, Vācijas, Kazahstānas un Japānas veiksmīgi prezentēja savu sadarbības komandu pētniecisko darbu vienpadsmit interesantās prezentācijās, moderatoru Assoc. Prof. Eftihia Nathanail un Prof. Irina Yatskiv (Jackiva) vadībā.

Lai saņemtu sīkāku informāciju par projektu un semināriem, lūdzu, sazināties:

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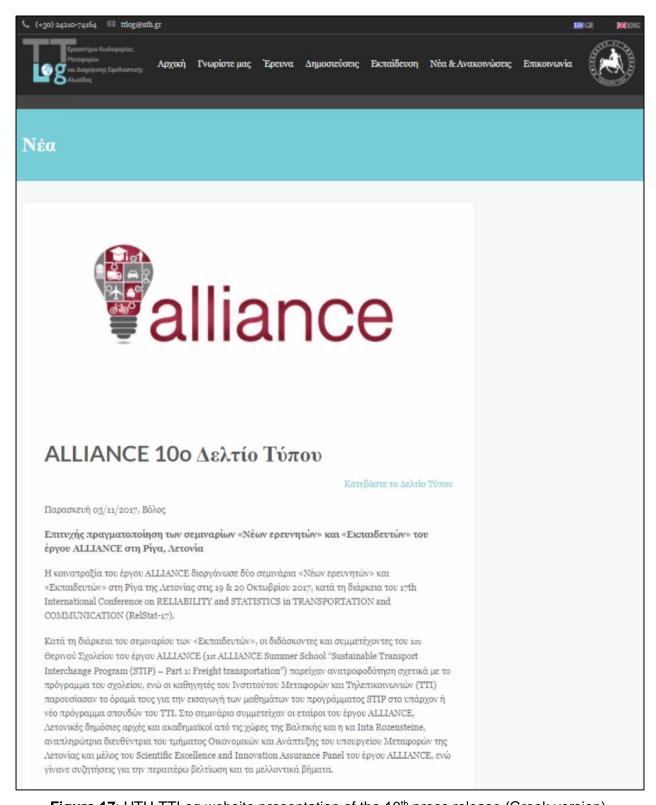
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vai apmeklējiet mājas lapu: http://alliance-project.eu/

Figure 16: 10<sup>th</sup> press release (Latvian version)



**Figure 17**: UTH-TTLog website presentation of the 10<sup>th</sup> press release (Greek version)

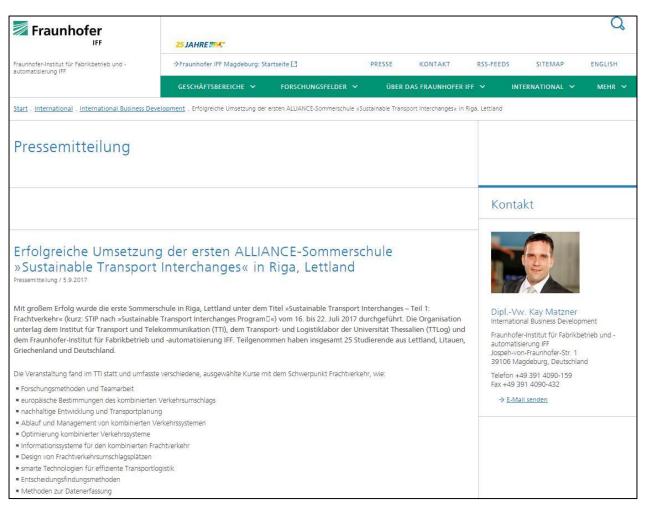


Figure 18: Fraunhofer IFF website presentation of the 10<sup>th</sup> press release (German version)

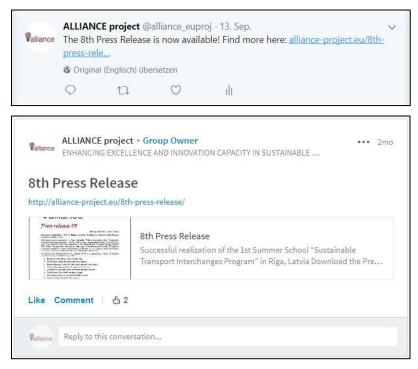


Figure 19: 8th press release (as disseminated on project's Social Media accounts)

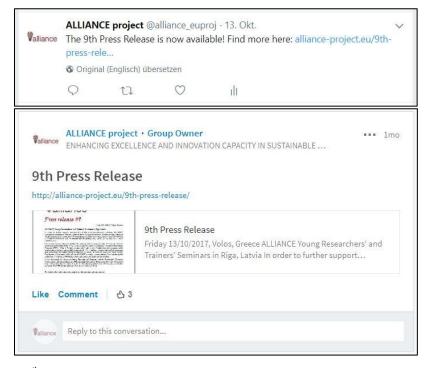


Figure 20: 9th press release (as disseminated on project's Social Media accounts)

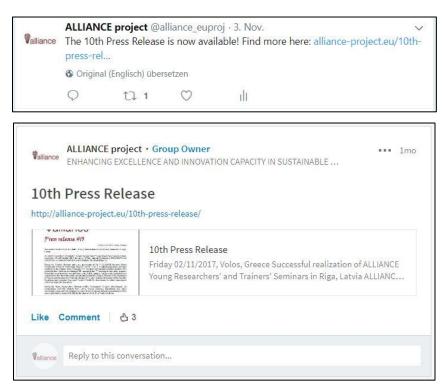


Figure 21: 10<sup>th</sup> press release (as disseminated on project's Social Media accounts)

## 3.3 ALLIANCE activities and participation in Conferences and other events

ALLIANCE Consortium organizes or supports several events, and the members of the Consortium participate in technical meetings, roundtables, etc. An overview of these events is presented in the following paragraphs.

The 1<sup>st</sup> Summer School of ALLIANCE entitled: "Sustainable Transport Interchanges Program (STIP) – Part I: Freight Transportation" took place on July 16-22, 2017 in Riga, Latvia. The Summer School was organized by the Transport and Telecommunication Institute (TTI), Traffic, Transportation and Logistics Laboratory of the University of Thessaly (TTLog) and Fraunhofer Institute for Factory Operation and Automation (IFF), and in total 25 young researchers from Latvia, Lithuania, Greece and Germany participated. Young researchers had the opportunity to attend a number of selected courses and two special lectures focusing on Freight Transportation, and to visit Riga's Commercial port (Figure 22).





Figure 22: ALLIANCE 1st Summer School

An ALLIANCE research team, consisting of Wladimir Hofmann and Tom Assmann from Fraunhofer IFF, Parisa Dolati Neghabadi and Van-Dat Cung from University Grenoble Alpes, and Jurijs Tolujevs from TTI, participated with a presentation and publication entitled "A Simulation Tool to Assess the Integration of Cargo Bikes into an Urban Distribution System" in "The 14<sup>th</sup> International Multidisciplinary Modelling & Simulation Multiconference (I3M2017)". The conference took place on September 18-20, 2017 in Barcelona, Spain. The presentation was placed in the section "Simulation for Energy, Sustainable Development & Environment" and was honored with the "Best Paper Award 2017" (Figure 23).



Figure 23: 14th International Multidisciplinary Modelling & Simulation Multiconference

On September 28, 2017 ALLIANCE project participated in the Civitas Deployment Day within the CIVITAS ANNUAL CONFERENCE 2017. ALLIANCE was representated by Assoc. Prof. Eftihia Nathanail, Dr. Giannis Adamos (Dissemination Managers) and Mr. Ioannis Karakikes, who promoted to a wide audience the scope, concept, thematic areas, the ALLIANCE e-platform as well as a synopsis of the 1st ALLIANCE Summer School (Figure 24).





Figure 24: CIVITAS Deployment Day

On October 6, 2017, ALLIANCE participated in workshop regarding WIDENING activities, which was organized by the State Educational Development Agency of Latvia (Figure 25). ALLIANCE project's representatives Prof. Irina Yatskiv and Dr.sc.ing Mihails Savrasovs presented the project and provided insight to the participants, regarding successful application and implementation of the Twinning project in Latvia.



Figure 25: Workshop – WIDENING Activities in the framework of HORIZON 2020

The Trainers' Seminar entitled "Experience and impressions after 1st Summer School" and Young Researchers' Seminar entitled "Sustainable Transport Interchanges" were held on October 19 and 20, 2017, in the framework of the RelStat-17 Conference in Riga, Latvia. The scope of the Trainers' Seminar was to organize a discussion with all involved parties about the results of the 1st Summer school "Sustainable Transport Interchange Program (STIP) – Part 1: Freight transportation", in order to receive feedback regarding the participants' vision on introducing STIP courses to the TTI

new or existing study program. During the Young Researchers' Seminar eleven presentations were given by young researchers and PhD students from Latvia, Greece, Germany, Kazakhstan and Japan, who are either members of the ALLIANCE international collaboration teams or they are interested in topics of transport modelling, logistics and evaluation of transport systems, information and communication technologies in transport, economical aspects of transport development (Figure 26).





Figure 26: ALLIANCE Young Researchers' Seminar

The abstracts of the eight papers of the young researchers that participated in the seminar were issued in the book of Abstracts of RelStat-2017. The full papers will be published in a special issue in Springer Lecture Notes in Networks and Systems.

On November 8, 2017, the European Commission organized the "FIRST WIDENING DAY" in Brussels, Belgium during "The WIDENING CONFERENCE: Towards the Creation of a Widening Community", which aimed at bringing together all coordinators of the three widening actions ERA CHAIRS (FP7 and Horizon 2020), TWINNING and TEAMING (phase 2) and to create a WIDENING COMMUNITY. ALLIANCE project's representatives Prof. Irina Yatskiv (Jackiva) (Coordinator) and Assoc. Prof. Eftihia Nathanail (Dissemination Manager) communicated the achievements of the project to the rest participants, exchanged best practices and experiences, and created new links for future synergies (Figure 27).





Figure 27: "Widening Conference"

A two-day exhibition entitled "RIGA COMM 2017" was realized on November 9 and 10, 2017, in Riga, Latvia. This exhibition is an annual information technologies and business event for entrepreneurs of service and manufacturing fields, multi-level executives of state institutions and organisations and professionals that represent multiple fields of operation, aiming at presenting suitable business solutions in Baltic and other countries. ALLIANCE project's representatives promoted to all participants of the exhibition the scope, concept, thematic areas and the e-platform of ALLIANCE (Figure 28).





Figure 28: Riga COMM 2017 exhibition

Finally, on December 8, 2017, Transport and Telecommunication Institute (TTI) organized an open workshop entitled "From data to added value: points of view and solutions". Academic and research staff, TTI students, representatives of the private and public sector (Rīgas Satiksme Ltd., Rīgas Karte Ltd. Riga Municipality, Ministry of Transport, Riga City Council City Development Department) attended the Workshop. During this evenet, ALLIANCE members had the opportunity to establish networking activities with representatives of the transport field and to promote the 2<sup>nd</sup> ALLIANCE Summer School program and other activities (Figure 29).





Figure 29: Workshop "From data to added value: points of view and solutions"

## 4. Synopsis

During the 4<sup>th</sup> semester of the project, the fourth part of the dissemination material has been updated with the publication of three press releases, namely, press release 8, 9 and 10, the poster of the 1<sup>st</sup> ALLIANCE Summer School, the 3<sup>rd</sup> and 4<sup>th</sup> Fact Sheets and the 2<sup>nd</sup> ALLIANCE newsletter. In addition, the consortium of the project has promoted the ALLIANCE activities through the project webpage (www.alliance-project.eu), the project's social media accounts and all partners' official websites.

The members of the consortium organized, supported or participated in a significant number of events in several European countries.

## **Annexes**

Annex A: 8<sup>th</sup> press release
Annex B: 9<sup>th</sup> press release
Annex C: 10<sup>th</sup> press release
Annex D: Poster of 1<sup>st</sup> ALLIANCE Summer School

**Annex E:** 3<sup>rd</sup> Fact sheet **Annex F:** 4<sup>th</sup> Fact sheet Annex G: 2<sup>nd</sup> Newsletter

### Annex A



## Press release #8

Tuesday 05/09/2017, Volos, Greece

### Successful realization of the 1<sup>st</sup> Summer School "Sustainable Transport Interchanges Program" in Riga, Latvia

With great success was realized in Riga, Latvia the 1<sup>st</sup> Summer school entitled: "Sustainable Transport Interchanges Program (STIP) – Part I: Freight Transportation" from 16<sup>th</sup> to 22<sup>nd</sup> July, 2017. The Summer School was organized by the Transport and Telecommunication Institute (TTI), Traffic, Transportation and Logistics Laboratory of the University of Thessaly (TTLog) and Fraunhofer Institute for Factory Operation and Automation (IFF). In total 25 young researchers from Latvia, Lithuania, Greece and Germany participated in the School.

The School was implemented at the premises of TTI and concerned a number of selected courses focusing on Freight Transportation:

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

In addition, students had the opportunity to visit Riga's Commercial port, attend two special lectures by Mr. Graham Ellis (UK) "Freight terminals – facing the challenges, a real world perspective" and Dr. Jens Klauenberg (Germany) "Current status and future trends in freight transport" and form collaboration teams for the students' project.

For further information about the project, please contact:

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### **Annex B**



# Press release #9

Friday 13/10/2017, Volos, Greece

#### ALLIANCE Young Researchers' and Trainers' Seminars in Riga, Latvia

In order to further support sustainability of the educational/training activities, ALLIANCE Consortium organizes a Trainers' Seminar and a Young Researchers' Seminar in Riga, Latvia on 19-20 October, 2017, during the 17<sup>th</sup> International Conference on RELIABILITY and STATISTICS in TRANSPORTATION and COMMUNICATION (RelStat-17), which will be held from 18-21 October, 2017.

During the Trainers' Seminar entitled "Experience and impressions after 1st Summer School", tutors and participants of the 1st ALLIANCE Summer School "Sustainable Transport Interchange Program (STIP) – Part 1: Freight transportation" will provide feedback on the program, while presentations will be made about the impacts of TTI. In addition, a round table will be organized and discussions for further improvement will be made, in order to cover the future needs. Participants of the round table will be ALLIANCE partners, representatives from Latvian public authorities, TTI tutors and Professors from Lithuanian and Estonian Universities.

In the framework of this year's Young Researchers' Seminar entitled "Sustainable Transport Interchanges", 20 postgraduate and PhD students from Latvia, Greece and Germany will present their collaboration team's research work. In total, eleven presentations will be given, moderated by Assoc. Prof. Eftihia Nathanail and Prof. Irina Yatskiv (Jackiva).

For further information about the project and the seminars, please contact:

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or visit the website: http://alliance-project.eu/

### **Annex C**



## Press release #10

Friday 02/11/2017, Volos, Greece

### Successful realization of ALLIANCE Young Researchers' and Trainers' Seminars in Riga, Latvia

ALLIANCE Consortium organized a Trainers' Seminar and a Young Researchers' Seminar in Riga, Latvia from 19 to 20 October, 2017, during the 17<sup>th</sup> International Conference on RELIABILITY and STATISTICS in TRANSPORTATION and COMMUNICATION (RelStat-17).

During the Trainers' Seminar, tutors and participants of the 1<sup>st</sup> ALLIANCE Summer School "Sustainable Transport Interchange Program (STIP) – Part 1: Freight transportation" provided feedback on the program while professors from Transport and Telecommunication Institute (TTI) presented their vision on introducing STIP courses to the TTI existing or new study program. During the round table that was attended by ALLIANCE partners, Latvian public authorities and academicians from the Baltic states, and Ms Inta Rozenšteine, Deputy Director of the Department of Finance and Development Planning, Ministry of Transport, Latvia and member of the Scientific Excellence and Innovation Assurance Panel of ALLIANCE, discussions for further improvement and future steps also took place.

During the Young Researchers' Seminar entitled "Sustainable Transport Interchanges", 20 postgraduate and PhD students from Latvia, Greece, Germany, Kazakhstan and Japan successfully presented their collaborative research work in eleven interesting presentations which were moderated by Assoc. Prof. Eftihia Nathanail and Prof. Irina Yatskiv (Jackiva).

For further information about the project and the seminars, please contact:

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or visit the website: http://alliance-project.eu/

### **Annex D**



### 1st Summer School

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

16-22 July 2017
Transport and Telecommunication Institute, Lomonosova Str. 1, Aud. 130
Riga, Latvia

http://alliance-project.eu/

### **Partners**













### **Annex E**

### **ALLIANCE Fact Sheet N° 3:**

Towards a coherent knowledge-sharing strategy









#### **Background and content**

Knowledge Sharing (KS), defined as "the process of exchanging knowledge (skills, experience and understanding) among different stakeholder categories, including researchers, policy makers and service providers", is considered as a useful tool that enables the formulation of practice and decision making based on sound evidence (Tsui et al., 2006).

The scope of the 3<sup>rd</sup> ALLIANCE fact sheet is to present a coherent knowledge sharing strategy to measure the effectiveness of all relevant activities that will take place during and beyond the lifecycle of the project, linking them to the general TWINNING programme goals, the specific ALLIANCE objectives and the Transport and Telecommunication Institute (TTI) Strategy and Research Programme for the period 2016-2017 (TTI, 2015).

The KS strategy is established according to specific target groups and modules for the evaluation of the relevant activities.

### **Knowledge-sharing target groups**

Knowledge-sharing target audience can be distinguished into two main groups: internal, referring to staff and students of TTI, and external, including other potential beneficiaries from the public and private sector (Table 1).

**Table 1:** Knowledge-sharing target groups (Source: ALLIANCE, 2016)

Code	Target group	Potential interests	Expected benefits and impacts	
		Internal		
I1	Academic staff  Knowledge necessary to raise the quality of teaching of PhD and MSc students in predefined research areas		Knowledge transfer and courses' preparation, which can be supported by qualified academic staff	
12	Research staff	Innovative research topics, common publications, new areas of collaboration, new projects	Increase of the number of scientific publications, new project areas, new consulting services for the local and regional authorities, private companies etc.	
13	PhD, master students	New knowledge regarding interchanges, new MSc and PhD research topics, double supervision of PhD and MSc dissertations	Qualified young academic and research staff in the research area of transport interchanges	
		External		
E1	Local and  In adopting coherent decision-		Innovative methods, frameworks, measures and actions regarding smart solutions for the enhancement of operation and the upgrading of the provided level of service in intermodal terminals via enrolling courses in TTI premises or visiting the ALLIANCE e-platform. Potential collaboration partners in projects, potential customers of TTI consulting services	
E2	Transport and terminal	In adopting innovative approaches for the design of	Increased complementarities between different modes of transport, integration of the coordination	

Code	Target group	Potential interests	Expected benefits and impacts
	operators	interchanges, using ICT tools, developing strategies for the integration of land use planning, and applying flexible management and business models	between modes and operations, improvement of public transport and freight transport, promotion of sustainable transportation via enrolling courses in TTI premises or visiting the ALLIANCE e-platform. Potential collaboration partners in projects, potential customers of TTI consulting services
E3	Transport policy makers and influencers	In guidelines for the provision of information to travelers and professional drivers, development of innovative approaches for the design of efficient interchanges and their implementation framework, integration of a coherent framework regarding all involved stakeholders	Solutions for intermodality, improvement of public and freight transport, development of energy efficient urban network performance, increased economic viability, creation of cost-efficient interchanges via enrolling courses in TTI premises or visiting the ALLIANCE e-platform. Potential collaboration partners in projects, potential customers of TTI consulting services
<b>E4</b>	Small and medium-sized enterprises (SMEs), business and industry	In the establishment of successful business models	Guidance for the development of business schemes built upon concrete organizational models and stakeholder collaboration under Memorandums of Understanding, master plans, and other internal communication and collaboration agreements and regulations via enrolling courses in TTI premises or visiting the ALLIANCE e-platform. Potential collaboration partners in projects, potential customers of TTI consulting services
E5	General public/demand side users	In the development of advantageous transportation in terms of accessibility, timing, safety and security, cost, comfort etc.	Provision of information for their better daily transportation, the improvement and modernization of interchanges via enrolling courses in TTI premises or visiting the ALLIANCE e-platform. Potential collaboration partners in projects, potential customers of TTI consulting services

### Knowledge sharing evaluation tool

The ALLIANCE knowledge sharing evaluation tool is formulated from six modules, namely: educational/training programs, summer schools, short-term staff exchanges, collaborative research activities, website and e-platform. Each of these modules is briefly described in Table 2, along with the relevant data collection methods, the measurement variables and the target groups.

 Table 2: Knowledge sharing evaluation tool (Source: ALLIANCE, 2016)

Module	Description	Data collection method	Measurement variable	Target groups
Educational/training programs	These programs are based on the knowledge of UTH and Fraunhofer IFF partners, which cover the gap of the current study and training programs in TTI, Latvia and the surrounding region of the Baltic sea	Questionnaire survey	Participants' feedback	All
Summer schools	Two summer schools focusing on sustainable passenger and freight transport interchanges	Questionnaire survey (trainees, trainers)	Participants' feedback	11, 12, 13
Short-Term Staff Exchanges (STSEs)	Staff exchanges aiming at international collaboration in preparing publications and studies, and supervision of PhD and MSc dissertations	Reporting	Report on activities during STSEs	11, 12, 13
Collaborative research activities	Collaborative publications in scientific journals of high impact factor, participation in International Conferences, double supervision of PhD and MSc students, special issue of the Transport and Telecommunication Journal with best research results from collaborative research teams, Special Sessions in International Conferences	Reporting	Number of publications, number of double supervisions, number of Special Sessions	11, 12, 13
Website	Knowledge regarding interchanges, new PhD and MSc research topics, double supervision of students	Google Analytics	Number of section visits (i.e. deliverables) Number of downloads (i.e. deliverables, fact sheets, etc.)	I3, E1, E2, E3, E4, E5
e-platform	Educational material, knowledge about writing highly cited research articles, publication ethics, etc.	Internal LMS tools	Number of registered users for courses Users' feedback	I3, E1, E2, E3, E4, E5

Knowledge-Sharing (KS) is amongst the key aims of TWINNING projects of HORIZON 2020. In order to achieve this aim, ALLIANCE established a coherent knowledge-sharing strategy, which enables the continuous monitoring of the project's activities and facilitates the achievement of the expected impacts, the most direct of which are:

- Increase of papers indexed in Scopus or Web of Science by 50%
- Increase of joint papers, written by the International team of researchers at least twice
- Increase of joint publications, written in cooperation with Latvian business entities at least twice
- Increase of the research work for industry by 20%
- TTI scientific journal development (increase H-index to 8).

The project's progress for the first year (2016), presented in Table 3, validates the positive and optimistic dynamics of ALLIANCE to successfully achieve its goals.

**Table 3:** Project's progress (Source: ALLIANCE, 2016)

Key performance indicator	Base values (2015)	2016			
Papers indexed in Scopus or Web of Science (per year)	6*	9			
Number of joint papers written by International team of researchers (per year)	2*	3			
Number of joint publications written in cooperation with Latvian business entities (per year)	1*	3			
Number of PhD students who work in TTI	3	3			
Transport and Telecommunication Journal quality indicators:					
H-index	2	7			
SJR indicator	0.19	0.32			
Cites per document	0.21	1.03			
International collaboration	14.29%	39.39%			
Change of quality of Transport and Telecommunication Journal in the following categories <sup>1</sup> :					
Computer Science application	Q4	Q3			
Engineering (Miscellaneous)	Q3	Q2			
*Average value for the last 3 years (2015, 2014, 2013)					
<sup>1</sup> Based on data from SCImago Journal and Country Rank, http://www.scimagojr.com/					

#### References

ALLIANCE, 2016. ALLIANCE Deliverable D3.1, 2016. Knowledge sharing strategy.

Tsui, L., Chapman, S. and Stewart, S. (2007). A Handbook for Knowledge Sharing. Edmonton: Community-University Partnership for the Study of Children, Youth, and Families.

TTI, 2015. Transport and Telecommunication Institute Research Programme (2016-2020), www.tsi.lv.

### **Annex F**

### **ALLIANCE Fact Sheet N° 4:**

A preliminary survey on transport interchange design and operation









#### **Background and content**

Transport interchanges facilitate intermodal activities, i.e. transferring from a long to a short distance network, from interurban to urban distribution, referred to as "last mile", through shift of transport modes and/or vehicles. The efficient operation of interchanges is dependent of the knowledge level, the skills and competence on a wide range of topics, including governance and policy formulation, smart solutions applications and decision-making techniques.

The scope of the 4<sup>th</sup> ALLIANCE fact sheet is to reveal the main findings of a preliminary survey on transport interchange design and operation, which was designed and implemented by the Traffic, Transportation and Logistics Laboratory of University of Thessaly, Greece and the Transport and Telecommunication Institute, Latvia.

#### Survey set-up and data collection

The aim of the survey was to investigate relevance of existing knowledge, importance and requirements for skills and competence on interchanges' design and operation, as perceived by Latvian stakeholders, including policy makers, transport operators and service providers, and academia.

Data were collected through a questionnaire survey, carried out via SurveyMonkey (https://www.surveymonkey.com/), and structured in three parts:

- Part I of the survey aimed to assess the relevance of 12 topics that have been identified as educational requirements for sustainable transport interchanges (1). The research questions formulated, are:
  - Q1: How important is to have knowledge on the 12 topics?
  - Q2: How familiar are you with methods/techniques relative to the 12 topics?
  - Q3: During your university studies, at what level have you developed skills on the 12 topics?
  - Q4: How important would it be for your career development to gain skills on the 12 topics?
- Part II aimed to assess 15 emerging topics in the domain of intermodal transportation (2), (3). The relevant research questions addressed in this case, are:
  - Q5: At what level each of the 15 emerging topics has been introduced in your profession (or studies, when respondents were students)?
  - Q6: How important would it be for your career development to gain skills on the 15 emerging topics?
- In Part III, background information was collected about the respondents, including aspects such as: stakeholder category, gender and age, level of completed studies, etc.

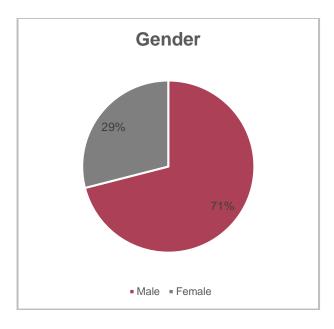
Responses were given in a 1-5 Likert scale, where 1 represented the lowest rating (not important at all/not at all/very poor) and 5 the highest rating (absolutely essential/extremely/very high). The topics investigated and their grouping in 3 thematic areas: governance and operation ( $\boldsymbol{A}$ ), smart solutions ( $\boldsymbol{B}$ ) and decision-making ( $\boldsymbol{C}$ ), are presented in Table 1.

Table 1: Questionnaire topics (1), (2), (3)

No.	Educational requirements	Thematic area	No.	Emerging topics	Themat area
1	The European policy on intermodal transportation		1	Utilization of big data for policy-making	
2	Building business models for intermodal transport interchanges		2	Innovative organizational and governance concepts for mobility solutions at neighbourhood and district level	
3	Sustainable development and transportation planning	_ A	3	Public procurement of innovative sustainable transport and mobility solutions in urban areas	
4	Operation and management of intermodal transport systems	A	4	Optimization methods improving resilience of interchanges (i.e. under unexpected events)	
5	Optimization of intermodal transport systems		5	Incorporation of Vehicle-to-Infrastructure (V2I) and Infrastructure-to-Vehicle (I2V) systems and information-sharing in efficient operation and management of interchanges	A
6	Intelligent services for passenger transportation		6	Benefits of connected-automated vehicles in the operation and management of interchanges	
7	Information systems of intermodal freight transportation		7	Shared-use services and solutions promoting interchange sustainability	
8	Design of passenger transport interchanges	В	8	Unmanned aerial systems in logistics	
9	Design of freight transport interchanges		9	Innovative design methods and green buildings at interchanges	
10	Smart technologies for efficient transport logistics		10	Incorporation of alternative fuel vehicles in smart transshipment	
11	Decision making methodologies	С	11	Promoting accessibility, inclusive mobility and equity in interchange design	В
12	Data collection methods		12	Physical and cybersecurity at transport interchanges	
			13	Information Communication Technologies and cooperative Intelligent Transport Systems for smart, safe, accurate and reliable interchange operations	
			14	3D printing in supply chain	
			15	Collection, storage, processing and visualization of big data to support decision making in transportation	С

### **Preliminary results**

In total 45 stakeholders participated in the survey. Figure 1 to Figure 4 present the profile of the participants.



Age

| 16% | 46% | 46% | 33% | 18-25 years | >65 years

Figure 1: Gender distribution

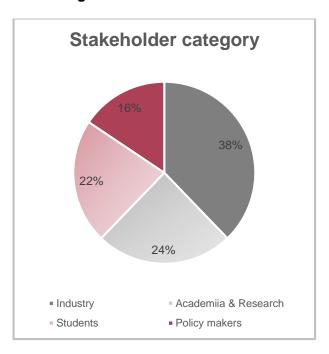


Figure 3: Stakeholder categories distribution

Figure 2: Age distribution

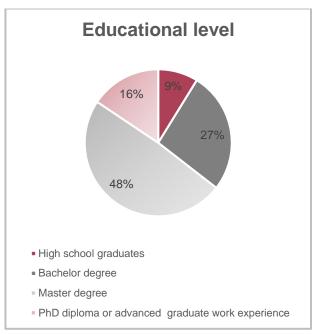
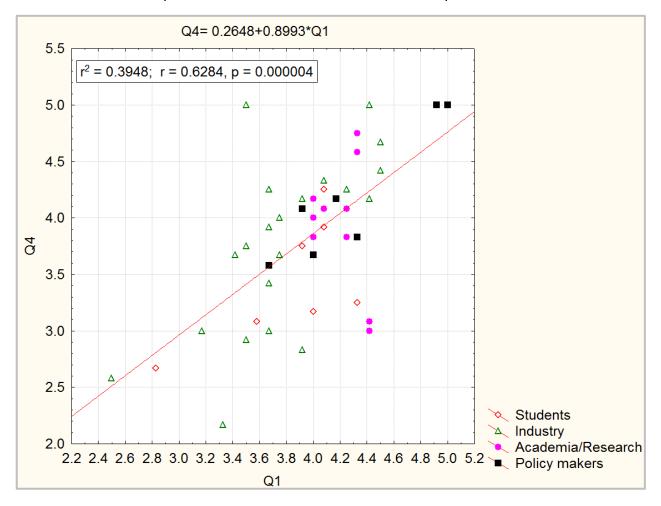


Figure 4: Educational level distribution

Sample was grouped according to several parameters, including stakeholder categories, gender, age, educational level and, also, the three thematic areas. A number of statistical tests were conducted, and some preliminary results are presented in the following paragraphs.

Bivariate correlation analysis was carried out among the six variables, as formulated by the relevant research questions (Q1 to Q6), and, indicatively, the correlation between the importance of knowledge on the 12 educational requirements and its importance for the respondents' career development, is shown in Figure 5. It's clear that respondents consider that high knowledge on the 12 educational requirements can enhance their career development.



**Figure 5**: Importance of knowledge on the 12 educational requirements (Q1) and its importance for the respondents' career development (Q4)

In addition, Table 2 presents an overview of the average rating (M) and standard deviation (SD) of the above two variables and the test results of the comparisons between the three thematic areas, which are described through the z-statistic and p-value, indicating the strength of the respective evidence. Focusing on the importance of knowledge on the 12 educational requirements, results revealed that respondents rated higher those requirements addressing governance and operation (M=4.08, SD=0.55), then decision-making (M=3.96, SD=0.89), and

lastly, smart solutions (M=3.89, SD=0.56), with the differences between governance and operation and decision-making and also, between governance and operation and smart solutions, being statistically significant (p-value<5%).

When respondents were asked about the importance to have knowledge on the 12 educational requirements for the development of their career, they replied that knowledge on decision making topics (M=4.10, SD=0.96) would improve more their career compared to governance and operation (M=3.87, SD=0.76) or smart solutions (M=3.67, SD=0.79) topics.

	Thematic area					z-statistic					
Variable		rnance & ation ( <i>A</i> )		nart ons ( <b><i>B</i>)</b>		sion- ng ( <b>C</b> )	<b>A</b> vs.	<b>A</b> vs. <b>A</b> vs.			
	М	SD	М	SD	М	SD	В	С	С		
Q1. Importance of knowledge on the 12 educational requirements	4.08	0.55	3.89	0.56	3.96	0.89	2.03*	2.02*	-1.49		
Q4. Importance of knowledge on the 12 educational requirements for career development	3.87	0.76	3.67	0.79	4.10	0.96	1.25	-1.76	-2.49*		

**Table 2:** Average rating and comparisons among thematic areas

#### Conclusions

This survey investigated the relevance of the existing knowledge, importance and requirements for skills and competence on career development, in the area of designing and operating transport interchanges, taking into consideration the perceptions of different stakeholders: policy makers, transport operators and service providers, and academia.

Interesting findings were revealed from the preliminary analysis of the results, which, when enriched with the outcomes of the completed data elaboration, will set the ground for establishing an up-to-date educational and training program, meeting the expectations and needs of future professionals.

#### References

- 1. Mitropoulos, L., Adamos, G., Nathanail, E., Yatskiv, I. & Kabashkin, 2017. Building on European scientific excellence to develop an educational program on intermodal connections for Latvia and the region, Transport Journal, 2017, Vol. 32, Iss. 1.
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### **Annex G**



### **Newsletter**

December 2017 Issue 2

### **Editorial**

### Dear reader,

Welcome to the 2<sup>nd</sup> issue of the ALLIANCE Newsletter! ALLIANCE is an EU-funded project, focusing on the development of advanced research and higher education institution in the field of transport in Latvia.

In this issue, you will be informed about the pan-European survey on transport interchange design and operation, organized and implemented by the Traffic, Transportation and Logistics Laboratory of University of Thessaly, Greece and the Transport and Telecommunication Institute, Latvia, and you will read the preliminary results, based on feedback from Latvian stakeholders.

In addition, you will be updated on the events and activities, completed in the 2<sup>nd</sup> year of the project, including the successful realization of the 1<sup>st</sup> ALLIANCE Summer School, which took place in Riga, Latvia in July 16-22, 2017. Details about the project's future events and activities are also included in this issue.

Finally, we are happy to host an article on the challenges and barriers on integrated intermodal transport systems, and three interviews of selected stakeholders.

Happy reading!

http://alliance-project.eu/

Prof. Irina Yatskiv (Jackiva)
Project Coordinator

Prof. Eftihia Nathanail Dissemination Manager





### A preliminary survey on transport interchange design and operation

The aim of the preliminary survey was to investigate relevance of existing knowledge, importance and requirements for skills and competence on interchanges' design and operation, as perceived by Latvian stakeholders. Data were collected through a questionnaire survey, structured in three parts:

- Part I of the survey aimed to assess the relevance of 12 topics that have been identified as educational requirements for sustainable transport interchanges (1). The research questions formulated, are:
  - O Q1: How important is to have knowledge on the 12 topics?
  - o Q2: How familiar are you with methods/techniques relative to the 12 topics?
  - Q3: During your university studies, at what level have you developed skills on the 12 topics?
  - Q4: How important would it be for your career development to gain skills on the 12 topics?
- Part II aimed to assess 15 emerging topics in the domain of intermodal transportation (2), (3). The relevant research questions addressed in this case, are:
  - Q5: At what level each of the 15 emerging topics has been introduced in your profession (or studies, when respondents were students)?
  - Q6: How important would it be for your career development to gain skills on the 15 emerging topics?
- In Part III, background information was collected about the respondents, including aspects such as: stakeholder category, gender and age, level of completed studies, etc.

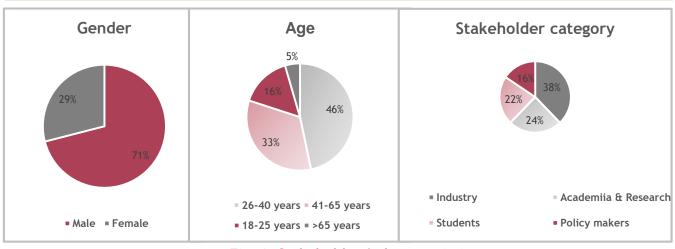


Fig. 1: Stakeholders' characteristics



### A preliminary survey on transport interchange design and operation

Table 1: Questionnaire topics

	Table 1. Questionnaire topics							
No.	Educational requirements	No.	Emerging topics					
1	The European policy on intermodal transportation	1	Utilization of big data for policy-making					
2	Building business models for intermodal transport interchanges	2	Innovative organizational and governance concepts for mobility solutions at neighbourhood and district level					
3	Sustainable development and transportation planning	3	Public procurement of innovative sustainable transport and mobility solutions in urban areas					
4	Operation and management of intermodal transport systems	4	Optimization methods improving resilience of interchanges (i.e. under unexpected events)					
5	Optimization of intermodal transport systems	5	Incorporation of Vehicle-to-Infrastructure (V2I) and Infrastructure-to-Vehicle (I2V) systems and information-sharing in efficient operation and management of interchanges					
6	Intelligent services for passenger transportation	6	Benefits of connected-automated vehicles in the operation and management of interchanges					
7	Information systems of intermodal freight transportation	7	Shared-use services and solutions promoting interchange sustainability					
8	Design of passenger transport interchanges	8	Unmanned aerial systems in logistics					
9	Design of freight transport interchanges	9	Innovative design methods and green buildings at interchanges					
10	Smart technologies for efficient transport logistics	10	Incorporation of alternative fuel vehicles in smart transshipment					
11	Decision making methodologies	11	Promoting accessibility, inclusive mobility and equity in interchange design					
12	Data collection methods	12	Physical and cybersecurity at transport interchanges					
		13	Information Communication Technologies and cooperative Intelligent Transport Systems for smart, safe, accurate and reliable interchange operations					
		14	3D printing in supply chain					
		15	Collection, storage, processing and visualization of big data to support decision making in transportation					



### A preliminary survey on transport interchange design and operation

The 45 participants were grouped according to several parameters, i.e. stakeholder categories, age, gender, etc. and a number of statistical tests were conducted. For example, bivariate analysis was carried out among the six variables, as formulated by the relevant research questions (Q1 to Q6), and, indicatively, the correlation between the importance of knowledge on the 12 educational requirements and its importance for the respondents' career development, is presented in Fig. 2.

It's clear that respondents consider that high knowledge on the 12 educational requirements can enhance their career development.

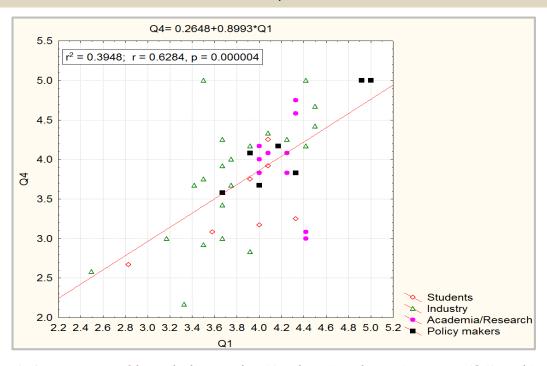


Fig. 2: Importance of knowledge on the 12 educational requirements (Q1) and its importance for the respondents' career development (Q4)

#### References

- 1. Mitropoulos, L., Adamos, G., Nathanail, E., Yatskiv, I. & Kabashkin, 2017. Building on European scientific excellence to develop an educational program on intermodal connections for Latvia and the region, Transport Journal, 2017, Vol. 32, Iss. 1.
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- 3. Transportation Research Board, 2016. Transportation Research Circular, Number E-C208, Transformational Technologies in Transportation. State of the Activities. http://onlinepubs.trb.org/onlinepubs/circulars/ec208.pdf.



### **ALLIANCE** events

# ALLIANCE in Transportation Research Board (TRB) 96<sup>th</sup> Annual Meeting



ALLIANCE dissemination managers, Prof. Eftihia Nathanail and Dr. Giannis Adamos participated in the Transportation Research Board (TRB) 96th Annual Meeting, which was held in Washington D.C. on 8-12 January 2017. Prof. Nathanail Eftihia presented the paper "Developing an educational program transportation across regions: The case of intermodal connections for Latvia and the region", prepared by UTH and TTI partners, based on the research and work that has been conducted in ALLIANCE.

### 10<sup>th</sup> International Doctoral Student Workshop on Logistics

10<sup>th</sup> ALLIANCE supported the International Doctoral Student Workshop on Logistics, which was hosted by the Otto von Guericke University's Institute of Logistics and Material Handling Systems in cooperation with the Fraunhofer Institute for Factory Operation and Automation IFF, on 20 June 2017 in Magdeburg, Germany. The project was represented in this event by 8 researchers. who are young members of the project's collaborative research teams.

20-22 June 2017 Magdeburg, Germany





### **ALLIANCE** events

### 1st ALLIANCE Summer School

The 1st Summer School entitled: "Sustainable Transport Interchanges Program (STIP) - Part I: Freight Transportation" was organized by the Transport and Telecommunication Institute (TTI), Traffic, Transportation and Logistics Laboratory of the University of Thessaly (TTLog) and

16-22 July 2017 Riga, Latvia

Fraunhofer Institute for Factory Operation and Automation (IFF) and in total 25 young researchers from Latvia, Lithuania, Greece and Germany participated. Young researchers had the opportunity to attend a number of selected courses and two special lectures focusing on freight transportation, and to visit Riga's commercial port.





28 September 2017 Torres Vedras, Portugal

### **CIVITAS Deployment Day**

ALLIANCE project participated in the Civitas Deployment Day within the CIVITAS ANNUAL CONFERENCE 2017. The project's representatives promoted to a wide audience the scope, concept, thematic areas, ALLIANCE eplatform, as well as, a synopsis of the 1st ALLIANCE Summer School.







### **ALLIANCE** events

ALLIANCE organized a Trainers' Seminar and a Young Researchers' Seminar in Riga, Latvia on 18-21 October 2017, during the 17<sup>th</sup> International Conference on Reliability and Statistics in Transportation and Communication (RelStat'17).

### Trainers' Seminar

### 19 October 2017 Riga, Latvia

Scope of the Trainers' Seminar entitled "Experience and impressions after 1st Summer School" was to organize a discussion with all involved parties about the results of the 1st Summer school "Sustainable Transport Interchange Program (STIP) - Part 1: Freight transportation", in order to receive feedback regarding their vision on introducing STIP courses to the TTI new or existing study program.



### Young Researchers' Seminar

#### 20 October 2017 Riga, Latvia

During the Young Researchers' Seminar, 11 presentations were given by young researchers and PhD students from Latvia, Greece, Germany, Kazakhstan and Japan who are either members of the ALLIANCE international collaboration teams interested in topics of transport modeling, logistics and evaluation of transport systems, ICT in transport and economical aspects of transport development.





### **ALLIANCE** events

### 1<sup>st</sup> Widening Conference

The European Commission organized on 8 November 2017, the 1st Widening Day in Brussels, Belgium during "The WIDENING CONFERENCE: Towards the Creation of a Widening Community". The scope of this together event was to bring coordinators of the three widening actions ERA CHAIRS (FP7 and Horizon 2020), TWINNING and TEAMING (phase 2) and to create a WIDENING COMMUNITY, in exchange best order to practices, experiences and create new links for future synergies.

ALLIANCE project was represented by Prof. Irina Yatskiv (Jackiva) (Coordinator) and Assoc. Prof. Eftihia Nathanail (Dissemination Manager).

8 November 2017 Brussels, Belgium



# ALLIANCE participation in Workshop "From data to added value: points of view and solutions"

8 December 2017 Riga, Latvia



On 8 December 2017, Transport and Telecommunication Institute (TTI) organized an open workshop entitled "From data to added value: points of view and solutions". Academic and research staff, TTI students, representatives of the private and public sector (Rīgas Satiksme Ltd., Rīgas Karte Ltd. Riga Municipality, Ministry of Transport, Riga City Council City Development Department) attended the Workshop.

During the Workshop, ALLIANCE members had the opportunity to establish networking activities with representatives of the transport field and to promote the 2<sup>nd</sup> ALLIANCE Summer School program and other activities.



### Save the date 1-7 July 2018

ALLIANCE organizes the **2**<sup>nd</sup> **Summer School**, entitled "Sustainable Transport Interchange Program (STIP) - Part II: Public transport systems from research to decision making" in Riga, Latvia on 1-7 July 2018.

An open call for participation will be soon released!

### **STIP** courses

Code	Course	Code	Course
C0	Research methodology and teamwork setup	<b>C7</b>	Smart information technologies in freight transport logistics
C1	The European policy on intermodal transportation	C8	Design of passenger transport interchanges
C2	Building business models for intermodal transport interchanges	С9	Design of freight transport interchanges
C3	Sustainable development and transportation planning	C10	Smart equipment for freight transshipment
C4	Operation and management of intermodal transport systems	C11	Decision making methodologies
<b>C</b> 5	Optimization of intermodal transport systems	C12a	Data collection methods: Surveys
C6	Intelligent services for passenger transportation	C12b	Data collection methods: Historical and observed data

Note: Grey marked courses will be lectured in the 2<sup>nd</sup> Summer School

### Preliminary school schedule

Time	Time Monday 1		Tuesday Wednesday		Friday	
9:00-10:00	Introduction	Invited lecture	Invited lecture	Invited lecture		
10:00-11:00	introduction	C2 - Fraunhofer			C12 - Fraunhofer/UTH	
11:00-12:00	C1 - UTH	CZ - Fraumnorer	C8 - UTH	C5 - UTH		
12:00-13:00		C4 - UTH			Project time	
14:00-15:00	C4 - UTH		C6 - Fraunhofer	Project time		
15:00-16:00	C11 - 0111	C2 UTU		Project time		
16:00-17:00	CO -TTI	C3 - UTH	Project time	Technical visit	Project time	
17:00-18:00	Project time	Project time		recinical visit		



### Future events and activities

4<sup>th</sup> Conference on Sustainable Urban Mobility - CSUM2018

Skiathos Island, Greece

ALLIANCE Special Session on Sustainable Transport Interchanges

MAY 2018								
SUN	MON	TUE	WED	THU	FRI	SAT		
		1	2	3	4	5		
6	7	8	9	10	11	12		
13	14	15	16	17	18	19		
20	21	22	23	24	25	26		
27	28	29	30	31				

JUNE 2018								
SUN	MON	TUE	WED	THU	FRI	SAT		
					1	2		
3	4	5	6	7	8	9		
10	11	12	13	14	15	16		
17	18	19	20	21	22	23		
24	25	26	27	28	29	30		

11<sup>th</sup> International Doctoral Student Workshop on Logistics

Magdeburg, Germany

ALLIANCE support and young researchers' participation

18<sup>th</sup> International Conference on Reliability and Statistics in Transportation and Communication (RelStat'18)

Riga, Latvia

ALLIANCE Final Conference (17/10/2018)

OCTOBER 2018								
SUN	MON	TUE	WED	THU	FRI	SAT		
	1	2	3	4	5	6		
7	8	9	10	11	12	13		
14	15	16	17	18	19	20		
21	22	23	24	25	26	27		
28	29	30	31					



### Integrated intermodal transport systems: challenges and barriers



by **Mr. Artūrs Kokars** Advisor of the Board Riga International Airport Riga, Latvia

At EU level, the challenges that are faced for creating an integrated intermodal transport system for passenger and freight transport are:

- New technologies developing faster than academic education programmes
- State aid policies for aviation sector is slowing down increase of airport capacity and development of new brake trough solutions
- EU customs code is not responding to new trends in aviation transport.

At the same time, when trying to implement different smart mobility measures in transport terminals, significant barriers may appear, such as:

- Difficulties to justify cost benefit for new systems
- Measure the risks related to implementation of new technologies
- Impossibility to integrate various systems and connectivity measures in between
- Lack of information exchange between partners and stakeholders
- Significant barriers for public funding related to aviation sector.

ALLIANCE project is expected to contribute to smart interconnecting sustainable transport networks in Latvia and the region. Towards this direction, it would be necessary to share results of the research with stakeholders. Common consultations, sharing of experience and guidelines for further developments as well methodology to measure the benefits of implementation of intermodal transportation modes would be great contribution for airport and related organizations.

### Interview



with Mr. Dirk Beckmann German Aerospace Center (DLR) Transport, among others ERRAC, Shift2Rail, EGVI Brussels, Belgium

### What are the knowledge, skills and competence in the domain of urban interchanges?

Urban interchanges form a truly interdisciplinary challenge from a research point of view. It spans across societal aspects, human factors, city planning to technical details. Hence the knowledge, skills and competences needed for urban interchanges are of interdisciplinary nature as well. While conventional mode-centric research is very much focused on the start-to-arrival requirements of the corresponding mode, the key research subject is the connection of modes and hence demanding a sector spanning expertise across modes while still understanding the particularities of the modes.

Understanding of end-user behavior, needs and demands has been a well-researched subject in recent years. The fast uptake of new technology, such as mobile phones and apps, has impacted the domain significantly. Understanding the effects of new technologies, such as automation in transport, on mobility and in particular on urban interchanges will form a challenging field of research to gain knowledge and competence in this changes scenario.

Cities in Europe are undergoing a significant change. In the last century, access to a city with private vehicles was understood as a significant contributor in the prosperity of a city and led to car-optimized cities. In recent years, this trend has reversed and many cities try to reverse this development, e.g. by limiting car access to city centers and penalizing inner city car use. This changes user behavior by forming a growing demand towards public transport in city centers. Changing the cities' key paradigm from private cars towards other modes impacts urban design and challenges the traditional values in this domain. Urban interchanges are key contributors to a modal change and hence understanding urban design, its challenges and benefits is a key requirement.

Digitalization and in particularly automation in transport will have a significant effect on mobility in general. Expertise in the domain of urban interchanges is based on technical innovation in this sector. Hence understanding the technological principles is a key competence. This includes the knowledge about mode specific aspects, as well as, the technological aspects of connecting modes.

The key knowledge is characterized by the broad spectrum of contributing factors to the domain of urban interchanges, while maintaining a deeper understanding of underlying societal aspects, urban design challenges, technologies and concepts.

The key competence for urban interchanges is to tie all these individual aspects into a comprehensive understanding. The key skill is to develop solutions for the pressing challenges of cities by offering tailored urban interchanges that address them in a future-proof way.

### What are the emerging areas of expertise required for transportation professionals?

From a research point of view there seem to be three major aspects than need to be considered. The first aspect is the significant and fast paced change transport is undergoing in recent years. demographic change, the declining appealing to own a car, maturing automation in cars and new mobility concepts are some examples that illustrate the dynamics of a changing sector. This forms a significant challenge in understanding future trends and developments in urban mobility. interchanges form a considerable long-term investment for a city, tie annual resources and form the cities mobility concept that in itself determines urban design aspects. Hence understanding and forecasting mobility on a comprehensive level needs is a key expertise to form future-proof urban interchanges.

The second aspect is the digitalization of transport. The fast developing technological improvements are particularly difficult challenging for long term investments as their forecast is not trivial. Assuming that planning for urban interchanges can omit developments seems too optimistic. The fast developing pace in regard to digitalization can also significantly improve the urban interchange concept e.g. through more accurate travel information, increased user acceptance and better service offerings. The management of digitalization both in understanding the impacts on urban interchanges as well as adopting the benefits for this domain can be seen a key expertise.

Transport has developed into rather isolated modecentric silos, not just in aspects of technology, but also in competing for a customer share. Overcoming the boundaries of modes is key factor to form crossmodal mobility and successful urban interchanges concepts. In the past we have seen strong industry driven advocacy for specific modes. This vehemence isn't yet visible for sector spanning concepts that answer the needs of end users rather than industry sectors. From a policy level this transportation professionals that can advocate the needs of sector spanning concepts, such as urban interchanges and bring it to the attention of policy makers.

### Interview



with Ms. Inta Rozenšteine
Deputy Director
Department of Finance and Development Planning
Ministry of Transport
Riga, Latvia

What are the knowledge, skills and competence in the domain of urban interchanges?

From the point of view of my competence (i.e. planning) - the most important is the understanding of the role of the urban interchanges in the whole city transport system, and also in the overall national level transport system.

Knowledge of environmentally friendly, economic (time and money) transport solutions are required, knowledge in urban planning (as the place is not unlimited), as well as knowledge on new technologies to be used in transport and logistics.

What are the emerging areas of expertise required for transportation professionals?

In my opinion, it is very important for a transport professional to be able to follow the opportunities provided by the use of new technologies, in order to use this knowledge creatively for planning transport interchanges (and not just that, of course).



with **Dr.Sc.Ing. Vaira Gromule**Chairman of the Board
JSC "Riga International Bus and Coach Terminal"
Riga, Latvia

What are the knowledge, skills and competence in the domain of urban interchanges?

Professionals of different profiles with the following skills are required:

- · Urban planning
- Transport modeling
- Transport organization
- IT data protection
- · Environmental safety and inclusive design
- · General knowledge of management
- · Risk management
- Civil protection

What are the emerging areas of expertise required for transportation professionals?

- Organization and modeling of transportation activities
- Risk management
- Environmental safety and civil protection
- IT and data protection



### Consortium

TRANSPORT AND TELECOMMUNICATION INSTITUTE (TTI)

Latvia

UNIVERSITY OF THESSALY, TRAFFIC TRANSPORTATION & LOGISTICS LABORATORY (UTH-TTLog)

Greece

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