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HELLAS

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2017 Annual Report

CERTH/HIT
Hellenic Institute of Transport

Foreword from the Institute's Director

Dear friends,

HIT is expanding geographically. In accordance to its development policy and Business Plan, as decided by its Scientific Board, we are happy to announce the realization of HIT's new Branch offices in Piraeus and the island of Rhodes.

In Piraeus, in close collaboration with the Municipality, the University of Piraeus and the local Chamber of Commerce, HIT acquired new offices within the Piraeus Chamber of Commerce's neoclassical building. This Branch office's research focuses on Maritime Transport.

In Rhodes, under the auspices of the Prefecture of South Aegean and in cooperation with the Municipality of Rhodes and the Rodos Hoteliers Association, HIT acquired offices at a neoclassical building of the Prefecture at the historical center of the city of Rhodes (within the Castle area). This Branch office's research relates to combined Transport and Tourism issues.

Both branch offices are under development and are expected to start operations within 2018. Thus ... more information on them is expected at next years' report.

Within 2017, was also inaugurated the new communication policy of the Institute, based upon the triptych: ICTR2017 Conference (disseminating research to the scientific Community), VIP TOUR (liaising with key stakeholders) and OPEN DAY 2017 (raising public awareness). All three events were realized with stunning success at the Institute's premises in Thessaloniki. More information on these events can be found inside this report.

Within 2017, the Institute was actively involved in 56 research projects, 25 of which were new. The high scientific excellence of HIT has been recognized in an abundance of publications and references in the written and electronic press, including special issues on HIT's activities in specialized technological press and TV shows.

Our ambition is, through the new Branch offices across Greece and targeted dissemination actions, to bring our research results closer to the society and maximize their impact in our daily lives.

All together we can make the difference!

Dr. Evangelos Bekiaris
CERTH/HIT Director

Table of Contents

CERTH/HIT

The Hellenic Institute of Transport (HIT) was established by Presidential Decree 77 in the year 2000. It is one of the five institutes within the Centre for Research and Technology Hellas (CERTH). CERTH (and consequently HIT) is under the supervision of the General Secretariat for Research and Technology (GSRT), of the Ministry of Education, Research and Religious Affairs.

HIT is the main transport research Organisation of Greece. Its primary objectives are:

- Promoting and conducting advanced research in the Transport field.
- Supporting the decision making process at government level.
- Disseminating research results and supporting innovation.
- Representing Greece to International relevant fora.

CERTH/HIT Addresses

Headquarters:
6th km Charilaou-Thermis
P.O. 60361
Thermi, Thessaloniki
Phone. +30 2310 498 453

Athens premises:
Egialias 52
P.C. 15125
Marousi, Athens
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Our vision:

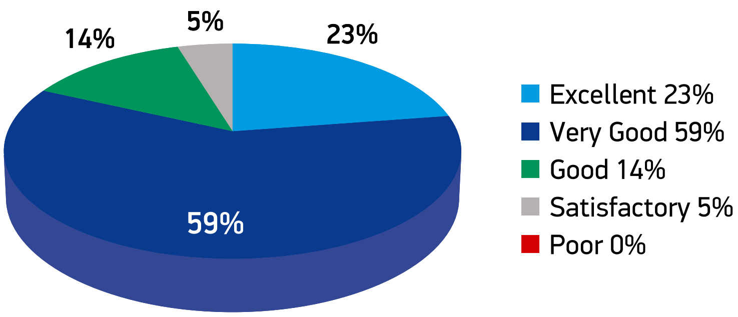
To become a recognized "leader" and center of excellence in Transport research at European and global level by conducting and promoting advanced research in the field of Transport, in full response to real economic and societal needs.

Highlights of Our Activities 2017

8th International Congress on Transportation Research (ICTR 2017)

Exceptionally interesting and thought-provoking results and proposals were the outcome of the 8th International Congress on Transportation Research (ICTR), which took place at CERTH Congress Centre in Thermi, Thessaloniki, from 27 to 29 September 2017. The spotlight theme of ICTR 2017 was "The Future of Transportation: A Vision for 2030". The Congress was co-organized by the Hellenic Institute of Transportation Engineers (HITE) (www.ses.gr) and the Hellenic Institute of Transport (HIT/CERTH) (www.hit.certh.gr), under the auspices of H.E. the President of the Hellenic Republic Mr. Prokopios Pavlopoulos, with the active support of the Ministry of Infrastructure and Transportation and the Municipality of Thessaloniki, under the umbrella of major European Research Networks: ECTRI, ERTICO, EURNEX, FEHRL, HUMANIST and WEGEMT.

Overall Satisfaction rating by the participants of ICTR 2017



The Congress has been characterized by high attendance, presence of remarkable people and exceptional statements. The increased number of publications, especially of foreign authors, in relation to former ICTRs should be stressed. Moreover, on the basis of the evaluation results carried out by the participants through the completion of relevant questionnaires, the Congress received highly positive evaluation comments in terms of organization, scientific interest, as well as staff behavior, while the next appointment for the ICTR has been arranged for 2019.

V.I.P. TOUR

At the press conference organized on Tuesday, October 31, the important activities of HIT and its research achievements were presented, launching a route of extroversion and information for the citizens. The intense interest of the media and the presence of Mr. Apostolos Tzitzikostas, Governor of the Region of Central Macedonia, Mr. Konstantinos Abatzas, President of Transport Authority of Thessaloniki, Mr. Dimitrios Makris, Chief Executive Officer of Thessaloniki Port Authority, Mrs. Ria Kalfakakou, Chief Executive Officer of EGNATIA ODOS S.A., Mr. Periklis Mitkas, Rector of Aristotle University of Thessaloniki, as well as the presence of representatives of the Municipality of Thessaloniki and of the University of Macedonia, gave the stigma of the high-profile and highly innovative and development-oriented HIT profile.

In his presentation, the Director of HIT, Dr. Evangelos Bekiaris, referred to data relating to HIT activities, stressing the impressively high expertise of the scientific staff of the institute (with the remarkable almost 1:1 male to female ratio), to the really important collaboration with entities and educational organizations, to its resilient “route” during the period of economic recession and the excellent future prospects, based on the HIT orientation to excellence, to the partnerships with important entities and to the expansion of HIT to Piraeus and – soon – to other regions of the country, as well as to the development in the field of transport and to the position that HIT holds in the research arena. Responding to journalists’ questions, Dr. Bekiaris emphasized that extroversion is necessary for exiting the crisis, while he highlighted the necessity to support innovation and promete HIT activities to the citizens and the dissemination of its activities among citizens, paying back through increasing the overall societal benefit.

Highlights of our Activities 2017

OPEN DAY at CERTH/HIT

The opportunity to experience a special event was availed for all those who visited the Hellenic Institute of Transport (CERTH/HIT), on Sunday, November 5, during the OPEN DAY for young and old. The well attended event, which which from now on will ordinance for the Institute (on the first Sunday of November), gave the opportunity to all the visitors to take a guided tour of the premises of the institute, to become aware of its work, to touch and look closely at significant scientific and technological achievements, and to learn about the future of transportation. The Director of HIT, Dr. Evangelos Bekiaris, gave a presentation on future professions and transportation, while many young people had a keen interest in relevant vocational guidance, as the president of the Hellenic Association of Researchers, Dr. Maria Konstantopoulou, gave a presentation on the profession of the researcher and its prospects. In parallel, special emphasis was given on road safety, through theatrical performance for children, raising awareness and entertaining them, while toys that were offered to them, were printed on site by the 3D printers. Undoubtedly, the Dynamic Driving Car Simulator and the Dynamic Driving Motorcycle Simulator, as well as the Electric Vehicles, presented by the researchers and the specialized scientific and technical staff of HIT, undoubtedly impressed the visitors. The HIT OPEN DAY has been arranged for Sunday November 4 of 2018.

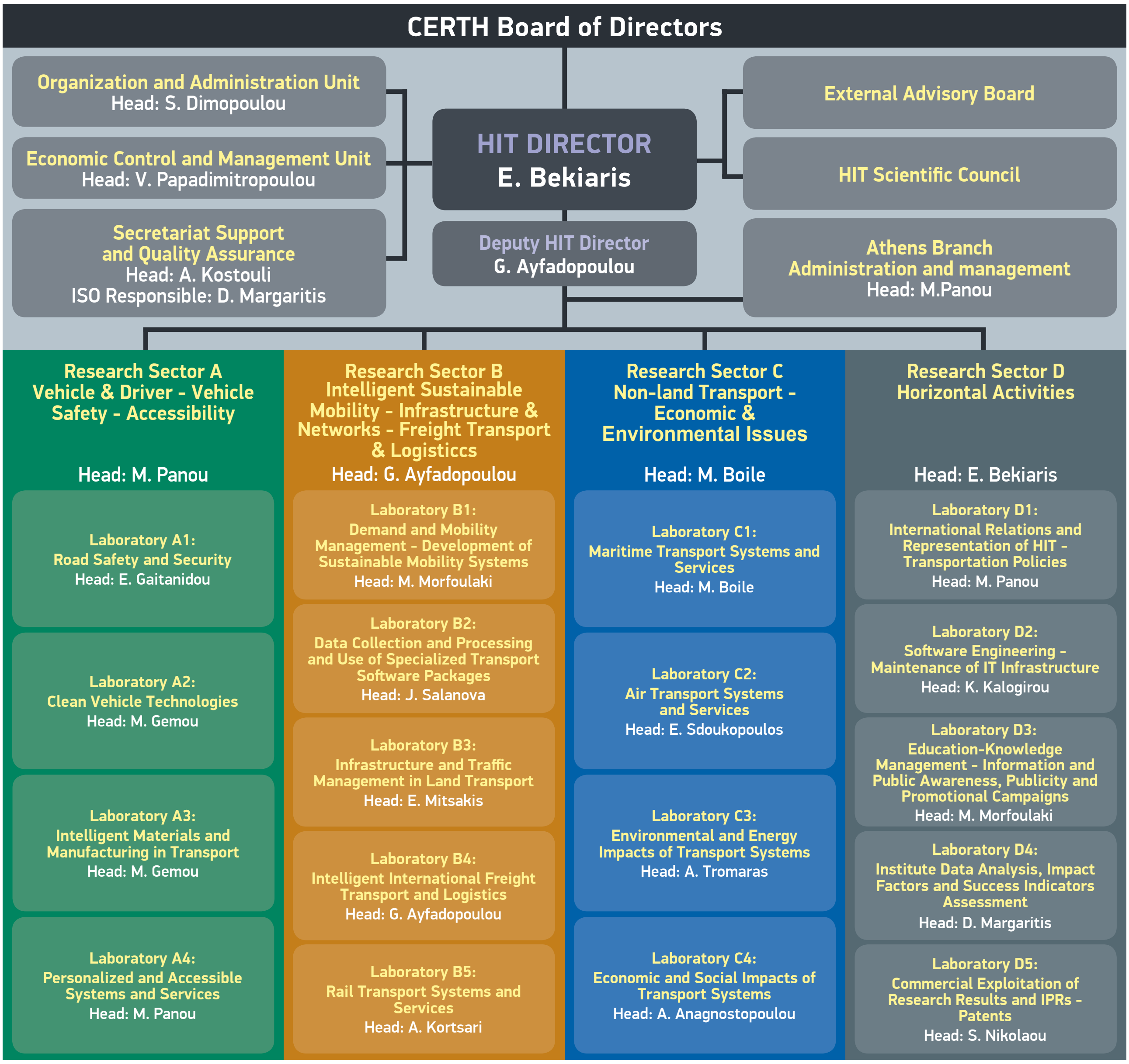
Buildings and Facilities

HIT's headquarters are located within the campus of CERTH, at the 6th km of Charilaou - Thermi Road at Thessaloniki, where 40 scientists are working.

HIT also has branch offices in Athens, at 52nd Egialias Street, Maroussi, the workplace of around 20 scientists.

The Institute's Organisational Structure

The organizational structure of CERTH/HIT helps to achieve the aforementioned objectives and priorities. Thus, its organizational structure consists of four Research Sectors and various Departments of Science and Administration. The Research Sectors are independent units, with corresponding responsibilities that operate with a linear and hierarchical structure and are supported by common horizontal support unit. The new organizational structure of CERTH/HIT, as they have been formed in the beginning of 2017, by the new Administration, are reflected in the following chart.



The objectives and targets of the four Sectors and their Departments are discussed in the sections that follow.

Department A: Vehicle & Driver – Vehicle Safety - Accessibility

Head of the Department: Dr. Maria Panou

This research Sector deals with all vehicle and driver issues, the design and development of vehicle systems and components, consideration of accessibility and "design for all" issues, driver behaviour and driver (user) - vehicle interaction.

The main research lines of Sector A include:

- Information and Communication Technologies applications in Transport (the "intelligent" vehicle);
- Applications of intelligent transport systems (ITS) as regards the driver and the vehicle and the development of interfaces as regards the information of the users;
- Introduction and integration into the traffic system of "clean" vehicles and fuels technologies;
- Advanced Driver Assistance Systems (ADAS) and In-Vehicle Information Systems (IVIS);
- Training courses for drivers and driver instructors;
- Advanced driver and vehicles simulation systems;
- Systems for Vulnerable Road Users and Vulnerable to Exclusion Citizens;
- Road Safety (from the vehicle and driver perspective);
- Vehicle automation systems;
- Dissemination and optimization for the improvement of the accessibility – mobility from the point of view of the system vehicle – driver;
- Training actions related to driver/traveler behavior and vehicle use;
- Interface systems for the driver – vehicle through mobile and wearable gadgets.

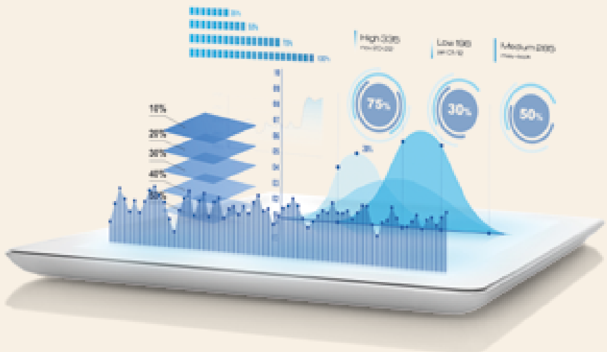
Department B: Smart Sustainable Mobility - Freight Transport - Networks

Head of the Department: Dr. Georgia Aifandopoulou

The activities of Sector B include all aspects of sustainable mobility research, with emphasis on land transport networks and their traffic. In particular, it is involved with issues regarding the planning, design, management and operation of land transport systems from the point of their infrastructures, networks, traffic and transport operation. With regards to overall mobility research, Sector B examines all surface transportation systems (road, railway and maritime transport) as well as air transport.

Indicatively, it is concerned with the issues of:

- Application of Information Communication Technologies (ICT) and of Intelligent Transport Systems (ITS) in the areas of responsibility of the Sector;
- Sustainable mobility and sustainable mobility plans (sustainable mobility management and planning);
- Development and promotion of the transportation planning process at national and regional level;
- Demand forecasting and demand management (for all modes);
- Capacity and availability assessment of transport infrastructures to satisfy this demand - Design of transport network infrastructures;
- Algorithms development for the simulation or mathematical representation of transport operations;
- Collection, maintenance, and management of traffic and other data in road, rail, maritime, and air transport;



- Development and maintenance of the Greek transport observatory: HIT PORTAL;
- Intelligent, intermodal freight transport and logistics by use of all modes: road, rail, maritime, air;
- Organizational and operational issues of land transportation systems;
- Transport policy formulation covering all areas and modes of transport;
- Evaluation of the operation of the transport system, as a whole, as well as subsystems, via appropriate indicators (KPIs).

Department C: Transport Economics - Environment - Non-land Transport

Head of the Department: Dr. Maria Boile

The activities of Sector C include research in the economic, energy and environmental aspects of the transport sector, impacts of transport on health, transport asset management, as well as the design, planning, management and operations of the maritime and air transport systems.

Indicative research areas include:

- Assessment of the environmental impacts of transport;
- Air transport systems and services;
- Maritime transport systems and services;
- Pipeline transport;
- Transport energy issues (energy efficiency, renewable and sustainable energy);
- Economic impacts of transport;
- Air and maritime transport policy issues;
- Air and maritime transport infrastructure management.

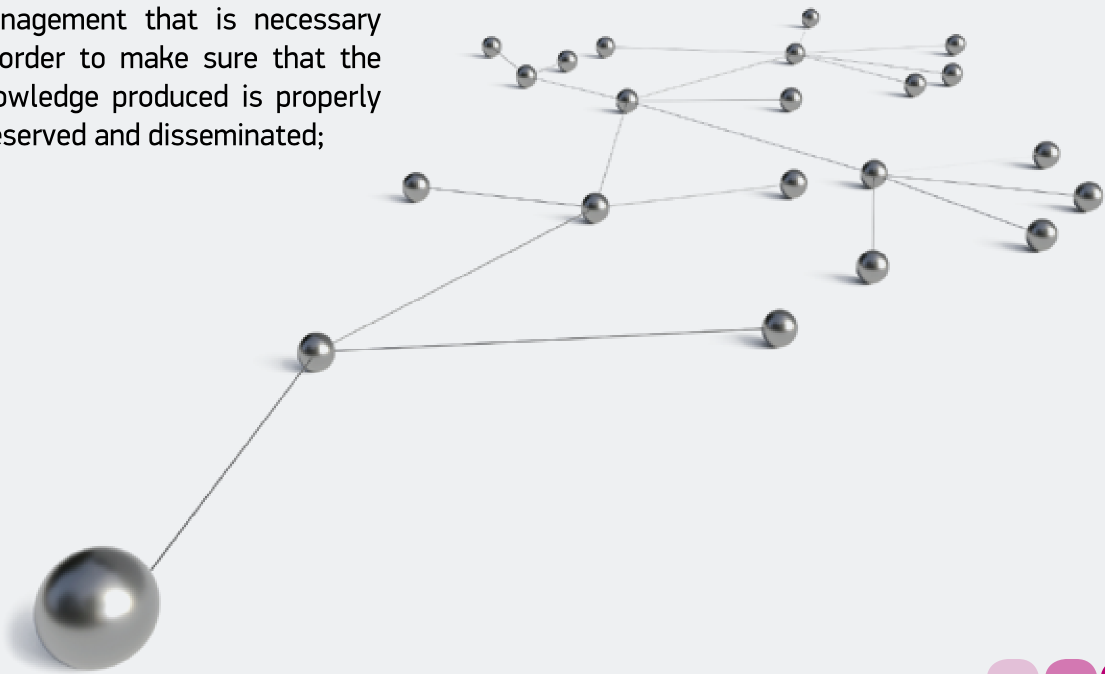
Department D:
Horizontal Activities

Head of the Department: Dr. Evangelos Bekiaris

The horizontal Sector D is involved in supporting functions for the whole Institute. It includes five Laboratories, whose activities are directed towards all the other Sectors of HIT and their workforce.

The primary activities of Sector D include:

- The representation of HIT and the monitoring of the work of the international Organisations in the field of Transport, which are of interest to HIT and the cooperation with the relevant sectors on issues of specific vertical interest;
- The development, maintenance and interconnection of software for the various IT applications of the research projects of the various Laboratories and Sectors;
- The development and maintenance of the internet site of HIT as well as all knowledge management that is necessary in order to make sure that the knowledge produced is properly preserved and disseminated;
- The interaction and cooperation of HIT with the society and the dissemination of its research results to the outside world, and finally;
- The production of innovation through the systematic and focused transfer of the research results to the market and the transport related industry in Greece and abroad.



Human Resources

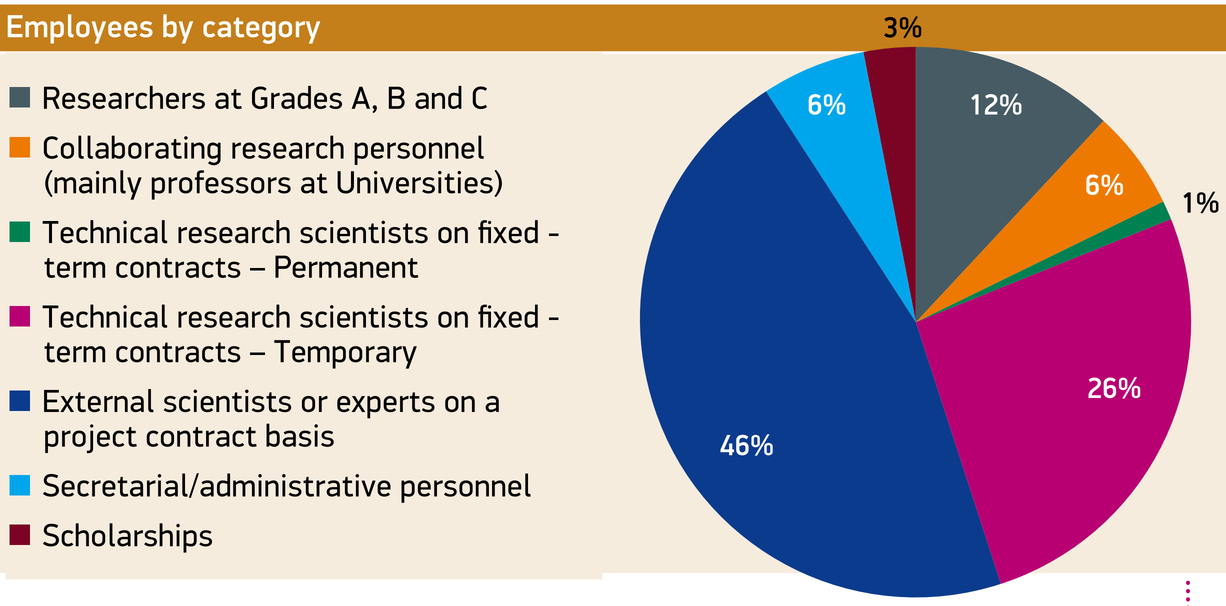
In 2017, HIT employed:

- Elected permanent research personnel (Researchers at Grades A, B and C).
- Collaborating research personnel (mainly professors at Universities).
- Management and technical research scientists on fixed – term contracts.
- External scientists or experts on a project contract basis.

In total, the scientific staff employed by HIT in all the above categories in 2017 were 69 persons.

Staff Category		Number of Employees
Elected Permanent Research Personnel	Researchers at Grades A, B and C	8
	Collaborating research personnel (mainly professors at Universities)	4
Technical research scientists on fixed – term contracts	Permanent	1
	Temporary	18
External scientists or experts on a project contract basis		32
Secretarial/ administrative personnel		4
Scholarships		2
TOTAL		**69**

Employees by category



HIT Scientific Council:

Dr. Evangelos Bekiaris, Mechanical Engineer, Researcher A΄, HIT Director
Dr. Mary Panou, Computer & Electronics Engineer, Researcher A΄
Dr. Evangelos Mitsakis, Civil & Transport Engineer, Researcher B΄
Dr. Maria Morfoulaki, Civil & Transport Engineer, Special Operational Scientist A΄
Dr. Maria Gemou, Mechanical & Aeronautics Engineer, Researcher C΄
Dr. Afroditi Anagnostopoulou, Economist, Researcher C΄
Dr. Maria Boile, Associate Professor at University of Piraeus
Vasiliki Papadimitropoulou, Elected representative of scientific, technical and administrative staff of HIT
Stavroula Dimopoulou, Deputy elected representative of scientific, technical and administrative staff of HIT

A. Researchers (elected at grades A, B, C)

1. **Dr. Evangelos Bekiaris**, Mechanical Engineer, Researcher A΄, HIT Director
2. **Dr. Georgia Ayfadopoulou**, Civil & Transport Engineer, Researcher A΄, Deputy HIT Director
3. **Dr. Maria Morfoulaki**, Civil & Transport Engineer, Special Operational Scientist A΄
4. **Dr. Mary Panou**, Computer & Electronics Engineer, Researcher A΄
5. **Dr. Evangelos Mitsakis**, Civil & Transport Engineer, Researcher B΄
6. **Dr. Maria Gemou**, Mechanical & Aeronautics Engineer, Researcher C΄
7. **Dr. Afroditi Anagnostopoulou**, Economist, Researcher C΄
8. **Dr. Alexandros Stathakopoulos**, Civil Engineer, Special Operational Scientist C΄

B. Technical Research Scientists on fixed-term contracts and External Scientists or experts on a project contract basis

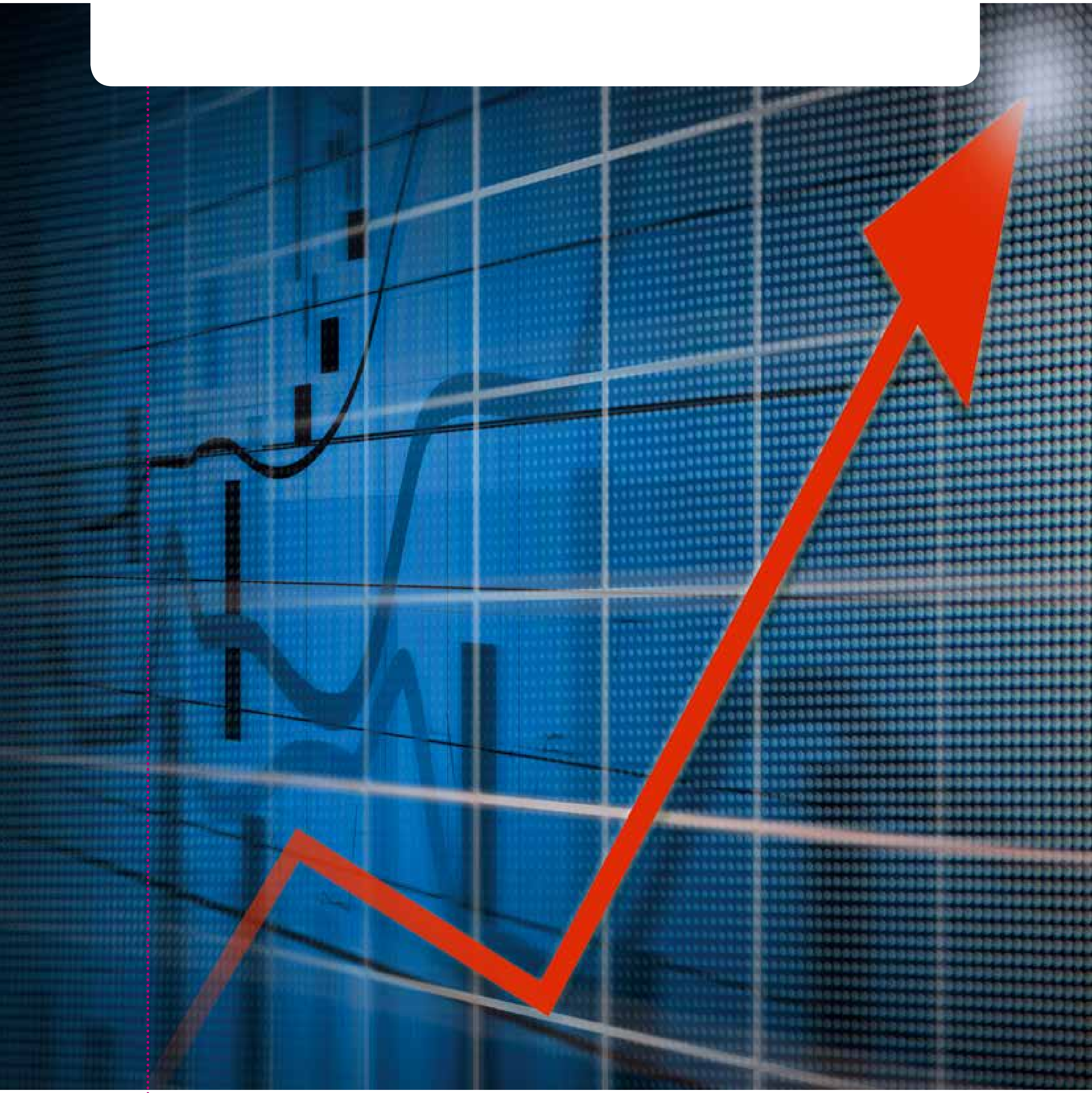
1. **Aggelakakis Aggelos**, Engineer of Planning and Regional Development, MSc in Transport
2. **Alertas Ioannis**, Graphic Designer
3. **Anastasiadou Konstantina**, Civil Engineer, MSc
4. **Boile Maria**, Associate Professor at University of Piraeus
5. **Boutovinas Antonios**, Computer Programming, Bsc in Software Engineering
6. **Britsas Christos**, Civil Engineer, MSc
7. **Chalatsis Aristidis**, Civil Engineer, MSc in Transport
8. **Chalkia Eleni**, Civil Engineer, MSc in Transport
9. **Chalkiadakis Harris**, Rural & Surveying Engineer
10. **Chatziathanasiou Maria**, Civil Engineer, MSc in Transport
11. **Chrysohoou Evaggelia**, Mathematician, MSc in Statistics & Operational Research
12. **Chrysostomou Katerina**, Civil engineer, MSc in Transport
13. **Dimokas Nikolaos**, PhD in Computer Programming/ Software Developer
14. **Dimopoulou Stavroula**, Lawyer
15. **Dimou Athena,** Physicist, MSc in Management and Administration of Industrial Systems
16. **Gaitanidou Evaggelia**, Civil Engineer, MSc in Transport
17. **Gaitatzi Olga**, Electrical & Computer Engineer

18. **Gragopoulos Ioannis**, Electrical Engineer, PhD
19. **Iordanopoulos Panagiotis**, Civil engineer, MSc in Transport
20. **Jose Salanova Grau**, Civil Engineer, MSc in Transport Engineering, PhD, BSc in Software Engineering, MSc in Digital Signal Processing and Communication Systems
21. **Kalogirou Konstantinos**, BSc in Software Engineering, MSc in Digital Signal Processing and Communication Systems
22. **Kortsari Anna**, Civil Engineer, MBA
23. **Kotoula Kornilia – Maria**, Rural & Surveying Engineer, Transport Engineer
24. **Kotsi Areti**, Civil Engineer, MSc
25. **Liapis Panagiotis**, Economist, MSc in Maritime studies
26. **Loukea Stamatina**, Psychologist
27. **Maglavera Miranda**, Physiotherapist
28. **Manukyan Anna**, Business Administration
29. **Margaritis Dimitrios**, Automotive Engineer, MSc Environmental Management
30. **Mintsis Evangelos**, Dipl. Civil Engineer, MSc in Transport
31. **Myrovali Glykeria**, Civil Engineer, MSc in Transport
32. **Nikolaou Stella**, Software Developer
33. **Papadimitropoulou Vasiliki**, Business Management
34. **Parodos Leonidas**, Business Administration, MSc
35. **Petrou Achilleas**, Rural & Surveying Engineer
36. **Porfyri Kalliroi**, Production and Management Engineer – MSc Manufacturing System
37. **Sdoukopoulos Eleftherios**, Rural & Surveying Engineer, MSc in Transport
38. **Spanidis Pavlos**, BSc in Software Engineering, MSc in IT and Data Communications
39. **Spiliotis Aristotelis**, Rural & Surveying Engineer, MSc in Transport
40. **Symeonidis Ioannis**, Mechanical engineer, MSc in Biomechanics, MSc in Information Systems
41. **Touliou Aikaterini**, BSc (honours) Psychology, MSc Research Methods in Psychology
42. **Tromaras Alkiviadis**, PhD Dr. Manufacturing Engineer, MSc Competitive Manufacturing
43. **Tsami Maria**, MSc in Urban & Spacial Planning Engineer, MSc in Information and Communication Computer Systems
44. **Tsioutras Athanasios**, Civil Engineer, MSc in Environmental Studies - Transport Engineer
45. Tzenos Panagiotis, Computer Programmer, MSc in Communications Systems and Technologies
46. **Vassilantonakis Bartholomew-Michael**, BEng in Control and Computer Systems Engineering, Msc in Computer Systems & Networking
47. **Vitzilaiou Kalliopi**, Business administration, BSc
48. **Xenou Elpida**, Civil engineer, MSc in management and administration of technical projects

C. Secretarial personnel

1. **Kostouli Anastasia**, Management Secretary, Sector A (Thessaloniki)
2. **Christodoulou Anastasia**, Secretary, Sector B (Thessaloniki)

Financial Report 2017



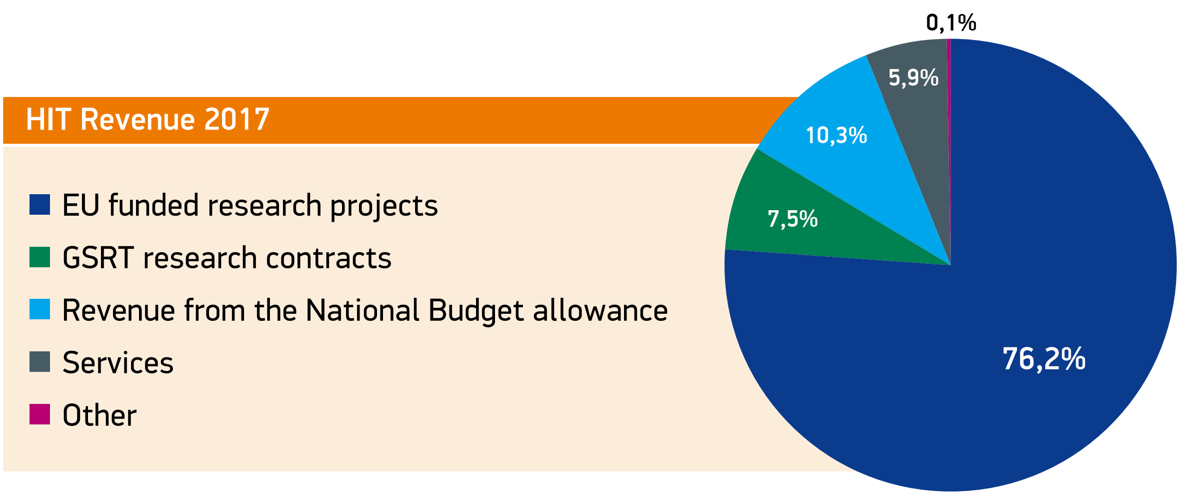
In 2017, the Hellenic Institute of Transport formed its turnover from its activities in terms of research projects assigned to it from European and National Research Programs as well as from services provision to private and public Organizations.

The distribution of the HIT revenues of HIT in 2017 is presented in the following table:

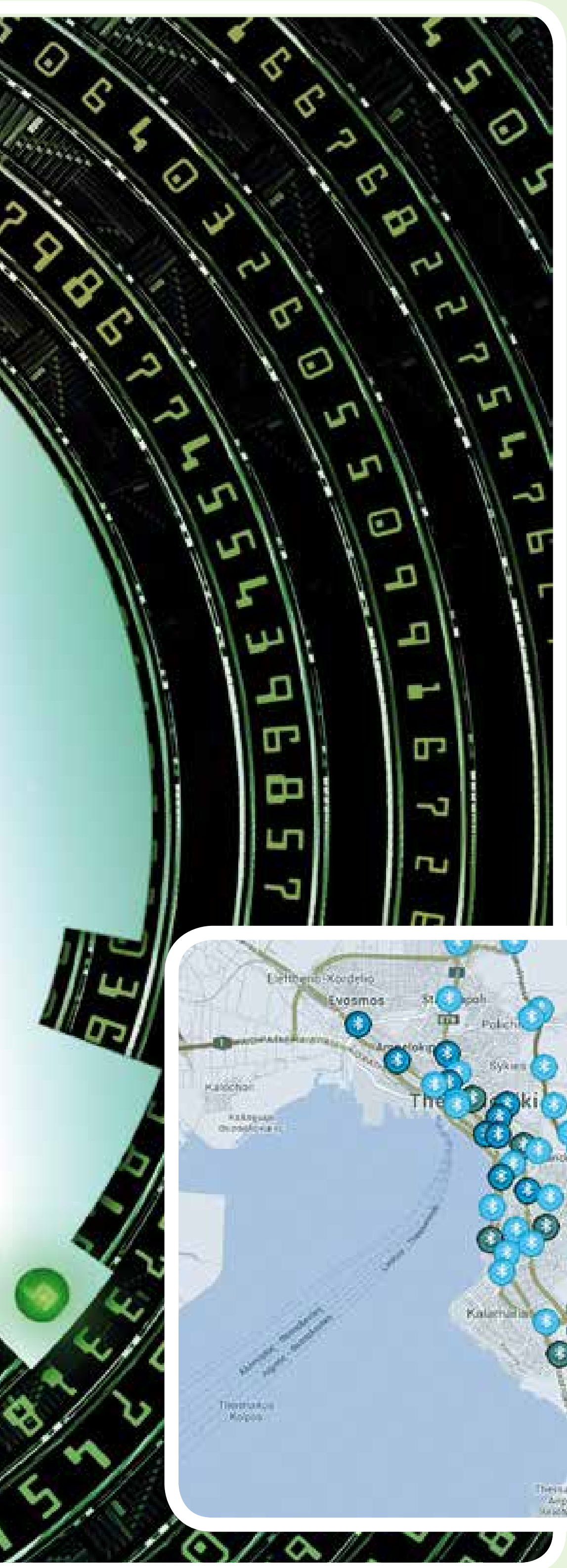
FINANCIAL RESULTS 2017	
Active projects	52
Revenue from European Union funded research projects	2.754.459,07
Revenue from the General Secretariat for Research and Technology (GSRT) research contracts	269.663,94
Revenue from the National Budget allowance	373.614,20
Revenue from Services	212.617,93
Other	4.747,03
TOTAL ANNUAL TURNOVER	**3.615.102,17**

HIT's largest source of revenue for 2017 comes from the European Union funded research projects (76.2%), while the General Secretariat for Research and Technology (GSRT) research contracts were third (7,5%). Revenue from Services has slightly dropped (11%), and the National Budget represents a share of 10.3%. From the above, one can see, that most of the Institute's inflows come from successful proposals submitted to competitive procedures, and won after technical evaluations. This proves that HIT is in a highly competitive position at a European level.

In terms of actual numbers, the total turnover of HIT for 2017, was 3.615.102,17 euros and is split among the various sources, as shown in the figure below.



Research Infrastructure



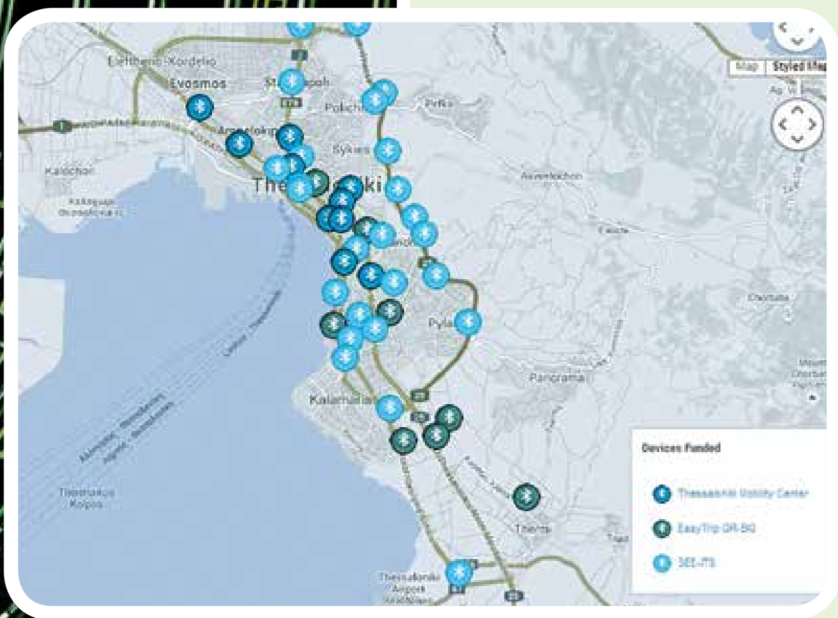
Mobile Lab for Environmental, Pavement and Traffic Measurements

In order to perform transportation/ environmental research and to support the relevant authorities, CERTH/ HIT has developed a Mobile Lab for Environmental and Traffic Measurements, which is installed on a minivan.The Lab has the goal to provide the tools for collecting and analyzing data on ambient air quality, pavement condition, traffic volume characteristics and noise levels.

Network of traffic detectors and other devices in Thessaloniki's road Network

HIT has begun, since 2013, establishing a network of traffic detectors in the road network of Thessaloniki in cooperation with the city of Thessaloniki and the Region of Central Macedonia. The network comprises by 39 roadside devices, installed at selected intersections throughout the road network of the city, some 40 i-travel detectors, many road impeded detectors, and equipment on 500 taxis.

This network provides HIT with the ability to analyze traffic and mobility patterns throughout the city and to provide real-time advanced traveler information services.



In addition, the network of detectors is used for the estimation of origin-destination matrices, in order to assist in the optimal planning of the city's transportation system.

All this infrastructure will be enhanced and increased in the future by the addition of many more ITS related devices, so as to make Thessaloniki a "smart city" and create the "Thessaloniki living lab" idea in which the Institute will have the whole city traffic at its laboratory.

The HIT Transport Observatory and Data Management Portal

The HIT Transport Observatory and Data Management Portal comprise twelve high speed servers, and is a web based portal that provides Transport Data for Greece, Management of such data, and process services, supporting the Transport Research Community in Greece and abroad.

The HIT portal - www.komvos-imet.gr - manages raw and ICT processed data to offer the following services to users:

- Observatory, routing, transport planning and simulation tools.
- Infomobility center, innovation incubation, test platform.
- Software (transportation planning and modeling and GIS). The main software used includes:
  - VISUM: macroscopic transportation modeling.
  - VISSIM: microscopic traffic simulation.
  - AIMSUN: macroscopic, mesoscopic and microscopic simulation.
  - DYNUS-T: mesoscopic dynamic traffic assignment.
  - GIS: Geographic Information Systems tools.
- Traffic information (EasyTrip equipment) and interactive monitors installed in various parts of the city and in Thessaloniki's town Hall.

Mobility Center Network

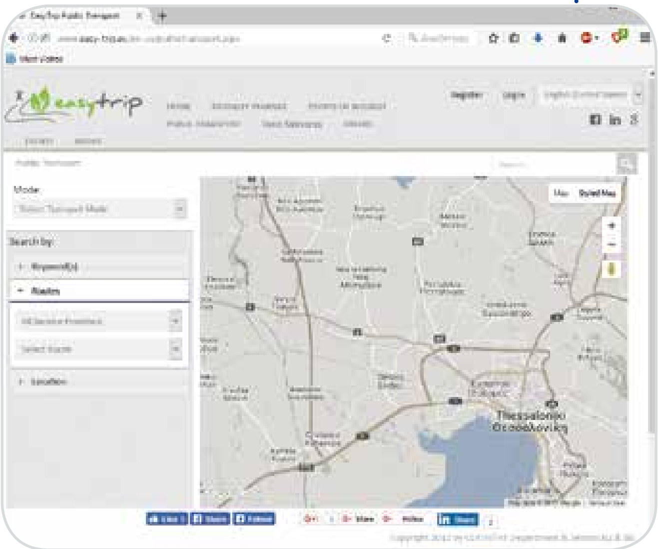
HIT designed, developed -and is now hosting- the on-line services of the first Mobility Center Network in Greece, which operates in the Municipality of Kalamaria (Thessaloniki). The services developed include information on stops, time – schedules, itineraries of the municipal and the suburban public transport, on points of interest via web GIS, and information for mobility impaired persons.

Research Vehicle for Advanced Driver Assistance Systems and Driver Behavior Research

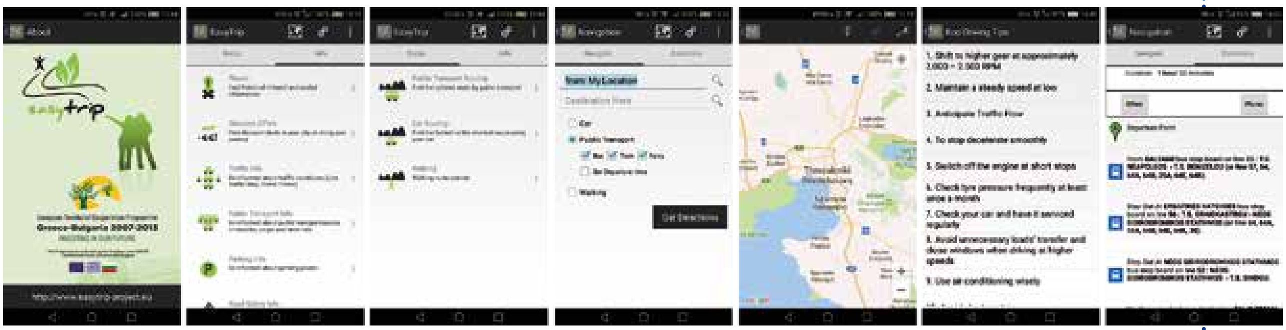
This vehicle can record and analyze driving behavioral parameters, as well as simulate and evaluate advanced driving assistance systems.

Using this research vehicle, the functionalities of several advanced driving assistance systems can be simulated, while ergonomic and user acceptance studies may be performed. Furthermore, the driving behavior can be analyzed in detail and safety studies regarding vehicle and road interventions can be conducted.

EasyTrip equipment



Easy Trip is an interactive platform and traffic monitoring system that informs its users about existing transport services and transport infrastructure in the prefecture of Thessaloniki. The platform is installed in HIT's premises in Thessaloniki and can be visited through the internet, while there are two screens located in Thessaloniki City Hall for their employees and visitors.



Virtual Reality System

HIT's Virtual Reality System is a power wall that is intended for designing and performing structural studies and ergonomic or other safety assessment analyses. For the implementation of the above research scopes, the IC:IDO virtual software package is installed and gives the potential for the visualization and manipulation of 2D and 3D CAD files in an immersive environment in real time. Additionally, by using human models, there is the potential for Human Factor and Risk Analyses, before the final physical product is produced and commercially exploited.

Usability Lab

The research usability lab of HIT has been equipped with a number of systems and sensors for the experimental measurement of prototypes, the development of new algorithms and "smart" software. The main aim of this research, is the production of products that are easy to use and provide safety in the residence of the user. The user is able to remotely control some of the systems, out of the residence, via mobile devices usage.

Sensors/ Systems installed in the usability lab:

- Movement sensors, smoke sensors, thermometer, humidity meter and luminance meter.
- Backbone PC – Media Centre.
- IP Cameras.
- Sensors for monitoring appliances.
- Mobile phone devices with Symbian Operating System.
- Lights control (on/off).
- Lights control (potentiometer).
- Central heating control.
- Actuators for opening doors and activating devices.

Full Scale Driving Simulator

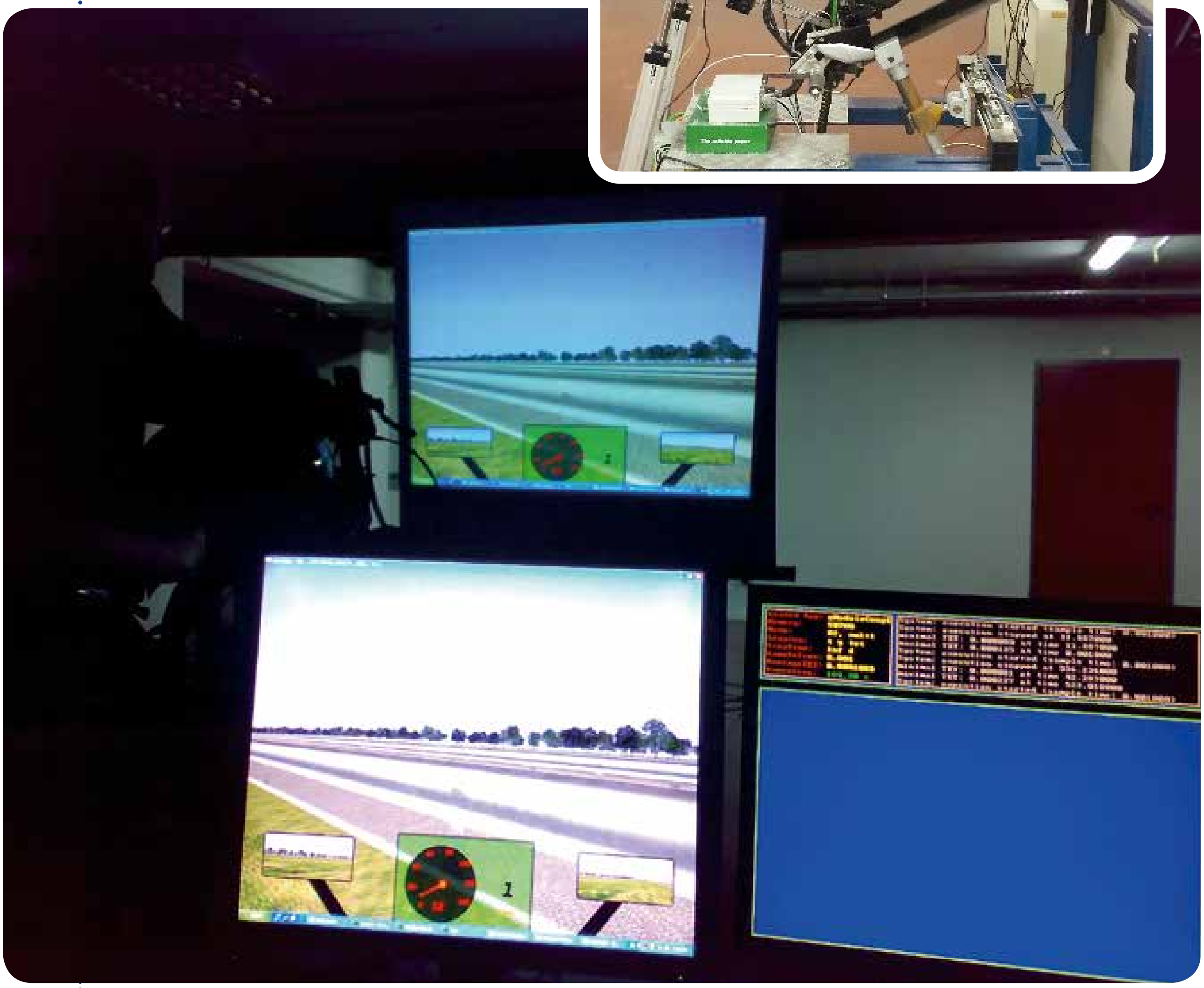
HIT's full scale Driving Simulator has a 180° screen and it is based upon a real vehicle (SMART). It is used to study dangerous driving situations, which would not be safe to test in real traffic conditions like, for example, overtaking, driving under the influence of alcohol, or drugs, etc. The specialized software allows the development of special driving scenarios, according to the purposes of each study. The direction and the speed of the vehicle can be freely chosen by the driver and the surrounding traffic includes up to 30 different types of vehicles – passenger cars, trucks, motorcycles and bicycles – which are always following the traffic rules. The behavior patterns may be modified, from very aggressive to extremely slow driving, while the driver may choose from a variety of different driving environments. Additionally, there are specific software modules related to older, unexperienced or under the influence drivers' behavior assessment.

All operational elements – steering wheel, accelerator pedal, brake pedal, gearshift lever and handbreak lever – provide nature-true force feedback so that the driver has the sense of real time driving. The motion device creates realistic motion of the car according to the operation of the simulated vehicle, the sound system generates original sounds, according to the situation (engine start, engine noise, horn, tire sounds, drive wind, etc.). The simulator system includes five large screens surrounding the vehicle.

Motorcycle Simulator

CERTH-HIT in collaboration with IFSTTAR, developed this innovative motorcycle simulator, which is used in rider behavior studies. It tests advanced rider assistance systems (ARAS) before their implementation in real conditions.

The motorcycle simulator is further used for studying the motorcycle vehicle dynamics and the rider kinematics in normal and near accident conditions.



Clean Vehicles

HIT's research equipment also includes a fleet of clean vehicles that are used to research the impact of clean vehicles in urban traffic. These vehicles include:

- **2 Electrical Assisted Bicycles** are used to assist the rider in propulsion. Each bicycle weights approximately 38 kg and can carry double its weight, up to 80 kg. The maximum speed for these bicycles is 20 km/h and the maximum electrically driven range is 35-50 km.
- **Hybrid Vehicle Toyota Prius** is used in research projects, surveying the technologies of clean vehicles. A special recording device has been installed on the vehicle, which stores data regarding fuel consumption and driving behavior. These data can be sent via GPS to a data center for monitoring and consulting purposes.
- **Electrical Moped (EVT 4000)** is a test vehicle with low noise level and no emissions. It is easy to use and has two different modes of operation (economy and power). It can be easily charged with a portable charger.
- **Piaggio MP3 Hybrid** is the first hybrid scooter ever produced. This vehicle is used for the development of new ARAS and OBIS systems and in naturalistic studies that examine rider's behavior. The scooter is a three wheel vehicle with improved traction, thanks to the two front wheels.

Electric Cars

CERTH/HIT has acquired 2 electrically propelled vehicles, BMW i3 Rex model, in the framework of the national project “KRIPIS”. The vehicles have been used for evaluating the driver style adaptation and driver acceptance of such EVs and also for studying the feasibility of small electric commercial vehicles in urban logistics in Greece.

Electric Vehicle Chargers

In the framework of the project “KRIPIS”, HIT has purchased 3 electric vehicle chargers. They compose of one Level 1 charger for long duration charging, a Level 2 charger for charging the batteries within 2-3 hours and the first fast-charger ever imported in Greece that allows charge of 80% of the battery capacity within 25min. The chargers are of the forthcoming HIT Charging Station.

Portable Outdoor Air Quality Monitoring Pods

The pods measure NO, NO_2, NO_x, O_3, CO, SO_2 and %RH, temperature and atmospheric pressure. Gases are measured using the latest generation of electrochemical sensors, which allow compensation for environmental factors and sensitivity to 5ppb. The system combines a robust hardware platform with the latest sensor technology and GPRS communication, cloud-based data processing and secure online access. The 2 pods are part of the Mobile Lab for Environmental Measurements.

SLA 3D printer

The StereoLithography Apparatus, SLA, 3D printer, available at the rapid manufacturing infrastructure of CERTH/HIT, is able to produce highly dimensional accurate parts with high quality finish. SLA technology, is the first technology of 3D printers. The system uses a low power laser diode to cure a resin with the photopolymerization process. The 3D printer is a second-generation, low cost, desktop printer. The minimum layer thickness of the printer is 25mm, the build volume is 145×145×175 mm^3, and the laser spot diameter is 140mm. The materials available for the 3D printer are a multi-color resin, engineering materials with different material properties (e.g. stiffness, strength), castable materials and biocompatible materials. The main application of the SLA printer at CERTH/HIT is the construction of brackets for the placement of sensors on vehicles, prototype product's shells and for the development of HMI devices. The SLA 3D printer was acquired in the framework of "PROMYTHEAS" national project.

3D print of a dashboard part

3D scanner

The 3D scanner, available at the rapid manufacturing infrastructure of CERTH/HIT, is able to capture the geometry and texture of objects with sub-millimetre accuracy. The 3D scanner uses the technology of videogrammetry. The scanner projects known image patterns on the objects and captures their deformation, due to the shape of the object. The scanner is able to capture at a rate of 8 frames per second with an accuracy of up to 0.05 mm. The capture volume of the scanner is similar to the print volume of the SLA 3D printer. The geometric data produced from the scanner is a 3D point cloud, this data requires further processing, in order to be used for engineering purposes. This type of processing can be performed from the scanner's software allowing the reverse engineering of the object at a certain degree that allows its manipulation from CAD software. The 3D scanner was acquired in the framework of “PROMYTHEAS” national project.

Motorcycle with ABS

A motorcycle with ABS system is available at CERTH/HIT. The motorcycle is a conventional street motorcycle, whose geometry and ergonomics are similar to the motorcycle simulator at CERTH/HIT. The motorcycle will be instrumented for the kinematics and kinetics study of the vehicle and the rider. The target of the study is the development of active human models for crash safety and the improvement of the simulator’s motorcycle dynamics. The availability of ABS system allows an easier instrumentation of the vehicle, while it gives the possibility of studying the use of the ABS system from riders. The motorcycle has one cylinder, 4 stroke, engine with 125 cm^3 displacement. The engine’s maximum power is 11 kW with 12 Nm of maximum torque. The motorcycle was acquired in the framework of the EC FP7 "ISABELLE" project.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New equipment 2017:

Hardware and embedded systems laboratory

The organization and foundation of a hardware laboratory for the design and development of embedded systems for their use in ITS and C – ITS applications began in 2017. The aim of this laboratory is to enable the Institute to implement new and innovative ideas in real-world electronic devices that can be installed experimentally on vehicles. At the same time, it supports the research in European and Greek projects with the development of custom hardware, aiming at the particularities of each project. The laboratory is already equipped with hardware design software, digital oscilloscope, real time spectrum analyser, rework stations, laboratory power supplies and a variety of electronic parts, making it a functional and productive laboratory. In the near future, it will be further equipped with a PCB (Printed Circuit Board) prototyping plotter, a stencil printer, a reflow oven and an “assembly pick ‘n’ place» machine, as well as a 4-axis CNC (Computer Numerical Control).

HIT Research Projects 2017

During 2017, HIT had 53 active projects. These were mainly research EU projects, GSRT research projects and services. Below are eight of these major projects which have either started in 2017 or were active and completed during the year.

AUTOPILOT
January 2017 - December 2019

SAFESTRIP
May 2017 - April 2020

ITS Observatory
May 2015 - October 2017

Motivate
November 2016 – April 2019

AM4INFRA
September 2016 - August 2018

INTEND
October 2017 - September 2018

Research Study on "Transport and Tourism for Persons with Disabilities and Persons with Reduced Mobility"
July 2017 - February 2018

ODYSSEUS
January 2017 – December 2019

AUTOPILOT

Acronym: AUTOPILOT

Project tile: Automated driving Progressed by Internet Of Things

Duration: 36 months (01/01/2017 - 31/12/2019)

Description:

AUTOPILOT is a H2020 Large-Scale Pilot (LSP) that aims to enable safer and highly automated driving using smart devices and objects connected to the Internet of Things (IoT). It will develop new services on top of IoT to involve autonomous driving vehicles tested, in real conditions, at five large scale pilot sites. Using IoT technologies, AUTOPILOT will drive Automated Driving towards new levels by:

- Enhancing driving environment perception with “IoT enabled” sensors.
- Fostering innovation in automotive, IoT and mobility services.
- Contributing to the development of IoT standardisation and eco-system.
- Using and evaluating advanced V2X connectivity technologies.
- Involving users, public services and business players to assess the IoT socio-economic benefits for mobility.

AUTOPILOT was officially launched on February 6th, 2017 with a public event held in Versailles City Hall, co-organised by VGP, Vedecom, CERTH and ERTICO. The event, hosted by the French Pilot Site in Versailles, allowed the attendees to discover this site in detail, as well as give the possibility for local stakeholders to learn about the AUTOPILOT targets. More than 100 stakeholders attended, representing a variety of Mobility Actors, including public authorities, industry, service providers, users and research institutes.

Within the IoT eco-system, sensors and connected objects will provide data to the IoT platforms that will be integrated in the vehicles and infrastructure. The IoT platform will be designed in such a way so as to ensure it is interoperable, standardised, secure and of open-access. The data exchanged during the communication between vehicles and connected objects will contribute towards the development of automated driving application and new mobility services for fully automated vehicles.

Objectives:

The IoT enabled automated vehicles will be deployed at six pilot tests sites – 5 in EU countries and 1 in S. Korea. Piloting activities will run from June 2018 to June 2019. The pilot sites will generate data to evaluate the technical performance of the Internet of Things to allow safer highly automated driving as well as to assess the socio-economic impacts. All autonomous vehicles participating in the project will be tested in real conditions, allowing multi-criteria evaluations of the IoT impact on pushing the level of autonomous driving. AUTOPILOT consists of five main Use Cases (UCs) which will be tested in the selected pilot sites (table 1).

Further to that, AUTOPILOT builds on advanced business models and services for autonomous driving such as:

AUTOPILOT

	Use Cases	Tampere	Versailles	Livorno	Brainport	Vigo	Daejeon
	Automated Valet Parking	X			X	X	
	Highway Pilot			X	X		
	Platooning		X		X		
	Urban Driving	X	X	X	X	X	X
	Car Sharing		X		X		

- City chauffeur services for tourists.
- Vulnerable Road Users sensing.
- Driverless car rebalancing.
- HD maps for automated driving.
- 6th Sense Driving.
- Automated driving route optimisation.
- Dynamic eHorizon.

CERTH/HIT Role:
Greece is represented through CERTH/HIT which is responsible for the following:

- Coordination of all pilot sites specifications and the corresponding pilot plans.
- Coordination of the business impact assessment for each Pilot Site use cases.
- Coordination of the local pilot events and the scientific project dissemination.
- Development of an innovative IoT platform for the collaborative perception of automated cars and vulnerable road users (pedestrians and cyclists) through the use of IoT connected smart objects for the safe coexistence of all road users in area of the Versailles castle.

AUTOPILOT is coordinated by ERTICO – ITS Europe and encompasses 43 partners from 13 European countries, as well as 1 International (non-EU) partner, representing the IoT and automotive sector, research institutes and universities as well as European organisations.

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Acronym: SAFE STRIP

Project title: SAFE and green Sensor Technologies for self-explaining and forgiving Road Interactive aPplications

Duration: 36 months (01/05/2017 – 30/04/2020)

Description:

SAFE STRIP aims to introduce a breakthrough technology that will achieve to embed C-ITS (Cooperative Intelligent Transport Systems) applications in existing road infrastructure, including novel I2V (Infrastructure to Vehicle) and V2I (Vehicle to Infrastructure), as well as VMS/VSL (Variable Message Signs/ Variable Speed Limits) functions into low-cost, integrated strips markers on the road to make roads self-explanatory (with personalised in-vehicle messages) and forgiving (due to advanced cooperative functions) for all road users (trucks, cars and vulnerable road users, such as PTWs - Powered Two Wheelers riders) and all vehicle generations (non-equipped, C-ITS equipped, autonomous), with reduced maintenance cost, full recyclability and added value services, as well as supporting real-time predictive road maintenance functions.

Objectives:

1. To develop a novel micro/nano sensorial system – called SAFE STRIP – integrated in road pavement tapes/ markers; that will provide advanced safety functions to all road users.
2. To support predictive infrastructure maintenance, through dynamic road embedded sensors input.
3. To make road infrastructure self-explanatory (through personalised info in own language and preferred format) and forgiving (through key I2V/V2I info provided to the cooperative system of the vehicle).
4. To extend this notion to parking depots, key intermodal nodes, such as railway crossings, harbour loading/ uploading areas and logistic depots and –above all – work zone areas.
5. To reduce the infrastructure opera-

Figure 1: Equipped car utilising info provided by SAFE STRIP to enhance its on-board systems reliability.

Figure 2: Non-equipped car with SAFE STRIP UI (smart mobile & communication module)

tional installation and maintenance costs by orders of magnitude, make it nearly energy autonomous and its modules fully recyclable.
6. To provide key info to C-ITS equipped and autonomous vehicles about road, weather and traffic conditions ahead, to support dynamic trajectory estimation and optimisation.
7. To support a wide range of added value services (through "pushed" info to the driver/rider) and facilitate the SAFE STRIP rapid market deployment and sustainability.
8. To evaluate the system in an iterative manner, across 4 evaluation rounds in 3 controlled environments in Valladolid (in Spain) and Milan and Turin (in Italy) and in real life conditions with drivers/riders in two highways (A22 motorway in Italy and Attiki Odos Highway in Greece).

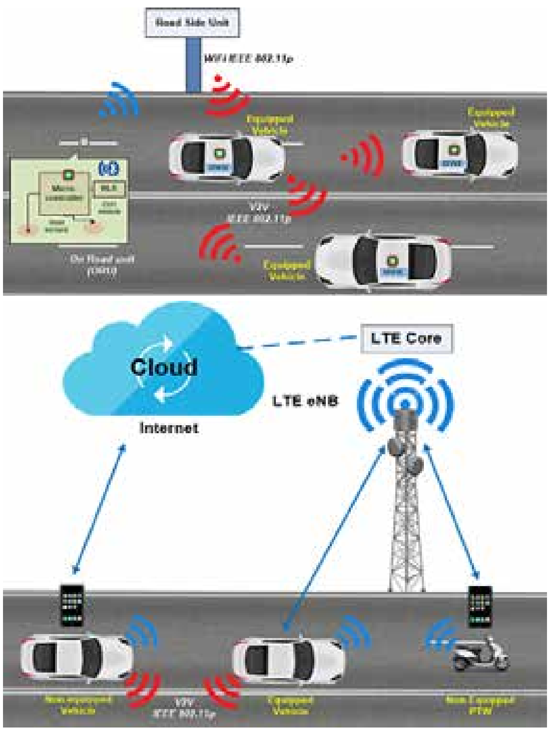

Figure 3: System approach for equipped (top) & non-equipped (bottom) vehicles.

The vast potential of SAFE STRIP will be demonstrated through the following C-ITS applications:
- Virtual Cooperative safety function.
- Enhanced Cooperative safety function.
- Road wear level and predictive road maintenance.
- Rail crossing and road works safety functions.
- Merging and Intersection Support: e2Call.
- Personalised VMS/VDS and Traffic Centre Information.
- Autonomous vehicles support.
- Virtual Toll Collection - for non-autonomous vehicles.
- Parking booking and charging.

CERTH/HIT Role:
- Overall Technical & Innovation Management of the project, key integrator, provider of 2 equipped demonstrators (one passenger car and one PTW) and leader of the Greek test site (ATTIKI ODOS) trials.
- Stakeholders' needs surveys & development of Use Cases.
- C-ITS vehicle modules, Decision Making Algorithms and User trials evaluation framework development.
- Development of cooperative Personalised VMS/VDS and Traffic Centre Information application.

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Acronym: ITS Observatory

Acronym: ITS Observatory

Project title: ITS Observatory

Duration: 30 months (01/05/2015 – 31/10/2017)

Description:

ITS Observatory is a project co-funded by the European Union's HORIZON 2020 program aiming at creating the first Pan-European Intelligent Transport Systems (ITS) Observatory. This new platform (https://itsobservatory.info) is a comprehensive on-line tool that provides easily accessible and comprehensive information on ITS. The main objectives of the Observatory are to bridge the fragmentation of knowledge across Europe, to enhance the proliferation of ITS, to create an effective and user-friendly decision-making tool that supports policy-making and to create a common EU library for projects, research and pilot applications of ITS.

The observatory consists of: 1) an ITS database of projects that have been completed or are in progress, 2) an ITS information registry and 3) a user-friendly search tool for ITS.

The content of ITS Observatory is divided into seven top categories: "Deployed ITS", "Who´s who", "Community", "Product & Services", "News", "Events", and "Resources". The first contains all ITS solutions of relevance deployed across Europe. The second is related to organisations and persons in the European ITS sector and is divided in to two subcategories: Organisations and Members. Community contains a discussion forum with six subcategories: Traveller Information, Traffic Management & Control, Freight & Logistics, Smart Vehicles, Mobility Services, and Public Transport. Product & Services includes ITS tools, software and similar related to ITS. News contain information about new information in it broadest perspective, while Events contains information about past and upcoming events. These are mostly related to various conferences and workshops in the field of ITS. Resources are divided into four subcategories: Policy and legislation, Standards, Publications and Links.

Objectives:

The purpose of ITS Observatory is to bridge existing knowledge gaps in ITS by providing decision makers with a "smart" online platform with access to up-to-date and precise information on ITS implementation, as well as comprehensive information on the results of ITS implementation in order to assist actors in the development and implementation of similar future projects. Therefore, the ITS Observatory offers a reliable and user friendly decision-making tool, in the form of an ever-updated ITS library, and a tool for exchanging views through its on-line community forum.

The ITS Observatory is an interactive tool whose success is based on its support from ITS stakeholders. More specifically, all the information that exists, and will be added in the future, comes directly from its registered users. For this reason, it is important to provide information on developments in ITS sector by the directly involved entities who can easily register at the observatory and record any information (information on ITS projects and products, events related to ITS, regulations on ITS, etc.) they consider should be published. The ITS Observatory is a project co-funded by the European Union's HORIZON 2020 program.

CERTH/HIT role:

HIT as project partner and technical coordinator of the project has undertaken the following actions:

- Coordination of all actions for the development of the Observatory from a technical point of view.
- Coordination of the technical assessment and validation of platform's operations.
- Establishment of a strategy for the effective involvement of relevant stakeholders in the creation and population of the Observatory's content.
- Definition of users' needs.
- Definition of the specifications of the content and system's Architecture.
- Collection and analysis of primary data and information as content of the Observatory.
- Definition of the system's evaluation methodology by users and analysis of the results of the evaluation.
- Dissemination and publicity of the Observatory.

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Acronym: MOTIVATE

Project title: Promoting citizens' active involvement in the development of Sustainable Travel Plans in Med Cities with Seasonal Demand

Duration: 30 months (01/11/2016-31/04/2019)

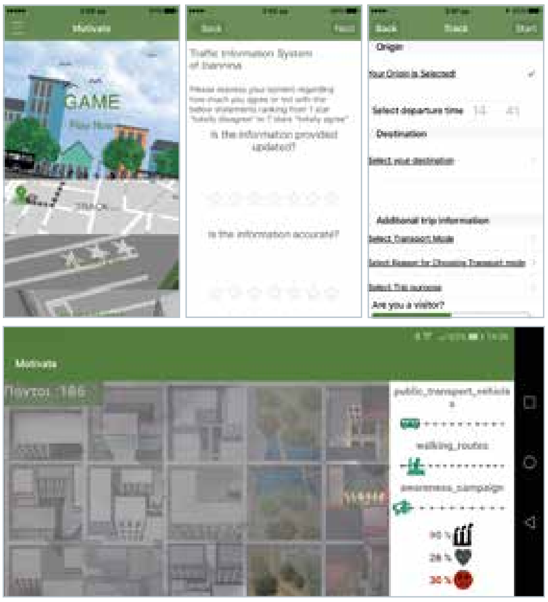
Description:

5 MED cities with intense seasonality, having realized the challenge and need for developing acceptable Sustainable Urban Mobility Plans, join their forces under MOTIVATE project in order to place the traveller at the centre of the planning procedures and of mobility related decision making.

Unlike the traditional data collection methods, where citizens and visitors are "passive" data sources, the innovative approach of MOTIVATE lies in their active involvement in transport data collection/management, problems identification and proposed measures evaluation. MOTIVATE promotes a new model of SUMP development. The new model is based on the exploitation of social media and crowd-sourcing apps. The common model of implementing and applying these techniques that will be created and updated after the pilot testing cases, as well as, the transferring protocol that will be created and will include, processes, techniques and tools to ensure the efficient and consistent way of transferring the projects' results to other cities, will support the SUMP development and enhancement in all the Med area.

The partners' consortium consists of:

- Pilot cities: Almada (Municipality), Rhodes (Municipality), Ioannina (Municipality), Siena (City), Larnaka (Municipality).
- Public Transport Operator: Tiemme Spa.
- Centre for Research and Technology Hellas (CERTH)/Hellenic Institute of Transport (HIT) as scientific technical coordinator.
- MemEx (Technical and evaluation issues) and Aegean Energy Agency.



Moreover, DAFNI (Network of Sustainable Aegean and Ionian Islands) and RODA, the municipal transport company of Rhodes are associated partners.

Objectives:
MOTIVATE's main objective is to go a step further by focusing on the needs of urban areas with high seasonality (seasonal variations in transport demand) and try to align not only residents' but also visitors' needs with policy goals on sustainable and accessible mobility services. MOTIVATE intends to help decision makers to gain a strong understanding of the main mobility problems that residents and tourists face and the most accepted and sustainable interventions, using cost effective ways of data collection and analysis and this will make the development, update and monitoring of SUMP much more targeted and efficient.
Through MOTIVATE platform, the user (citizen/tourist) showcases everyday trips evaluate current transport services and assess future measures, thus provide valuable information to the Competent Authorities for efficient transport planning. For their input, users are rewarded with virtual points they can spend while playing the MOTIVATE game (awareness raising game for experiencing sustainable mobility benefits) or exchange with real gifts from the cities.

CERTH/HIT role:
CERTH/HIT in MOTIVATE:

- Is responsible for the technical management and coordination of the testing activities – it supports pilot cities for successfully undertaking pilot activities and managing risks.
- Develops MOTIVATE platform (http://motivate.imet.gr/) and the respective apps (MOTIVATE app).
- Prepares an analytical report describing methodology, processes, techniques and protocols that are used in order to ensure the broad transferability perspective of the projects.

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AM4INFRA

Acronym: AM4INFRA

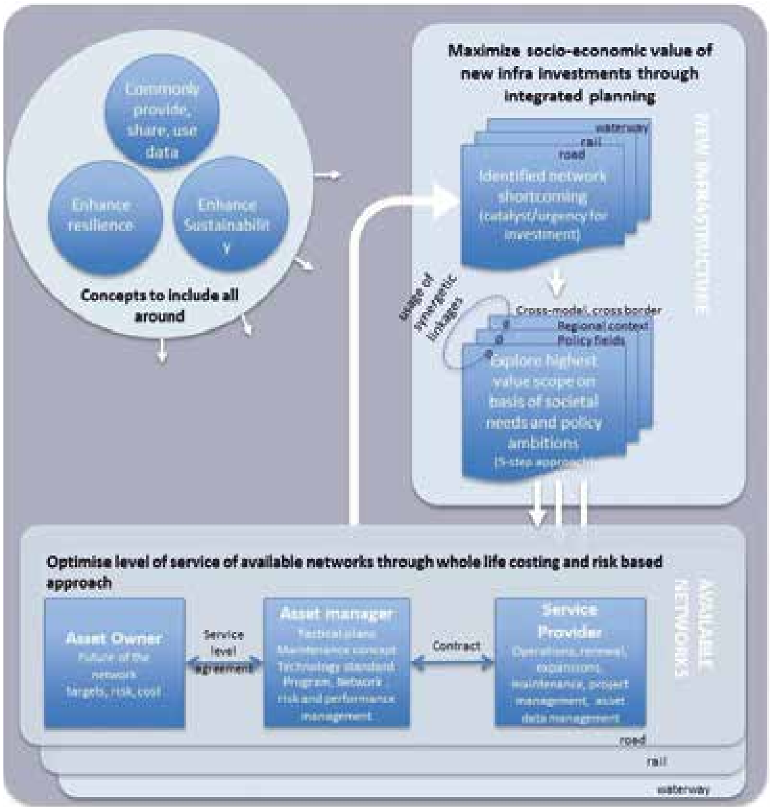
Project tile: Common Framework for a European Life Cycle based Asset Management Approach for transport infrastructure networks

Duration: 24 months (1/9/2016 - 31/8/2018)

Description:

AM4INFRA project is a coordination and support action (CSA) funded by the "HORIZON 2020" programme with the aim to enable transparent, risk-based optimization of investments within and across all modes. The overall objective of the AM4INFRA project is to develop a high-level and comprehensive Asset Management (AM) framework of transportation networks, which allows smooth functioning of the European transport networks, providing outstanding value for stakeholders and customers.

Building on ongoing bottom-up actions, best practices and contemporary experiences of four National Infrastructure Agencies - NIAs (Rijkswaterstaat – Ministry of Infrastructure and the Environment, The Netherlands; ANAS S.p.A. – Italian National Road and Highway Authority, Italy; Highways England – National Traffic Operations Centre, UK; and Transport Infrastructure Ireland – under the aegis of the Department of Transport, Tourism & Sport, Ireland), AM4INFRA aims to provide the first common framework for asset management of transport infrastructure networks in Europe that enables consistent and coherent



AM4INFRA

cross-asset, cross-modal and cross-border decision making.

The first stage of the project has been successfully completed identifying principles and methods to optimize investments and action beyond singular modalities. CERTH/HIT participated actively and supported the development of the high-level and comprehensive AM framework of transportation networks. The proposed framework follows a life cycle and risk based asset management approach for transport infrastructure networks addressing the complexity of decision making that NIAs and Ministries face at a strategic and policy level.

The project's scope is to support the infrastructure authorities in their decision making and planning, identifying the priorities on the basis of cost-performance and service levels. AM4INFRA aims to innovate the decision making by the authorities to the extent that the hinder on traffic is optimised on the basis of transparent, coherent and consistent considerations that can be better communicated to society.

Objectives:

The main objectives and innovations of AM4INFRA are:

- To provide NIAs with insight on how AM practices would support the development of network management strategy, adoption of decision making processes, identification of operational requirements and assessment of how asset knowledge can be utilized.
- To provide NIAs with a common, practical framework for a life cycle and risk based AM approach capable of governance on the highest aggregation level of (cross-modal) network considerations.
- To enable NIAs in acquiring meaningful data, sharing knowledge and good practices to achieve "learning by doing" and continuous improvement of the operations.
- To connect NIAs of different transport modes in terms of AM systems, methodologies and practices (multi-modal management).
- To provide NIAs the means for replication and wider roll-out of the developed solutions.

CERTH/HIT role:

As a partner, CERTH/HIT participates in the following subtasks:

- Identification and classification of principles and methods to optimize investments and action beyond singular modalities.
- Development of a high-level and comprehensive AM framework of transportation networks.
- Design of the Living lab working methods and outcome requirements.

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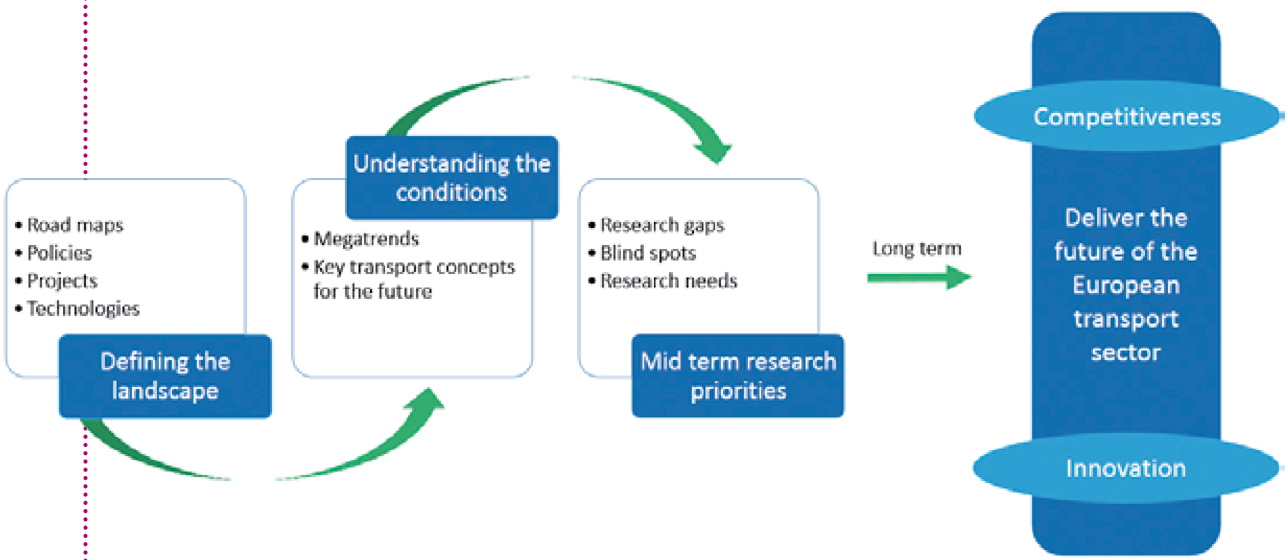
INTEND

Acronym: INTEND

Project title: INtentify future Transport rEsearch NeeDs

Duration: 12 months (01/10/2017-30/09/2018)

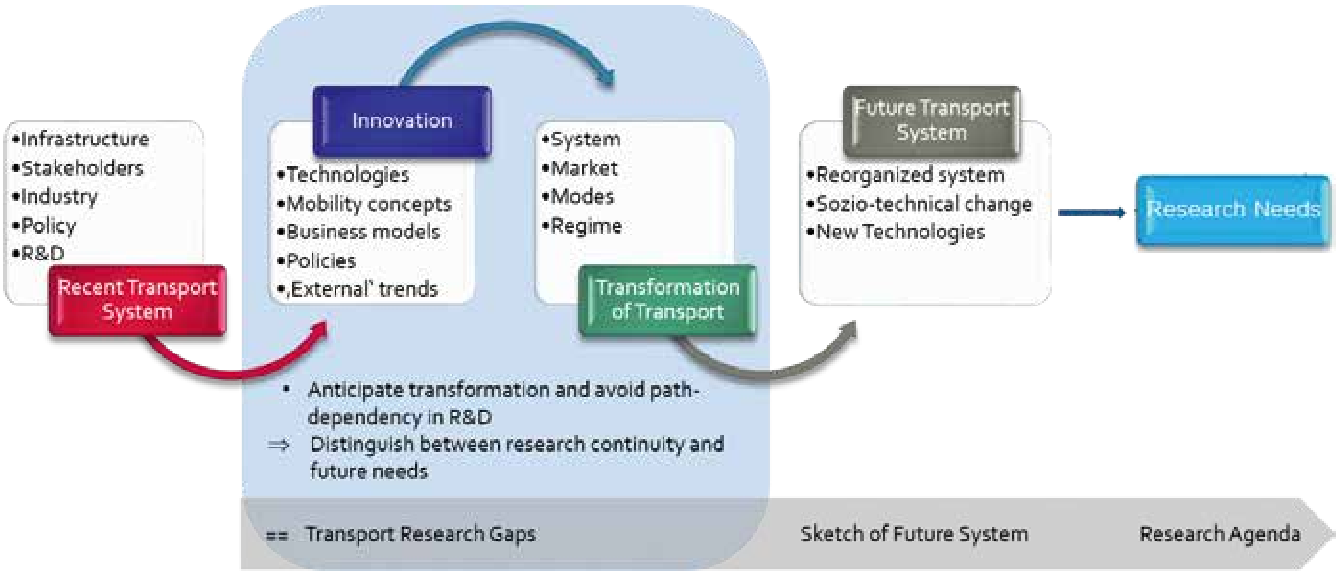
Description:



INTEND is a Coordination and Support Action (CSA) funded by the H2020 programme. The main aim of the project is to deliver an elaborated study of the research needs and priorities in the transport sector utilizing a systematic data collection method. Megatrends that will be affecting the future transport system will be identified using the Analytical Network Process to ensure validity of the results. INTEND will develop a transport agenda that will pave the way to an innovative and competitive European Transport sector.

Objectives:

1. Analysis of the transport research landscape: An identification of the future transport research technologies across the four modes, including infrastructure and transport systems, with an outlook of 2020-2035, by reviewing EU and international research projects, transport technology roadmaps and foresights. Review of mobility concepts through past forward looking research projects and reports and identification of political imperatives that will enable the identified future technologies that will be required by the sector.
2. Definition of megatrends and their impact on research needs: Review of socioeconomic megatrends that will affect the transport sector and impact



assessment on transport research needs.

3. Identification of political imperatives: Review of policy trends that will be required to enable the adaptation of the identified future transport technologies.
4. Identification of the main transport research needs and priorities: A sketch of the future transport system by combining results from the previous stages and a gap analysis of the current EU transport sector. The end result is the development of a transport research agenda in the form of a blueprint on transport research needs, priorities and opportunities.

CERTH/HIT role:

As project partner, CERTH/HIT as undertaken the following tasks:

- Identification of the future transport technologies across the four modes through literature review.
- Identification of future mobility concept through forward looking projects and reports.
- Dissemination of the project's results through social media/ academic papers and the internet.
- Transfer of research data to the website repository and creation of dynamic search engine for EU and International funded technology oriented projects.

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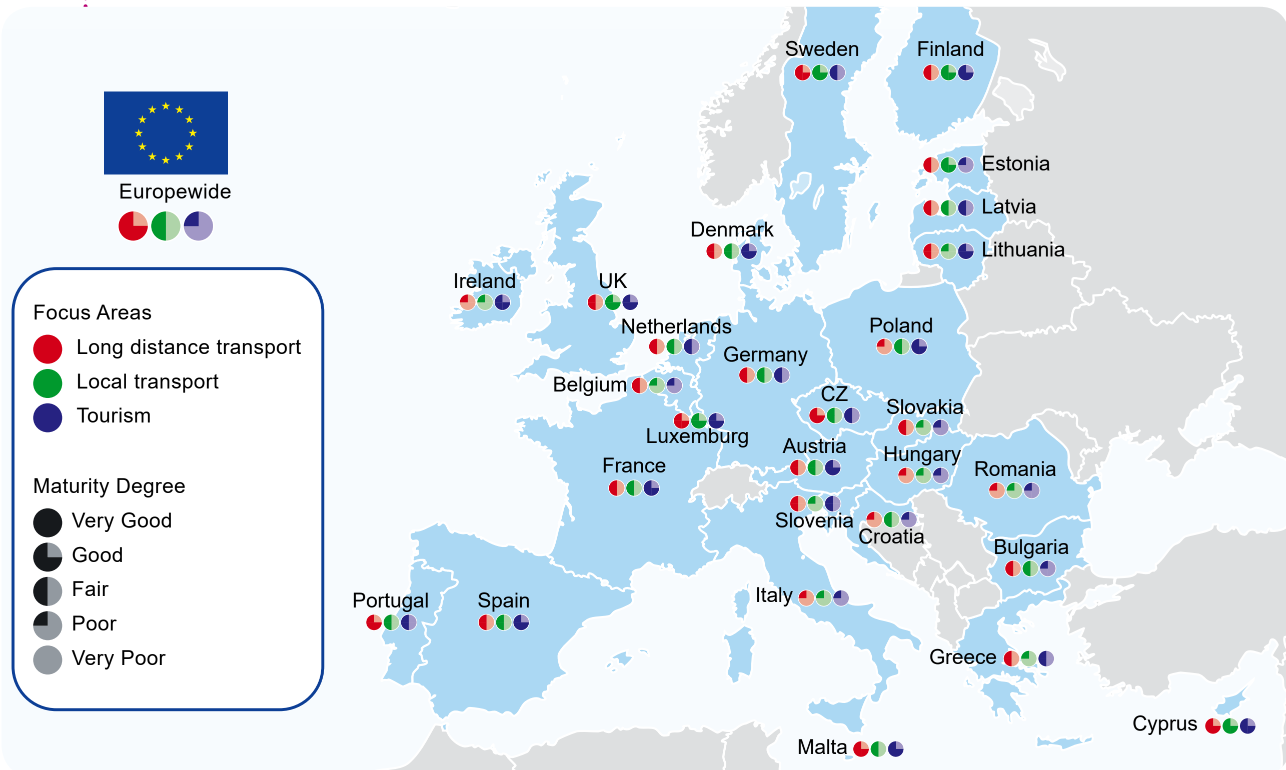
Project title: Research Study on “Transport and Tourism for Persons with Disabilities and Persons with Reduced Mobility”

Duration: 7 months (01/07/2017 - 28/02/2018)

Description:

According to the World Health Organization (WHO), over a billion people live with some form of disability. This means that nearly 15% of the world’s population has very significant difficulties in functioning, while rates of disability are also increasing due to population ageing and the global increase. For most persons with disability or reduced mobility, lack of accessibility in tourism and transport services affects significantly their everyday lives by restricting their options and limiting their opportunities and chances for social inclusion, integration and recreation.

In this context and in view of the European Accessibility Act (EAA) development, this Research Study has been implemented, contracted by the EU Parliament, aiming to describe the state of play of accessibility in EU Member States of both tourist destinations and transport services for persons with disabilities and reduced mobility, as well as the framework of efforts and initiatives for their inclusion into



mainstream transport and tourism activities, based upon the principles of equality and the concept of sustainability of solutions and measures.

Objectives:
The aim of the study is also to provide Members of the European Parliament's Committee on Transport and Tourism (TRAN) with clear recommendations on what could be done, in particular at the EU policy level, to support accessibility in the transport and tourism sectors.
The study has been realised through:

- 97 literature sources analysis.
- 23 experts and 36 user representatives' questionnaire feedback from 16 countries.
- Questionnaire feedback by National Enforcement Bodies from 16 countries.
- 16 user representatives' interviews from 10 countries.
- 15 own experts.
- 3 workshops with 38 participants.
- 72 best practices (35 for Local, 19 for long distance and 16 for tourism) and case studies (5 for each area) from over 17 EU states and other countries (Norway, USA).
- SWOT analysis performed in all 3 sectors (local transport, long-distance transport & tourism).
- MAMCA (multi-criteria analysis) on user needs prioritization.

The main outcomes that have been included in the study and delivered to the European Parliament include:

- Clustering of EU states in "models" according to their local, long distance and tourism accessibility status, legislation and plans.
- Mapping of local, long distance and tourism accessibility across all EU states and the European legislation.
- Recommendations on all three areas for all country clusters.
- EU Policy level recommendations for local transport (4), long-distance transport (5) and tourism (4).
- Research priorities recommendations for local transport (4), long distance transport (3) and tourism (3).

CERTH/HIT role:
CERTH/HIT, which has great expertise in transport accessibility issues, and a strong activity in Research and Development concerning touristic sector and especially accessible tourism (often combining these two areas), has undertaken the organisation and realisation of the study (tenderer), in cooperation with the European Disability Forum (EDF) and the European Network for Accessible Tourism (ENAT), as its sub-contractors.

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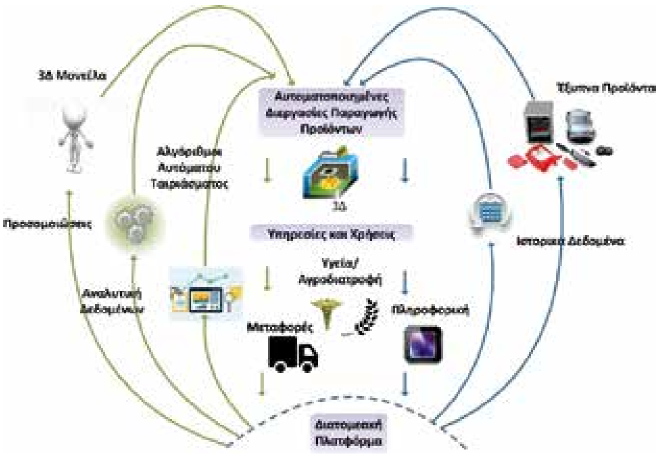
ΟΔΥΣΣΕΑΣ

Acronym: ODYSSEUS

Project Title: Intelligent & Automated systems for enabling the design, simulation and development of integrated processes and products

Duration: 36 months (01/01/2017 - 31/12/2019)

Description:



The project's objective is to realise a modern and digital intelligent automation infrastructure that will be produced by CERTH so as to make the most of the existing know-how and the available infrastructure.

The particular ODYSSEUS infrastructure will work as an intelligent system for the optimum design and development of integrated solutions and automated processes, in order to ensure the smooth transition of the research and production activities of CERTH partners within the new technological framework "Factory of the Future", for the benefits of the centre's collaborators (public sector, enterprises, industry etc.) in Greece and internationally.

The ODYSSEUS infrastrure requires the implementation of automated and intelligent practices to optimise end-products and processes through an innovative feedback and evaluation model that will use data-driven methods of intelligent automation, as well as artificial intelligence techniques. These methods will contribute to efficient experimental redesign, in order to identify the optimum design options for the production of end products and processes according to specifications. Thus, the ODYSSEUS infrastructure is required to broaden the range of supporting applications and existing infrastructure of CERTH's collaborating institutes in the field of intelligent automation and intelligent 3D printing (ITI), bioanalysis and life science applications/applied biosciences (INAB) and Autonomous Electric Vehicles and Transport Management (HIT).

The ultimate purpose of project ODYSSEUS is to create an integrated virtual development chain of all integrated processes and products, their respective production flows and their control, that will be an important part of the knowledge base that will be developed within the project. All produced results will be validated in selected pilot applications in areas such as health (medicine, food, new materials and scaffolds for medical applications, etc.), agrobiotechnology and nutrition (new varieties, development of product identity, special foods), transport (advanced driver assistance systems, autonomous vehicles, supply chain, logistics, new technologies and intelligent transport) and industry (design and evaluation of embedded circuits, etc.)

Objectives:

- The main objectives and innovative aspects of the project are:
- To establish an integrated digital infrastructure for CERTH that will be able to support all stakeholders that wish to successfully transition to the era of digitalization through intelligent and automated processes in all production stages focused on specific applications of CERTH's Institutes.
- To develop an appropriate knowledge base of specific data structure and data-driven processes including models (2D/3D), historic facts and data from existing infrastructure, material characteristics and specifications, samples, etc. for the "intelligent automation" of all production processes.
- To investigate, model and thoroughly evaluate innovative technologies of intelligent process automation and appropriate infrastructure for the rapid design and development of products and processes through the use of intelligent systems simulation, big data analysis, intelligent 3D printing etc.
- To develop innovative technologies of artificial intelligence, evolutionary algorithms and smart decision making tools for the support of all phases (research, design, development, production) of automated production processes.
- To evaluate the efficiency of suggested technologies in selected pilot plants applied in IT, health, agrobiotechnology and nutrition, as well as transport.

CERTH/HIT role:

Within the project's framework, as a Partner HIT has undertaken the following:

- The development of infrastructure to support the simulation and development of integrated, innovative products and services in the vehicle sector.
- The implementation of a laboratory for the digital production and product life cycle management related to the transport sector.
- The completion of supporting electrification infrastructure.
- The creation of a platform that will study L-category, electric autonomous vehicles (light vehicles) modifying the Institute's hybrid motorcycle.
- The development of a platform for the optimum transport and routing of "intelligent goods".
- The application of a scenario for the transport and routing of "intelligent goods"

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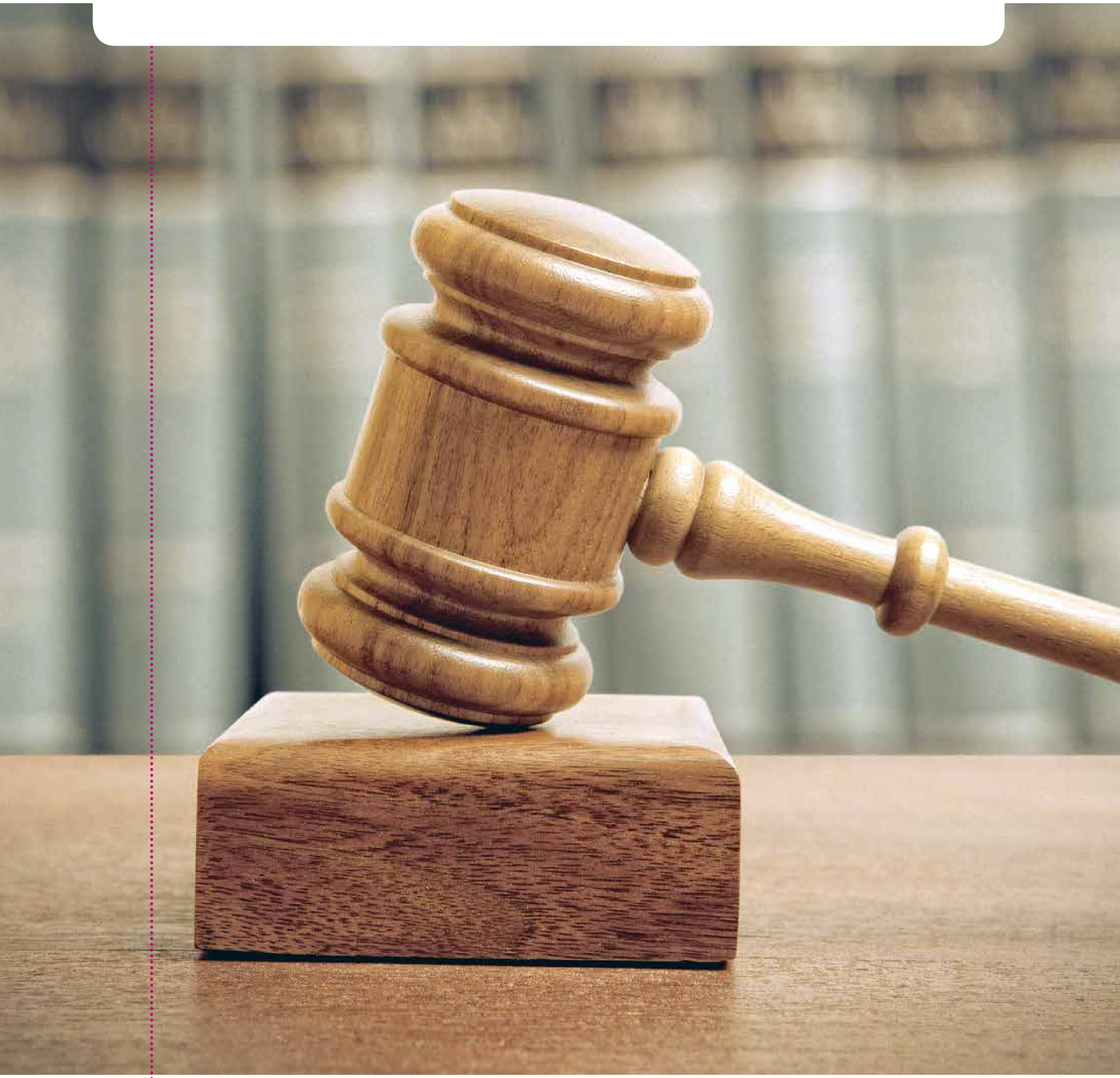
Conferences & Workshops



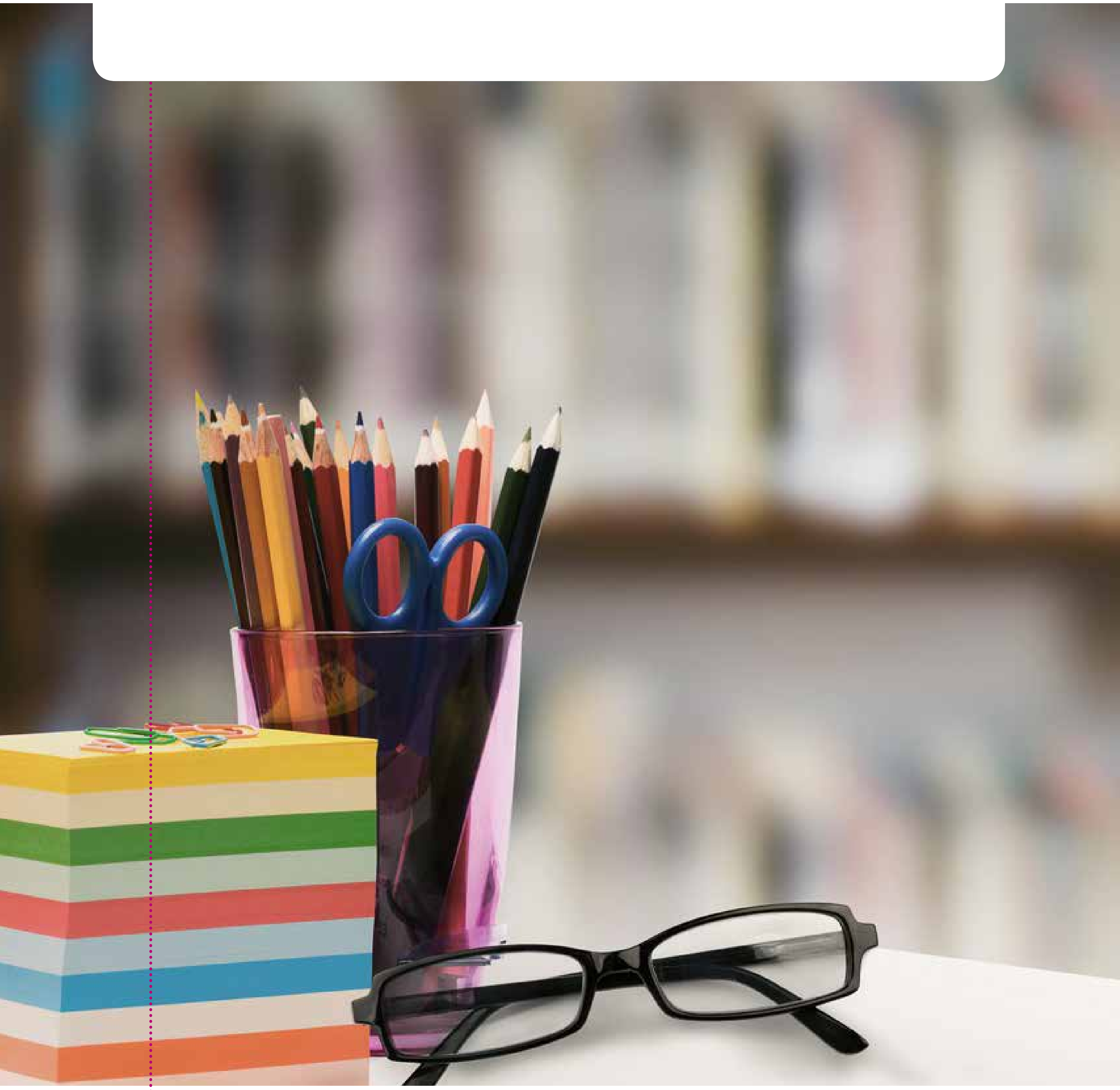
Our activities in 2017 European Mobility Week in Amfissa

CERTH/HIT provides advisory support to the Municipality of Delphi regarding sustainable transport issues. Within this framework of cooperation, CERTH/HIT supported and co-organized a series of events in the Municipality of Delphi within the framework of European Mobility Week from 16/09/2018 to 22/09/2018. CERTH/HIT participated in these events with four representatives (Prof. Maria Boile, Mr. Aggelos Aggelakakis, Dr. Alkiviadis Tromaras and Mrs. Matina Loukea). Specifically, the Mobile Lab for Environmental, Pavement and Traffic Measurements of H.I.T. travelled to Amfissa city and carried out air quality measurements at the city's most central point. The Research Associates of HIT, who are responsible for the Laboratory, informed the public on how the Mobile Lab works and the benefits of sustainable mobility.

Furthermore, H.I.T. participated in two events which took place on 19/09/2017 and 20/09/2017, with the participation of primary and secondary school students in Amfissa, as well as with the special school for disabled students. In these events the representatives of HIT provided information for the European Mobility Week and presented the benefits of sustainable mobility for the children and the society.

On Tuesday, 21/09/2017, Dr. Tromaras participated in the event on the promotion of electric mobility where the benefits of using electric vehicles were presented, while, on Friday, 22/09/2017, Prof. Boile participated in the presentation and discussion of the «Plan for Sustainable Urban Development of Amfissa". This plan had as main target to highlight the Municipality of Delphi's broader strategic planning and its vision for the creation of a Sustainable Municipality, in accordance with the requirements of the European Union.

Educational Activities



Development and Operation of Electronic Driving Academy – "e-Drive Academy"

The e-Drive Academy was a 12-month information technology service, which was realized in the context of European Regional Development Fund, and was co-funded by Greece and E.U.

The contracting authority was the "Information Society S.A.", while the main operator and project owner was the Ministry of Infrastructure, Transport and Networks. HIT was a sub-contractor of the contractor COSMOS Business Systems Commercial and Industrial S.A.

The key objectives of the project were:

- The development of an innovative tele-training platform that will make use of the modern learning interaction techniques.
- The provision of a high-quality interactive training e-content on road safety and mobility, accompanied by user manuals.
- The creation and transfer of knowledge according to the age of the varying trainees' population.

The web portal that has been developed (www.edrive.yme.gov.gr), through the training services it provides, aims at:

- attracting citizens of all ages,
- contributing in the creation of a mature traffic and mobility culture, key aspects of which will be safety and respect to other road users and environment,
- constituting a sustainable learning and awareness portal for all Greek citizens.

The integrated life-long training programme that has been developed, is being supported through electronic books and leaflets, interactive SCORM compliant e-learning multimedia and game-based e-learning. Each of one of the aforementioned tools consists of training and assessment parts, which are adapted to the needs and special characteristics of each trainee cluster.

The training content, all of which has been developed by CERTH/ HIT (both training and assessment parts) has been developed upon three criteria, namely the maximum transfer of knowledge, the trainee age and the current level of their driving experience.

The training sessions, starting from primary and secondary education levels, aim to the provisional and methodical knowledge acquisition on road safety and mobility, contributing to the progressive creation of a safe and ecological driving and mobility culture. In the context of an integrated primary and secondary education on road safety and mobility, complementary manuals for the parents and teachers have also been developed.

Training extends to all driver cohorts, in compliance with the current training framework in driving schools. In specific, training content has been developed for novice drivers, elderly drivers, profes-

sional drivers (bus drivers, truck drivers, taxi drivers and motorcycle delivery drivers), vulnerable road users (pedestrians, elderly pedestrians, persons with disability and reduced mobility, bikers, motorcyclists), as well as for driver trainers. Furthermore, separate horizontal training sessions have been developed on Economic/ Ecological Driving and Defensive Driving topics.

E-Drive academy was completed in 2015, with the content having been delivered to the contractor and has been received by the Ministry of Infrastructure, Transport and Networks.

The «e-Drive Academy» educational platform is available at: edrive.yme.gov.gr, where one can be informed about its operation.

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Promotion and dissemination of HIT activities through the media

In the context of HIT outwardness, a coordinated dissemination of multiple activities taking place at HIT was realized through the media, aiming at public awareness relating to technological achievements, research results and scientific work of HIT, as well as future perspectives in the field of Transport.

A comprehensive special supplement to HIT activities was included in "VIMA Science" in the Newspaper "TO VIMA tis Kiriakis", on Sunday, November the 10th, 2017, with special reference to the activities, the scientific work, as well as the personnel, the present and the future in transportation, maritime transport, tourism and accessibility for people with disabilities and reduced mobility. As mentioned in the newspaper, "Thessaloniki has been a smart city concerning transport, due to the significant contribution of the work taking place at HIT".

Furthermore, the promotion and dissemination of HIT and its activities, was realized by means of other newspapers (Ethnos, Makedonia, Dimokratia, and others), TV and radio stations, as well as online channels and websites, as mentioned below.

HIT was also characterized by a remarkable presence in social media network, namely in Facebook, Twitter and Instagram, with the OPENDAY facebook page having 167 followers, ICTR facebook page 136 followers, and HIT facebook page 217 followers. Moreover, HIT website had 13,154 users in 2017 (12,972 new users) and 47,929 page views.

More than 50,000 users were attracted by HIT pages in social media network, in 2017, while 4,000 users were interested and informed about its important activities.

Web page		Followers	Post Number	Total views	Total reactions to posts		
					Page visits	Reactions	Shares
CERTH	Facebook	217	43	9494	830	250	20
ICTR	Facebook	136	29	13620	1787	450	66
Open Day	Facebook	167	19	7091	1249	268	29
CERTH	Youtube	3	19	437	N/A	N/A	N/A
CERTH	Twitter	59	40	12316	94	13	6
ICTR	Twitter	21	15	7338	82	10	14

ΤΟ ΒΗΜΑ ΤΗΣ ΚΥΡΙΑΚΗΣ

Κυριακή 10 Δεκέμβριος 2017

Στη Θεσσαλονίκη σχεδιάζεται το μέλλον της αυτοκίνησης

Οι επιστήμονες του ΙΜΕΤ δημιουργούν αυτόνομα οχήματα για τις πόλεις τού αύριο

Και όμως, θα κινούνται χωρίς εμάς για εμάς

Ο καθένας και το αυτοκίνητό του

HIT Director's, Dr Evangelos Bekiaris, media presence in the context of promotion and dissemination of the Institute activities

Articles

ICTR 2017

- "8th International Conference of CERTH/ HIT - Autonomous, electric and ... shared car of the future", article at the site "Metaforespress.gr", 25/09/2017.
- "8th International Conference of CERTH/ HIT - Autonomous, electric and ... shared car of the future", article at the site "Taxalia.blogspot.gr", 25/09/2017.
- "Autonomous, electric and ... shared car of the future", article at the site "typosthes.gr", 25/09/2017.
- "The car of the future at the 8th International Conference of CERTH/ HIT – A Vision for 2030", article at the site "antenna975.blogspot.gr", 20/09/2017.
- "The car of the future at the 8th International Conference of CERTH/ HIT", article at the site "thessbomb.gr", 20/09/2017.
- "The car of the future at the 8th International Conference of CERTH/ HIT", article at the site "newx.gr", 20/09/2017.
- "The Car of Next Day", article at the site "Protothema.gr", 20/09/2017.
- "The car of the future will be autonomous and electric", article at the site "vardaris-post.gr", 20/09/2017.
- "The car of the future at the 8th International Conference of CERTH/ HIT", article at the site "κa-business.gr", 20/09/2017.
- "Autonomous, electric and ... shared car of the future", article at the site "1κi1news.gr", 20/09/2017.
- "Smart and ... shared the car of the future!", article at the site "Karfitsa.gr", 19/09/2017.
- "Autonomous, Electric and .... Shared car of the future", article at the site "Press724.gr", 19/09/2017.
- "CERTH/ HIT: 8th International Conference – The Future of Transport", article at the site "Voreini.gr", 19/09/2017.
- "CERTH/ HIT 8th International Conference for the Car of the Future", article at the site "Thousandnews.gr", 19/09/2017.
- "CERTH/HIT: 8th International Conference for the future of Transport", article at the site "Sportandbusiness.gr", 19/09/2017.
- "A Vision for 2030: Autonomous, electric and shared the car of the future", article at the site "Anixneuseis.gr", 20/09/2017.

Open Day 2017

- “Young and Adult “Explorers” at the CERTH/HIT Open Day”, article at the site “mysalonica.gr”, 08/11/2017.
- “CERTH/HIT Open Day - Intense interest in the profession of researcher”, article at the site “typologos.com”, 07/11/2017.
- “Intense interest in the profession of researcher”, article at the site “thessbomb.blogspot.gr”, 07/11/2017.
- “Intense interest in the profession of researcher - Future Interests in Transport”, article at the site “Thousandnews.gr”, 07/11/2017.
- “Young and Adult “Explorers” at the CERTH/HIT Open Day”, article at the site “palo.gr”, 07/11/2017.
- “CERTH/HIT: Intense interest in the profession of researcher”, article at the site “sofokleousin.gr”, 07/11/2017.
- “Thessaloniki: Open Day is established for CERTH/HIT”, article at the site “typosthes.gr”, 07/11/2017.
- “Intense interest in the CERTH/ HIT Open Day”, article at the site “newx.gr”, 07/11/2017.
- “Young and Adult “Explorers” at the CERTH/HIT Open Day”, article at the site “Voria.gr”, 07/11/2017.
- “CERTH/HIT opens its gates to the public”, article at the site “vimapress.gr”, 01/11/2017.
- “Thessaloniki: A leading player opens his doors to the public”, article at the site “typosthes.gr”, 01/11/2017.

V.I.P. Tour

- “CERTH/HIT in front of the citizens and the future”, article at the site “thessbomb.gr”, 31/10/2017.
- “The latest technology in transport and the success of CERTH/HIT. Presentation of an important project in Thermi”, article at the site “thessniki.gr”, 31/10/2017.
- “CERTH/HIT in front of the citizens and the future”, article at the site “Voreini.gr”, 31/10/2017.
- “Extroversion is necessary to get out of the crisis”, article at the site “Thestival.gr”, 31/10/2017.
- “CERTH/HIT in front of the citizens and the future”, article at the site “Karfitsa.gr”, 31/10/2017.
- “CERTH/HIT: Electrification, smart port, up to course in primary school”, article at the site “Voria.gr”, 31/10/2017.
- “CERTH/HIT: Electrification, smart port, up to course in primary school”, article at the site “greenagenda.gr”, 31/10/2017.
- “CERTH/HIT in front of the citizens and the future”, article at the site “typologos.com”, 31/10/2017.
- “The Hellenic Institute of Transport opens its doors to the public”, article at the site “newx.gr”, 01/11/2017.
- “CERTH/HIT in front of the citizens and the future – Open Day at 5 of November 2017”, article at the site “avatonpress.gr”, 01/11/2017.

- “Thessaloniki: They built a car that understands even if the driver has suicidal tendencies”, article at the site “citoday.eu”, 01/11/2017.
- “CERTH/HIT in front of the citizens and the future – Open Day at 5 of November 2017”, article at the site “Press724.gr”, 01/11/2017.
- “Thessaloniki: They built a car that understands even if the driver has suicidal tendencies”, article at the site “onvolos.gr”, 01/11/2017.
- “CERTH/HIT in front of the citizens and the future”, article at the site “cityportal.gr”, 01/11/2017.
- “CERTH/HIT in front of the citizens and the future”, article at the site “antenna975.blogspot.gr”, 02/11/2017.
- “Actions and Programs of CERTH/ HIT”, article at the site “rthess.gr”, 31/10/2017.
- “The Hellenic Institute of Transport opens its doors to the public”, article at the site “Thessalonikipress.gr”, 31/10/2017.
- “Open Day on Sunday 5th November”, article at the site “myportal.gr”, 31/10/2017.
- “Open Day at the Hellenic Institute of Transport in Thermi”, article at the site “politismika.gr”, 31/10/2017.
- “Thessaloniki: They built a car that understands even if the driver has suicidal tendencies”, article at the site “zougla.gr”, 31/10/2017.

CERTH/HIT in general

- “How ready is the insurance market for the “communal” car?”, article at the site “nextdeal.gr”, 07/11/2017.
- “Thessaloniki: Pioneering applications that will change traffic data were presented to CERTH/HIT”, interview at the site “Thousandnews.gr”, 31/10/2017.

Research centers of excellence

- “Research centers of excellence for shipping, transport and tourism in Piraeus, Rhodes, Volos”, article at the site “pireasnews.gr”, 02/11/2017.
- “Center for Maritime Travel and Tourism Excellence in Rhodes”, article at the site “holidaynews.gr”, 02/11/2017.
- “CERTH/HIT creates three Centers of Excellence In Piraeus, Rhodes And Volos”, article at the site “analitis.gr”, 01/11/2017.
- “CERTH/ HIT creates three centers of excellence set in Piraeus, Rhodes and Volos”, article at the site “peiraiko-kyma.gr”, 31/10/2017.
- “CERTH/ HIT creates three centers of excellence set in Piraeus, Rhodes and Volos”, article at the site “Athenian - Macedonian News Agency”, 31/10/2017.
- “CERTH/HIT: New Research Centers of Excellence in Piraeus, Rhodes and Volos - “Open Day” on Sunday 5th November for the public of all ages”, article at the site “thesseconomy.gr”, 31/10/2017.
- “Research center of excellence for shipping, transport and tourism by CERTH, University of Piraeus and Technological Education Institute of Piraeus”, article at the site “www.energia.gr”, 25/7/2017.
- “The Cooperation Agreement” was signed for the Promotion of Piraeus”, article at the site “Parapolitika.gr”, 20/07/2017.

- "Partnership Agreement for the International Promotion of Piraeus as a Destination", article at the site "Tovima.gr", 20/07/2017.
- "Partnership Agreement between Municipality of Piraeus and CERTH/ HIT", article at the site "Portnet.gr", 20/07/2017.
- "Cooperation of the Municipality of Piraeus with CERTH/ HIT for new development actions", article at the site "Dimos.gr", 20/07/2017.
- "Research centers of excellence for shipping, transport and tourism in Piraeus, Rhodes, Volos", article at the site "Metaforespress.gr", 01/11/2017.

Sustainable mobility week

- "European Mobility Week, All Year Long", article at the site "Press724.gr", 26/09/2017.
- "European Mobility Week, All Year Long", article at the site "thessbomb.gr", 22/09/2017.
- "European Mobility Week, All Year Long", article at the site "newx.gr", 22/09/2017.
- "European Mobility Week, All Year Long", article at the site "Karfitsa.gr", 22/09/2017.
- "European Mobility Week, All Year Long", article at the site "1ki1news.gr", 22/09/2017.
- "European Mobility Week, All Year Long", article at the site "Voreini.gr", 22/09/2017.

Interviews – Television

ICTR 2017

- "CERTH/HIT: International Conference on the Future of Transport", tribute at "Vergina TV", 04/10/2017.
- Interview at the "TV100" for the 8th International Congress on Transportation Research (ICTR 2017), 24/08/2017.

Open Day 2017

- "The Future of Transport is Here!", tribute at Atlas TV, 05/11/2017

V.I.P. Tour

- CERTH/HIT Press Conference at the Athenian - Macedonian News Agency, 31/10/2017

E-Drive Academy

- Interview at the "TV100" for the eDrive Academy Platform, 24/03/2017.
- Interview at the 2-hour informative morning show "10 stin Enimerosi" of the "ERT1" TV Channel (National Channel of Greece), regarding the e-Drive Academy, 23/05/2017. (Journalists: Christos Pagonis and Vangelis Papadimitriou).

CERTH/HIT in general

- "The Future of Motorised Transport in Practice", tribute at "EpsilonTV", 06/11/2017.
- Interview at the "Europe 1" Channel for the Safety Driving System of CERTH/HIT, 17/03/2017.
- Interview at the "TV100", presenting the work of CERTH/ HIT, 02/01/2017.

Interviews – Radio

ICTR 2017

- Interview for the ICTR Conference at "FM100", 02/09/2017.
- Interview at "Athina.984 FM" for the "Autonomous, electric and … shared car of tomorrow", 24/09/2017.
- Interview at "102 FM" for the future of transportation and for ICTR 2017, 27/09/2017.

Open Day 2017

- Interview for the OpenDay 2017 at "Radio Thessaloniki", 07/11/2017.

Interviews/ articles – Printed Press

ICTR 2017

- "First target: Safety", interview at the newspaper "The Journal of Editors", 27/10/2017.
- Special supplement to HIT activities, included in "VIMA Science" in the Newspaper "TO VIMA tis Kiriakis", 10/12/2017.
- "Self-driving electric. Important announcement in congress, in Thermi", article in the newspaper "Dimokratia", 21/9/2017.
- "Autonomous, Electric and Shared the Car of Tomorrow", interview at the newspaper "Makedonia", 29/9/2017.

Open Day 2017

- Open Day promotion in the newspaper "Ethnos", 3/11/2017.

Interviews – Online channels and websites

ICTR 2017

- "CERTH/ HIT: International Conference on the Future of Transport", interview at the show "Talemetv" of the online channel (YouTube), 04/10/2017.

V.I.P. Tour

- Interview at the site "Thousandnews.gr" presenting the "smart vehicles" at the premises of CERTH/HIT in Thessaloniki, 31/10/2017.
- "Extroversion is necessary for exiting crisis", interview at the site "wepost.gr", 31/10/2017.
- "Extroversion is necessary for exiting crisis", interview in the website "inews.gr", 31/10/2017.

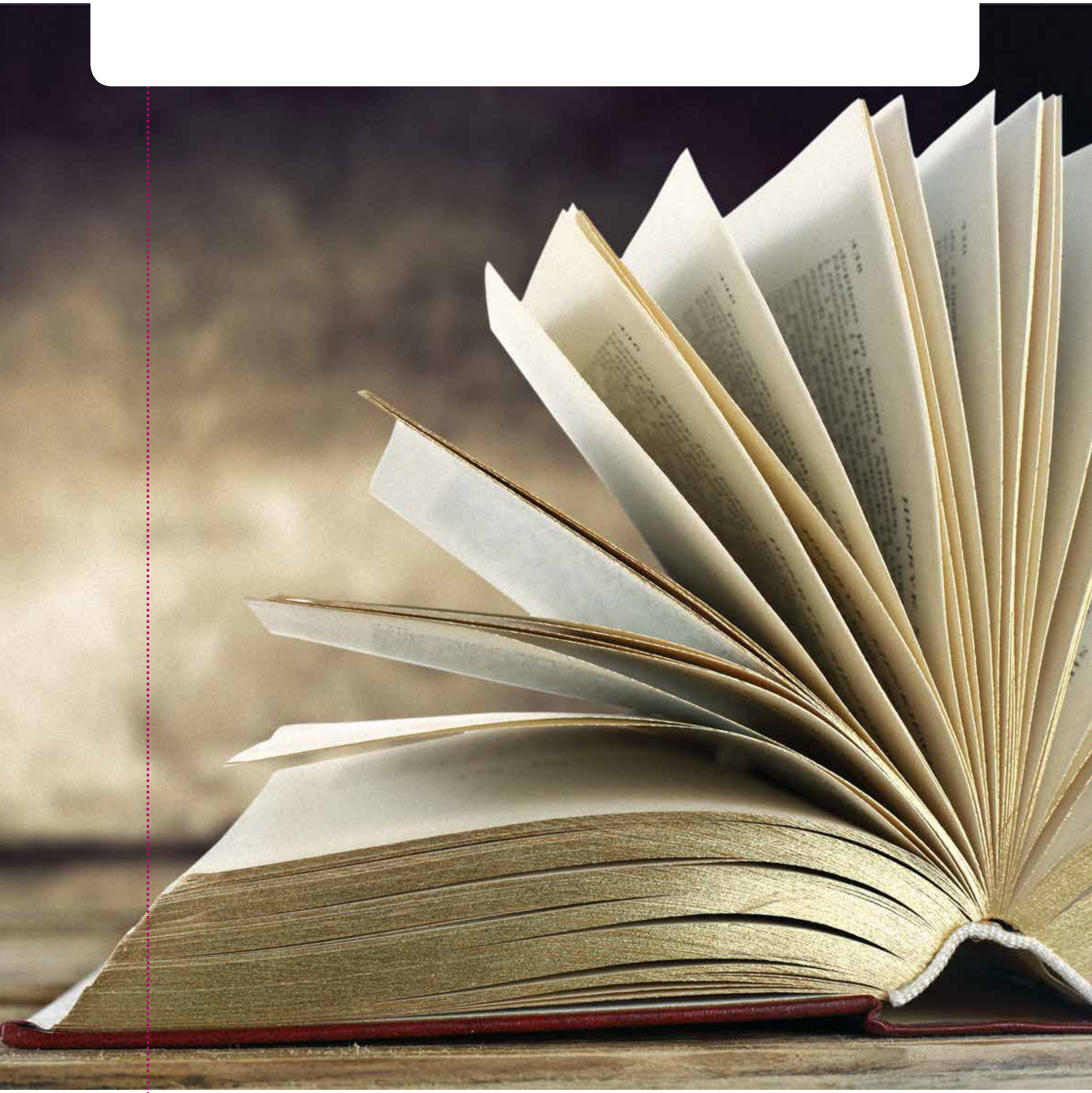
E-Drive Academy

- "Electronic Books concerning Road Safety are waiting for the… Ministry of Education", participation at the show "Talemetv" of the online channel (YouTube), 29/03/2017.

CERTH/HIT in general

- Interview at the show "Talemetv" of the online channel (YouTube), presenting the work of the Hellenic Institute of Transport, 05/10/2017. Journalist: Mrs. Christina Tzorba

Scientific Publications 2017



Books / Book Chapters

- Anagnostopoulou A., Sdoukopoulos, E., and Boile, M. (2017). Sustainable urban logistics for efficient and environmentally friendly port-cities in Soares, C. G., and Teixeira, A. P. (Eds) Developments in Maritime Transportation and Harvesting of Sea Resources (2-Volume set): IMAM 2017, CRC Press - Taylor & Francis Group, vol. 1, pp. 625 – 632.
- Salanova J. M., Maciejewski M., Bischoff J., Estrada M., Tzenos P., Stamos I. (2017). Use of probe data generated by taxis. Big Data for regional science. Routledge Advances in Regional Economics, Science and Policy. Taylor & Francis Group. [ISBN 1138282189, 9781138282186].

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- Anagnostopoulou, A., & Poulou, M. (2017). Sustainable Urban Freight Distribution: The Case of Piraeus Port-City Sustainable Urban Freight Distribution: The Case of Piraeus Port-City. Landscape Architecture and Regional Planning. Vol. 2, No. 4, 2017, pp. 110-116.
- Chalkia, E., Bekiaris, E., Madrid, I.L. (2017). How Do Needs and Preferences of a User, Match the Settings of the Interfaces They Use. In: Soares M., Falcão C., Ahram T. (eds) Advances in Ergonomics Modeling, Usability & Special Populations. Advances in Intelligent Systems and Computing, vol 486. Springer, Cham.
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- Aggelakakis, A., Papargyri, E., Ligkas, I., Laios, P. (2017). A microscopic traffic simulation study at Amfissa city, 8th International Congress on Transportation Research: The Future of Transportation: A Vision for 2030, Thessaloniki, Greece, 27 – 29 September.
- Aifandopoulou, G., Salanova, J. M., Tzenos, P., Bratsas, Ch., Koupidis, K. , Chatzopoulou, A., Selmi, L., Papadopoulos, Ch. (2017). Traffic patterns recognition through Big Data and Machine learning: case study in Thessaloniki. 1st International Workshop on Knowledge Discovery from Mobility and Transportation System KNOWme. European Conference on Machine Learning and Principles and Practice of Knowledge Discovery (PKDD). Skopje, FYROM. 18-22/09/2017.
- Anagnostopoulou, A., Aggelakakis, A., Boile, M., Hijdra, A. (2017). Building resilience and broad optimization of transportation networks, Proceedings of the 8th International Congress on Transport Research, 27th - 29th September, Thessaloniki, Greece.
- Anagnostopoulou, A. (2017). Corporate sustainability in freight transport based on European Commission strategy, Proceedings of the 5th QUAESTI Scientific Virtual Conference - Multidisciplinary Studies and Approaches, 9th – 16th December.
- Bekiaris, E., Nikolaou, S., Anund, A. (2017). Driver state monitoring in automation; developing adaptive ADAS to support safe transitions under automation. In the 8th International Conference on Applied Human Factors and Ergonomics (AHFE 2017), 17-21 July 2017, Los Angeles, USA.
- Bekiaris, E., Nikolaou, S., Touliou, K., Anund, A., Dukic-Willstrand, T. (2017-In Press). Driver state monitoring Use Cases and scenarios in automated driving. Proceedings of the 8th International Conference on Transportation Research – ICTR 2017, September 27-29, 2017, Thessaloniki, Greece.
- Cabrera-Umpierrez, M. F., Panou, M., Bekiaris, E. (2017). Towards Smart Environments to Sustain Health and Well Being of Silver Generation: Large-Scale Multi-Country Pilots. IEEE International Conference on Biomedical and Health Informatics, 16-19 February, Orlando, USA.

- Chalkia E., Mueller B., L'Hostis A. (2017). The role of societal resistance in transportation innovation. ICTR conference, 27-29 September, Thessaloniki, Greece.
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- Gaitanidou, E., Bellini, E., Bekiaris, E. (2017). "European Resilience Management Guidelines for Critical Infrastructure operationalised for the Urban Transport System", ICTR 2017, Thessaloniki, Greece, September 2017 (journal publication pending).
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- Gkemou, M., Palacin, R., Bekiaris, E., Kehagias, D., Tzovaras, D., Mizaras, V., Larios, Y. (2017). Mobility as a Service" (MaaS) in a multimodal European cross-border corridor. In the 8th International Congress on Transportation Research (ICTR 2017), 27-29 September 2017, Thessaloniki, Greece.
- Hennemann, S., Salanova, J. M., Huther, P., Tzenos, P., Aifandopoulou, G. (2017). Impact assessment of cooperative services for freight transport. 12th ITS European Congress, Strasbourg, France, 19-22 June 2017.
- Huppunen, T. Heinemann, G., Aifadopoulou, A. (2017). "Optimizing the operation of the 100% electric E-Ferry through the use of on board charging information" International Congress on Transportation Research in Greece (ICTR), Thessaloniki, Greece, September, 2017.
- Iordanopoulos, P., Chrysostomou, K., Mitsakis, E., Morfoulaki, M., Aifadopoulou, G. (2017). "Awareness and Attitudes of Greek Consumers towards Electric Vehicles", International Conference Smart Cities & Mobility as a Service, 07-08 December 2017, Patras, Greece.

- Iordanopoulos, P., Chrysostomou, K., Karkalakos, S. (2017). “Environmentally Friendly Routing: Assessment of Drivers’ Perception and Response”, International Panel Data Conference (IPDC 2017), July 7-8, 2017, University of Macedonia, Thessaloniki, Greece.
- Iordanopoulos, P., Mitsakis, E., Ayfantopoulou, G. (2017). ITS Observatory: an ITS on-line repository, 8th International Congress on Transport Research 2017, Thessaloniki, Greece.
- Katsouri, I., Athanasiadis, L., Bekiaris, E., Tsolaki, M. (2017). Occupational Therapy in Dementia. In the 10th Panhellenic Conference on Alzheimer’s Disease and Related Disorders and 2nd Mediterranean Conference on Neurodegenerative Diseases, 2-5 February 2017. Thessaloniki, Greece.
- Katsouri, I., Athanasiadis, L., Bekiaris, E., Tsolaki, M. (2017). Driving habits in professional drivers with dementia. In the 10th Panhellenic Conference on Alzheimer’s Disease and Related Disorders and 2nd Mediterranean Conference on Neurodegenerative Diseases, 2-5 February 2017. Thessaloniki, Greece.
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- Kotoula, K.M., Morfoulaki, M., Aifadopoulou, G., Tzenos, P. (2017). Calculating the optimal school bus routing and its impact on safety and environment protection, Transportation Research Board 96th Annual Meeting TRB2017, 8-12 January.
- Kotoula, K.M., Salanova Grau, J.M., Mitsakis, E., Min8tsis, E. (2017). User acceptance of C-ITS speed advice service in Thessaloniki, 8th International Congress on Transportation Research in Greece, 27-29 September, Thessaloniki, Greece.
- Kotoula, K.M., Botzoris, G., Aifadopoulou, G., Morfoulaki, M. (2017). School Transportation- Identifying and analyzing influencing factors affecting mode choice, 8th International Congress on Transportation Research in Greece, 27-29 September, Thessaloniki, Greece.
- Kortsari, A., Aifadopoulou, G. (2017). “Achieving sustainability in transport through the novelties of the 100% electrically powered ferry”. 4th International Conference on Energy, Sustainability and Climate Change, 12-14 June, 2017, Santorini, Greece.
- Loukea, M., Bekiaris, E., Adesiyun, A., Goger, T. (2017). Identification of skills and competences needs for the professionals of the future transportation sector - The SKILLFUL Project. In the 8th International Congress on Transportation Research in Greece -Transportation by 2030: Trends and Perspectives, 27-29 September 2017, Thessaloniki, Greece.

- Loukea, M., Bekiaris, E., Meyer, G., Stagl, S. (2017). Towards a Single and Innovative European Transport System – Identification of Best Practices from Countries outside Europe. In the 8th International Congress on Transportation Research (ICTR 2017), 27-29 September 2017, Thessaloniki, Greece.
- Loukea, M., Panou, M., Bekiaris, E., Ambrose, I. (2017). Needs, Trends and Best Practices of Accessible Tourism across Europe. International Conference «Tourism: Trends, Prospects and Implications for Enterprises and Destinations", 19-21 October 2017, Santorini, Greece.
- Mamarikas, S., Stamos, I., Salanova Grau, J. M., Mitsakis, E., Aifadopoulou, G. (2017). "The contribution of traffic signals adjustments and coordination inmitigating CO2 emissions at urban arterials", Transportation Research Board 96th Annual Meeting, 8-12 January, 2017, Washington, USA.
- Margaritis, D., Pasadakis, A., Lambropoulou, L. (2017). "Correlation of air quality measurements from mobile and stationary monitoring stations". 6th Macedonian Conference on Environment, Thessaloniki, 2017.
- Margaritis, D., Lambropoulou, L. (2017). "Parameters that affect air quality in vehicle cabin". 6th Macedonian Conference on Environment, Thessaloniki, Greece.
- Mintsis, E., Vlahogianni, E., Mitsakis, E. (2017). Evaluation of a Cooperative Speed Advice Service Implemented Along an Urban Arterial Corridor, IEEE International Conference on Models and Technologies for Intelligent Transportation Systems MT-ITS 2017, Naples, Italy.
- Mintsis, E., Vlahogianni, E. I., Salanova, J. M. (2017). Modelling and Evaluation of Driver's Compliance to Speed Advice in a Cooperative Intelligent Transport Systems Environment. ICCV 2017: 19th International Conference on Connected Vehicles. Zurich, Switzerland. January 13 - 14, 2017
- Mitsakis, E., Iordanopoulos, P., Tzanidaki, J.D., Blom, G., van Velthoven, Y., Kotilainen, I., Coconea, L. (2017). Best Practices on Traffic Management 2.0, ITS Europe Congress 2017, Strasbourg, France.
- Mitsakis, E., Stamos, I., Anastasiadou, K., Kaundinya, I., Kammerer, H. (2017). A matrix-based approach for assessing the criticality, exposure and vulnerability of transport infrastructure, 8th International Congress on Transport Research 2017, Thessaloniki, Greece.
- Mitsakis, E., Chalkiadakis, C., Mizaras, V. (2017). Ageing Population Requirements for Mobility Services, Smart Cities and Mobility as a Service Conference 2017, Patras, Greece.
- Mitsakis, E., Mizaras, V. (2017). Next generation of Cooperative Intelligent Transport Systems, Smart Cities and Mobility as a Service Conference 2017, Patras, Greece.
- Mitsakis, E., Kotsi, A. (2017). Costs and benefits of bundled C-ITS services. The C-MobILE approach, Smart Cities and Mobility as a Service Conference 2017,

Patras, Greece.

- Panou, M., Touliou, K., Dimokas, N., Kalogirou, K., Bekiaris, E. (2017). A tool for assessing elderly drivers with MCI, 15th International Conference on Systems Theory and Scientific Computation (ISTASC '17), Corfu Island, Greece, August 24-26, 2017.
- Panou, M. (2017). Intelligent personalized ADAS warnings. 8th International Congress on Transportation Research, 27-29 September 2017, Thessaloniki, Greece.
- Panou, M., Touliou, K., Bekiaris, E. (2017). Evaluations of innovative modules for driving simulators. 8th International Congress on Transportation Research, 27-29 September 2017, Thessaloniki, Greece.
- Salanova Grau, J. M., Stamos I., Mitsakis, E., Margaritis, D., Tzenos, P., Aifadopoulou, G. (2017). "Estimation of traffic flow from Bluetooth detections", Transportation Research Board 96th Annual Meeting, 8-12 January, 2017, Washington, USA.
- Stamos, I., Salanova, J. M., Jeftic Z. (2017). Exploring the commercialization potential of freight transport services: the CO-GISTICS project. 12th ITS European Congress, Strasbourg, France, 19-22 June 2017.
- Stamos, I., Salanova, J. M., Jeftic, Z. (2017). Exploring the market acceptability of cooperative freight transport services: the CO-GISTICS project. ITS World congress 2017. Montreal. October 29-November 2.
- Salanova, J. M., Stamos, I., Tzenos, P., Margaritis, D., Mitsakis, E. and Aifandopoulou, G. (2017). Traffic flow estimation from Bluetooth devices detection. 8th International congress on Transportation research in Greece. Thessaloniki, 27-29 September 2017, Thessaloniki, Greece.
- Salanova, J. M., Chaniotakis, E., Toumpalidis, I., Karanikolas, N., Tzenos, P., Aifandopoulou, G. (2017). A spatio-temporal correlation between digital and physical world, case study in Thessaloniki. 8th International congress on Transportation research in Greece. Thessaloniki, 27-29 September 2017, Thessaloniki, Greece.
- Salanova J. M., Chaniotakis E., Goutzikas Th., Zacharis S., Tzenos P., Aifandopoulou G. (2017). Methodological framework for the estimation of risks in the transport of dangerous goods. 8th International congress on Transportation research in Greece. Thessaloniki, 27-29 September 2017, Thessaloniki, Greece.
- Sdoukopoulos, E., Galtzur, A, Kose, P., Boile, M., Sheety, E. (2017). "A Euro-Mediterranean research cooperation agenda supporting sustainable urban mobility in Mediterranean Partner Countries", 8th International Congress on Transportation Research (ICTR), 27-29 September, Thessaloniki, Greece.
- Sfakianaki, R., Mitsakis, E., Saramourtsis, A., Stephanedes, Y., Tsiamitros, D. (2017). Harmonized ITS deployment: The CROCODILE 2 project in Greece, Smart Cities and Mobility as a Service Conference 2017, Patras, Greece.

- Stamos I., Salanova, J. M., and Jeftic, Z. G. (2017). Market introduction of cooperative freight transport services. 8th International congress on Transportation research in Greece. Transportation by 2030: trends and perspectives. Thessaloniki, 27-29 September 2017, Thessaloniki, Greece.
- Tromaras, A., Margaritis, D., Aggelakakis, A. (2017). Customer satisfaction of EVs – Survey preparation for the Greek market, 8th International Congress on Transportation Research: The Future of Transportation: A Vision for 2030, Thessaloniki, Greece, 27 – 29 September.
- Tsami, M., Dimou, A., Panou, M., Bekiaris, E., (2017). SOCIALCAR Investment Community and Funding Sources. 8th International Congress on Transportation Research, 27-29 September 2017, Thessaloniki, Greece.
- Votis, K., Tzovaras, D., Kaklanis, N., Segkouli, S., Mizaras, V., Dafoulas, G. E., Mitsakis, E. (2017). Securing Internet of Things Data Services for Healthy and Active Ageing Services in Regions of Greece, CWSI 2017: IoT Connected World & Semantic Interoperability 2017, Linz, Austria.
- Woroniuk, C., Öörni, R., Mitsakis, E., Iordanopoulos, P., Edwards, S. (2017). C-ITS Deployment Programme Framework, ITS Europe Congress 2017, Strasbourg, France.

Press

- Boile, M., and Anagnostopoulou A. (2017). Trends and Drivers Affecting the Port Industry – Health, Safety, Education and Training in Port Working. Hellenic Institute of Transport Column, Supply Chain & Logistics magazine. Issue 86. Pages 72-73.
- Boile, M., Anagnostopoulou A., Aggelakakis A. (2017). Asset Management of Transport Networks. Hellenic Institute of Transport Column, Supply Chain & Logistics magazine. Issue 89.Pages 76-77.

Invited speeches

- Aifadopoulou, G. (2017). Thessaloniki Smart Mobility Living Lab, “2nd French-Greek innovation network forum”, November 10-11, Technopolis, Athens.
- Aifadopoulou, G. (2017). Data collection framework for understanding urban freight transportation and sustainable planning solutions, “7th METRANS International Urban Freight Conference”, October 18-20, Long Beach, California.
- Aifadopoulou, G. (2017). PanEuropean Logistics Platforms: Future Technologies & actors Synergies, “e-CMR going digital in road transport”, June 22-23, Thessaloniki.
- Aifadopoulou, G. (2017), An Integrated Perspective on the Future of Urban Mobility, “Unconference”, OK!Thess, June 6, Thessaloniki.
- Aifadopoulou, G. (2017). New cooperative business models and guidance for sustainable city logistics, “1st conference on results from road transport research in H2020 projects”, November 29-30, Brussels

- Aifadopoulou, G. (2017). NOVELOG's Innovative approaches for engaging and supporting industry and city authorities in urban freight strategy development, "CIVITAS Forum conference", September 27, Torres Vedras, Portugal
- Bekiaris, E. (2017). Invited speaker at the Workshop "The Nexus of Transportation and Environmental Health Governance: Intersections and Collisions Across and Within Borders" of the Transportation Research Board (TRB) 96th Annual Meeting, 8-12 January 2017, Washington, USA (Presentation title: Aging Populations and Mobility Policies: Implications for Safety, Health, and the Environment).
- Bekiaris, E. (2017). Invited speaker at the event "Can TRB Be A "Transition Platform" for the Transportation Sector in the US and Canada?" of the Transportation Research Board (TRB) 96th Annual Meeting, 8-12 January 2017, Washington, USA (Presentation title: Transition Practice in the Transportation Sector in China and the United States and Its Relevance to the Transportation Gaps in Europe).
- Bekiaris, E. (2017). Invited speaker at the event "Roadside Safety Design International Research Activities, AFB20 (2)" of the Transportation Research Board (TRB) 96th Annual Meeting, 8-12 January 2017, Washington, USA (Presentation title: Infrastructure Strip to Vehicle Communication for the Deployment of Autonomous Vehicles).
- Bekiaris, E. (2017). Invited speaker at the Second Interdisciplinary Road Safety Event, 7-9 January 2017, Athens, Greece (Presentation title: The car of Tomorrow. Cross glances).
- Mitsakis, E. (2017). Recent developments in the Intelligent Transportation Systems domain at EU and national level, Invited speech at the Workshop "Use of ICT technologies for traffic data collection and citizens engagement as tools for implementing Sustainable Urban Mobility Plans», Thessaloniki, 2017.
- Mitsakis, E. (2017). Task Force on Exchange of Best Practices on Deploying TM2.0, Invited talk at "C-ITS Platform WG: Enhanced Traffic Management 10th Meeting / Phase II", Brussels, 2017.
- Mitsakis, E. (2017). Training needs on new technologies for fleet managers and drivers, Invited talk at "ITS Europe Congress 2017", Strasbourg 2017.
- Mitsakis, E. (2017). Local innovation ecosystems towards a pan-European logistics information exchange platform, invited talk at "ITS Europe Congress 2017", Strasbourg 2017.
- Mitsakis, E. (2017). Intelligent Transport Systems for the mitigation of climate change induced impacts, invited talk at "ITS Europe Congress 2017", Strasbourg 2017.

CERTH/HIT International Networking

The leading personnel of HIT has been very active in its participation in various international fora and Organisations in positions of senior responsibility. The following is a summary of the developments in 2017:

1. Dr. Evangelos Bekiaris, CERTH/ HIT Director, was member of the IEEE Organization, world's largest technical professional organization, dedicated to advancing technology for the benefit of humanity.
2. Dr. Evangelos Mitsakis, Principal Researcher of HIT, was elected President of the Administrative Council of Intelligent Transport Systems Organization ITS HELLAS.

CERTH/HIT Director, Dr. Evangelos Bekiaris with the Head of Section C, Dr. Maria Boile and the Deputy Chairman of the ATEI of Piraeus Professor Dimitrios Tseles with Prof. Konstantinos Stergiou signing the MoU between CERTH / HIT and ATEI of Piraeus.

CERTH/HIT Director, Dr. Evangelos Bekiaris with the Rector of the University of Macedonia, Professor Achilleas Zapranis signing the MoU between CERTH / HIT and University of Macedonia.

Co-operation memoranda were signed with:

1. University of Piraeus
2. University of Macedonia
3. Department of Civil Engineering, Faculty of Engineering, Aristotle University of Thessaloniki
4. Highway Engineering Laboratory, Department of Civil Engineering, Faculty of Engineering, University of Thessaly
5. Dynamic Systems and Simulation Laboratory, Department of Production Engineering and Management, Technical University of Crete
6. Piraeus University of Applied sciences (Technological Education Institute of Piraeus)
7. Technological Educational Institute of Crete
8. Municipality of Piraeus
9. Piraeus Chamber of Commerce and Industry

H.I.T. ıs an active member of the following transport related Associations or Fora:

1. **ETSC**

   ETSC is a Brussels-based independent non-profit making organisation dedicated to reducing the numbers of deaths and injuries in transport in Europe.

   Founded in 1993, ETSC provides an impartial source of expert advice on transport safety issues to the European Commission, the European Parliament, and Member States. It maintains its independence through funding from a variety of sources including membership subscriptions, the European Commission, as well as public and private sector support for various activities.

2. **FERSI**

   FERSI was founded in 1991 as an Association of the transport safety research institutions in most European countries. HIT joined FERSI in 2004 and Dr E. Bekiaris (HIT Director) was the FERSI chairman from 2008 to 2011.

3. **ECTRI**

   HIT is a founding member of ECTRI. In January 2003, HIT's Director Prof. G. Giannopoulos was elected as the first ECTRI Chairman for a four-year period 2003-2007 and was then re-elected in 2012 for the 2013-2015 period.

4. **ITS HELLAS**

   ITS HELLAS is a National Organization that supports the dissemination and use of Intelligent Transport Systems in Greece, while ensuring conditions for increasing the competitiveness of Greek technology solutions and services in the field of intelligent transport.

5. **ERTICO**

   The European Road Transport Telematics implementation Co-ordination Organization.

   ERTICO was founded in 1991 on a joint initiative by the European Union and Member State governments. Its mission is the advancement and application of Intelligent Transport Systems and Services (ITS), to ensure sustainable mobility and quality of transportation. HIT is member of ERTICO since 2003, when it became the first Greek ERTICO stakeholder.

6. **EURNEX**

   EURNEX is the EUropean rail Research Network of Excellence. It is an association representing European institutional scientific knowledge, research and education. It comprises 44 scientific institutes in the area of rail transport and mobility all over Europe.

7. **EGVIA**

   The European Green Vehicles Initiative Association is an international non-profit making association aiming at promoting and facilitating pre-competitive research on road transport systems within the European Research Area. It focuses on technologies and the process chain, with the goal of improving energy efficiency. Created in 2013 with the goal to engage in the contractual public-private partnership with the European Commission.

8. **HEL.I.E.V.**

   HEL.I.E.V. is the HELlenic Institute of Electric Vehicles, an internationally recognized, scientific and non-profit organization, which is committed to the widespread dissemination of environmentally-friendly and energy-efficient automotive.

9. **HUMANIST**

   HUMANIST is a Network of Excellence (NoE). Its goal is to integrate European research competencies and to create at term a European Virtual Centre of Excellence on HUMAN-centred design for Information Society Technologies (IST), applied to Road Transport (In-Vehicle information systems and Advanced Driver Assistance Systems).

10. **UITP**

    UITP is a non-profit international association, dealing with sustainable mobility. It is internationally recognized for its work in advancing the development of this critical policy agenda. UITP is the only worldwide network to bring together the whole public transport sector and all sustainable transport modes.

11. **Polis**

    Polis is a network of European cities and regions working together to develop innovative technologies and policies for local transport.

    Since 1989, European local and regional authorities have been working together within Polis to promote sustainable mobility through the deployment of innovative transport solutions.

    Polis aims at improving local transport through integrated strategies that address the economic, social and environmental dimensions of transport. To this end, Polis supports the exchange of experiences and the transfer of knowledge between European local and regional authorities. It also facilitates the dialogue between local and regional authorities and other actors of the sector, such as industry, research centres, universities and NGOs.

12. **ALICE**

    The European Technology Platform ALICE is set-up to develop a comprehensive strategy for research, innovation and market deployment of logistics and supply chain management innovation in Europe.

    The platform supports and assists the implementation of the EU Program for research: Horizon 2020.

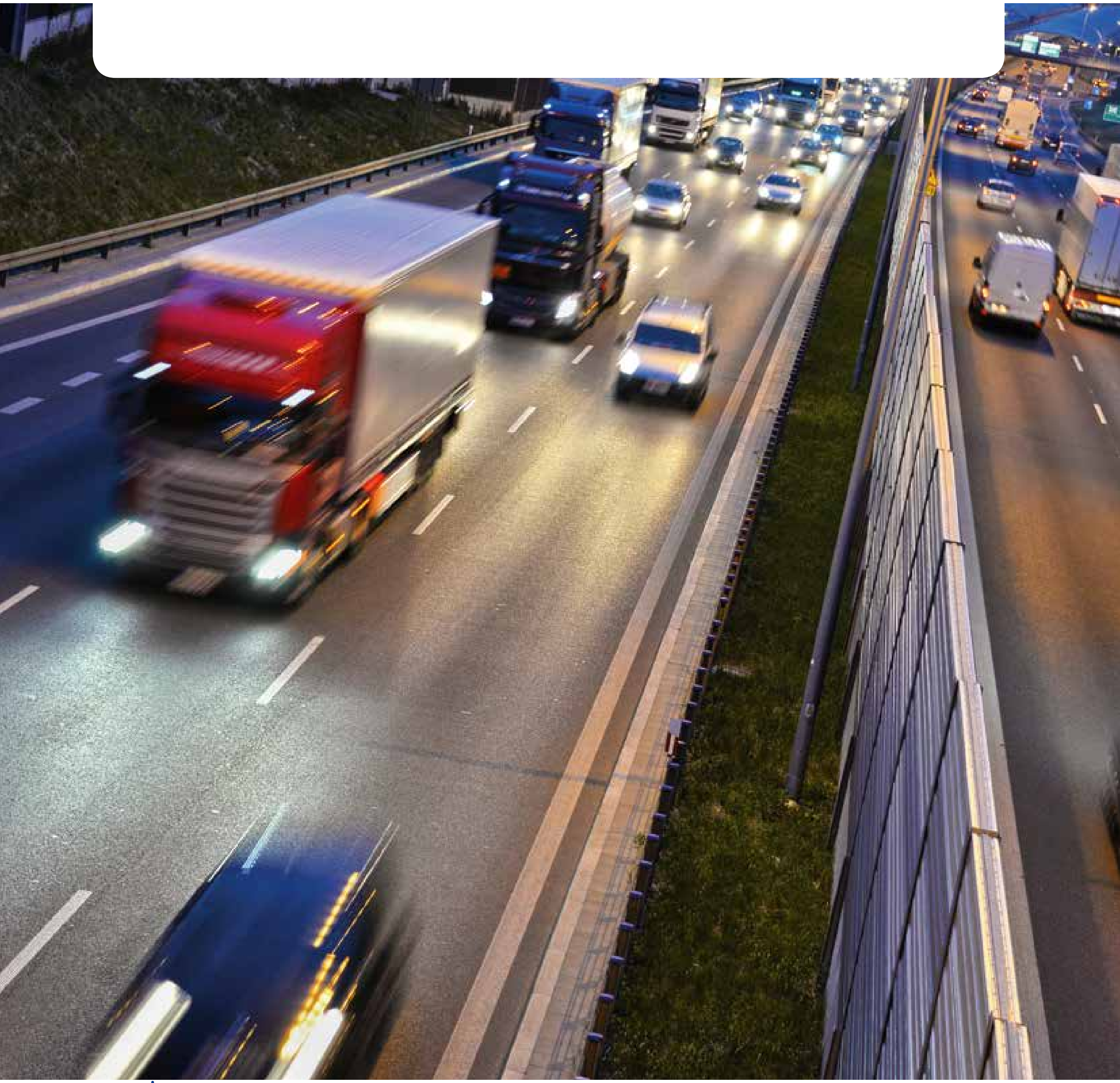
13. **NECTAR**

    NECTAR (Network on European Communications and Transport Activity Research) is a scientific network established in 1992. The primary objective is to foster research collaboration and exchange of information between experts in the field of transport, communication and mobility from all European countries and the rest of the world.

14. **EARPA**

    Founded in 2002, EARPA is the European association of the most prominent independent R&D organizations in the automotive sector. Its membership counts at present 53 members ranging from large and small commercial organisations to national institutes and universities.

Active Projects 2017



ACTIVE PROJECTS 2017

A/A	PROJECT ACRONYM	FUNDING SCHEME	PROJECT TITLE	RESPONSIBLE	BUDGET	START DATE	END DATE	ROLE IN THE PROJECT
1	ISABELLE	MARIE CURIE CIG	Integrated SAfety Benefit Estimation tooL for 2-wheeLErs	E. Bekiaris	100,000	1/1/2012	8/31/2017	Host
2	Co-ogistics	ICT PSP	Co-ogistics-Cooperative Logistics for Sustainable Mobility	G. Ayfadopoulou	89,218	1/1/2014	6/30/2017	Partner
3	PROSPERITY	7 F.P. - Collaborative Project (CP)	Prosperity4all	E. Bekiaris	494,125	2/1/2014	1/30/2018	Partner
4	IN LIFE	2020	IN LIFE - INdependent LIving support Functions for the Elderly	M. Panou	303,750	2/1/2015	1/31/2018	Partner
5	SaferWheels	European Commission (MOVE) tender	SaferWheels-Study on accident causation for traffic accidents involving powered two wheelers and bicycles in the European Union	D. Margaritis	164,750	1/1/2015	1/31/2017	Subcontractor
6	ITS OBSERVATORY	2020	ITS OBSERVATORY	E. Mitsakis	85,625	5/1/2015	6/30/2017	Partner
7	RESOLUTE	2020	‘RESilience management guidelines and Operationalization appLied to Urban Transport Environment — RESOLUTE	E. Bekiaris	270,938	5/1/2015	4/30/2018	Partner
8	SOCIAL CAR	2020	Open social transport network for urban approach to carpooling - SOCIAL CAR	E. Bekiaris	269,063	6/1/2015	5/31/2018	Partner

ACTIVE PROJECTS 2017								
A/A	**PROJECT ACRONYM**	**FUNDING SCHEME**	**PROJECT TITLE**	**RESPONSIBLE**	**BUDGET**	**START DATE**	**END DATE**	**ROLE IN THE PROJECT**
9	E-FERRY	2020	E-ferry – prototype and full-scale demonstration of next-generation 100% electrically powered ferry for passengers and vehicles	E. Gagatsi	470,781	6/1/2015	5/31/2019	Partner
10	NOVELOG	2020	New cooperative business models and guidance for sustainable city logistics — NOVELOG’	G. Ayfadopoulou	508,563	6/1/2015	5/31/2018	Coordinator
11	MOBILITY-4EU	2020	Action Plan for the future of Mobility in Europe — MOBILITY4EU	E. Bekiaris	160,938	1/1/2016	12/31/2018	Partner
12		Municipality of Ioannina	Consultancy service for municipality of Ioannina relating to sustainable urban mobility actions	M. Morfoulaki	20,000	12/30/2015	12/29/2016	Subcontractor
13	VDI/VDE	European Commission (MOVE) tende	"VDI/VDE - IT - No MOVE/C2/2015-582: STUDY TOWARDS A SINGLE AND INNOVATIVE EUROPEAN TRANSPORT SYSTEM"	M. Panou	49,250	3/22/2016	4/30/2018	Subcontractor
14		Municipality of Thessaloniki	SUMP for the Municipality of Thessaloniki	M. Morfoulaki	87,500	3/10/2016	3/10/2019	Subcontractor

ACTIVE PROJECTS 2017								
A/A	PROJECT ACRONYM	FUNDING SCHEME	PROJECT TITLE	RESPONSIBLE	BUDGET	START DATE	END DATE	ROLE IN THE PROJECT
15		Munici-pality of Preveza	Consultancy service for the Municipality of Preveza concern-ing SUMP	M. Morfoulaki	10,000	3/1/2016	3/31/2019	Subcon-tractor
16	LOGIMATIC	2020	LOGIMATIC-Tight in-tegration of EGNSS and on-board sen-sors for port vehicle automation	J. Salanova	224,375	3/1/2016	2/28/2019	Partner
17	TRANSAID	EU tender	Study towards a single and innovative European transport system	M. Panou	49,250	9/1/2017	8/31/2020	Subcon-tractor
18	tender KENYA	Niogno-mon	Provision of con-sultancy on KMA'S possible interven-tions to unlock the commercial poten-tial of kenya's island waters (lakes Victo-ria and Turkana)	G. Ayfadopoulou	27,600	8/31/2016	3/31/2018	Subcon-tractor
19	AEOLIX	2020	Architecture for EurOpean Logis-tics Information eXchange	G. Ayfadopoulou	364,843	9/1/2016	8/31/2019	Partner
20	ADASANDME	2020 RIA	Adaptive ADAS to support incapac-itated drivers & Mitigate Effectively risks through tailor made HMI under automation	M. Gemou	473,125	9/1/2016	2/29/2020	Partner

ACTIVE PROJECTS 2017								
A/A	PROJECT ACRONYM	FUNDING SCHEME	PROJECT TITLE	RESPONSIBLE	BUDGET	START DATE	END DATE	ROLE IN THE PROJECT
21		Munici-pality of Delphi	Consultancy service for Municipality of Delphi for the implementation of sustainable urban mobility measures	M. Boile	16,000	10/10/2016	12/31/2018	Subcon-tractor
22	OPTITRUCK	2020 IA	Optimal fuel consumption with Predictive Power-Train control and calibration for intel-ligent Truck	A. Anagnostopou-lou	253,438	9/1/2016	8/31/2019	Partner
23	AMinFRA	2020 CSA	Common Frame-work for a European Life Cycle based Asset Manage-ment Approach for transport a Europe-an Life Cycle based Asset Management Approach for trans-port infrastructure networks	M. Boile	58,875	9/1/2016	8/31/2018	Partner
24	Capital	2020	Collaborative Capac-ity Programme on ITS Training-Educa-tion and Liaison	E. Mitsakis	92,812	10/1/2016	9/30/2019	Partner
25	SLILLFUL	2020 RIA	Skills and compe-tences development of future transporta-tion professionals at all levels	M. Panou	227,500	10/1/2016	9/30/2019	Partner
26	CARTRE	2020 CSA	Coordination of Automated Road Transport Deploy-ment for Europe	M. Gemou	20,312	10/1/2016	9/30/2018	Partner

ACTIVE PROJECTS 2017								
A/A	PROJECT ACRONYM	FUNDING SCHEME	PROJECT TITLE	RESPONSIBLE	BUDGET	START DATE	END DATE	ROLE IN THE PROJECT
27	YME-PSO	YME	Valuation of government subsidies and policies of public service obligation provision in passenger transport by all modes. Evaluation of results for the period 2013-2016 and programming support for the period 2016-2020	G. Ayfadopoulou	19,500	10/17/2016	3/31/2018	Subcon-tractor
28	YME-PSA	YME	Provision of technical service to the Ministry of Transport for the valid update of data base TEN-Tec Portal of DG MOVE, in the context of CEF TRANSPORT - PSA	E. Mitsakis	17,000	12/12/2016	12/31/2017	Subcon-tractor
29	SCIROCCO	INTERREG MED	Sustainable InterRegional cOastal ® Cruise maritime tourism though COoperation and joint planning"	A. Stathakopou-los	105,400	11/1/2016	4/30/2018	Partner
30	MOTIVATE	INTERREG MED	Promoting citizens' active involvement in the development of Sustainable Travel Plans in Med Cities with Seasonal Demand"	M. Morfoulaki	272,688	11/1/2016	4/30/2019	Partner
31	ACTIVAGE	2020 RIA	ACTivating Inno-Vative IoT smart living environments for AGEing well	M. Panou	300,000	1/1/2017	6/30/2020	Partner

ACTIVE PROJECTS 2017								
A/A	PROJECT ACRONYM	FUNDING SCHEME	PROJECT TITLE	RESPONSIBLE	BUDGET	START DATE	END DATE	ROLE IN THE PROJECT
32	REFORM	INTERREG EUROPE	REFORM - Integrated REgional Action Plan For Innovative, Sustainable and LOw CaRbon Mobility	M. Morfoulaki	301,000	1/1/2017	12/31/2020	Coordinator
33	AUTOPILOT	2020 IA	AUTOmated driving Progressed by Internet Of Things - AUTOPILOT	M. Panou	454,219	1/1/2017	12/31/2019	Partner
34	BigDataEurope	2020 CSA	BigDataEurope: Integrating Big Data, Software ® Communities for Addressing Europe's Societal Challenges -BigDataEurope	J. Salanova	22,000	9/1/2016	12/31/2017	Partner
35		"GREEN FUND", SUMP	Provision of technical support to the "Green Fund" for incorporating specific Greek Municipalities in the funding scheme for the implementation of SUMPs	G. Ayfadopoulou	19,500	12/30/2016	12/31/2017	Subcontractor
36		Municipality of Igoumenitsa	SUMP for the Municipality of Igoumenitsa	M. Morfoulaki	4,000	4/4/2017	6/30/2018	Subcontractor
37	SAFE STRIP	2020 RIA	Safe and green Sensor Technologies for self-explaining and forgiving Road Interactive - SAFE STRIP	M. Gemou	404,375	5/1/2017	4/30/2020	Partner
38	SAFER-LC	2020 RIA	SAFER Level Crossing by integrating and optimizing road-rail infrastructure management and design-SAFER-LC	J. Salanova	216,406	5/1/2017	4/30/2020	Partner

ACTIVE PROJECTS 2017

A/A	PROJECT ACRONYM	FUNDING SCHEME	PROJECT TITLE	RESPONSIBLE	BUDGET	START DATE	END DATE	ROLE IN THE PROJECT
39	MyCorridor	2020 RIA	Mobility as a Service in a multimodal European cross-border corridor - MyCorridor	M. Gemou	312,500	6/1/2017	5/31/2020	Partner
40	C-MOBILE	2020 IA	Accelerating C-ITS Mobility Innovation and depLoyment in Europe - C-MOBILE	E. Mitsakis	579,375	6/1/2017	5/31/2020	Partner
41	SMILE	2020 IA	SMart IsLand Energy systems-SMILE	M. Gemou	30,000	5/1/2017	4/30/2021	Partner
42	Nigbo University	Nigbo University	Support service on research issues relating to optimized urban transport planning	G. Ayfadopoulou	20,000	9/1/2017	8/31/2018	Subcontractor
43	ACCESSIBILITY STUDY	European Parliament	Transport and tourism for PwD and PRM	M. Panou	105,000	7/11/2017	7/10/2018	Subcontractor
44	REMEDIO	MITROPOLITIKI ANAPTYXIAKH THESSSALONIKIS S.A.	REMEDIO - REgenerating mixed - use MED urban communities congested by traffic through Innovative low carbon mobility sOlutions	G. Ayfadopoulou	30,000	5/3/2017	4/30/2019	Service
45	KRIPIS II ODYSSEUS		KRIPIS II ODYSSEUS	D. Tzovaras	898,585	1/1/2017	12/31/2019	Partner - Beneficiary
46	IRIS	IRIS	Integrated and Replicable Solutions for Co-Creation in Sustainable Cities	G. Ayfadopoulou	150,000	10/1/2017	9/30/2022	Partner

ACTIVE PROJECTS 2017								
A/A	PROJECT ACRONYM	FUNDING SCHEME	PROJECT TITLE	RESPONSIBLE	BUDGET	START DATE	END DATE	ROLE IN THE PROJECT
47	My-TRAC	HORIZON 2020	My TRAvel Companion	M. Panou	248,441	9/1/2017	8/31/2020	Partner
48	ISTEN	INTER-REG V B ADRIATIC - IONIAN 2014-2020	Integrates and Sus-tainable Transport in Efficient Network	G. Ayfadopoulou	152,000	12/1/2017	11/30/2019	Partner
49	INTEND	HORIZON 2020	INtentify future Trans-port rEsearch NeeDs	M. Boile	115,125	10/1/2017	9/30/2018	Partner
50	GALILEO 4 Mobility	HORIZON 2021	Fostering the adoption of GALILEO for Mobility as a Service	J. Salanova	122,812	11/1/2017	4/30/2020	Partner
51	Sustain	ERAS-MUS+	Game-baSed learning on Urban SusTAIN-ability	M. Gemou	30,000	10/1/2017	9/30/2019	Partner
52	Safe and Se-cure Parking Places for Trucks	European Com-mission (MOVE) tender	Safe and Secure Parking Places for Trucks	M. Morfoulaki	25,980	12/22/2017	12/21/2018	Partner
53	Safe and Se-cure Parking Places for Trucks	European Com-mission (MOVE) tender	Safe and Secure Parking Places for Trucks	G. Ayfadopoulou	76,000	12/22/2017	12/21/2018	Subcon-tractor
TOTAL BUDGET (€)					8,423,779			