



## NTUA Road Safety Update - December 2015



### NTUA best wishes for a joyful and safe 2016



We heartily wish you **very joyful Christmas holidays and a very happy and fruitful new year 2016**, plenty of personal and professional achievements. Let's face the new challenges ahead with creative hope and scientific persistence for even safer roads in Europe and worldwide. 🇬🇷

### European Commission - Annual Road Accident Report and Infographics 2015



The Road Safety Unit of DG Move of the European Commission published recently the 2015 Edition of the EU Annual Road Accidents Report and the respective Infographics with the active contribution of NTUA, KfV and ERF. The EU Annual Road Accidents Report is based on most recent disaggregate data for all EU countries from the CARE Database of the European Commission and consist of **summary and cross-country comparative tables, figures and maps on key road safety topics** for which data comparable across the EU countries are available. [LINK](#)

### PIARC - Road Safety Manual 2015



The World Road Association (PIARC) has recently published the long waited second edition of the Road Safety Manual. The PIARC Road Safety Manual is aligned with key pillars of the United Nations Decade of Action for Road Safety 2011-2020 (1: Road Safety Management; 2: Safer Roads and Mobility and 4: Safer Road Users) and is **designed to assist countries at every stage of infrastructure development** and to fulfill road safety objectives.

This comprehensive resource builds on the broad range of knowledge and experience provided by PIARC in the first edition. It includes new thinking on road safety and offers a clear argument on why adopting a Safe System approach is crucial for each country. The Safe System approach aims for a more forgiving road system that takes human fallibility and vulnerability into account. Under the Safe System approach, everyone (public agencies, automobile manufacturers, road users, enforcement officials, and others) must share the responsibility for road safety outcomes. [LINK](#)

### IRTAD - Road Infrastructure Safety Management 2015



The International Road Traffic and Accident Database (IRTAD) of the International Transport Forum (ITF/OECD) published a Report on Road Infrastructure Safety Management (RISM), that describes in a comprehensive way the most consolidated RISM procedures, analyses their use worldwide, identifies possible weaknesses and barriers to their implementation, provides example of good practices and aims to generally **contribute to the scientific assessment of RISM procedures**. The RISM procedures considered concern: Road Safety Impact Assessment, Road Safety Measures Efficiency Assessment Tools, Road Safety Audit, Network Operation, Road Safety Performance Indicators, Network Safety Ranking, Road Assessment Programme, Road Safety Inspection, High-Risk Sites and Road Accident In-Depth Investigation.

This report is considered of high interest for the decision makers, scientists and practitioners in the field of road infrastructure safety management. NTUA has contributed actively to the preparation of this Report. [LINK](#)

### POLIS - Stop the accidents now 2015



At the recent special edition of the **POLIS magazine "Thinking Cities"**, special focus is given to **road safety in the cities**. Invited specialists Suzanne Andersson from the city of Gothenburg, Véronique Feypell from the International Transport Forum at the OECD, and NTUA Professor George Yannis, together with Eric de Kievit Senior Consultant at City of Amsterdam, attempt answers to fundamental questions:  
- why has road transport become such a danger for people? and  
- what needs to happen to make roads safer? [LINK](#)

### CNN Greece - Has crisis made us better drivers 2015



At a recent interview at CNN Greece, NTUA Professor George Yannis attempts to decode the **effect of economic crisis on the impressive reduction of road fatalities in Greece and in Europe**. He presented NTUA related work but also the main findings from the recent OECD/ITF Report on the relation between growth and road safety.

According to recent research, the economic crisis has played a major role to the recent impressive road fatalities reduction in Greece and in Europe (claimed to be responsible for the 2/3 of this reduction). Professor George Yannis estimates that after the crisis, traffic increase will result to some road accidents increase (already happening in the EU), however this increase will be limited as **the improved driver behaviour (less aggressive and less speedy) will also remain after the crisis**. The full article [LINK](#) and the related video [VIDEO](#) are now available.

### 4th International Conference on Driver Distraction and Inattention, Sydney 2015



The 4th International Conference on Driver Distraction and Inattention (DDI 2015) organised by the ARRB Group together with SAFER took place with great success was held in Sydney, Australia, on 9-11 November 2015. As driver distraction and inattention continue to be major contemporary road safety problems worldwide, DDI 2015 brought into the spotlight developments in research from mainstream and neighbouring disciplines, and showcased new and emerging technologies, products and countermeasures. The major themes for the conference this year included **distraction and the automated vehicle**, and the relationship between research findings yielded in experimental versus real world studies. [LINK](#)

### PIARC - XXVth World Road Congress, Seoul 2015



The XXVth PIARC World Road Congress took place with great success in Seoul, Korea on 2-6 November 2015. The congress was organized in close cooperation between the World Road Association (PIARC), responsible for the content and development of the programme, the Ministry of Land, Infrastructure and Transport of the Republic of Korea, the Korea Expressway Corporation, the Korea Road & Transportation Association and the PIARC Korean National Committee. The main theme of the XXVth World Road Congress concerned **"Roads and Mobility – Creating New Value from Transport"** with focus on sustainability and new technologies with the active five-days participation of thousands government officials, experts and business people from the road sector. [LINK](#)

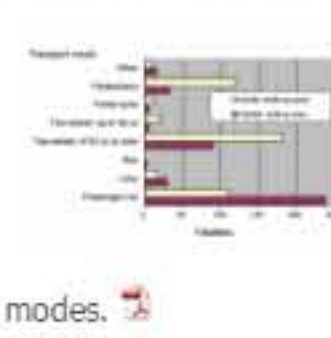
### IRF World Road Statistics 2015



The International Road Federation (IRF) and Patron Sponsor Michelin released recently the World Road Statistics (WRS), featuring more than **200 countries, with data on over 45 road related topics** (data 2008-2013) presented in nine substantive sections: country profiles, road networks, road traffic, multimodal traffic comparisons, vehicles in use, road accidents, motor vehicles, road expenditures and energy.

The IRF World Road Statistics (WRS) continue to be a unique comprehensive, universal source of statistical data on road networks, traffic and inland transport, proved to be an invaluable and internationally accepted reference tool for governments, NGOs, investments banks, research institutes and anyone analyzing and reporting trends in key subject areas like traffic volumes and vehicle usage, road expenditure, road safety, energy consumption and emissions. [LINK](#)

### Road fatalities by transport mode, Greece 2013



According to the Hellenic Statistical Authority (ELSTAT) final road accidents data for 2013 in Greece, **34% of road fatalities are power two wheelers**, whereas 39% of road fatalities are passenger car occupants. Most car occupant fatalities occur outside built-up areas while most motorcycle and pedestrian fatalities occur inside built-up areas. Accident severity is higher outside built-up areas for all transport modes. 🇬🇷

### Comparative multilevel road safety analysis in European capitals 2014



A Diploma Thesis titled 'Comparative multilevel road safety analysis in European capitals' was presented by Marianthi Mermvika in May 2014. A database was developed for this analysis containing data regarding the number and the characteristics of road fatalities, the population and other Indicators of the nine selected European capital cities for the period 2007 - 2011. Multilevel Poisson statistical models were developed, allowing for a clearer picture of the hierarchical structure of road safety data, and they led to a more complete identification of factors affecting road safety level in the selected European capital cities, revealing new additional aspects of road safety performance in these cities. Factors found with a statistically significant impact concerned city characteristics (road network length, population density, public transport use) and accident characteristics (road user and vehicle type). The comparison between the European capital cities showed that the **larger the city's road network is, the higher the level of road safety is in this city**. 🇬🇷

### Introducing human factors in pedestrian crossing behaviour models - 2016



A paper titled 'Introducing human factors in pedestrian crossing behaviour models' co-authored by Eleonora Papadimitriou, Sylvain Lassare and George Yannis is now published in the Transportation Research Part F: Traffic Psychology and Behaviour. A field survey was carried out, in which a panel of 75 pedestrians were asked to take 8 short walking trips (each one corresponding to a different walking and crossing scenario) in the Athens city centre in Greece, allowing to record their crossing behaviour in different road and traffic conditions. The same individuals were asked to fill in a questionnaire on their travel motivations, their mobility characteristics, their risk perceptions and preferences with respect to walking and road crossing, their opinion on drivers, etc. The walking and crossing scenarios' data were used to develop mixed sequential logit models of pedestrian behaviour on the basis of road and traffic characteristics. The modelling results showed that **pedestrian crossing choices are significantly affected by road type, traffic flow and traffic control**. The questionnaire data were used to estimate human factors (components) of pedestrian crossing behaviour by means of principal component analysis. The results showed that three components of pedestrian crossing behaviour emerge, namely a "risk-taking and optimisation" component reflecting the tendency to cross at mid-block in order to save time, etc., a "conservative" component, concerning individuals with increased perceived risk of mid-block crossing, who also appear to be frequent public transport users, and a "pedestrian for pleasure" component, bringing together frequent pedestrians, walking for health or pleasure, etc. The introduction of these components as explanatory variables into the choice models resulted in improvement of the modelling results, indicating that human factors have additional explanatory power over road and traffic factors of pedestrian behaviour. DOI: [10.1016/j.trf.2016.03.001](#)

This Road Safety Update aims to support frequently the Greek and the International Road Safety Community with current key road safety knowledge and data, which is gathered, analysed and organised within the research activities of the Department of Transportation Planning and Engineering of the National Technical University of Athens. If you do not wish to receive this Road Safety Update click here to [unsubscribe](#)

#### About NRSO



The mission of the NTUA Road Safety Observatory ([www.nrso.ntua.gr](http://www.nrso.ntua.gr)) is to support the Greek and the International Road Safety Community with current key road safety knowledge and data, which are gathered, analysed and organised within the research activities of the Department of Transportation Planning and Engineering of the School of Civil Engineering of the National Technical University of Athens, as well as within co-operations with various national and international road safety organisations.

The NTUA Road Safety Observatory has been developed within the framework of two European Union co-funded research projects, namely SAFETYNET - Development of the European Road Safety Observatory (2004-2009) and DACOTA - Road Safety Data Collection, Transfer and Analysis (2010-2012), with Scientific Responsible for NTUA, Professor George Yannis.