



alliance

Newsletter

December 2018 Issue 3

Editorial

Dear reader,

This newsletter signifies the completion of the three years of the ALLIANCE project. Years productive, inspiring, creative, full of challenges, collaborations and achievements. When started, the project set the objective of enhancing excellence in the domain of sustainable transport interchanges, which are the main elements of intermodality, and along with it, it identified an ambitious list of activities to be accomplished. Three years later, we are very satisfied to deliver ALLIANCE's legacy, which constitutes of - but is not restricted to - a complete curriculum for graduate students and PhD candidates, a life-long learning educational and training program for professionals, a long catalog of collaborative scientific publications, joint supervision of PhD researches and well-established academia-industry partnerships.

In the next pages, you will read about last year's activities, which include organizing ALLIANCE's final conference, the 2nd ALLIANCE Summer School, intense course on Decision Making Methodologies, special topics seminars, train-the-trainers and young researchers seminars, special sessions in CSUM2018 and ETC2018, workshop "Science-to-Business: Digitalization in Logistics and Transport", and participating in the International Conference TransBaltica 2018, the Meeting on Road Safety Performance in Riga, the 11th International Doctoral Students Workshop on Logistics and the 15th Anniversary of the Association of Pan-European Coach Terminals. As a testimonial to scientific excellence, ALLIANCE funded young researchers to present their work at selected Conferences and sponsored the ALLIANCE Scientific Excellence Award, which aims to attract more students into sustainable transportation.

We are looking forward to hearing from you and cooperating towards enhancing excellence and innovation capacity in sustainable transport interchanges!

Prof. Irina Yatskiv (Jackiva)
Project Coordinator

Prof. Eftihia Nathanail
Dissemination Manager



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Challenges and trends in Latvia transport interchange development

*A summary of the round table discussion during ALLIANCE Final Conference
October 2018, Riga, Latvia*

Participants:

- Inta Rozenšteine, Deputy Director of the Finance and Development Planning Department of the Ministry of Transport of Latvia
- Vaira Gromule, Chairman of the Board, JSC “Riga International Coach Terminal”
- Irina Yatskiv (Jackiva), ALLIANCE Project Coordinator, Vice-Rector for Science and Development Affairs, Transport and Telecommunication Institute
- Artūrs Saveljevs, Member of the Board, Riga International Airport
- Gatis Kristaps, transport consultant, Ardenis Ltd.

Moderator:

- Kristine Malnaca, Transport and Telecommunication Institute



Challenges and trends in Latvia transport interchange development

V. Gromule emphasized spatial availability as one of the challenges for transport system development in urban environment and acknowledged that changes in business models in transport sector and in public transport services are also expected in the future.

A. Saveljevs introduced the latest developments in Riga International Airport (airport expansion, new rail terminal and Rail Baltica connection link). He also appreciated collaboration with TTI as a research institution in data analysis and traffic modelling. Collaboration between the industry and the research institution benefits both - the industry receives the product that is based on the latest developments and innovations in the given sector and the researchers and students have the possibility to apply their knowledge to the real life situation.

G. Kristaps emphasized the human resources issue in transport sector. The changes in the labour market are driven by the innovative technologies whose role in the daily operations is only increasing.

I. Rozenšteine reminded that it is important for policy makers to understand the current issues in transport sector, to foresee the needs in the future and to understand what knowledge will be necessary to meet the future demand. The policy makers often can define the problem but have no answers how to solve it. The input of the research and education institutions in such situation could be providing the tools and solutions for the problems identified.

One of the general questions raised was the following - is there a demand for research from industry and policy makers? **I. Rozenšteine** noted that the need is definitely there, and in order to create good analytical products it is desirable that the collaboration between the researchers, scientists and policy makers is established in the long term perspective.

Various innovative technologies are entering transport world, e.g. powerful, connected communication tools, drones, robots in freight terminals etc. A question arises - what will prevail in the future transport systems - a man or technology? **A. Saveljevs** predicted that routine operations performed by low-skilled workers today will be replaced by machines in the near future. **G. Kristaps** agreed that low-skill workers will be the first ones to adapt to the changes in the labour market. The demand for low-skill employees will decrease but there will be an increased demand for high-level specialists.

Also, the future challenge is to deal with the rapidly increasing mobility flows. As mentioned by **A. Saveljevs**, even air is becoming congested, and new ways of transport, as well as interchange designs have to be sought in order to keep in pace with the growing global mobility needs.

ALLIANCE supports lifelong learning

Based on the courses of the ALLIANCE “Sustainable Transport Interchanges Program (STIP)”, which was designed for the needs of the two Summer Schools, the project’s members developed selected digitalized courses to support lifelong learning purposes.

The offered digitalized program includes four core courses, five courses covering passenger transport and five courses focusing on freight transport. The program also addresses all thematic areas of ALLIANCE: governance, smart solutions and decision-making.

ALLIANCE digitalized courses

Course	Core	Passenger transport	Freight transport
Research methodology and teamwork setup	x		
<i>Governance</i>			
The European policy on intermodal transportation	x		
Building business models for intermodal transport interchanges	x		
Operation and management of intermodal transport systems		x	x
<i>Smart solutions</i>			
Intelligent services for passenger transportation		x	
Design of passenger transport interchanges		x	
Design of freight transport interchanges			x
Smart equipment for freight transshipment			x
<i>Decision making</i>			
Decision making methodologies	x		
Data collection methods: surveys		x	x
Data collection methods: historical and observed data		x	x

ALLIANCE events

Course and research seminar by UTH staff in TTI



3-6 April 2018
Riga, Latvia

In April 2018, Prof. Eftihia Nathanail and Dr. Giannis Adamos (UTH) visited TTI for educational purposes.

Prof. Nathanail offered the full-week course “Decision making methodologies” to Master and PhD students and Dr. Adamos organized an open research seminar on a) theory and practice on scientific research, b) ports and maritime transport and c) urban form and transportation.



“Science-to-Business: Digitalization in Logistics and Transport”

An Open Workshop entitled “Science-to-Business: Digitalization in Logistics and Transport” was organized in Transport and Telecommunication Institute (TTI) premises for PhD and MSc students as well as their scientific supervisors.



26 April 2018
Riga, Latvia



Over 60 researchers and stakeholders from the transport and logistics sector came together to identify areas in which active collaboration between business and science is required. This new TTI initiative was supported by ALLIANCE project and the German Academic Exchange Service (DAAD) with funding from the Foreign Office of the German Federal Republic.

ALLIANCE events

Special Session in 4th Conference on Sustainable Urban Mobility (CSUM2018)

24-25 May 2018
Skiathos Island, Greece

ALLIANCE project organized a special session during the 4th Conference on Sustainable Urban Mobility - CSUM2018 in Skiathos Island, Greece on 24 - 25 May 2018. The theme of this year's Conference was: "Data analytics: Paving the way to sustainable urban mobility". Within the Special Session seven presentations were given by ALLIANCE research collaboration teams, and also students and staff from TTI, UTH and Fraunhofer IFF had the opportunity to disseminate their research work in other sessions.



Discussion on road safety performance in Riga

30 May 2018
Riga, Latvia

On May 30, 2018, Transport and Telecommunication Institute represented by Prof. I. Yatskiv and Ms. K. Malnaca, in collaboration with the International Transport Forum (ITF), organized a discussion about road safety governance in Riga, Latvia. The key objective of the discussion was to understand the level of road safety in Riga, as well as to identify specific governance arrangements, policies and actions taken at a local level to improve road safety performance.



ALLIANCE events

International Conference “TransBaltica 2018”

31 May 2018
Riga, Latvia

TTI researchers Prof. Irina Yatskiv (Jackiva) and Dr. Genadijs Gromovs took part in the XXI International conference “TransBaltica 2018”, which was held on May 31 in the premises of the Riga City Council. The conference was opened by the Minister of Transport of the Republic of Latvia Uldis Augulis with the presentation “Transport sector in Latvia and its development prospects”.



11th International Doctoral Students Workshop on Logistics

20-22 June 2017
Magdeburg, Germany



On June 19-22, 2018, the Institute for Logistics and Material Handling Systems of the Otto von Guericke University (OVGU) Magdeburg, in cooperation with Fraunhofer IFF and with the support of ALLIANCE project, hosted the 11th International Doctoral Students Workshop on Logistics. The Workshop was in the framework of the 21th IFF Science Days of the Fraunhofer Institute for Factory Operation and Automation. Approximately, 40 guests from four countries were welcomed this year, among them participants from Hungary, Cuba, Latvia and Germany. Another highlight of this year was the moderation of the discussion table “Logistics networks and organization” by Prof. Irina Yatskiv from TTI, in the framework of ALLIANCE project and SCI-BI.

ALLIANCE events

2nd ALLIANCE Summer School

1-7 July 2018
Riga, Latvia

The 2nd ALLIANCE Summer school entitled: "Sustainable Transport Interchanges Program (STIP) - Part II: Public Transport Systems: from research to decision making" was realized from 1st to 7th July, 2018 in Riga, Latvia.

In total 25 young researchers from Latvia, Greece and Germany participated in the Summer School. Three invited lecturers gave their presentations in the field of planning and analysis of urban transport systems.

In addition, the young researchers who attended the Summer School had the opportunity to make educational visits to Riga's Railway Central Station, Riga International Coach Terminal, Riga International Airport and Riga Passenger Port Terminal.



15th Anniversary of the Association of Pan-European Coach Terminals

3-5 September 2018
Riga, Latvia



The Association of Pan-European Coach Terminals (APC) celebrated its 15th anniversary by organizing a workshop entitled "Innovations in passenger transport with bus and coach and terminal development in the future" in Riga, September 3-5, 2018. TTI Vice-Rector for Science and Development Affairs Prof. Irina Yatskiv gave a presentation about one of the most emerging topics in transportation research entitled "Possible effects of connected and automated driving on the economy, employment and skills". TTI researcher Kristine Malnaca presented the results of the study "Economic viability of converted diesel city bus into electric bus" which was performed within a research project implemented by the company "Ferrus" in Riga.

ALLIANCE events

Special Session in ETC2018

10-12 October 2018
Dublin, Ireland

ALLIANCE project co-organized with EU project SKILLFUL the special session entitled "Education and Training - New challenges towards the Future Transport" within the European Transport Conference (ETC) on 10-12 October 2018 in Dublin, Ireland. The scope of the special session was to disseminate information about the progress and the findings of the two projects with strong emphasis on development of linkage among education, research and industry.



ALLIANCE Final Conference

17 October 2018
Riga, Latvia

The Transport and Telecommunication Institute (TTI) in cooperation with Traffic, Transportation and Logistics Laboratory of the University of Thessaly (TTLog) and Fraunhofer Institute for Factory Operation and Automation (Fraunhofer IFF) successfully realized the ALLIANCE Final Conference "Sustainable urban interchanges: Trends and new prospects" on 17 October 2018 at the premises of TTI in Riga, Latvia. In total 52 participants from Latvia, Greece and Germany participated in the Conference. The ALLIANCE Final Conference aimed at bringing together Latvian and European researchers, practitioners and stakeholders to share the results of the project as well as to discuss about trends and new prospects on sustainable urban interchanges.

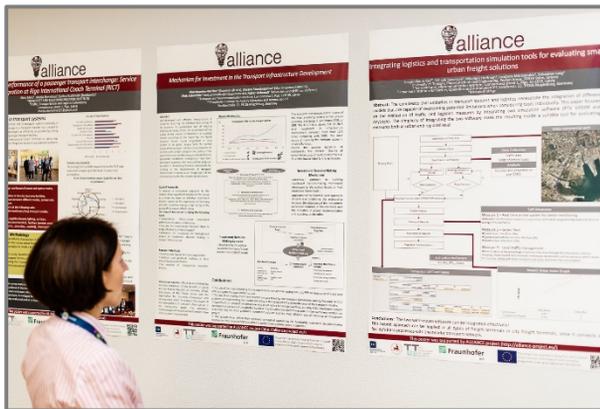


ALLIANCE events

ALLIANCE Final Conference

17 October 2018
Riga, Latvia

Poster session dedicated to young researchers



ALLIANCE organized a Train-the-Trainers' Seminar and a Young Researchers' Seminar in Riga, Latvia on 18-19 October 2018, during the 18th International Conference on Reliability and Statistics in Transportation and Communication (RelStat-18).

Train-the-Trainers' Seminar

18 October 2018
Riga, Latvia

The Train-the-Trainers Seminar addressed education and training issues in engineering focusing on the digitalization and long life education.

Young Researchers' Seminar

19 October 2018
Riga, Latvia

The young Researchers' Seminar, entitled "Sustainable Transport Interchanges", gave the opportunity to 15 postgraduate and PhD students from Latvia, Greece and Germany to present their collaboration team's research work.

ALLIANCE Scientific Excellence Award 2018

In 2017, during RelStat-17, the Management Board of the ALLIANCE project announced the Scientific Excellence Award for the young researchers participating in the research collaboration teams of the project.

In October 2018, the members of the Management Board received four applications from young researchers, and after evaluating the application forms, they decided during the 6th Project Management Board meeting that the Certificate of Recognition is awarded to Ms. Evelīna Budiloviča for being an outstanding young researcher and winning the ALLIANCE Scientific Excellence Award 2018 for active and fruitful collaboration in international research teams.

The awarded ceremony was realized during RelStat-18, organised by the Transport and Telecommunication Institute on 17-20 October 2018 in Riga, Latvia.

The awarded student Evelīna Budiloviča was financially supported to visit POLIS 2018 Conference in November 2018.

Ms. Budiloviča is a PhD student of Transport and Telecommunication institute and at the same time, she works at Riga Municipality Development Department.

Her PhD thesis is related to sustainability measurement framework development. During ALLIANCE project, she actively participated in all organised events and she was an active member of the research collaboration team. The last 3 years, she has published a number of significant publications related to ALLIANCE scope and topics of research.



Interview



With Mr. Juris Kanels
Acting Rector of the Transport
and Telecommunication
Institute
Chairman of the Supervisory
Board of Riga International
Airport

Transport is one of the central elements of the European integration process, which helps to create an internal market conducive to employment and socio-economic development of any country. The transport policy is one of the common policies of the European Union that has existed since the beginnings of the EU, as it was considered essential to guarantee three of the four freedoms set out in the Treaty of Rome in 1957 within the common market – the free movement of people, services and goods.

In the context of the European Union's internal market development project, it is essential for all of the EU Member States to have proper transport connections. This means the need to build the missing connections and eliminate many technical and administrative obstacles hampering smooth traffic and trade flows and creating unnecessary congestion in the European transport system. In many cases, it is also necessary to harmonise the different transport policies of the Member States which may distort competition and to prevent barriers to market access.

Today we see a growing interest towards the enhancement of sustainable urban mobility. It is facilitated by the European Union's respective policy and one of the key points for discussions is intermodality that should provide significant benefits to the users of transportation systems.

What are the biggest barriers when trying to implement different smart mobility measures in transport terminals? How may these be overcome?

A characteristic feature of the transport sector is its complex nature, since the mere analysis of one transport mode does not allow to see the whole picture of the situation in regard to the impact of the transport sector. Therefore, one of the most difficult tasks of transport planners is to develop a policy combining different, mutually interconnected also competing elements into one system.

The existing fragmentation of transport infrastructure, equipment and regulations across the EU Member States could be recognised as an obstacle to the creation of seamless transportation system across the Europe. Very often we still can feature different national regulatory barriers, low degree of cooperation between involved actors, unclear administrative responsibility for implementation of intermodal transport measures and lack of standardization and harmonisation.

For instance, airport as a point of interchange should provide individuals, enterprises and local communities with tailored and door-to-door transportation possibilities that contribute to people's mobility, productivity of businesses and regional cohesion. In order to achieve this goal it is imperative to have comprehensive business model based on cooperation between different stakeholders for development of the needed access roads, terminals and other necessary infrastructure taking into account interests of all interest groups. The more fragmented the solutions become the more difficult it could be to mutually integrate them in the future to ensure public acceptance. During the development of new transportation systems it is also necessary to take into account the interests and concerns of their users.

There are also problems related to funding of increased capacity and quality of services. The future of transportation will be very much influenced by security considerations. At this point of time it is necessary to invest in the learning of new knowledge, research and collection of information while simultaneously increasing level of security in the areas where it is obviously necessary.

How is ALLIANCE project expected to contribute to smart interconnecting sustainable transport networks in Latvia and the region, and at what level may this be achieved?

As one of the indirectly related problems, when trying to implement smart mobility measures in the development of transport terminals, it is recognised that sometimes local authorities do not have the necessary knowledge in this area or it is insufficient. That's why research and education addressing the topics of intermodality with emphasis on transport interchanges, both for passengers and freight, is very important.

In this context the ALLIANCE project, which aims to stimulate and strengthen scientific and technological capacity of Latvia and to raise the profile of research staff and their institutions by providing knowledge in the field of smart and sustainable interconnecting transport networks, is very important for Baltic Sea Region countries. Significance of the project even more increases in the context of largest infrastructure project in the Baltic Sea Region - construction of Rail Baltica that should integrate the Baltic States in the European rail network.

An educational program entitled "Sustainable Transport Interchanges Program - STIP", which was developed within the ALLIANCE project, was taught already twice during the Summer Schools of our Institute. And it showed us real interest about the subject not only from researchers but also from representatives of business community and municipalities. The results demonstrated that stakeholders consider knowledge on the STIP topics as of high importance, and that this knowledge can enhance their career pursuance.

Interview



With Mr. Andris Spulis
Cluster Facilitator
Latvian Supply Chain Cluster
Project Member, Latvian Logistics Association

What are the challenges that are faced for creating an integrated intermodal transport system for passenger or freight transport, depending on your expertise, at EU level?

Through the introduction of information communication technology (ICT) the use of multimodal and intermodal transport can become easier since it can provide the user with an up to date integrated service.

“Gap free” Trans-European Network, First and Last Mile logistics, Improvements in freight and supply chain efficiencies (cost, emissions and customer response times) will be the key challenges for integrated intermodal transport system for freight transport at EU level. The integration between modes in intermodal networks should be carried out at the level of infrastructure and other hardware (loading units, vehicles), operations and services as well as the regulatory conditions. The use of telematics, open and easy-to-use information systems will increase the importance of customer oriented transport services and enhance the widespread use of advanced electronic services.

All-in-one tickets System (like Swiss Travel System Tickets) for international guests to travel by rail, road and waterway throughout the whole of EU will be the major challenge for creating an integrated intermodal transport system at EU level.

What are the biggest barriers when trying to implement different smart mobility measures in transport terminals? How may these be overcome?

The globalization of markets and the advancement of ICT technologies and electronic commerce have contributed to the creation of global logistical networks and supply chains (SC). Therefore, there is a need for global, reliable, efficient and cost effective transportation services.

The importance of terminals as parts of global supply chains (SC) is crucial for the provision of transportation services. **Low level of mutual trust among members of globally competing SC is the biggest barrier** for achieving high ROI from smart mobility measures implementation. *“The profit proportion’s equal part from “Smart mobility costs”* could be a Challenging Initiative for SC partners the barrier overcome.

The second big barrier - a need for new innovative technological solutions for securing cargo, on one side and on the other side, a substantial cost for the introduction of security systems and procedures in the freight transportation/logistical system. It is imperative to develop and integrate new security systems, techniques and equipment appropriate for the different critical security points (information systems of terminals, etc.), optimizing in this way the role of security in the supply chain management, while contributing to corporate financial benefits.

How is ALLIANCE project expected to contribute to smart interconnecting sustainable transport networks in Latvia and the region, and at what level may this be achieved?

In Latvia, as with elsewhere in Europe, in the world, transport plays an important role in the economy and in providing equal rights for community. The ALLIANCE project addresses the topic of intermodal interconnections, through interchanges for passenger mobility and freight transportation. Technological innovations at transport terminals can significantly increase the availability of information and useful data.

The project could contribute to raise the attention for looking smart and sustainable solutions for achieving smooth and seamless transportation, integrated services for public transport and disseminate the good practices in other cities for Latvian transport authorities, operators and other stakeholders.

Testimonials



Evelīna Budiloviča

PhD Student

Transport and Telecommunication Institute

The participation in ALLIANCE gave me valuable contribution not only in my research but also in my life. The experience and knowledge that I obtained while working with the rest members of the collaboration international team will help me continue my research and work in my Dissertation Thesis: "Research with the Concept of Sustainability Development to Transportation Planning and Decision Making in case of Multimodal Public Transport System Implementation (Riga case study)".



Ioannis Karakikes

PhD Scholar - State Scholarships Foundation/IKY- Greece
Research Associate, University of Thessaly, Traffic,
Transportation and Logistics Laboratory (TTLog)

The ALLIANCE Project facilitated collaboration teams with the aim of international cooperation. Through the experience of being a member of such a team, I had the opportunity to get to know new individuals outside my lab, to further develop as a scholarly author and as a researcher and finally, to gain knowledge about new technological advances in my research domain. Establishing a collaborative environment in the future is one of my top priorities as a young researcher.



Alina Rettmann

Bachelor student in engineering management with
focus on logistics
Otto von Guericke University Magdeburg

Through the ALLIANCE Project and the collaboration with TTI in Riga, I received the chance to work with colleagues of various nationalities. Furthermore, I got the chance to broaden my mind in the field of aviation and its connection possibilities with transportation interchanges by the help of experienced colleagues. I understand people who work in aviation a lot better now, as I could experience its fascination first hand. I do consider working in aviation after my bachelors degree.

Testimonials



Irina Kuzmina-Merlino
Dr.oec., Professor
Transport and Telecommunication Institute



Oksana Skorobogatova
Mg.oec., PhD Student
Transport and Telecommunication Institute

Any form of international project-type scientific cooperation contributes to the development of a range of competences, such as professional, communicative and managerial; it also develops intellectual abilities and expands understanding of world processes. Participation in the international scientific project Alliance has engaged us in a multicultural dialogue, based on sharing values, while working on the attainment of common scientific and academic goals. This created highly stimulating work environment, nourishing professional interests and giving impetus for the pursuit of further research endeavours.

Another important outcome of participation in this research project has been highly valuable work experience in a multinational team, which required taking on responsibility not only for own actions but also other members of the team.

We sincerely thank the members of our team and our partners Fraunhofer Institute for Factory Operation and Automation IFF, Magdeburg, Germany, Professor Dr.-Ing. Fabian Behrendt and Niels Schmidtke, engineer and Ph.D. student, for their contribution to the project and sharing their experience related to transport infrastructure research.

We are most thankful to all members of TTI project team, which engaged us in the project and inspired to aim higher. We were immersed in real scientific environment and cross-institutional international scientific cooperation, aiming at solving problems of longitudinal and stable development of the transport infrastructure of the Republic of Latvia in the context of the European Union.

Consortium

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UNIVERSITY OF THESSALY, TRAFFIC, TRANSPORTATION & LOGISTICS LABORATORY (UTH-TTLog)	Greece
FRAUNHOFER INSTITUTE FOR FACTORY OPERATION AND AUTOMATION (IFF)	Germany

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