



**13<sup>th</sup> ITS EUROPEAN CONGRESS**  
**FULFILLING ITS PROMISES**

Brainport Eindhoven, the Netherlands | 3-6 June 2019

# Programme

as of 06.05.19

[www.2019.itsineurope.com](http://www.2019.itsineurope.com)



Organised by:



Hosted by:



Gemeente Helmond



Supported by:



Ministerie van Infrastructuur  
en Waterstaat



Provincie Noord-Brabant

# ACKNOWLEDGEMENTS

The Organisers and Host of the 13th ITS European Congress would like to thank the Sponsors, the Partners the Programme Committee and the National Committee for their contribution and support to make this Congress a success pushing forward the intelligent mobility agenda.

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## ITS National Partners

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## Contents

Acknowledgements.....	2
Programme Committee .....	4
Commercial Partners.....	5
Congress format.....	9
Programme at a Glance.....	10
Opening & Closing Ceremonies .....	12
Smart Cities stream.....	13
Automation stream.....	15
MaaS stream.....	17
Special interest sessions.....	18
Technical sessions.....	34
Scientific sessions.....	44
Commercial paper sessions.....	46
ERTICO Explores .....	48
Demonstrations.....	50
Implementation visits .....	53
Social events.....	65
Special Features.....	66
Registration .....	68
Accommodation & Hotels.....	69
General information.....	70



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## Commercial Partners

### Main Sponsor



#### Dylnniq

Dylnniq is a dynamic, high-tech and innovative company offering integrated mobility and energy solutions and services internationally. The company has 1600 employees who design, develop, engineer, integrate and maintain technology solutions that enhance the flow of everyday life. Dylnniq's mission is to enable people, data and goods to reach their destinations safely, sustainably and efficiently through advanced technology solutions. The company has a comprehensive knowledge of managing mobility, parking and energy using systems engineering approach. The solutions Dylnniq offers enable the efficient connection of mobility and energy flows that create a vital and strong infrastructure. The Dylnniq Group includes the organisations WPS Parking Systems and YSP, and the products and services of Peek. Dylnniq's experienced and knowledgeable staff work closely together with their clients in Europe, South America, the United States and Canada. In doing so, they engage with their clients in a reliable, open and pro-active way: 'we take a seat in your world.'

### Platinum



#### Transdev

Transdev the Netherlands offers people the freedom to travel. As a leading mobility provider, we operate throughout the country under various brand names, such as Connexion, Hermes and Witte Kruis. We provide traditional and innovative data driven mobility solutions for passenger transport. Our sustainable vehicles and initiatives contribute to the energy transition in our country. We always put our passengers and employees first. We work closely together with local and regional authorities. We benefit from a wealth of expertise and experience that comes from being part of a large international organisation with 82,000 employees, located in 20 different countries. In return, we share our expertise and experience as the leader in zero-emission passenger transport and innovative mobility.

### Diamond



#### VDL Groep

Strength through cooperation. That is the cornerstone of VDL Groep, the international industrial family business headquartered in Eindhoven, the Netherlands. The company was founded in 1953 by Pieter van der Leegte. Initially VDL Groep specialised in metalworking. Later, when his son Wim van der Leegte took over the company, the portfolio was expanded to include plastics processing, the development, manufacture and sales of buses and coaches, and hightech subcontracting for the semiconductor industry and others. Today VDL Groep is a major player in the subcontracting and semi-finished products sectors, produces its own finished products, such as suspension systems, is active in automotive factory automation, builds heat exchangers and container handling systems, and the family business owns VDL Nedcar in Born, the Netherlands' only large passenger car assembly factory, which carries out assembly line production of cars for third parties. VDL Groep innovates through a combination of craftsmanship, entrepreneurship and highquality machinery. The group of companies combines the strength of a multinational with the flat organisation and open, informal working atmosphere of a family business where priority is given to growth opportunities and continuity.

## COMMERCIAL PARTNERS

### Diamond



#### Goudappel Coffeng

Smart Mobility: Purpose driven, integrated and evidence-based Goudappel Coffeng is committed to improving the quality of life by deploying our mobility expertise and so to contributing to a healthy, sustainable and attractive society. We have over 50 years experience in mobility engineering in a country where mobility really matters: the Netherlands. Together we are 250 urban planners, traffic engineers, researchers, psychologists, process managers and IT-professionals (within DAT.Mobility) specialized in just one thing: knowledge leadership in mobility, in its full depth and diversity: factbased, user-oriented, multimodal by using our brands Goudappel Coffeng (mobility consultants), DAT Mobility (mobility data and it services) and Excellent Cities (urban mobility program for cities abroad). We believe (smart) mobility to be a key driver for liveability and economic vitality; when user-friendly technology is combined with the city's heartbeat. We foresee cities to become both more important and more complex to manage. We cherish our strong track record, like the strong culture on bike and long tradition for integral planning. We believe that this knowledge and experience provide effective solutions worldwide. Goudappel Coffeng, therefore, is your purpose driven, integrated and evidence-based Smart Mobility partner. [www.goudappel.nl](http://www.goudappel.nl) and [www.goudappel.eu](http://www.goudappel.eu)

### Gold



#### HERE Technologies

HERE, the Open Location Platform company, enables people, enterprises and cities to harness the power of location. By making sense of the world through the lens of location we empower our customers to achieve better outcomes – from helping a city manage its infrastructure or an enterprise optimize its assets to guiding drivers to their destination safely. To learn more about HERE, including our new generation of cloud-based location platform services, visit <http://360.here.com> and [www.here.com](http://www.here.com).



#### Deloitte

The world is changing dramatically, due to the rise and exponential growth of new technologies. No company or organization can ignore the consequences of this extensive digitization and computerization. Deloitte recognizes the issues in your industry and translates your future business challenges into creative and innovative solutions. Deloitte is a professional services firm with approximately 264,000 professionals and offices in over 150 countries worldwide. With well over 6,000 employees and 15 offices in the Netherlands, Deloitte is one of the largest professional services firms in the field of accounting, tax, consulting, risk management, and financial advisory. Deloitte professionals work in multidisciplinary teams, ensuring a broad perspective on the issues your business is facing. Deloitte is a trustworthy and innovative partner, providing you with insights into the opportunities of your future business.

Silver



### NavInfo

NavInfo is a China-based technology company leading the way to become the "digital brain of intelligent driving" with core businesses in HD map, high accuracy positioning and automotive-grade semiconductors for ADAS and autonomous driving. Founded in 2002, NavInfo is the market leader in navigation map, navigation software development, dynamic traffic information, location big data and customized connected vehicle services to both passenger and commercial vehicles. Now, NavInfo is ushering in the age of autonomous driving with a comprehensive technology development strategy and laying the foundation to become one of the most trustworthy autonomous driving solution providers in the China market and beyond.

### TomTom

TomTom is the leading independent location technology specialist, shaping mobility with highly accurate maps, navigation software, real-time traffic information and services.



To achieve our vision of a safer world, free of congestion and emissions, we create innovative technologies that keep the world moving. By combining our extensive experience with leading business and technology partners, we power connected vehicles, smart mobility and, ultimately, autonomous driving.

Headquartered in Amsterdam with offices in 30 countries, TomTom's technologies are trusted by hundreds of millions of people worldwide.

[www.tomtom.com](http://www.tomtom.com)



### BMW Group

With its four brands BMW, MINI, Rolls-Royce and BMW Motorrad, the BMW Group is the world's leading premium manufacturer of automobiles and motorcycles and also provides premium financial and mobility services. The BMW Group production network comprises 30 production and assembly facilities in 14 countries, among which is the Netherlands: BMW Group produces BMW and MINI models at VDL Nedcar in Born (in Limburg). The focus of BMW Group is on expanding business in the fields of electric mobility and autonomous driving. It puts the needs and desires of its customers first while developing ground-breaking technologies covering the four ACES topics: Autonomous, Connected, Electrified and Services/Shared.

## COMMERCIAL PARTNERS

Silver



### AKKA

As an international engineering and technology consulting group at the forefront of the digital and connected world, AKKA accelerates innovation for the world's largest industrial groups.

AKKA's passion for technology is embedded in its DNA and guided by a clear vision for the future. For 30 years, we have established ourselves as one of the global leaders in our field through a well-balanced strategy combining organic growth with targeted acquisitions.

We accelerate innovation and business performance for our clients. By anticipating market challenges as well as responding to them, AKKA catalyzes our customers' innovation processes and improves time-to-market for their digital offerings.

## Congress Format

### Streams

This year, Plenary and Executive sessions will feature in streams focussing on Smart Cities, Automation and MaaS.

All attendees are welcome to join these sessions including start-ups talks, dialogue and panel discussions addressing challenges and opportunities in the mobility sector. Policy makers and executives from the industry will exchange practices on how to prepare cities and regions for transition into smart mobility, while moving people and goods efficiently, safely and cleanly.

### Special Interest sessions

Organised at the request of groups of experts developing and deploying ITS, these sessions provide the opportunity to focus on specific topics of interest.

### Technical/Scientific sessions

These sessions are composed of presentations by international experts and will includes topics encompassing all technical, scientific, economic, organisational and societal aspects of ITS.

### Commercial paper sessions

Commercial Papers describe an activity aimed at generating or improving a specific product, device or idea for the market. Papers will be presented in groups with a moderator in the Exhibition area.

## Congress Topics

**Under the theme “Fulfilling ITS Promises”, the European Programme Committee is pleased to present the seven topics running through the three Congress pillars – Programme – Exhibition – Demonstrations:**



Deploying new mobility services – from experiments to experience



A breath of fresh air



Connected, cooperative and automated mobility



Enhancing the efficiency of freight transport



Enablers of digital infrastructure



Transport network operations



Disruption, start-ups & future workforce

# PROGRAMME AT A GLANCE

		Session rooms				
		Philips Hall	Jupiter	Castor	Neptune	Pollux
<b>Monday 3 June</b>						
11.00–12.00		<b>SIS01</b> Urban Mobility Labs – lessons learned from practical real world testbeds 	<b>SIS02</b> Harmonizing evaluation of C-ITS to support interoperability in Europe 	<b>SIS03</b> ITS for Climate: can we really deliver on committed goals? 	<b>TS01</b> National ITS strategies 	
<b>Lunch</b>						
13.30–14.30		<b>SIS04</b> Ticketing & payment enabling MaaS 	<b>SIS05</b> Mobility 2050 –Hubs 	<b>TS03</b> Improving liveability through ITS 	<b>TS04</b> ITS and safety 	
<b>Networking Break</b>						
15.00–16.00		<b>SIS06</b> IoT: bridging the gap between digital and road infrastructure 	<b>TS06</b> Innovation, change and disruption 	<b>SIS07</b> Contribution of ITS to improve efficiency and reduce Heavy Duty Vehicle emissions 	<b>TS07</b> Improving air quality 	
<b>Networking Break</b>						
16.30–17.30	<b>Opening Ceremony</b>					
17.30–19.00	<b>Welcome Reception</b>					
<b>Tuesday 4 June</b>						
09.00–10.00	<b>PL1: How do cities benefit from ITS?</b>					
<b>Networking Break</b>						
10.30–11.30	<b>Smart Cities stream</b>	<b>SIS08</b> Optimising mobility: TM and MaaS 	<b>SIS09</b> Highway chauffeur and high density truck platooning in real environment 	<b>SIS10</b> Possible actions for Public Authorities to facilitate Automated Driving 	<b>TS09</b> Urban initiatives 	
<b>Networking Break &amp; Lunch</b>						
13.00–14.00	<b>Smart Cities stream</b>	<b>SIS13</b> Touching the real infrastructure and embracing the unknown 	<b>SIS14</b> Truck automation and platooning 	<b>TS11</b> Standards and specifications for CCAM 	<b>TS12</b> Privacy, anonymity and liability aspects of CCAM 	
<b>Networking Break</b>						
14.30–15.30	<b>Smart Cities stream</b>	<b>SIS17</b> Large-scale deployment of new mobility services in smart cities: create market & impact 	<b>SIS18</b> Driver monitoring: towards safe transitions, personalisation and user acceptance 	<b>SIS19</b> Connected (freight) Transport Corridors – real life deployment in a unique collaboration 	<b>TS14</b> Platooning 	
<b>Networking Break</b>						
16.00–17.00	<b>Automation stream</b>	<b>SIS22</b> A new European framework for C-ITS deployment 	<b>SIS23</b> Safer cities: vision zero – a multidisciplinary challenges 	<b>SIS24</b> Who needs to drive MaaS – politics or business? 	<b>TS16</b> CCAM for rail 	
<b>Networking Break</b>						
17.15–18.15		<b>TS18</b> Big data and data analytics 	<b>TS19</b> Object and anomaly detection 	<b>TS20</b> Developments with artificial intelligence 	<b>TS21</b> Traffic management and CCAM 	
18.00–23.00	<b>YOUR FUTURE FESTIVAL</b>					
<b>Wednesday 5 June</b>						
09.00–10.00	<b>PL2: Automated mobility – How far are we?</b>					
<b>Networking Break</b>						
10.30–11.30	<b>Automation stream</b>	<b>SIS28</b> MaaS – from APIs to KPIs 	<b>SIS29</b> Status of large scale C-ITS deployments across Europe 	<b>SIS30</b> Driver in the loop: hand over and hand back on L3 	<b>TS24</b> Route optimisation 	
<b>Networking Break &amp; Lunch</b>						
13.00–14.00	<b>Automation stream</b>	<b>SIS32</b> Not every MaaS will save the world – bringing together authority and industry perspective 	<b>SIS33</b> International citizens' debate on automated mobility: what do the citizens' want? 	<b>TS27</b> Sensors and controls for CCAM 	<b>TS28</b> CCAM impacts on safety 	
<b>Networking Break</b>						
14.30–15.30	<b>MaaS stream</b>	<b>SIS36</b> Public Private Partnership on CCAM 	<b>SIS37</b> Enabling interactive traffic management through public-private cooperation: examples from practical trials 	<b>SIS38</b> Infrastructure-assisted vehicles: from security requirements and software architectures to implementation solutions 	<b>TS30</b> User-centric mobility services 	
<b>Networking Break</b>						
16.00–17.00	<b>MaaS stream</b>	<b>SIS40</b> How can MaaS and ITS contribute to Sustainable Urban Mobility Plans? 	<b>SIS41</b> New ETRAC Roadmap on Connected Automated Driving 	<b>SIS42</b> Working towards the future of safe and smart infrastructure 	<b>TS33</b> Integration of new mobility services 	
19.30–23.30	<b>ITS DINNER TIME</b>					
<b>Thursday 6 June</b>						
09.00–10.00	<b>MaaS stream</b>	<b>SIS44</b> C-ITS hybrid communication to support interoperable services in Europe 	<b>SIS45</b> Towards an integrative approach for safe and secure automated driving 	<b>SIS46</b> Making bike- and scooter shares work for the cities 	<b>TS36</b> HMI – human factors 	
<b>Networking Break</b>						
10.30–11.30	<b>PL3: Integrated mobility today</b>					
11.30–12.30	<b>Closing Ceremony</b>					
<b>Lunch</b>						

# PROGRAMME AT A GLANCE

Session rooms		Exhibition				
Saturn	Foyer	Room 1	Commercial Theatre	VOF Dutch ring 3	ERTICO Room	
<b>Monday 3 June</b>						
<b>TS02</b> MaaS – governance and architecture						11.00–12.00
<b>Lunch</b>						
<b>TS05</b> Parking						13.30–14.30
<b>Networking Break</b>						
<b>TS08</b> Traffic control and management						15.00–16.00
<b>Networking Break</b>						
16.30–17.30						
<b>Welcome Reception</b>						
17.30–19.00						
<b>Tuesday 4 June</b>						
						09.00–10.00
						<b>Networking Break</b>
<b>TS10</b> Strategy and framework for data exploitation	<b>SIS11</b> Automated shuttle trials – learnings, best practices and next challenges	<b>SIS12</b> 5G and mobility – a match made in heaven?	<b>CP1</b> Technology for more liveable cities	<b>SP01</b> Energy efficiency	<b>9.00–12.00</b> Digital Marketplace Constructs in Smart Mobility and Smart Cities	10.30–11.30
						<b>Networking Break &amp; Lunch</b>
<b>TS13</b> Electromobility	<b>SIS15</b> Sustainable, connected, inclusive. How cities can accelerate cycling through mobility intelligent solutions	<b>SIS16</b> Integrated Network Management to make cities safer and cleaner	<b>CP2</b> New techniques and services 1	<b>13.00–15.00</b> All you need to know about Blockchain and DLT use in smart mobility		13.00–14.00
						<b>Networking Break</b>
<b>TS15</b> Evaluation and testing	<b>SIS20</b> Talking Traffic; use cases and conditions for successful (international) deployment	<b>SIS21</b> 5G with satellite – delivering resilience and reach	<b>CP3</b> New techniques and services 2	<b>SP02</b> Connected, cooperative and automated mobility/ changing role of infrastructure	14.30–15.30	
<b>Networking Break</b>						
<b>TS17</b> Communications for connected and automated driving	<b>SIS25</b> Exchanging vehicle-generated data for the purpose of safety-related traffic information	<b>SIS26</b> 5G and GNSS high-accuracy positioning for Connected and Automated Driving	<b>16.00–17.00</b> An Architecture for European Logistics Information eXchange: the AEOLIX Platform		16.00–17.00	
<b>Networking Break</b>						
<b>TS22</b> Implications for infrastructure of CCAM	<b>TS23</b> Evaluating the impact of CCAM	<b>SIS27</b> Network of NAPs – Building up a harmonised European ITS Digital Infrastructure		17.15–18.15		
<b>YOUR FUTURE FESTIVAL</b>						
18.00–23.00						
<b>Wednesday 5 June</b>						
						09.00–10.00
						<b>Networking Break</b>
<b>TS25</b> Towards full autonomy	<b>TS26</b> Satellite and 5G enabled ITS solutions	<b>SIS31</b> EU harmonisation in access to (static) road data	<b>CP4</b> Network operation services	<b>SP03</b> Connected, cooperative and automated mobility/ transition phase and user acceptance	<b>9.00–12.00</b> Open Data Access to Mobility Data	10.30–11.30
						<b>Networking Break &amp; Lunch</b>
<b>TS29</b> Trials of new connected and automated services	<b>SIS34</b> KPIs for digital transport infrastructure	<b>SIS35</b> Trust and Security – enablers for digital infrastructure and cooperative systems in Europe	<b>SP04</b> Transport network operations/Data analytics and handling big data		13.00–14.00	
						<b>Networking Break</b>
<b>TS31</b> Information chain protocols and standards	<b>TS32</b> Public-private partnership	<b>SIS39</b> Safety assurance of connected and automated vehicles: challenges and solutions	<b>CP5</b> MaaS in cities	<b>SP05</b> Simulation, modeling and AI	<b>13.00–16.30</b> 5G deployment for Automated Mobility	14.30–15.30
						<b>Networking Break</b>
<b>TS34</b> New paths to sustainable mobility	<b>TS35</b> Modelling and prediction algorithms	<b>SIS43</b> Human-centred design of automated vehicle for a safe integration into mixed traffic		16.00–17.00		
<b>ITS DINNER TIME</b>						
19.30–23.30						
<b>Thursday 6 June</b>						
<b>TS37</b> Added value from new services	<b>TS38</b> New mobility services: models and business cases	<b>TS39</b> Cross border solutions	<b>CP6</b> MaaS platforms	<b>09.00–10.00</b> A Vision for Transport & Mobility – Moving forward		09.00–10.00
<b>Networking Break</b>						
10.30–11.30						
11.30–12.30						
<b>Lunch</b>						

## OPENING & CLOSING CEREMONIES

### OPENING CEREMONY

**Monday 3 June 2019**

16.30–17.30

You are cordially invited to attend the Opening Ceremony of the 13th ITS European Congress. The Ceremony will commence with the welcoming by Minister Cora van Nieuwenhuizen and the Mayor of Eindhoven, John Jorritsma, followed by dynamic interviews involving international young professionals and a special welcome from Jacob Bangsgaard, CEO of ERTICO, Cees de Wijs, CEO of Dynniq and Nico Anten, Executive Chairman at Connekt. This year we have the pleasure to have European Commissioner and First Vice-President, Frans Timmermans, addressing the audience.

The Opening Day will conclude with the official Exhibition Ribbon Cutting Ceremony and a Welcome Reception in the Exhibition hall.

### CLOSING CEREMONY

**Thursday 6 June 2019**

11.30–12.30

The Closing Ceremony will feature the Conclusions from the Chief Rapporteur, Eric Sampson, who will summarise the key topics of the week. The highlights video will look back at the best moments of the week, while we will already look forward to the ITS European Congress in Lisbon in 2020 and the ITS World Congress in Hamburg in 2021. Finally, the organisers and the host will give their closing remarks to all the attendees.

## Smart Cities stream

### PLI: HOW DO CITIES BENEFIT FROM ITS?

Tuesday 4 June

09.00 – 10.00

ITS has delivered efficiency, safety and sustainability benefits for our mobility systems. In this session we review some of the key achievements, for example how reliable real-time information for users has impacted our mobility system and how network management has improved efficiency and sustainability especially in cities and rural areas. We will also draw out some of the current challenges cities face with regards to ITS, such as legacy systems, vendor lock-in, skills shortages, etc. Finally, we will look at some of the possibilities for the coming years and explore some key questions – how do we raise ITS's visibility on the political agenda? How do we encourage cross agency cooperation? How can we best raise public awareness and inclusion? How to measure the real costs and benefits of ITS and on which to invest in as a city? The session will discuss about solutions such as integrated information and ticketing (including MaaS), traffic management systems (sensors, communication, information and governance) and data management.

**Keynote**

Representative from the European Commission, *DG CONNECT*

**Moderator**

Ananda Groag, *Reframe*

**Invited Speakers**

Anne Berner, *Minister for Transport and Communications, Finland*

Cees de Wijs, *CEO, Dynnia, The Netherlands*

Jos van Kleef, *CEO, Goudappel, The Netherlands*

Sarah-Jayne Williams, *Director Smart Mobility, Ford Europe*

### START-UP KEYNOTE: THE ROLES OF ALTERNATIVE TRANSPORT MODES IN THE MOBILITY OPTIONS

Tuesday 4 June

10.30–10.45

Representative from Bird

### DIALOGUE: SMART MOBILITY: MORE HYPE THAN REALITY?

Tuesday 4 June

10.45–11.30

What is a smart city and what is smart mobility? Which steps can a city take now towards smarter mobility and why? Are there business models for smart mobility?

**Moderator**

Ananda Groag, *REFRAME*

**Invited speakers**

Anat Lea Bonshtien, *Chairman and Director, Fuel Choices and Smart Mobility Initiative Prime Minister's Office, Israel*

Representative from City of Tampere, *Finland*

Peter Broekroelofs, *Chief Design Officer, Dynnia, The Netherlands*

Representative from Deloitte

### URBAN AIR MOBILITY – WHAT ADDING 3RD DIMENSION BRINGS AND REQUIRES?

Tuesday 4 June

13.00–14.00

Urban Air Mobility solutions will bring new services both for urban logistics (short/medium run) and for passenger transport (long run). There are still some technical issues, related to scenery recognition, safety, cybersecurity, data communication for instance, which still need a lot of additional research. How to integrate 3D mobility in a city's mobility strategy? To accommodate this mixed traffic of legacy cars, automated or traditional people transporters, drones, micro mobility solutions etc. will need a completely new view on mobility and its administration.

**Moderator**

Ananda Groag, *REFRAME*

**Invited speakers**

Sascha Westerman, *Project Management-Office (PMO), City of Hamburg, Germany*

Vassilis Agouridas, *Strategic Innovation Senior Manager, Airbus*

Marco van den Bosch, *CCO/VP Western Europe, Pal-V, the Netherlands*

Representative from Uber Elevate

# SMART CITIES STREAM

## PANEL DISCUSSION: SUSTAINABLE MOBILITY FOR ALL

Tuesday 4 June

14.30–15.30

How to develop a smart city concept that fully addresses the objectives of equitable access, safety, efficiency, and no emissions/pollutants? How to make sure that progress is made in all objectives in a balanced manner?

**Moderator**

Ananda Groag, *REFRAME*

**Invited speakers**

Maria Tsavachidis, *CEO, EIT Urban Mobility*

Rein Westra, *Director and Chief Strategy and Marketing Officer, Giventis International, The Netherlands*

Carolien Nijhuis, *Managing Director IoT, KPN, The Netherlands*

Representative from Transdev

**WRAP UP (10')** the appointed chair will summarise key points and outcomes of the whole stream

*This stream is organised in collaboration with Polis*

## Automation stream

### START-UP KEYNOTE: WING DRONES FOR GOOD

Tuesday 4 June

16.00–16.15

Patrique Zaman, *CEO & Founder, Avy, The Netherlands*

### DIALOGUE: WHAT DO THE CITIZENS' WANT?

Tuesday 4 June

16.15–17.00

Citizens, as the main stakeholders affected by the impact of Connected and Automated Driving are rarely included by cities or authorities in discussions aimed at defining roadmaps, strategies and policies. Several debates have shown that the expectations and requirements from citizens are often far away from those formulated by experts and not necessarily in line with strategies defined by authorities. The session will introduce the outcomes of the ongoing debate amongst selected informed citizens, representatives from public authorities and other stakeholders about the needs, expectations, concerns, and the “red lines” for citizens on the future of mobility.

*This session will use sli.do*

#### Moderator

Ananda Groag, *Reframe*

#### Invited Speakers

Representative from the City of Aachen  
Stephane Dreher, *Senior Manager, ERTICO*

Antoine Vergne, *Director of Strategic Partnerships, Mission Publique, Germany*

Martin Russ, *Managing Director, AustriaTech, Austria*

Representative from Keolis

### PL2: AUTOMATED MOBILITY – HOW FAR ARE WE?

Wednesday 5 June

09.00 – 10.00

Vehicle technology is supporting increasing levels of connectivity and automated operation. We have reached a point where vehicles are able to perform a range of normal driving tasks autonomously. The impact of automation on passenger vehicles, public transport and logistics is, and will be, even more significant. Nevertheless, it remains to be clarified, how automated mobility can be used to maximize benefits – what can we learn from current implementations across different transport modes and countries? Most importantly: how highly automated vehicles will impact on the user's expectation on safety and ethics? How ready is the public for these changes?

#### Keynote

Clara de la Torre, *Director for Transport, Directorate-General for Research & Innovation, European Commission*

#### Moderator

Ananda Groag, *Reframe*

#### Invited Speakers

Laurianne Krid, *Director General, FIA Region I, Brussels*

Lluís Gómez, *Commissioner for Economic Promotion, Enterprise and Innovation, City of Barcelona, Spain*

Karel Smits, *Senior Manager Automated Vehicles, VDL, The Netherlands*

Representative from Traficom

### PANEL DISCUSSION: OPTIMISING CONDITIONS FOR ROAD SAFETY

Wednesday 5 June

10.30–11.30

In the transition towards automated driving, more and more functions in the vehicle will become automated, and advanced driver assistance systems will become more and more common. A good example being Intelligent Speed Assistance ISA, which has a huge potential to reduce the number of fatal and severe accidents. The current revision of the General Safety Regulation by the EU will give a boost to safety-related features in the vehicle. How can we further speed up the deployment of these systems for the sake of road safety? And what are the requirements from both the physical as well as digital infrastructure (e.g. HD-Maps) to facilitate deployment of these systems? On the other hand, could these ADAS-systems possibly also have negative side-impacts on road safety and should we focus more on safe human behaviour?

#### Moderator

Ananda Groag, *Reframe, The Netherlands*

#### Invited Speakers

Fotini Ioannidou, *Head of Unit Road Safety, DG MOVE, European Commission*

Kevin Mayne, *Chief Executive, Cycling Industries Europe/ECF, Belgium*

Evert Schaeffer, *Regional Director Product Management, TomTom, The Netherlands*

Graziella Jost, *Programme Director, European Transport Safety Council (tbc)*

# AUTOMATION STREAM

## PANEL DISCUSSION: THE ROAD TOWARDS HIGH LEVEL AUTOMATION

**Wednesday 5 June**

**13.00 – 14.00**

Gearing up towards higher levels of automated mobility requires a number of policy actions at various levels. The session will focus on the levers of automation needed to reach highly automated driving, role and challenges of ITS to enable automated mobility. It will also provide an overview of regulatory policies that require updates or a “fit for purpose” test.

### **Moderator**

Joost Vantomme, *Smart Mobility Director, ACEA*

### **Invited Speakers**

Claire Depre, *Head of Unit Sustainable and Intelligent Transport, DG MOVE, European Commission*

Evangelos Ouzounis, *Director, ENISA*

Armin Gräter, *Leader Division Strategy Autonomous Driving, BMW Group, Germany*

Aria Etemad, *Senior Project Manager, Volkswagen Group Research, Germany*

Serge van Dam, *Principal Advisor, Rijkswaterstaat, The Netherlands*

Walter Nissler, *Chief of Vehicle Regulations and Transport Innovations Section, United Nations Economic Commission for Europe (UNECE), Switzerland*

Representative from AKKA Technologies, Belgium

**WRAP UP (10')** the appointed chair will summarise key points and outcomes of the whole stream

*This stream is organised in collaboration with ACEA and DG MOVE*

## MaaS stream

### START-UP KEYNOTE

Wednesday 5 June

14.30–14.45

Tom Kirschbaum, CEO, door2door, Germany

### ARE SILOS AND 'WALLED GARDENS' THREATENING OPEN MOBILITY INNOVATIONS?

Wednesday 5 June

14.45–15.30

The 'walled garden' silo strategies are spreading to urban mobility service industry. Does this mean we will enjoy a dominance of just a few global "MaaS" providers, each with their own exclusive set of transport services in their packages? What happens to local varieties of mobility?

This topic is expected to become a pressing question in the new era of mobility. This session will put 1–2 "walled gardeners" opposite the argument for a more open and inclusive approach. The session will discuss pros/cons for each stakeholder (business, government, user) and spark some lively debate as there are major strategy questions – and important business interests – at stake.

#### Moderator

David Zipper, *The Atlantic* (tbc)

#### Invited Speakers

Krista Huhtala-Jenks, *Head of Go-to-Market, Head of Ecosystem & Sustainability, MaaS Global*  
 Koen Kennis, *City of Antwerp* (tbc)  
 Isabelle Vandoorne, *Deputy Head of Unit, DG MOVE, European Commission*  
 Representative from the 'silo' approach  
 Representative from public transit & local administration

### MAAS CIRCULAR ECONOMY APPROACH TO MOBILITY?

Thursday 6 June

09.00–10.00

In a 'circular economy' resource input, waste and emissions are minimised by actively managing energy and material loops, refurbishing, and recycling – an approach that does not require changes in the quality of life of consumers, or loss of revenues or extra costs for manufacturers and other economic agents. Mobility as a Service (MaaS) offers the prospect of a revolutionary sharing economy following circular economic principles that could reduce waste, pollution, congestion and costs for community-wide travel for both people and goods. How could we take advantage of the new technologies to chance the current 20th century, resource intensive systems, operations and business models in mobility? ? How can we embrace shared mobility and integrated mobility solutions in order to create new options for users, so that there is a benefit for both the individuals and the society as a whole ?

#### Moderator

Ananda Groag, *Reframe*

#### Invited speakers

Henna Virkkunen, *Finnish MEP*  
 Representative from A to B (Bria),  
*Portugal*  
 Andrew Chow, *President, ITS Singapore*  
 Representative from Trafi, *United Kingdom*

### PL3: INTEGRATED MOBILITY TODAY

Thursday 6 June

10.30 – 11.30

We are finally moving towards the goal of integrated mobility – moving people and goods efficiently, safely, cleanly and using all modes while giving the end-users reliable real-time information, more options, one-stop payment and an overall seamless experience. This session will report where we are in this journey; and explore whether a shift from owning vehicles to subscribing and using mobility services is a potential solution or a disruption to established businesses and governance frameworks. It will review whether Mobility as a Service is a boost for public transport or a threat; and it will look at new challenges such as delivering changes to our physical and digital infrastructure and opportunities we see arising from new transport technologies.

#### Keynote

Ruth Clabbers, *Deputy Director General, Ministry of Infrastructure and Water Management, The Netherlands*

#### Moderator

Ananda Groag, *Reframe*

#### Invited Speakers

Leen Balcaen, *Sr. Director Industry Solutions, HERE Technologies, Germany*  
 Matthew Baldwin, *Deputy Director-General for Mobility and Transport, DG MOVE, European Commission*  
 Jacob Bangsgaard, *CEO, ERTICO*  
 Giancarlo Scaramelli, *Commercial Director, Transdev, The Netherlands*

### WRAP UP (10') the appointed chair will summarise key points and outcomes of the whole stream

*This stream is organised in collaboration with MaaS Alliance*

## SPECIAL INTEREST SESSIONS



### SIS01 – URBAN MOBILITY LABS – LESSONS LEARNED FROM PRACTICAL REAL WORLD TESTBEDS

Monday 3 June 2019

11:00–12:00 (Jupiter)

What does a 'mobility lab' mean for the ones coordinating those themselves? How to 'build' one? How to involve cities, citizens, scientists and companies for getting the most out of the lab for them? We have seen number of 'mobility labs' over the last years. They do come in different shapes and sizes, and can mean almost anything. But the common challenge is how can they be best utilised for encouraging new mobility innovation? This session looks at several mobility labs around Europe and their approach on enabling innovation and growing business. Focus is on urban mobility, new ways of encouraging mobility innovation, and the resulting impact on local residents and stakeholders with a living lab context in mind. This session gives recipes for cities, universities, companies and other enablers on how to grow and renew mobility solutions and business through a 'mobility lab'.

**Organiser**  
Raimo Tengvall, *Forum Virium Helsinki, Finland*

**Moderator**  
Peter Staelens, *Eurocities, Belgium*

**Speakers**  
Anna Day, *Urban Foresight, United Kingdom*  
Raimo Tengvall, *Forum Virium Helsinki, Finland*  
Christoph Kirchberger, *aspermobil LAB, Austria*  
Yves Frère, *Smartwayz, The Netherlands*



### SIS02 – HARMONIZING EVALUATION OF C-ITS TO SUPPORT INTEROPERABILITY IN EUROPE

Monday 3 June 2019

11:00–12:00 (Castor)

At this session we will share experience of the evaluation of C-ITS deployments to support interoperability of services and to gain valid overlook of their impacts. We will bring in experience from C-ITS corridor pilots from across Europe to show 'best practice' evaluation initiatives are taking place and how these are similar but not the same, by focusing on areas of evaluation in relation to specific use cases and key performance indicators. This will illustrate that common approaches are needed to support interoperability and harmonization. Published evidence of the performance and impacts of C-ITS services from real world field trials is scarce. The development of a harmonized approach to evaluation through the C-ROADS Platform will help to ensure funding of C-ITS deployments and will result in learning for all that will support dissemination and the continuing deployment of C-ITS network.

**Organiser**  
Gary Crockford, *Department for Transport, United Kingdom*

**Moderator**  
Giacomo Somma, *ERTICO – ITS Europe, Belgium*

**Speakers**  
Luca Studer, *Politecnico di Milano, Italy*  
Satu Innamaa, *VTT Technical Research Centre of Finland, Finland*  
Gary Crockford, *Department for Transport, United Kingdom*  
Bart Netten, *TNO, The Netherlands*  
Alexander Froetscher, *AustriaTech, Austria*  
Antonio Mesones, *Applus IDIADA Group, Spain*  
Tamara Djukic, *Aimsun SL, Spain*



### SIS03 – ITS FOR CLIMATE: CAN WE REALLY DELIVER ON COMMITTED GOALS?

Monday 3 June 2019

11:00–12:00 (Neptune)

The crisis of global warming is not matched by corresponding massive deployment of ITS systems, solutions and services proven to reduce greenhouse-gas emissions. An ITS for Climate (ITS4C) expert team is surveying and reviewing the environmental effectiveness of four types of smart mobility technologies and solutions: a) no- and low-carbon vehicles and transport technologies; b) eco-efficient network, mode and system management; c) decarbonising freight transport and logistics; and d) Mobility as a Service for Climate (MaaS4C). Teams will also address: e) climate goals for transport and mobility sector: measuring and evaluating GHG emissions; f) implementation challenges, enablers and barriers. The expert team will deliver their results at the first European symposium on ITS for Climate, in Bordeaux on 17–18 September 2019. In this SIS, a panel of team members will validate their preliminary conclusions and gather feedback and examples of successful implementation of "ITS for Climate" from Congress delegates.

**Organiser**  
Camille Coste, *TOPOS – Digital Aquitaine, France*

**Moderator**  
Paul Kompfner, *ITS4Climate Symposium, France*

**Speakers**  
Driss Samri, *Cerema, France*  
Nour-Eddin El Faouzi, *Ifsttar, France*  
Liam Fassam, *University of Northampton, United Kingdom*  
Paul Kompfner, *ITS4Climate Symposium, France*



**SIS04 – TICKETING & PAYMENT ENABLING MAAS**

**Monday 3 June 2019**

**13:30–14:30 (Jupiter)**

Ticketing and payment systems that enable 3rd parties integration are one of the key elements of enabling MaaS services into a market. Currently though they are found to be blocking or at least slowing down MaaS deployment in many cities. Public transport authorities and cities are willing to explore different measures to make options for private car more desirable. We have seen recent announcements on making public transport free, following Tallinn’s lead. Will ticketing become obsolete, give way to MaaS ? What will be the role for ticketing in new era of “MaaS powered by free transit”? This session will explore existing experience on payment solutions for first MaaS implementations and reflect that to recent innovations on ticketing. The session will explore the pain points that need to be addressed – whether legislative, technical or role-related – to transform ticketing to better support wide-scale MaaS deployment.

**Organiser**  
Sami Sahala, *Forum Virium Helsinki, Finland*

**Moderator**  
Piia Karjalainen, *ERTICO – ITS Europe, Belgium*

**Speakers**  
Søren Sørensen, *SFMCON ApS, Denmark*  
Timo Tuukkanen, *PayIQ, Finland*  
David Camero, *Kisio Digital, France*  
Mathieu de Lophem, *Pikaway, Belgium*  
Johann Peetre, *Ministry of Economic Affairs and Communications, Estonia*  
Sonila Metushi, *Royal Dutch Transport Federation (KNV), The Netherlands*



**SIS05 – MOBILITY 2050 – HUBS**

**Monday 3 June 2019**

**13:30–14:30 (Castor)**

As cities are growing, the pressure on urban areas and the risk of traffic unsafety, bad air quality and noise disturbance increase. Metropolises such as Brainport Eindhoven and Hamburg are challenged to keep urban areas accessible and liveable. Innovative technology provides part of a solution, but in order to truly organise transport efficiently, we to look at mobility differently. Our vision 2050 is a holistic view on mobility in which transportation is safe, easy and efficient through ‘smart hubs’. These hubs facilitate easy transferring from one vehicle to another. Different transport modes are connected (including MaaS-providers) as well as underlying data streams, and offered to consumers in a user-friendly way.

**Organiser**  
Linda van de Ven, *Lindialoog, The Netherlands*

**Moderator**  
Jan-Willem van der Pas, *Municipality of Eindhoven, The Netherlands*

**Speakers**  
Lot Van der Giessen, *Municipality of Eindhoven, The Netherlands*  
Kim Raijmakers, *Eindhoven University of Technology, The Netherlands*  
Melanie Grötsch, *City of Munich, Germany*  
Sascha Westermann, *Hamburger Hochbahn AG, Germany*  
Paul Van de Coevering, *Breda University of Applied Sciences, The Netherlands*  
Vasco Mora, *City of Lisbon, Portugal*



**SIS06 – IOT: BRIDGING THE GAP BETWEEN DIGITAL AND ROAD INFRASTRUCTURE**

**Monday 3 June 2019**

**15:00–16:00 (Jupiter)**

IoT is making Cooperative, Connected and Automated Mobility (CCAM) an integral feature of Smart Mobility by blurring the lines between digital and road infrastructure. Advances in connectivity technologies are allowing Connected and Automated Vehicles (CAVs) to rapidly become part of the Smart Mobility infrastructure. Planning and delivering road transport infrastructure has long involved a hierarchical structure with government agencies at the top. But the new business cases and value chains being created by the availability of Big Data through CAVs and other IoT devices require a reassessment of how such needs are to be addressed. In this session, experts will provide use cases to highlight some of the questions that need answering regarding the integration of public and private services, profitable business models in urban and rural environments, and matters of cyber-security, privacy and interoperability.

**Organiser**  
François Fischer, *ERTICO – ITS Europe, Belgium*

**Moderator**  
François Fischer, *ERTICO – ITS Europe, Belgium*

**Speakers**  
Ralf Willenbrock, *T-Systems International, Germany*  
Manzoor Ahmed Khan, *Berlin Institute of Technology, Germany*  
Daniel de Klein, *Municipality of Helmond, The Netherlands*

## SPECIAL INTEREST SESSIONS



### SIS07 – CONTRIBUTION OF ITS TO IMPROVE EFFICIENCY AND REDUCE HEAVY DUTY VEHICLE EMISSIONS

Monday 3 June 2019

15:00–16:00 (Neptune)

This session will present an overview of ITS measures with the greatest potential for reducing CO2 emissions from Heavy Goods Vehicles. It will present key results from recent studies and demonstrations with the impact of ITS services in goods transport and logistics. Results of recent innovative activities using ITS data for Predictive Powertrain control in intelligent trucks leading to optimal fuel consumption or the potential of hybridisation. It will include a panel discussion on the way forward in terms of bringing together ITS measures and innovative truck technology to improve fuel efficiency, to reduce emissions and to allow the freight transport industry to meet its targets.

#### Organiser

Jean-Charles Pandazis, *ERTICO – ITS Europe, Belgium*

#### Moderator

Jean-Charles Pandazis, *ERTICO – ITS Europe, Belgium*

#### Speakers

Andrew Winder, *ERTICO – ITS Europe, Belgium*  
Kerem Koprubasi, *Ford Otosan, Turkey*  
Alois Danninger, *AVL/AT, Austria*  
Guus Arts, *DAF Trucks, The Netherlands*  
Rene Corbeij, *TNO, The Netherlands*



### SIS08 – OPTIMISING MOBILITY: TM AND MAAS

Tuesday 4 June 2019

10:30–11:30 (Jupiter)

Traffic Management has the task of managing and optimising road capacity: the speed, volume and direction of traffic. Technological and organisational developments bring new opportunities to manage all types of traffic better, namely closer cooperation between (navigation) service providers and road operators. At present, this collaboration is predominantly limited to re-routing of traditional car traffic but cities are increasingly developing more multimodal transport systems which require better information and re-routing functionalities for all transport modes and users. As such, the need for more integrated multimodal traffic management becomes clearer. But what is needed and by whom to make this a reality? This session will explore how the TM2.0 and MaaS concepts and eco-systems can support one another and enable better optimised mobility systems. In addition, the associated bottlenecks and enablers of building such synergies will be discussed bringing a fresh new perspective on MaaS and TM2.0.

#### Organiser

Patricia Pelfrene, *ERTICO – ITS Europe, Belgium*

#### Moderator

Johanna Tzanidaki, *ERTICO – ITS Europe, Belgium*

#### Speakers

Stephanie Leonard, *TomTom, Belgium*  
Eduardo Felici, *Dutch Ministry of Water Management & Infrastructure, The Netherlands*  
Sascha Westermann, *Hamburger Hochbahn AG, Germany*  
Laura Cocone, *Swarco, Italy*  
Frans van Waes, *Vialis, The Netherlands*



### SIS09 – HIGHWAY CHAUFFEUR AND HIGH DENSITY TRUCK PLATOONING IN REAL ENVIRONMENT

Tuesday 4 June 2019

10:30–11:30 (Castor)

The gradual introduction of advanced automated driving capabilities in passenger vehicles and trucks will have a significant impact on European motorways. State-of-the-Art technologies for cooperative ITS services in such vehicle systems have the potential to be the decisive differentiation factor for user acceptance, effectiveness and efficiency of automated driving. To make this a reality and to support automated driving, interoperability testing will be carried out throughout different communication systems. A close cooperation with C-ITS and C-Roads platform involving a wide list of European Member states countries, will support this initiative.

#### Organiser

Eusebiu Catana, *ERTICO – ITS Europe, Belgium*

#### Moderator

Eusebiu Catana, *ERTICO – ITS Europe, Belgium*

#### Speakers

Geerd Kakes, *KNP, The Netherlands*  
James Misener, *Qualcomm, USA*  
Gelau Christhard, *Federal Ministry of Transport and Digital Infrastructure (BMW), Germany*  
Francisco Sanchez, *CTAG, Spain*  
Charlotte Ducuing, *KU Leuven Centre for IT & IP Law – imec, Belgium*  
Alessio Filippo, *NXP, The Netherlands*



**SIS10 – POSSIBLE ACTIONS FOR PUBLIC AUTHORITIES TO FACILITATE AUTOMATED DRIVING**

**Tuesday 4 June 2019**

**10:30–11:30 (Neptune)**

Roadmaps and action plans published by policy makers and national authorities that aim at bringing automated driving to the roads are predominantly focussing on the expected benefits that AD will bring. AD under real life conditions, especially when dealing with mixed traffic however still poses serious challenges and many authorities are looking at updating the conditions for a successful transition. Cities in particular remain cautious due to uncertainties about the overall impact on mobility and their influence on CAV developments and deployment.

The EC-funded CARTRE and ARCADE projects have collected and analysed a large selection of roadmaps, action plans, pilots and test sites to identify areas where strategic alignment across governments and stakeholders could be beneficial. Public authorities and city representatives will discuss the findings, their own approaches and suggested actions in an interactive setting with the audience, to prioritise them and identify which actions will have the largest impact.

**Organiser**

Stéphane Dreher, *ERTICO – ITS Europe, Belgium*

**Moderator**

Tom Alkim, *European Commission, DG Research and Innovation, Belgium*

**Speakers**

Nuno Rodrigues, *MAPtm, The Netherlands*

Martin Russ, *AustriaTech, Austria*

Suzanne Hoadley, *Polis, Belgium*

Additional speakers (TBC)



**SIS11 – AUTOMATED SHUTTLE TRIALS – LEARNINGS, BEST PRACTICES AND NEXT CHALLENGES**

**Tuesday 4 June 2019**

**10:30–11:30 (Foyer)**

Automated shuttles are a promising way to bridge the first/last mile in public transport. Early adopters around the world have started trials to test automated shuttles on public roads. Some countries already adapted traffic regulations for allowing test drives, other countries grant specific test permissions for individual trials. The SIS is intended to discuss learnings, best practices and next challenges of shuttle trials in different countries. Speakers from Forum Virium Helsinki (Finland), R+V Lab (Germany), Deutsche Bahn (Germany) and Salzburg Research (Austria) will share their experiences with shuttle trials. Participants are welcome to discuss results and share their experiences as well.

**Organiser**

Karl Rehr, *Salzburg Research, Austria*

**Moderator**

Martin Russ, *ITS Austria, Austria*

**Speakers**

Karl Rehr, *Salzburg Research, Austria*

Ulla Tikkanen, *Forum Virium Helsinki, Finland*

Verena Reuber, *R+V Insurance, Germany*

Stefan Kretzschmar, *Deutsche Bahn Regio Bus, Germany*



**SIS12 – 5G AND MOBILITY – A MATCH MADE IN HEAVEN?**

**Tuesday 4 June 2019**

**10:30–11:30 (Room 1)**

In this session it is discussed how 5G technology could be put to good use in the Smart Mobility vertical. It has the potential to facilitate novel use cases which are not yet possible today. However, making that potential a reality is challenging, and requires significant value to be created for every involved stakeholder. In this session, representatives from the public authorities, the telecom sector and the ITS sector will elaborate on their views on this topic. They will i.a. discuss the needs that they see for improved mobile connectivity. Which use cases would they be able to add to their offering if connectivity would improve in terms of throughput, latency, reliability? What would the corresponding networking requirements be? Which 5G techniques would be needed to support them? What main value would this bring to their customers? And what would the corresponding deployment mean for their organization?

**Organiser**

Wim Vandenberghe, *Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*

**Moderator**

Wim Vandenberghe, *Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*

**Speakers**

Caspar de Jonge, *Directorate-General for Mobility and Transport, Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*

Steven Logghe, *Be-Mobile, Belgium*  
Matthias Sauder, *VodafoneZiggo, The Netherlands*

## SPECIAL INTEREST SESSIONS



### SIS13 – TOUCHING THE REAL INFRASTRUCTURE AND EMBRACING THE UNKNOWN

Tuesday 4 June 2019

13:00–14:00 (Jupiter)

What is or would be the concept of infrastructure when it comes to the next generation mobility ecosystem in Europe? Is a digital infrastructure simply another layer to be added to the physical infrastructure or will it be an integral part? What changes to established processes for handling challenging situations can be expected or wished for? New challenges come from environmental, financial and societal agendas as well as the initiatives from new CCAM technologies. On top of this a kind of “winner takes it all” scenario fuels concerns about future roles and value chains from the technology perspective. This special interest session takes up recent panels at EUCAD2019, ARCADE and MANTRA on this interplay between infrastructure and dynamically evolving CCAM ODDs. We plan to add newest alternative examples from Hamburg, Linz (Austria) and Transport for London’s recent strategic cooperation with Bosch to land on new ideas for tackling urban mobility issues. CCAM will involve rather challenging differences in innovation cycles, investment cycles and capacity building cycles. This will contribute to changing roles of infrastructure and all infrastructure-related decision making including cities, road operators and public administration (to name only a few). Outcome of this session will contribute to a more nuanced answer for Europe’s share in a global challenge to effectively cooperate with the US and Asia in a highly competitive CCAM and mobility environment.

**Organiser**  
Walter Aigner, *Hitec Marketing, Austria*

**Moderator**  
Claire Depré, *European Commission, DG MOVE, Belgium*

**Speakers**  
Steve Phillips, *Conference of European Directors of Roads (CEDR), Belgium*  
Sandra Ulrich, *ARNDT IDC GmbH & Co, Germany*  
Manfred Harrer, *ASF, Austria*  
Laura Cocone, *Swarco, Italy*  
Michael Rosenmayr, *City of Linz, Austria*  
Katharina Hopp, *Robert Bosch GmbH, Germany*  
Walter Aigner, *Hitec Marketing, Austria*



### SIS14 – TRUCK AUTOMATION AND PLATOONING

Tuesday 4 June 2019

13:00–14:00 (Castor)

If you are interested in truck automation and truck platooning, this interactive session is designed for you. This session enables you to get an overview from different perspectives and exchange ideas on both truck automation and truck platooning (connected automated driving). We will zoom in on: 1) several ongoing national and international initiatives. 2) the latest developments from the research and industry to enable truck automation and truck platooning 3) technological challenges and opportunities on both vehicle level as well as the infrastructure perspective, i.e. the role that the existing and future infrastructure (will) play(s) in deployment of connected automated driving, specifically in the context of commercial vehicles 4) user perspective, reporting the lessons learned from the Experience Week Connected Transport in the Netherlands. Beside presentations you can debate in a multi-stakeholder setting in a plenary discussion ‘on what is needed to make the next step happen’.

**Organiser**  
Bastiaan Krosse, *TNO, The Netherlands*

**Moderator**  
Bastiaan Krosse, *TNO, The Netherlands*

**Speakers**  
Marika Hoedemaeker, *TNO, The Netherlands*  
Mats Rosenquist, *Volvo, Sweden*  
Panagiotis Lytrivis, *Institute of Communication and Computer Systems (ICCS), Greece*  
Robbert Janssen, *TNO, The Netherlands*



### SIS15 – SUSTAINABLE, CONNECTED, INCLUSIVE. HOW CITIES CAN ACCELERATE CYCLING THROUGH MOBILITY INTELLIGENT SOLUTIONS

Tuesday 4 June 2019

13:00–14:00 (Foyer)

A majority of the transport sector’s innovation today is focused on motorized transportation, even though cycling is the fastest growing mode. The potential for accelerating sustainable transport such as cycling through ITS and other intelligent solutions is huge. Cycling can contribute significantly to large-scale roll-out of modal shift as well as Mobility as a Service. How can the public and private sector work with transport innovations, such as smart traffic lights, (connected) e-bikes, scooters and bike-sharing, when aiming for livable mobility and better accessibility, and vibrant urban cities with high quality of life at the same time? Following the debate at ITS Copenhagen 2018, the Netherlands will continue their efforts as the world leading cycling country, delivering advice and discussions on worldwide trending topics such as ‘Inclusion of women in Transport planning (EU DIAMOND-project)’, ‘Autonomous vehicles’ impact on cycling’, and ‘Data management and gathering for bicycle traffic and parking’.

**Organiser**  
Mirjam Borsboom, *Movida Transport Solutions / Dutch Cycling Embassy, The Netherlands*

**Moderator**  
Kevin Mayne, *Cycling Industries Europe / European Cyclist’ Federation, Belgium*

**Speakers**  
Jos van Kleef, *Goudappel Groep, The Netherlands*  
Saskia Kluit, *Fietsersbond, The Netherlands*  
Kees den Hollander, *Loendersloot Groep, The Netherlands*  
Mirjam Borsboom, *Movida Transport Solutions / Dutch Cycling Embassy, The Netherlands*  
Jeroen Majers, *Municipality of Rotterdam, The Netherlands*



**SIS16 – INTEGRATED NETWORK MANAGEMENT TO MAKE CITIES SAFER AND CLEANER**

Tuesday 4 June 2019

13:00–14:00 (Room 1)

In this session we present a general overview of integrated network wide traffic management in which public and private partners cooperate to make cities accessible, safer and cleaner. INM is an automated coordinated concept, which is successfully tested on national, provincial and urban networks. By creating smarter traffic signal systems (TSS) and ramp-metring systems (RMS), we will show that it has laid the foundations for further integration of roadside and in-car systems. INM is being applied in more and more cities. We will present the successful Dutch, Danish and Chinese cases. And probably also the Austrian case and others.

**Organiser**  
Hans Kramer, *Amsterdam Practical Trail, Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*,

**Moderator**  
Ronald Adams, *Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*

**Speakers**  
Mads Gaml, *City of Copenhagen, Denmark*

Serge P. Hoogendoorn, *Technical University Delft, The Netherlands*  
Jeannet Arum-Weggemans, *van, Provincie of North Holland, The Netherlands*

Fan Zhang, *National Center of ITS Engineering & Technology, China*



**SIS17 – LARGE-SCALE DEPLOYMENT NEW MOBILITY SERVICES IN SMART CITIES: CREATE MARKET & IMPACT**

Tuesday 4 June 2019

14:30–15:30 (Jupiter)

The New Mobility Services (NMS) initiative is part of the European Innovation Partnership on Smart Cities and Communities. Purpose is large-scale deployment of new mobility services in smart cities enabled by CCAM, C-ITS and MaaS to contribute to wealthy, healthy, clean, spacious, liveable and accessible cities. The essence of NMS is organising a learning-by-doing community in which all European stakeholders are involved to create market and impact in cities and for citizens. April 2019 more than 180 registered partners from governments, industry, research and civil society work in 7 working groups on concrete challenges. The working groups are: On Demand Last Mile, Smart Parking Solutions, Intelligent Speed Assistance, Urban Freight Transport, Traffic Management of the Future, Excellent Governance for New Mobility Services and Smart Cycling and Walking. Speakers will present results in a very interactive dynamic format with lot of opportunities for follow up for participants.

**Organiser**  
Edwin Mermans, *Province of Noord-Brabant, The Netherlands*

**Moderator**  
Edwin Mermans, *Province of Noord-Brabant, The Netherlands*

**Speakers**  
Stephanie Leonard, *TomTom, Belgium*  
Jesus de la Quintana, *Tecnalia, Spain*  
Tamara Goldsteen, *City of Helmond, The Netherlands*

Eléonore Venin, *Charvet Digital Media, France*

Sven Vlassenroot, *Tractebel – Engie, Belgium*

Gonneke Leereveld, *ManageMind Group, The Netherlands*

Isabelle Vandoorne, *European Commission, DG MOVE, Belgium*



**SIS18 – DRIVER MONITORING: TOWARDS SAFE TRANSITIONS, PERSONALISATION AND USER ACCEPTANCE**

Tuesday 4 June 2019

14:30–15:30 (Castor)

The introduction of automated functions in vehicles brings a new set of possibilities for safe, efficient and comfortable driving, but it also brings a new set of challenges. Before an automated vehicle makes a handover request to the driver, it needs information on the state of the driver at that moment, to calculate the time required for a successful transition to manual mode. Conversely, an automated vehicle that senses a driver's state may opt to provide more active support, possibly even assuring control of the driving task if a driver critical state is detected. Driver state monitoring in automated driving is considered as a pre-requisite for achieving adaptive and smooth transitions, as well as for enhancing the safety and comfort of the emerging automated vehicles market.

**Organiser**  
Stella Nikolaou, *Center for Research and Technology Hellas (CERTH)/ Hellenic Institute of Transport (HIT), Greece*

**Moderator**  
Anna Anund, *Swedish National Road and Transport Research Institute (VTI), Sweden*

**Speakers**  
Stas Krupenia, *Scania, Sweden*  
Steffen Leonhardt, *RWTH Aachen, Germany*  
Kevin Nguyen, *Valeo, France*

## SPECIAL INTEREST SESSIONS



### SIS19 – CONNECTED (FREIGHT) TRANSPORT CORRIDORS – REAL LIFE DEPLOYMENT IN A UNIQUE COLLABORATION

Tuesday 4 June 2019

14:30–15:30 (Neptune)

In the slipstream of Talking Traffic and Talking Logistics deployment scheme in the Netherlands, public and private parties have formed a unique collaboration model called Connected Transport Corridors. A collaboration in end between three corridors: 1) Amsterdam port area-Schiphol Airport-Greenport Aalsmeer, 2) Rotterdam-Moerdijk, 3) Tilburg-Venlo. In all three corridors various ITS components will be deployed. Not as a pilot but for real, to stay! These components are e.g.: priority at smart traffic lights, traffic information and guidance based on actual position and destination, TruckBreak parkings, Open Trip Model and iSHARE, Control Towers, Open source SaaS TMS. The basic idea is to reward logistics service providers, when they share operational data, with measurable benefits. In order to harmonize this along the three (and growing number of corridors) we have developed a so called LogisStar system.

#### Organiser

Paul Swaak, *Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*

#### Moderator

Paul Swaak, *Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*

#### Speakers

Dirk-Jan de Bruijn, *Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*  
Theo Stevens, *Province of Brabant, Province of Limburg, The Netherlands*  
Frans van der Beek, *SADC N.V., The Netherlands*



### SIS20 – TALKING TRAFFIC; USE CASES AND CONDITIONS FOR SUCCESSFUL (INTERNATIONAL) DEPLOYMENT

Tuesday 4 June 2019

14:30–15:30 (Foyer)

Talking Traffic is about national deployment of connected ITS in the Netherlands: bidirectional communication with intelligent traffic lights and made-to-measure information provisioning to private and professional motorists and cyclists, benefitting from the ultra low latency, nationwide coverage and phenomenal installed base of suited equipment associated with the use of regular 3G and 4G/LTE telecommunication. Each of the three speakers will provide insight in a specific part of the nationwide implemented use cases, implementation processes and organization conditions, in order to share lessons learned and support decision making on (international) implementation of smart mobility solutions that really work. In an interactive discussion, the speakers will then gather in a panel and will be asked questions by the moderator, encouraging the audience to actively participate.

#### Organiser

Vincent Habers, *Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*

#### Moderator

Wim Vandenbergh, *Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*

#### Speakers

Vincent Habers, *Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*  
Ineke Meijer, *Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*  
Joëlle Van den Broek, *TNO Traffic & Transport, The Netherlands*



### SIS21 – 5G WITH SATELLITE – DELIVERING RESILIENCE AND REACH

Tuesday 4 June 2019

14:30–15:30 (Room 1)

Deploying robust ITS services that work seamlessly irrespective of the users location – whether rural or urban – poses an interesting challenge for ITS connectivity. With 5G and new satellite constellations in the near future, along with the convergence of terrestrial and satellite technology, the provisioning of seamless connectivity on the move – in urban, rural and wilderness – will become a reality and pave the way for richer ITS services. 5G has the ambition to enable harmonious integration of heterogeneous networks whether terrestrial and satellite. It is forecasted that by 2025 around 27.2% of automotive use cases will use satellite connectivity. Through its global reach, satellite communication plays a key role in creating a seamless and affordable connectivity fabric for both infrastructure and vehicles. Such connectivity is sufficient for the deployment of essential ITS services such as emergency calls, fleet management, remote diagnostics and road tolling.

#### Organiser

Ashweeni Beeharee, *SA Catapult, United Kingdom*

#### Moderator

Ashweeni Beeharee, *SA Catapult, United Kingdom*

#### Speakers

Tim Last, *Iridium, USA*  
Stefan Covaci, *Berlin Institute of Technology, Germany*  
Ian Goetz, *Juniper Networks, United Kingdom*  
Andrew Faiola, *Newtec, Belgium*



**SIS22 – A NEW EUROPEAN FRAMEWORK FOR C-ITS DEPLOYMENT**

**Tuesday 4 June 2019**

**16:00–17:00 (Jupiter)**

Today connected and cooperative transport and mobility are entering a new phase and 2019 is a crucial year for European citizens: the entering of C-ITS devices and services in the mass market will accelerate, and a new European regulation will enter into force in all Member States. To tackle common challenges and opportunities deriving from that, it is essential to bring together the entire ecosystem of public and private stakeholders in the value chain to develop and validate a new C-ITS Framework for proposing robust and sustainable solutions. This C-ITS deployment framework shall cover technical aspects, operational models, organisational concepts, business cases, regulatory matters, multi-source datasets and data ownership, end-user acceptability, social and transitional aspects. This session will unfold the main aspects of such new C-ITS Framework from regulatory and policy aspects to emerging organisational and business elements based on experience from real-world applications and interoperability harmonisation.

**Organiser**  
Giacomo Somma, *ERTICO – ITS Europe, Belgium*

**Moderator**  
Erwin Vermassen, *ERTICO – ITS Europe, Belgium*

**Speakers**  
Pedro Barradas, *European Commission, DG MOVE, Belgium*  
Giacomo Somma, *ERTICO – ITS Europe, Belgium*  
Marek Ščerba, *RODOS Transport Systems Development Centre, Czech Republic*  
Torsten Geissler, *Amsterdam Group, Germany*  
Darren Capes, *Department for Transport, United Kingdom*



**SIS23 – SAFER CITIES: VISION ZERO – A MULTIDISCIPLINARY CHALLENGE**

**Tuesday 4 June 2019**

**16:00–17:00 (Castor)**

This session will debate how we can achieve Vision Zero in our cities through multidisciplinary planning and design across all disciplines from technology and systems to traffic engineering, behaviour and policies. While technology, such as ISA, has an important role to play, it alone is not enough. Public information and communication, as well as changes in design of the urban infrastructure and public realm, are also needed with a special emphasis on protecting vulnerable road users. The session will debate a range of issues including urban space design & supporting ITS measures, digital road infrastructure for technologies such as ISA, the role of public information and education, the use of data and intelligence to improve user behaviour, among others. This event brings together some of the most advanced and committed networks, cities and industries.

**Organiser**  
Suzanne Hoadley, *Polis, Belgium*

**Moderator**  
Rana Ilgaz, *Transport for London, United Kingdom*

**Speakers**  
Mikael Ivári, *Urban Transport Administration, City of Gothenburg, Sweden*  
Johanna Tzanidaki, *ERTICO – ITS Europe, Belgium*  
Sophie van Velzen, *City of Helmond, The Netherlands*



**SIS24 – WHO NEEDS TO DRIVE MAAS – POLITICS OR BUSINESS?**

**Tuesday 4 June 2019**

**16:00–17:00 (Neptune)**

In recent times it became more and more evident, that tackling the challenges in urban mobility is not only a question of technology. The concept of MaaS, for example, shows clearly that technical expertise, trust and cooperation have to go hand in hand, if a substantial change within urban mobility should be successful. The quickly evolving topic of MaaS challenges the capabilities of cities to the same extent like it challenges the conception of viable business cases of the private industries. Still the single stakeholders are struggling to find their position within this special jigsaw puzzle called MaaS. Under these circumstances, a discussion about how public and private spheres should ideally interlace is more important than ever. The panellists of this session, representing various stakeholders involved, will shed light on this highly relevant and emotional topic.

**Organiser**  
Susanna Hauptmann, *Kapsch TrafficCom, Austria*

**Moderator**  
Philippe Crist, *ITF-OECD, France*

**Speakers**  
Volker Amann, *AVIMO, Austria*  
Anders Wall, *GreenMobility, Denmark*  
Michael Kieslinger, *Fluid, Austria*  
Vasco Mora, *City of Lisbon, Portugal*

## SPECIAL INTEREST SESSIONS



### SIS25 – EXCHANGING VEHICLE-GENERATED DATA FOR THE PURPOSE OF SAFETY-RELATED TRAFFIC INFORMATION

Tuesday 4 June 2019

16:00–17:00 (Foyer)

With the rising volume of connected cars, use of vehicle generated data becomes reality. This data offers insights into vehicle behaviour and their surroundings, for example the use of fog lights and traction control. Road authorities and service providers are interested in using this data for various safety use cases, e.g. improving road safety by hyper-localized slippery road warning alerts. To explore how vehicle data can be shared between public and private parties, a European Data Task Force has been set up with the initial focus on Safety Related Traffic Information. Several EU member states joined the Proof of Concept in which multiple OEM's are participating. In the Netherlands, national and international partners cooperate in the Talking Cars project. The Proofs of Concept, including Talking Cars, are on the brink of getting the data flow started from connected cars to improve road safety information and services on European roads.

**Organiser**  
Ilse Miltenburg, *Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*

**Moderator**  
Caspar de Jonge, *Directorate-General for Mobility and Transport, Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*

**Speakers**  
Marcel Sluis, *Kia Motors Nederland, The Netherlands*  
David van Baarle, *Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*  
Steven Logghe, *Be-Mobile, Belgium*  
Edoardo Felici, *Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*



### SIS26 – 5G AND GNSS HIGH-ACCURACY POSITIONING FOR CONNECTED AND AUTOMATED DRIVING

Tuesday 4 June 2019

16:00–17:00 (Room 1)

Satellite positioning (GNSS) plays a significant role in Connected and Automated Driving, but complimentary with integrated sensor data and connectivity-based information will help to reduce costs. With the advent and rapid spread of connectivity in cars, in particular 5G, powerful GNSS signals, advanced techniques and other innovations it will be possible to provide centimetre-level absolute positioning solution, functioning seamless in challenging environment such as deep urban areas. The session will showcase automotive oriented solutions and European pilots from automotive companies and organizations providing precise localization solutions combining GNSS and 5G inside the cities in order to overcome the satellite visibility limitations and guaranteeing a seamless accuracy and reliability during autonomous driving.

**Organiser**  
Alberto Fernandez Wyttenbach, *European GNSS Agency, Czech Republic*

**Moderator**  
Roberta Mugellesi Dow, *European Space Agency, United Kingdom*

**Speakers**  
Michael Baus, *Bosch, Germany*  
Fortunato Santucci, *Università dell'Aquila, Italy*  
Johannes Springer, *5G Automotive Association, Germany*



### SIS27 – NETWORK OF NAPS – BUILDING UP A HARMONISED EUROPEAN ITS DIGITAL INFRASTRUCTURE

Tuesday 4 June 2019

17:15–18:15 (Room 1)

Moving towards a Single European Transport Area requires a digital layer interlinking all of the elements of transport. This is why Member States are setting up their National Access Points (NAP); to facilitate access, easy exchange and reuse of transport related data, in order to help support the provision of EU-wide interoperable travel and traffic services to end users. Building up this Digital Architecture involves open and common standards and interfaces as well as an efficient, but secure data ecosystem. It also requires an unprecedented level of cooperation and harmonization efforts across local, regional and National administrations, to ensure a level playing field with clear roles and responsibilities for, public and private, transport, mobility and service providers, or operators, in order to prevent possible rebound effects, such as a net increase in traffic and emissions. This Session is dedicated to better understand how the European Network of NAP's could facilitate and promote, establishing the links between those, when aiming to build up an Harmonised European ITS Digital (or Data) Infrastructure, that is required for the provision of such services.

**Organiser**  
Gilles Carabin, *European Commission, DG MOVE, Belgium*

**Moderator**  
Pedro Barradas, *European Commission, DG MOVE, Belgium*

**Speakers**  
Timo Hoffmann, *Federal Highway Research Institute (BAST), Germany*  
Stephanie Leonard, *TomTom, Belgium*  
Jan Willem Tierolf, *Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*



### SIS28 – MAAS – FROM APIS TO KPIS

Wednesday 5 June 2019

10:30–11:30 (Jupiter)

The call for multimodal transport requires well-established cooperation between private and public sectors. A city-business partnership framework has a full potential to deliver sustainability as a profitable service. However, more precise KPIs for societal impacts like the environmental performance as well for the user experience in MaaS ecosystem are still needed. This session will introduce few examples from lighthouse cities focusing on the societal benefits of MaaS and challenges related to evaluating the pros and cons. The panel discussion, including both public authorities and industry representatives will discuss the responsibilities of different actors of the MaaS ecosystem and explore the mechanisms how to ensure win-win-win situations, where users, society and industry all would benefit.

**Organiser**  
Piia Karjalainen, *ERTICO – ITS Europe, Belgium*

**Moderator**  
Pedro Barradas, *European Commission, DG MOVE, Belgium*

**Speakers**  
Sandra Witzel, *Skedgo Pty Ltd, United Kingdom*  
Laurent Mezzini, *Alstom, France*  
Eric Mink, *Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*  
Stijn Vernailen, *City of Antwerp, Belgium*  
Chris Lane, *Transport for West Midlands, United Kingdom*



### SIS29 – STATUS OF LARGE SCALE C-ITS DEPLOYMENTS ACROSS EUROPE

Wednesday 5 June 2019

10:30–11:30 (Castor)

The introduction of C-ITS services is based on implementations done by vehicle manufacturers (OEMs) and road operators. While OEMs have announced to equip vehicles with on-board C-ITS equipment from 2019 on, they rely as well on C-ITS services provided by road operators. This session will deal with the status of large scale C-ITS deployments done all across Europe. Herby the C-Roads Platform is established to harmonise the service provision all across Europe. Even in total 16 European Member States are working together on the deployment of harmonised C-ITS services, this session will provide inputs from six Member States. Answers on the current status of deployments and future plans will be given. An additional focus will be made on the stakeholder involvement and collaboration within the single deployment sites.

**Organiser**  
Martin Böhm, *ITS Austria, Austria*

**Moderator**  
Martin Böhm, *ITS Austria, Austria*

**Speakers**  
Eric Ollinger, *French Ministry of Transport, France*  
Torsten Geissler, *Amsterdam Group, Germany*  
Erik Olsen, *Norwegian Public Roads Administration, Norway*  
Máté Verdes, *Hungarian Public Road Non-profit PLC, Hungary*  
Manfred Harrer, *ASF, Austria*  
Ricardo Tiago, *Institute for Mobility and Transport, Portugal*



### SIS30 – DRIVER IN THE LOOP: HAND OVER AND HAND BACK ON L3

Wednesday 5 June 2019

10:30–11:30 (Neptune)

Vehicle automation has the potential to decrease road accidents, which are nowadays mainly caused by human error. Even if full automation is not feasible today, thanks to technologies such as ADAS systems, the role of the driver can be significantly reduced. These systems are often limited to the monitoring the exterior of the vehicle, often forgetting the driver, which is a key element. In fact, to enable semi-automation, both the external context and the driver's behavior/state must be thoroughly analyzed. R&D applied to sensors, data fusion, machine learning and user feedback to better understand complete driving context, is needed to take the next step towards truly semi-autonomous vehicles. The interaction with automated vehicles will be two folded: (a) interaction is necessary between the driver/passengers and the automated vehicle and (b) interaction is needed between the vehicle and other road users. The human-machine interaction (HMI) protocols between driver and vehicle will revolve around general status information but also information for transfer of control situations including the level of support after the transfer of control to a lower level. These protocols will have an impact on the driver task and therefore on the requirements of the driving licence. Moreover these interaction protocols need to be standardised at a certain level so that drivers driving different vehicles will not miss relevant information or interactions

**Organiser**  
Oihana Otaegui, *Vicomtech, Spain*

**Moderator**  
Oihana Otaegui, *Vicomtech, Spain*

**Speakers**  
Stella Nikolaou, *Center for Research and Technology Hellas (CERTH)/Hellenic Institute of Transport (HIT), Greece*  
Andreas Luedtke, *OFFIS e.V., Germany*  
Marcos Nieto, *Vicomtech, Spain*  
Marieke Martens, *TNO, University of Twente, The Netherlands*

## SPECIAL INTEREST SESSIONS



### SIS31 – EU HARMONISATION IN ACCESS TO (STATIC) ROAD DATA

Wednesday 5 June 2019

10:30–11:30 (Room 1)

Key European projects and initiatives aim to enhance the quality of the Digital Infrastructure. This session focusses on aspects of the digital data exchange and its value chain. The CEN specification TS17268, describing the data interface, was recently released and the TN-ITS GO CEF project kicked off to set-up road data sharing services across Europe. To harmonize discoverability and access to data, TN-ITS services will be reflected in the National Access Points. Session speakers represent stakeholders' perspectives, activity and realization. They address the actions facing challenges for introducing new services. New initiatives like METR address the EU harmonization of Electronic Traffic Regulations. Services like Intelligent Speed Assistance, subject of a pending decision by the European Parliament on introduction from 2021, benefit from the standardized access to changes of authoritative road data by the leading map/service providers. These service examples will be taken as case studies by the speakers.

**Organiser**  
Tom Jensen, *TomTom, Denmark*

**Moderator**  
Christian Kleine, *HERE Technologies, Germany*

**Speakers**  
Nele Dedene, *MOW, Belgium*  
Bert Boterbergh, *Agentschap Wegen en Verkeer, Belgium*  
Timo Hoffmann, *Federal Highway Research Institute (BAST), Germany*  
Louis Hendriks, *Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*  
Knut Evensen, *Q-Free ASA, Norway*  
Christian Kleine, *HERE Technologies, Germany*  
Tom Jensen, *TomTom, Denmark*



### SIS32 – NOT EVERY MAAS WILL SAVE THE WORLD – BRINGING TOGETHER AUTHORITY AND INDUSTRY PERSPECTIVE

Wednesday 5 June 2019

13:00–14:00 (Jupiter)

This session discusses the different potential roles of MaaS ecosystem players by introducing the MaaS related issues Europe's transport authorities currently see themselves confronted with and their thoughts on how to properly address them. An objective introduction into the decentralized model, as chosen by Finland, will provide experience and additional insight on issues around MaaS market governance. Rounded up with MaaS service providers' differing understanding of MaaS market governance, the pros and cons of different governance ideas shall be debated. The session participants will be invited to engage in the discussion, which should shed light on the question whether rapid MaaS deployment and sustainable development of the mobility system at large go together.

**Organiser**  
Laura Eiro, *ITS Finland, Finland*

**Moderator**  
Sami Sahala, *Forum Virium Helsinki, Finland*

**Speakers**  
Krista Huhtala-Jenks, *MaaS Global Oy, Finland*  
Thoma Geier, *European Metropolitan Transport Authorities (EMTA), France*  
Andy Taylor, *Cubic, USA*



### SIS33 – INTERNATIONAL CITIZENS' DEBATE ON AUTOMATED MOBILITY: WHAT DO THE CITIZENS' WANT?

Wednesday 5 June 2019

13:00–14:00 (Castor)

Citizens, as the main stakeholders affected by the impact of Connected and Automated Driving are rarely included in discussions aimed at defining roadmaps, strategies and policies from cities or authorities. Several debates organised last year in France have shown that the expectations and requirements from citizens are often far away from those formulated by experts and not necessarily in line with strategies defined by authorities. This session will present the first results of a series of Citizens debates organised in about 40 cities in Europe, US, Canada and Singapore, as well as the views from cities and the findings from research activities and workshops carried out in the frame of the EC funded projects CARTRE and ARCADE. Selected informed citizens will discuss with representatives from authorities and other stakeholders in an interactive setting about the needs, expectations, fears, and the "red lines" for citizens on the future of mobility.

**Organiser**  
Stéphane Dreher, *ERTICO – ITS Europe, Belgium*

**Moderator**  
Antoine Vergne, *Missions Publiques, Germany*

**Speakers**  
Stéphane Dreher, *ERTICO – ITS Europe, Belgium*  
Mathieu Graindorge, *City of Helmond, The Netherlands*  
Brigitte Desveaux, *City of La Rochelle, France*  
Additional speakers (TBC)



**SIS34 – KPIS FOR DIGITAL TRANSPORT INFRASTRUCTURE**

**Wednesday 5 June 2019**

**13:00–14:00 (Foyer)**

A session organised by the Network of National ITS Associations to give a selection of case studies of permanently implemented ITS in Member States. Building on this, the session will facilitate an engaged and informed discussion with the audience around setting and evaluating KPIs for ITS implementations, and invite input into the Network’s proposal for a functional framework for ITS implementations.

**Organiser**  
Jennie Martin, *ITS United Kingdom, United Kingdom*

**Moderator**  
Jennie Martin, *ITS United Kingdom, United Kingdom*

**Speakers**  
Martin Russ, *ITS Austria, Austria*  
Louis Hendriks, *Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*  
Roman Srp, *ITS Czech Republic, Czech Republic*  
Paul Potters, *Monotch, The Netherlands*



**SIS35 – TRUST AND SECURITY – ENABLERS FOR DIGITAL INFRASTRUCTURE AND COOPERATIVE SYSTEMS IN EUROPE**

**Wednesday 5 June 2019**

**13:00–14:00 (Room 1)**

Connected infrastructure components and vehicles are complex cyber physical systems, composed of numerous components and exposing a variety of communication interfaces, which results in an increased attack surface. Standardized yet generic methods for security assurance (e.g. Common Criteria) are then often costly-to-apply and the fulfilment of security requirements becomes a tricky task. Trust and Security are also fundamental requirements in communication networks and therefore in Cooperative ITS (C-ITS). In order to establish reliable C-ITS services in Europe, authenticity (trustworthy source of information?) and integrity (trustworthy information itself?) of exchanged messages need to be ensured. Efficient methodologies to cope with these challenges are required, thus approaches like partitioning a system into isolated modules that can be certified and a general “privacy by design” concept constitute ways towards the desired security (and safety) assurance levels. This session comprises experts from two H2020 projects (SAFERtec, certMILS) as well as the European Commission’s perspective.

**Organiser**  
Sandro Berndt-Tolzmänn, *Federal Highway Research Institute (BAST), Germany*

**Moderator**  
Sandro Berndt-Tolzmänn, *Federal Highway Research Institute (BAST), Germany*

**Speakers**  
Sandro Berndt-Tolzmänn, *Federal Highway Research Institute (BAST), Germany*  
Gerhard Menzel, *European Commission, DG MOVE, Belgium*  
Sammy Haddad, *Oppida, France*  
Sergey Tverdyshev, *SYSGO AG, Germany*



**SIS36 – PUBLIC PRIVATE PARTNERSHIP ON CCAM**

**Wednesday 5 June 2019**

**14:30–15:30 (Jupiter)**

The development and establishment of an innovative connected and automated road transport system poses a multitude of challenges. Based on the work and identified needs of STRIA, the European Single Platform for Open road testing of CCAM, a new joint public/private partnership should tackle technical challenges for vehicle and infrastructure, their harmonisation and standardisation in order to assure a seamless European CCAM transport system. All the endeavours in this regard should be made considering the human factor and the social layer, the competitiveness of the European industry and define a related assessment framework for technologies, procedures, products and services.

**Organiser**  
Marko Jandrisits, *European Commission, DG MOVE, Belgium*

**Moderator**  
Claire Depré, *European Commission, DG MOVE, Belgium*

**Speakers**  
Joost Vantomme, *ACEA, Belgium*  
Jean-Francois Aguinaga, *European Commission, DG Research and Innovation, Belgium*  
Steve Phillips, *Conference of European Directors of Roads (CEDR), Belgium*

## SPECIAL INTEREST SESSIONS



### SIS37 – ENABLING INTERACTIVE TRAFFIC MANAGEMENT THROUGH PUBLIC-PRIVATE COOPERATION: EXAMPLES FROM PRACTICAL TRIALS

Wednesday 5 June 2019

14:30–15:30 (Castor)

Mobile or in-car traffic and navigation information services are largely available and in use by road users. Their influence in the individual behaviour of travellers has significant impact to road traffic conditions. Interactive traffic management, based on cooperation between road authorities and private service providers is needed, in order to jointly tackle the challenges of road safety, traffic pollution and delays, while assuring a win-win-win result for users, Service Providers and Road Authorities. Several European and national initiatives are (pre) deploying these new cooperation models and exploring its feasibility and value. This session will present current experiences and results from different pilot implementations currently in development in Europe: Socrates 2.0 in Antwerp and Amsterdam, TMaaS – Traffic Management as a Service in Gent, LENA4ITS in Hessen, starting initiatives in Stockholm and Gothenburg, and ERTICO platform TM2.0.

#### Organiser

Nuno Rodrigues, *MAPtm, The Netherlands*

#### Moderator

Tiffany Vlemmings, *Dutch National Data Ware House, The Netherlands*

#### Speakers

Pedro Barradas, *European Commission, DG MOVE, Belgium*  
Giovanni Huisken, *MAP traffic management, The Netherlands*  
Patrick Deknudt, *Flemish Department of Mobility and Public Works, Belgium*  
Per-Olof Svensk, *Swedish Transport Administration, Sweden*  
Susanne Schulz, *Hessen Mobil, Germany*  
Isaak Yperman, *Be-Mobile, Belgium*



### SIS38 – INFRASTRUCTURE-ASSISTED VEHICLES: FROM SECURITY REQUIREMENTS AND SOFTWARE ARCHITECTURES TO IMPLEMENTATION SOLUTIONS

Wednesday 5 June 2019

14:30–15:30 (Neptune)

Sensor technology and advanced data-processing algorithms allow vehicles to increasingly become of higher automation but at the same time pose numerous challenges regarding the way to connect and exploit infrastructure-based data. The V2I paradigm clearly offers many business opportunities. It also introduces technical questions as to how the in-vehicle software exploits the dense connectivity layer (e.g., ITS G5 or cellular 3G/4G) to interact with all (physical & digital) road elements in an efficient and secure way. Involved players need to adjust their systems design and operational management processes while, at the same time, identify and counter threats to safe operation considering 'new' requirements for privacy and personal-data protection. This session will shed some light on the so-far V2I advances, the expected research results and future impact highlighting the involved security and safety challenges. The discussion will benefit from contributions by experts working in the H2020 projects SAFERtec and INFRAMIX.

#### Organiser

Ioannis Karaseitanidis, *Institute of Communication and Computer Systems (ICCS), Greece*

#### Moderator

Panagiotis Lytrivis, *Institute of Communication and Computer Systems (ICCS), Greece*

#### Speakers

Martin Russ, *ITS Austria, Austria*  
Silvia Capato, *Swarco Mizar S.r.l., Italy*  
Michele Rondinone, *Hyundai Motor Group, Germany*  
Gergely Horvath, *Commsignia Ltd., Hungary*  
Anton Wijbenga, *MAP traffic management, The Netherlands*



### SIS39 – SAFETY ASSURANCE OF CONNECTED AND AUTOMATED VEHICLES: CHALLENGES AND SOLUTIONS

Wednesday 5 June 2019

14:30–15:30 (Room 1)

The safety assurance of connected and automated driving vehicles involves the definition of a comprehensive set of methodologies and tools aiming to verify/validate whether vehicles comply with regulatory and technical requirements. This verification/validation process is one of the building blocks for the safe deployment of automated road transport on public roads. These methodologies and tools must take into account both regulatory and technological requirements and should address the whole vehicle lifecycle. From a regulatory perspective, a possible solution is to create a driving license for CAD. Analogue to a human driving license where the driver's capability of displaying appropriate behavior in traffic is being assessed. This session will present the audience the challenges that have been identified in the field of CAD testing and how the topic is being addressed by different key regulatory, commercial and research activities.

Key representatives of different international working groups, task forces and projects will share with the audience their expertise and views about CAD safety assurance, provide answers to the uncertainties the technology faces and also engage in discussion about how to solve one of the most challenging enablers of CAD deployment.

#### Organiser

Álvaro Arrúe, *Applus IDIADA, Spain*

#### Moderator

Álvaro Arrúe, *Applus IDIADA, Spain*

#### Speakers

Adrian Zlocki, *Institute for Automotive Engineering (ika) of RWTH Aachen University, Germany*  
Annie Bracquemond, *Vedecom, France*  
Olaf Op den Camp, *TNO Integrated Vehicle Safety, The Netherlands*  
Serge van Dam, *Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*  
Eef Jonkers, *CBR, The Netherlands*  
Gerben Feddes, *The Netherlands*



**SIS40 – HOW CAN MAAS AND ITS CONTRIBUTE TO SUSTAINABLE URBAN MOBILITY PLANS?**

Wednesday 5 June 2019

16:00–17:00 (Jupiter)

Sustainable Urban Mobility Plan (SUMP) is a widely recognised mobility planning process for a more sustainable way of dealing with the complexity of urban mobility. Today, ITS and Mobility-as-a-Service solutions represent a unique opportunity to optimise the mobility system but also to facilitate a behavioural shift resulting in a more sustainable mobility. Their introduction clearly has significant urban planning implications, question being bifurcated: 1) how the advanced ITS and MaaS solutions can contribute to sustainable mobility and how the impacts of these emerging technologies should be anticipated and incorporated in SUMPs, 2) how the new data flows, produced by side-product of new services can be deployed in urban planning? In this session, representatives from the two front-running cities will deliver their experience while experts from the research and innovation arena will provide a wider view on this emerging topic.

**Organiser**

Lidia Signor, *ERTICO – ITS Europe, Belgium*

**Moderator**

Siegfried Rupprecht, *Rupprecht Consult – Forschung & Beratung GmbH, Germany*

**Speakers**

Sami Sahala, *Forum Virium Helsinki, Finland*  
 Marijke De Roeck, *City of Antwerp, Belgium*  
 Georgia Aifadopoulou, *Center for Research and Technology Hellas (CERTH) / Hellenic Institute of Transport (HIT), Greece*  
 Lidia Signor, *ERTICO – ITS Europe, Belgium*



**SIS41 – NEW ERTRAC ROADMAP ON CONNECTED AUTOMATED DRIVING**

Wednesday 5 June 2019

16:00–17:00 (Castor)

The ERTRAC Roadmap on Automated Driving is a reference document for Europe. It provides common definitions for automated driving systems, lists all European activities, and presents the key research and development challenges to be tackled. It calls for cooperation among the industry and between the private and public sectors. The new version published in 2019 provides an extension to Connectivity aspects, with the ambition to detail the infrastructure needs to enable automated driving systems to operate efficiently: ODD (Operational Design Domains) and ISAD (Infrastructure Support levels for Automated Driving) concepts are presented. Progressive automation paths are then described for three different use cases: passenger cars, freight vehicles, and urban mobility vehicles, with descriptions of the automated driving systems that shall be developed in the coming decade. ERTRAC gathers the industry and research community, and cooperates with CEDR to include the perspective of road operators. This new roadmap was developed with the support of the European projects CARTRE, ARCADE, INFRAMIX and FUTURE-RADAR.

**Organiser**

Xavier Aertsens, *ERTRAC, Belgium*

**Moderator**

Ludger Rogge, *European Commission, DG Research and Innovation, Belgium*

**Speakers**

Stéphane Dreher, *ERTICO – ITS Europe, Belgium*  
 Manfred Harrer, *ASF, Austria*  
 Armin Graeter, *BMW, Germany*  
 Mats Rosenquist, *Volvo, Sweden*  
 Eckard Steiger, *Robert Bosch, Germany*



**SIS42 – WORKING TOWARDS THE FUTURE OF SAFE AND SMART INFRASTRUCTURE**

Wednesday 5 June 2019

16:00–17:00 (Neptune)

Despite the recent advances in technology, the number of casualties and infrastructure failures still remains too high. Three related research initiatives are currently working towards a common goal of increased safety and optimized management on road, rail and inland waterway networks. Topics include the use of smart nano- and micro sensors, communication and harvesting modules mounted into easy-to-install and -remove low cost on road units, new approaches to make railway level crossings safer and a safety framework to support optimised decision-making with regard to the management of transport infrastructure assets.

**Organiser**

Andrea Hržić, *ERTICO – ITS Europe, Belgium*

**Moderator**

Maria Gkemou, *Center for Research and Technology Hellas (CERTH) / Hellenic Institute of Transport (HIT), Greece*

**Speakers**

Francesco Biral, *University of Trento, Italy*  
 Marieke van der Tuin, *Delft University of Technology, The Netherlands*  
 Grigore Havarneanu, *International Union of Railways, France*  
 Josep Maria Salanova Grau, *Center for Research and Technology Hellas (CERTH) / Hellenic Institute of Transport (HIT), Greece*

## SPECIAL INTEREST SESSIONS



### SIS43 – HUMAN-CENTRED DESIGN OF AUTOMATED VEHICLE FOR A SAFE INTEGRATION INTO MIXED TRAFFIC

Wednesday 5 June 2019

16:00–17:00 (Room 1)

Automation in road transport is one of the top ranked topics worldwide and it is expected to strongly impact safety and efficiency in future road networks. Automated Vehicles (AVs) are likely to be deployed in mixed traffic, however their ease-of-use, reliability, and trustworthiness have to be significantly improved not only for the users on board but also for the other road users. In this session, the needs and requirements of the AV users and the other road users are discussed with the scope to improve interaction between AVs and human users. The session will examine the evolution of research, technologies and test results that can help AVs being widely accepted by the general public by increasing their safe integration in mixed traffic environment.

#### Organiser

Ioannis Karaseitanidis, *Institute of Communication and Computer Systems (ICCS), Greece*

#### Moderator

Anna Schieben, *German Aerospace Center (DLR), Germany*

#### Speakers

Evangelia Portouli, *Institute of Communication and Computer Systems (ICCS), Greece*

Daniel Watzenig, *Virtual Vehicle Research Center, Austria*

Matthias Beggiato, *Chemnitz University of Technology, Germany*

Stephan Cieler, *Continental Automotive GmbH, Germany*

Riender Happee, *TU Delft, The Netherlands*

Anders Lindström, *The Swedish National Road and Transport Research Institute (VTI), Sweden*



### SIS44 – C-ITS HYBRID COMMUNICATION TO SUPPORT INTEROPERABLE SERVICES IN EUROPE

Thursday 6 June 2019

09:00–10:00 (Jupiter)

Vehicles of today are rapidly advancing to new connected and automated technologies and services. For society to achieve enhanced traffic safety and flow as well as environmental benefits utilizing C-ITS, an accelerated scale up of C-ITS V2X connectivity requires existing and new C-ITS services that cover all roads and road users. C-ITS hybrid communication, utilizing long-range cellular communication of 3G and 4G/LTE as well as short-range communication of ITS-G5, with different architectures that enable an increased penetration of C-ITS services. C-ITS hybrid communication connects users, smart devices, service providers, OEMs and road authorities. Hybrid communication not only brings together existing services but also creates new innovative services and business models. The session presents the latest C-ITS hybrid communication live deployments as well as service provider and C-Roads Platform experiences in Europe with results of technical performance, cross-border interoperability and harmonization, socio-economy, user acceptance, security, business models and service ecosystems.

#### Organiser

Ilkka Kotilainen, *Finnish Transport and Communications Agency, Finland*

#### Moderator

Giacomo Somma, *ERTICO – ITS Europe, Belgium*

#### Speakers

Eric Ollinger, *French Ministry of Transport, France*

Arne Lindeberg, *Swedish Transport Administration, Sweden*

Claire Depré, *European Commission, DG MOVE, Belgium*

Gary Crockford, *Department for Transport, United Kingdom*

Maxime Flament, *5G Automotive Association, Germany*

Erik Olsen, *Norwegian Public Roads Administration, Norway*



**SIS45 – TOWARDS AN INTEGRATIVE APPROACH FOR SAFE AND SECURE AUTOMATED DRIVING**

**Thursday 6 June 2019**

**09:00–10:00 (Castor)**

Automated driving technology has matured to a level motivating road tests which can answer key questions before market introduction of the systems. Despite a huge progress made in realization of the century-old vision, activities under way need to address several challenges related to ensuring that the vehicle can be safely and securely operated. Today's session focuses on an integrative approach towards automated driving taking into account how drivers and other traffic participants feel about driving automation. It also discusses the methodological aspects of measuring the performance of a vehicle and 'a driver' such as test design and scenarios that need to be tested. The session also shows how to handle and manage a huge amount of data obtained, all the way from vehicle to the statistical analysis. In addition, the session presents on the integration of legal requirements in different parts of Europe into testing automated driving.

**Organiser**  
Aria Etamad, *Volkswagen Group Research, Germany*

**Moderator**  
Angelos Amditis, *Institute of Communication and Computer Systems (ICCS), Greece*

**Speakers**  
Aria Etamad, *Volkswagen Group Research, Germany*  
Satu Innamaa, *VTT Technical Research Centre of Finland, Finland*  
Anna Schieben, *German Aerospace Center (DLR), Germany*  
Martin Russ, *ITS Austria, Austria*



**SIS46 – MAKING BIKE- AND SCOOTER SHARES WORK FOR THE CITIES**

**Thursday 6 June 2019**

**09:00–10:00 (Neptune)**

Bike sharing and scooter sharing are receiving growing attention. First the growth of Asian bike share systems, then more recently scooter shares in USA and Europe started scaling operations. There are an estimated 50k-100k bikes and scooters shared in Europe as of 2018, which are not tendered by the cities. This figure will likely grow 10x in the next 5 years.

Cities are looking for best practices and also key performance metrics to assess if these new vehicles are contributing significantly to their goals. What kind of data can they gather from these companies or from third parties in order to successfully manage these new mobility services? What kind of data is available from operators? What are some best practices in data collection by the cities?

**Organiser**  
Erdem Ovacik, *Donkey Republic, Denmark*  
**Moderator**  
Karen Vancluysen, *Polis, Belgium*

**Speakers**  
Antonia Roberts, *BikePlus, United Kingdom*  
Susanne Krawack, *Aarhus City, Denmark*  
Alexander Frederiksen, *Donkey Republic, Denmark*  
Anna Nikolaeva, *Utrecht University, The Netherlands*

## TECHNICAL SESSIONS



### TS01 – NATIONAL ITS STRATEGIES

Monday 3 June 2019		11:00–12:00 (Pollux)
TP1806	Design, development process and current status of the National Access Point of Greece Evangelos Mitsakis, <i>Center for Research and Technology Hellas (CERTH) / Hellenic Institute of Transport (HIT), Greece</i>	
TP1823	TransDigi: overview of Finnish transport research and identifying knowledge gaps and future competence needs Juho Kostiainen, <i>VTT Technical Research Centre of Finland, Finland</i>	
TP1914	Traffic Management Road Map 2022 Dick Ottevanger, <i>Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands</i>	
TP1930	Unified ITS environment in Kazan city Maria Dagaeva, <i>“Road Safety” state company, Russia</i>	
TP1991	ITS acceptability study: the SCOOP experience Laurette Guyonvarc’h, <i>LAB Laboratory of Accident Analysis, Biomechanics and Driver Behaviour, France</i>	



### TS02 – MAAS – GOVERNANCE AND ARCHITECTURE

Monday 3 June 2019		11:00–12:00 (Saturn)
TP1825	The role of government in a world of commercialised connected and autonomous vehicles Michael Vardi, <i>Valerann Ltd, United Kingdom</i>	
TP1873	Creating effective MaaS systems – using a systems engineering approach to design an open (e)MaaS architecture Steven Haveman, <i>University of Twente, The Netherlands</i>	
TP1931	Under the hood of MaaS: the public authorities’ role on organizing the physical side of shared mobility services Bas Scholten, <i>APPM Management Consultants, The Netherlands</i>	
TP1965	National Access Points – getting closer to MaaS EU-wide Søren Sørensen, <i>SFMCON ApS, Denmark</i>	
TP1981	Business models for new mobility service: demand modelling tools for a successful implementation of MaaS Patrizia Franco, <i>Connected Places Catapult, United Kingdom</i>	



### TS03 – IMPROVING LIVEABILITY THROUGH ITS

Monday 3 June 2019		13:30–14:30 (Neptune)
TP1757	B-ITS (Bicycles and ITS) Ronald Jorna, <i>Mobycon, The Netherlands</i>	
TP1828	How to use smartphone apps to encourage cycling: clues from a Living Lab with SMART in Enschede Bingyuan Huang, <i>University of Twente, The Netherlands</i>	
TP1834	Smart mobility on a local scale: addressing quality of life Stijn Altena, <i>Sweco Nederland, The Netherlands</i>	
TP1961	Meetweken: data enriched urban transportation policies in Breda Paul Van de Coevering, <i>Breda University of Applied Sciences, The Netherlands</i>	



### TS04 – ITS AND SAFETY

Monday 3 June 2019		13:30–14:30 (Pollux)
TP1720	Extreme weather: the impact on UK strategic roads Ian Patey, <i>WSP, United Kingdom</i>	
TP1737	New opportunities in assessing tunnel safety risk Hannah Steele, <i>WSP, United Kingdom</i>	
TP1839	An exploratory study using big data for improved safety and operational efficiency: a New Zealand case study Gareth Robins, <i>EROAD, New Zealand</i>	
TP1967	Smart motorways all lane running: an overarching evaluation of safety performance of the first eight schemes Jill Hayden, <i>Atkins, United Kingdom</i>	



## TS05 – PARKING

Monday 3 June 2019

13:30–14:30 (Saturn)

- TP1811** Automated Valet Parking enabled by Internet of Things: a pilot site realization and validation at Brainport, The Netherlands  
Louis Calvin Touko Tcheumadjeu, *German Aerospace Center (DLR), Institute of Transportation Systems, Germany*
- TP1885** Cooperative parking space management: status-quo and perspectives  
Peter Lubrich, *Federal Highway Research Institute (BASt), Germany*
- TP1984** Smart parking in Eindhoven  
Frans van Dingenen, *Technolution, The Netherlands*
- TP1987** POI parking for French SCOOP and C-ROADS  
Aymeric Audigé, *Atlantique Interdepartmental Road Directorate (DIRA), France*



## TS06 – INNOVATION, CHANGE AND DISRUPTION

Monday 3 June 2019

15:00–16:00 (Castor)

- TP1790** ITS for dummies – how to communicate about ITS outside the sector and why it matters  
Krishna Desai, *Cubic Transportation, United Kingdom*
- TP1841** Help my elderman wants a driverless vehicle  
Arthur Scheltes, *Goudappel Coffeng, The Netherlands*
- TP1886** Smart incident management by using crowdsourcing and data analytics Road authorities listening and acting on talking traffic (users)  
Gerard Eijkelenboom, *De Verkeersonderneming, The Netherlands*
- TP1988** Traffic Management “outside the box”  
Ruud van den Dries, *MAP traffic management, The Netherlands*



## TS07 – IMPROVING AIR QUALITY

Monday 3 June 2019

15:00–16:00 (Pollux)

- TP1777** Geofencing for smart urban mobility  
Ola Martin Lykkja, *Q-Free Norway AS, Norway*
- TP1846** About the combination of advanced logics for dynamic VSL activation: an integrated tool to improve traffic flows, control emissions and reduce air pollution  
Roberto Cavaliere, *NOI Techpark Südtirol / Alto Adige, Italy*
- TP1897** Predictive environmental zone management in the urban area  
Klaus Pollhammer, *Swarco Futurit, Austria*



## TS08 – TRAFFIC CONTROL AND MANAGEMENT

Monday 3 June 2019

15:00–16:00 (Saturn)

- TP1760** C-ITS deployment in the City of Kassel, Germany  
Volker Schmitt, *City of Kassel – Traffic and Roads Authority, Germany*
- TP1789** Accessibility control traffic model: optimising road works as-a-service  
Stefan de Graaf, *DAT.Mobility, The Netherlands*
- TP1853** Smart mobility services as a tool for road operators  
Patrick Hofman, *MAP traffic management, The Netherlands*
- TP1877** The road to networkwide traffic management in Utrecht  
Erik-Sander Smits, *Arane Adviseurs, The Netherlands*

## TECHNICAL SESSIONS



### TS09 – URBAN INITIATIVES

Tuesday 4 June 2019

10:30–11:30 (Pollux)

- TP1717** Predictive eco-cruise for hybrid electric vehicles crossing traffic lights using artificial neural network  
Thinh Pham, *TNO, The Netherlands*
- TP1935** Answering to cities' mobility needs – public-private-partnerships fostering innovative AV development  
Ulla Tikkanen, *Forum Virium Helsinki, Finland*
- TP1970** Connected and Autonomous Vehicles: the opportunity in Greater Manchester  
Jill Hayden, *Atkins, United Kingdom*
- TP1973** Connecting airports and airport cities – a case for driverless shuttle services  
Tine Haas, *Dornier Consulting International GmbH, Germany*



### TS10 – STRATEGY AND FRAMEWORK FOR DATA EXPLOITATION

Tuesday 4 June 2019

10:30–11:30 (Saturn)

- TP1797** Make or buy: Do we need the data we exactly want?  
Marthe Uenk-Telgen, *National Data Warehouse for Traffic Information, The Netherlands*
- TP1864** Using a digital twin to drive CAV  
Ian Patey, *WSP, United Kingdom*
- TP1887** FRAME NEXT – current status and future plans for the extension and enhancement of the European ITS Framework Architecture  
Alexander Froetscher, *AustriaTech, Austria*
- TP1913** Making better use of mobility data  
Niels Wiersma, *Municipality of Eindhoven, The Netherlands*
- TP1939** Insights into big data-based business innovation in the transport sector  
Ivo Hindriks, *Panteia, The Netherlands*



### TS11 – STANDARDS AND SPECIFICATIONS FOR CCAM

Tuesday 4 June 2019

13:00–14:00 (Neptune)

- TP1708** Interoperability specifications for C-ITS services using hybrid communication  
Igor Passchier, *Siemens PLM Software, The Netherlands*
- TP1779** Application of Vehicle-to-X communication for railway solutions on the example of a concept for a request stop solution  
Stefanie Schöne, *German Aerospace Center (DLR), Germany*
- TP1918** Time standards and implementations for C-ITS  
Igor Passchier, *Siemens PLM Software, The Netherlands*
- TP1975** Open specification of log data for Cooperative and Automated Driving  
Bart Netten, *TNO, The Netherlands*



### TS12 – PRIVACY, LIABILITY AND OTHER ASPECTS OF CCAM

Tuesday 4 June 2019

13:00–14:00 (Pollux)

- TP1710** Careless automated driving?  
Nynke Vellinga, *University of Groningen, The Netherlands*
- TP1755** Handing over the wheel, giving up your privacy?  
Trix Mulder, *Faculty of Law and University Medical Centre Groningen, University of Groningen, The Netherlands*
- TP1762** Driver training and testing in the era of automated driving: status quo and future directions  
Cornelie van Driel, *Rapp Trans (DE) AG, Germany*



## TS13 – ELECTROMOBILITY

Tuesday 4 June 2019

13:00–14:00 (Saturn)

- TP1805** Software services and data analytics for the ultimate EV Driver experience  
Stefano Persi, *Mosaic Fact, Spain*
- TP1871** MEISTER: fostering smart e-mobility large scale adoption in European cities  
Antonio Marqués, *ETRA Investigación y Desarrollo, Spain*
- TP1917** Lessons learned from establishing an interoperability system for EVs – how a LEV ecosystem can be created based on the experiences of the EV ecosystem.  
Ricarda Mendy, *Hubject GmbH, Germany*



## TS14 – PLATOONING

Tuesday 4 June 2019

14:30–15:30 (Pollux)

- TP1742** Multi agent system for intelligent autonomous truck applications in logistics – INTRALOG  
Lejo Buning, *HAN University of Applied Sciences, The Netherlands*
- TP1835** Specifications for multi-brand truck platooning  
Lina Konstantinopoulou, *Clepa, Belgium*
- TP1863** Connecting Austria – first results of C-ITS-focused level I truck platooning deployment  
Wolfgang Schildorfer, *University of Applied Sciences Upper Austria, Austria*
- TP1876** Priority for connected freight traffic by using the new smart traffic lights (iTLC's) at the N279  
Pieter Prins, *SmartwayZ.NL/Province of Noord-Brabant, The Netherlands*



## TS15 – EVALUATION AND TESTING

Tuesday 4 June 2019,

14:30–15:30 (Saturn)

- TP1778** Catalonia Living Lab: a public-private framework for development and testing of connected and automated vehicle technologies  
Stefan de Vries, *Applus IDIADA, Spain*
- TP1829** A flexible, user-friendly approach to evaluation of C-ITS  
Graeme Hill, *Newcastle University, United Kingdom*
- TP1865** C-ITS framework development and European test cases scenarios  
Lara Moura, *A-to-Be, powered by Brisa, Portugal*
- TP1923** SISCOGA extended pilot at C-Roads Spain: testing European C-ITS services  
Francisco Sanchez, *CTAG, Spain*



## TS16 – CCAM FOR RAIL

Tuesday 4 June 2019

16:00–17:00 (Pollux)

- TP1725** A video-based smart detection system for improving safety at level crossings  
Louahdi Khoudour, *Cerema, France*
- TP1739** Automatic train operation – driving the future of rail transport  
Alfons Schaafsma, *ProRail, The Netherlands*
- TP1869** Railroad level crossings and an autonomous vehicle  
Ari Virtanen, *VTT Technical Research Centre of Finland Ltd., Finland*
- TP1992** Smart level crossing  
Virginie Taillandier, *SNCF, France*



## TS17 – COMMUNICATIONS FOR CONNECTED AND AUTOMATED DRIVING

Tuesday 4 June 2019

16:00–17:00 (Saturn)

- TP1867** Connected corridor for driving automation. CONCORDA use cases  
Eusebiu Catana, *ERTICO – ITS Europe, Belgium*
- TP1881** Creating a new model for C-ITS message provision  
Anna Schirokoff, *Finnish Transport and Communications Agency Traficom, Finland*
- TP1927** Hybrid communication in C-ITS: initiatives and concepts supporting CAD  
Boris Kock, *Province of Noord-Holland, The Netherlands*
- TP1938** CONCORDA Spanish pilot site  
Diego Bernárdez, *CTAG, Spain*

## TECHNICAL SESSIONS



### TS18 – BIG DATA AND DATA ANALYTICS

Tuesday 4 June 2019

17:15–18:15 (Jupiter)

- TP1775** From ITS to mobile systems: capabilities of smartphone app analytics for public transportation demand analysis  
Proto Tilocca, *CTM SpA, Italy*
- TP1787** Traffic data analysis using mobile phone data  
Stefan de Graaf, *DAT.Mobility, The Netherlands*
- TP1799** Lessons learned from Mijn040Routes GPS tracking project  
Erik van Hal, *Municipality of Eindhoven, The Netherlands*
- TP1831** A web application for analysing real-time traffic data  
Florian Noack, *Technical University of Munich, Germany*
- TP1851** Cycling data as way to enhance sustainability in smart cities  
Rick Lindeman, *Ministry of Infrastructure and Water Management (Rijkswaterstaat), The Netherlands*



### TS19 – OBJECT AND ANOMALY DETECTION

Tuesday 4 June 2019

17:15–18:15 (Castor)

- TP1746** Object detection and tracking in urban street video in Kazan city  
Alisa Makhmutova, *Kazan National Research Technical University named after A. N. Tupolev – KAI, Russia*
- TP1830** Is AEBS able to detect more than only passenger cars?  
Mark Gorter, *Royal HaskoningDHV, The Netherlands*
- TP1916** Detection of anomalies in urban traffic from open data  
Johan Scholliers, *VTT Technical Research Centre of Finland, Finland*
- TP1985** Evaluation of construction sites on German highways based on user feedback and floating car data  
Gerhard Hermanns, *TraffGo Road GmbH, Germany*



### TS20 – DEVELOPMENTS WITH ARTIFICIAL INTELLIGENCE

Tuesday 4 June 2019

17:15–18:15 (Neptune)

- TP1770** Big Data and Artificial Intelligence for optimising transport operations in railway, airport and highways  
Rodrigo Castiñeira, *INDRA, Spain*
- TP1814** Human detection using RetinaNet applied on visual and thermal single-sensor images  
Qiao Ren, *University of Twente, The Netherlands*
- TP1847** Second-Generation Ramp Metering (2GRM) – from pilot to full-scale deployment  
Gareth Tilley, *SNC-L, United Kingdom*
- TP1874** Optimize shared mobilities using data and Artificial Intelligence  
Aurélien Belhocine, *Qucit, France*
- TP1979** An AI-powered vehicle classification for tolling tariffication  
Madeleine Corbetta, *VINCI Autoroutes, France*



### TS21 – TRAFFIC MANAGEMENT AND CCAM

Tuesday 4 June 2019

17:15–18:15 (Pollux)

- TP1741** Achieving a bidirectional data exchange between central ITS station and traffic management centre: activities within the framework of C-Roads Lower Saxony pilot project  
Fatih Ozel, *OECON Products and Services GmbH, Germany*
- TP1802** The connection between (traffic-) management centers and self-driving vehicles  
Jeroen van der Werf, *Altran, The Netherlands*
- TP1850** C-ITS intersection services for Automated Driving  
Jacco van de Sluis, *TNO, The Netherlands*
- TP1952** A practical approach toward implementing automated intersection management  
Coen Bresser, *Sweco, The Netherlands*
- TP1971** Enhanced traffic management procedures in transition areas  
Sven Maerivoet, *Transport & Mobility Leuven, Belgium*



**TS22 – IMPLICATIONS FOR INFRASTRUCTURE OF CCAM**

**Tuesday 4 June 2019** 17:15–18:15 (Saturn)

- TP1763** Lessons learned from Arctic challenge hybrid C-ITS field tests  
Juho Kostiainen, *VTT Technical Research Centre of Finland, Finland*
- TP1793** Innovation and road safety. The development of cooperative systems. The European project C-ROADS. Cantabrian subpilot  
Ramiro Martínez Rodríguez, *Traffic General Directorate (DGT), Spain*
- TP1807** Automated vehicles and infrastructure Design: an insight into the implications of a dedicated lane for Automated Vehicles on the highway in the Netherlands  
Mathijs Schoenmakers, *Royal HaskoningDHV, The Netherlands*
- TP1960** The changing role of road operators in Hungary  
Máté Verdes, *Hungarian Public Road Non-profit PLC, Hungary*



**TS23 – EVALUATING THE IMPACT OF CCAM**

**Tuesday 4 June 2019** 17:15–18:15 (Foyer)

- TP1730** Financial consequences of value Web model choices for national road authorities in deployment of connected and cooperative Intelligent Transport System  
Isabel Wilmink, *TNO, The Netherlands*
- TP1743** Vehicle fleet penetration of highly automated driving up to 2040  
Risto Kulmala, *Traficon Ltd, Finland*
- TP1832** Road usage and capacity effects of truck platoons in mixed traffic – a simulation study  
Paco Hamers, *TNO, The Netherlands*
- TP1908** Assessing societal impacts in future automated driving scenarios – tentative expert estimates  
Pirkko Rämä, *VTT Technical Research Centre of Finland Ltd, Finland*



**TS24 – ROUTE OPTIMISATION**

**Wednesday 5 June 2019** 10:30–11:30 (Pollux)

- TP1780** Port multimodal inland mode of transportation predictor & prescriptor  
Stefano Persi, *Mosaic Fact, Spain*
- TP1822** Connecting ITS/traffic management and freight transport for sustainable logistics and supply chains: the case of ITSLOG and Sailor projects in Amsterdam  
Walther Ploos van Amstel, *Amsterdam University of Applied Sciences, The Netherlands*
- TP1915** SAFE-10-T: developing smart infrastructure solutions to support safe and reliable transport across the European TEN-T network  
Marieke van der Tuin, *Delft University of Technology, The Netherlands*
- TP1932** A cloud-based optimizer for eco route planning of heavy duty vehicles  
Maria Pia Fanti, *Polytechnic University of Bari, Italy*



**TS25 – TOWARDS FULL AUTONOMY**

**Wednesday 5 June 2019** 10:30–11:30 (Saturn)

- TP1728** Building trust in Automated Vehicles – the role of fenced test sites  
Garry Staunton, *UKAEA/RACE, United Kingdom*
- TP1783** AV-ready traffic flow simulation models and assignments  
Peter Sukennik, *PTV Group, Germany*
- TP1800** EU AUTOPILOT project: platooning use case in Brainport  
Antoine Schmeitz, *TNO, The Netherlands*
- TP1902** “Smart Roads” for AD cars: the AUTOPILOT Project in Livorno  
Daniele Brevi, *LINKS Foundation, Italy*

## TECHNICAL SESSIONS



### TS26 – SATELLITE AND 5G ENABLED ITS SOLUTIONS

Wednesday 5 June 2019

10:30–11:30 (Foyer)

- TP1701** Delivery ITS with the secure mobile edge cloud  
Ian Goetz, *Juniper Networks, United Kingdom*
- TP1712** “GLONASS+112” system as one of the elements of situational center of the Republic of Tatarstan  
Bulat Ismagilov, *Ministry of information and communication of the Republic of Tatarstan, Russia*
- TP1734** A PLUS geospatial journey in ITS  
Shahdaryani Abd Talib, *PLUS Malaysia Berhad, Malaysia*
- TP1933** 5G-enabled applications for a fully collaborative traffic management  
Laura Cocone, *Swarco, Italy*
- TP1947** Using European Satellite Navigation System GALILEO for geolocation in the framework of Mobility as a Service: the GALILEO 4 Mobility project  
Josep Maria Salanova Grau, *Center for Research and Technology Hellas (CERTH)/Hellenic Institute of Transport (HIT), Greece*



### TS27 – SENSORS AND CONTROLS FOR CCAM

Wednesday 5 June 2019

13:00–14:00 (Neptune)

- TP1726** Traffic state prediction: a value added service for automated driving operations  
Henri Palm, *DAT.Mobility, The Netherlands*
- TP1875** Assessment of automated mini-bus operation in the Oku-Eigenji area in Japan  
Frank Rieck, *University of Applied Sciences Rotterdam, The Netherlands*
- TP1941** oneM2M-based, open, and interoperability IoT platform for Connected Automated Driving  
Miodrag Djurica, *TNO, The Netherlands*
- TP1950** Longitudinal control alternatives for the automated vehicle/highway operation  
Sang Hyup Lee, *Korea Institute of Civil Engineering and Building Technology (KICT), Republic of Korea*



### TS28 – CCAM IMPACTS ON SAFETY

Wednesday 5 June 2019

13:00–14:00 (Pollux)

- TP1756** Automated driving – how safe is safe enough  
Merja Penttinen, *VTT Technical Research Centre of Finland Ltd., Finland*
- TP1786** Connected motorcycle consortium is paving the way to connectivity for motorcycles  
Hennes Fischer, *Yamaha Motor Europe N.V., Germany*
- TP1890** Crossing at intersections in a world of increased autonomy and awareness  
Ronald van Katwijk, *Vialis, The Netherlands*



### TS29 – TRIALS OF NEW CONNECTED AND AUTOMATED SERVICES

Wednesday 5 June 2019

13:00–14:00 (Saturn)

- TP1754** A field test and simulation study with CACC and smart intersections in the Province of Noord-Holland, The Netherlands  
Hettie Boonman, *TNO, The Netherlands*
- TP1857** C-ITS initiatives in Wallonia: evaluation methodology of the Walloon C-Roads Project  
Sven Vlassenroot, *Tractebel – Engie, Belgium*
- TP1880** C The Difference: an experimentation to deploy innovative driver assistance services at the scale of a major city (Bordeaux)  
Lionel Prevors, *Cerema Sud-Ouest, France*
- TP1895** C-Mobile – deploying GLOSA for cyclists in Copenhagen  
Jos van Vlerken, *Technical and Environmental Administration, City of Copenhagen, Denmark*



## TS30 – USER-CENTRIC MOBILITY SERVICES

Wednesday 5 June 2019

14:30–15:30 (Pollux)

- TP1707** MaaS: searching for user demand  
Susanna Hauptmann, *Kapsch TrafficCom, Austria*
- TP1838** Seven mobility principles Merwedekanaalzone  
Christiaan Kwantes, *Goudappel Coffeng, The Netherlands*
- TP1905** DORA: an interoperable platform for mobility managers in cities  
Antonio Marqués, *ETRA Investigación y Desarrollo, Spain*
- TP1955** FLEXITRANSPORT – an innovative transport solution for Catalonia  
Joan Prat, *AMTU, Spain*



## TS31 – INFORMATION CHAIN PROTOCOLS AND STANDARDS

Wednesday 5 June 2019

14:30–15:30 (Saturn)

- TP1733** Moving millions a day: IoT and cloud driving ITS  
Shamsul Izhan Abdul Majid, *PLUS Malaysia Berhad; TERAS Teknologi Sdn Bhd, Malaysia*
- TP1844** SOCRATES2.0 TMex – tactical information exchange  
Edwin Mein, *Technolution, The Netherlands*
- TP1891** DATEX II in the transition from information value chain to value pie  
Bard De Vries, *U-trex, The Netherlands*
- TP1904** Analysing scalability of communication protocols for a C-ITS service  
Robbin Blokpoel, *DynniqThe Netherlands*



## TS32 – PUBLIC-PRIVATE PARTNERSHIP

Wednesday 5 June 2019

14:30–15:30 (Foyer)

- TP1745** Maximum trigger based network wide traffic management  
Henri Palm, *DAT.Mobility, the Netherlands*
- TP1856** Traffic management: a public-private collaboration  
Patrick Hofman, *MAP traffic management, Nederland*
- TP1888** Cooperation models for Public-Private Partnerships in traffic management  
Giovanni Huisken, *MAP traffic management, The Netherlands*
- TP1937** Cooperative road weather information system – analysis of business ecosystem  
Toni Lusikka, *VTT Technical Research Centre of Finland Ltd., Finland*



## TS33 – INTEGRATION OF NEW MOBILITY SERVICES

Wednesday 5 June 2019

16:00–17:00 (Pollux)

- TP1716** The Dutch Mobility Panel (DMP): countrywide, large-scale, longitudinal database on human mobility  
Peter van der Mede, *DAT.Mobility, The Netherlands*
- TP1784** From demonstration to deployment: identifying your business case for autonomous mobility  
Giel Mertens, *Bax & Company, Spain*
- TP1824** Netherlands launches MaaS pilot projects: Eindhoven adopts a green strategy.  
Mariska Slots, *Municipality of Eindhoven, The Netherlands*
- TP1912** Behaviour and smart mobility – what do we know?  
Bert van Velzen, *Sweco, The Netherlands*
- TP1924** Progress of trials in MobilitymoveZ.NL and SmartwayZ.NL  
Paul Bevers, *Provincie Noord-Brabant, The Netherlands*

## TECHNICAL SESSIONS



### TS34 – NEW PATHS TO SUSTAINABLE MOBILITY

Wednesday 5 June 2019

16:00–17:00 (Saturn)

- TP1808** Innovation process case: smart infotainment system for public transport  
Juho Kostainen, *VTT Technical Research Centre of Finland, Finland*
- TP1840** BE-GOOD: Ex ante evaluation of the project  
Leon Suijs, *Goudappel Coffeng, The Netherlands*
- TP1859** How ITS contribute to a policy strategy for sustainable mobility  
David Schoenmaekers, *Belgian Ministry Mobility and Transport, Belgium*
- TP1928** Nudging towards sustainable mobility behaviour in nature destinations: Parkkihaukka mobile information service  
Olli Pihlajamaa, *VTT Technical Research Centre of Finland Ltd., Finland*



### TS35 – MODELLING AND PREDICTION ALGORITHMS

Wednesday 5 June 2019

16:00–17:00 (Foyer)

- TP1803** Traffic light optimization through smart algorithms  
Lieuwe Krol, *Goudappel Coffeng, The Netherlands*
- TP1911** Predictive analytics and predictive maintenance innovation via big data: The case of transforming transport  
Andreas Metzger, *paluno (The Ruhr Institute for Software Technology), University of Duisburg-Essen, Germany*
- TP1926** Simulation of queue protection algorithms for inter-urban highways  
Jill Hayden, *Atkins, United Kingdom*
- TP1972** M4 variable speed limit scheme: optimisation with unique characteristics  
Jill Hayden, *Atkins, United Kingdom*



### TS36 – HMI – HUMAN FACTORS

Thursday 6 June 2019

09:00–10:00 (Pollux)

- TP1705** Using agreement pattern negotiations for autonomous driving in cities  
Lavinia Burski, *AECOM, United Kingdom*
- TP1788** Nudging drivers towards higher safety margins– applications of the H2020-project MeBeSafe  
Anna-Lena Köhler, *Institute for Automotive Engineering (ika) of RWTH Aachen University, Germany*
- TP1798** Automated driving and HMI design for city bus and truck with professional drivers  
Mikko Tarkiainen, *VTT Technical Research Centre of Finland Ltd., Finland*
- TP1898** Measuring the emotional impact of driving an autonomous vehicle  
Ondrej Mitás, *Breda University of Applied Sciences, The Netherlands*



**TS37 – ADDED VALUE FROM NEW SERVICES**

**Thursday 6 June 2019** 09:00–10:00 (Saturn)

- TP1782** Mobility as a Service in Madrid Region and its approach within ECCENTRIC project  
Nuria Blanco Caballero, *Consorcio Regional de Transportes de Madrid, Spain*
- TP1819** Insights on traffic management in the MaaS value chain  
Laura Cocone, *Swarco, Italy*
- TP1826** Deployment and testing the Helsinki Region MaaS platform in Finland  
Laura Riihentupa, *SITOWISE Oy, Finland*
- TP1942** Easy2Go's intelligent trip recommendation system  
Linglong Meng, *DFKI GmbH, Germany*



**TS38 – NEW MOBILITY SERVICES: MODELS AND BUSINESS CASES**

**Thursday 6 June 2019** 09:00–10:00 (Foyer)

- TP1759** Public authorities as regulatory service providers in the MaaS ecosystem  
Michael Kieslinger, *Fluid, Austria*
- TP1849** Accelerate and unlock the scalability of Mobility as a Service  
Panagiotis Lytrivis, *Institute of Communication and Computer Systems (ICCS), Greece*
- TP1929** Estimating impacts of innovative mobility concepts with the New Mobility Modeller  
Fieke Beemster, *TNO, The Netherlands*
- TP1962** Modelling the impact of MaaS in the mobility industry using a hybrid model approach  
Albert Serra, *Bax&Company, Spain*



**TS39 – CROSS BORDER SOLUTIONS**

**Thursday 6 June 2019** 09:00–10:00 (Room 1)

- TP1820** The CROCODILE corridor: successful DATEX II deployment in a cross-border setting  
Wolfgang Kernstock, *AustriaTech, Austria*
- TP1858** Collaborative Traffic Management (CTM) – delivering digital roads to provide cross boundary solutions for transport network operations  
Jessica Darvill, *Atkins, United Kingdom*
- TP1892** Cross border cooperation in the framework of crocodile  
Tamás Tomaschek, *Hungarian Public Road Non-profit PLC, Hungary*
- TP1951** Interoperability Evaluation using the RTTI App in InterCor TESTFESTs  
Bart Netten, *TNO, The Netherlands*

## SCIENTIFIC SESSIONS



### SP01 – ENERGY EFFICIENCY

Tuesday 4 June 2019

10:30–11:30 (VoF)

- SP1758** Adaptive green wave with speed advice for automated vehicles  
Meng Lu, *Dynniq Nederland B.V., The Netherlands*
- SP1765** Review of rolling resistance influence on fuel consumption of trucks  
Yue Huang, *University of Leeds, United Kingdom*
- SP1810** Impact of elevation data quality on power request modelling accuracy for electric vehicles  
Yuzhe Ma, *Eindhoven University of Technology, The Netherlands*
- SP1813** Energy consumption prediction for electric city buses  
Camiel Beckers, *Eindhoven University of Technology, The Netherlands*



### SP02 – CONNECTED, COOPERATIVE AND AUTOMATED MOBILITY/ CHANGING ROLE OF INFRASTRUCTURE

Tuesday 4 June 2019

14:30–15:30 (VoF)

- SP1718** Motorway merging assistant for automated vehicles  
Robbin Blokpoel, *Dynniq, The Netherlands*
- SP1815** A street design and management framework for disruptive transport  
William Riggs, *University of San Francisco, USA*
- SP1833** Balancing road-safety and data protection in C-ITS  
Wouter van Haaften, *Leibniz Institute, University of Amsterdam, The Netherlands*
- SP1936** A cooperative intersection support application enabled by SAFE STRIP technology both for C-ITS equipped, non-equipped and autonomous vehicles  
Giammarco Valenti, *University of Trento, Italy*
- SP1953** Cooperative adaptive traffic control: predictability versus traffic efficiency  
Meng Lu, *Dynniq, The Netherlands*



### SP03 – CONNECTED, COOPERATIVE AND AUTOMATED MOBILITY / TRANSITION PHASE AND USER ACCEPTANCE

Wednesday 5 June 2019

10:30–11:30 (VoF)

- SP1769** Analysis of a consumer survey on highly automated vehicles  
Ilias Panagiotopoulos, *Harokopio University of Athens (HUA), Greece*
- SP1792** Less urban private transport through intelligent, micro-mobile transport solutions? A user-centered investigation of relevant use cases and requirements  
Pia Dautzenberg, *Institute for Automotive Engineering (ika) of RWTH Aachen University, Germany*
- SP1795** Does the learner driver remain in control of assistance systems?  
Arie Paul van den Beukel, *University of Twente, The Netherlands*
- SP1944** Estimating the potential for Mobility-as-a-Service in the Netherlands using mobile phone data  
Luuk Brederode, *DAT.Mobility / Delft University, The Netherlands*
- SP1977** Compliance with monitoring requests, biomechanical readiness, and take-over performance: video analysis from a simulator study  
Bo Zhang, *University of Twente, The Netherlands*



## SP04 – TRANSPORT NETWORK OPERATIONS / DATA ANALYTICS AND HANDLING BIG DATA

Wednesday 5 June 2019

13:00–14:00 (VoF)

- SP1711** Big spatio-temporal data mining for emergency management information systems  
Igor Anikin, *Kazan National Research Technical University named after A. N. Tupolev – KAI, Russia*
- SP1722** Anonymised floating car data – the long path to data sharing  
Niels Agerholm, *Department of Civil Engineering, Aalborg University, Denmark*
- SP1772** Estimating train arrival time with supervised machine learning algorithms  
Josep Maria Salanova Grau, *Center for Research and Technology Hellas (CERTH)/Hellenic Institute of Transport (HIT), Greece*
- SP1842** Construction and analysis of a weighted city road graph using OpenStreetMap and statistical GPS data  
Tatiana Babicheva, *Vedecom, France*
- SP1957** Unimodality of travel times on urban and rural roads  
Marthe Uenk-Telgen, *National Data Warehouse for Traffic Information, The Netherlands*



## SP05 – SIMULATION, MODELLING AND AI

Wednesday 5 June 2019

14:30–13:30 (VoF)

- SP1753** Evaluation of performance of selected ad hoc routing protocols in an emergency vehicle warning application for vehicular ad hoc networks  
Tibor Petrov, *University of Zilina, Slovakia*
- SP1761** Modelling of substitutional signal controls for microscopic traffic flow models using process data of traffic signal systems  
Tanja Weidemann, *University of Kassel, Germany*
- SP1943** Lane change behaviour inference through deep-learning-based environment analysis  
Alberto Díaz Álvarez, *Universidad Politécnica de Madrid, Spain*
- SP1974** Predicting traffic phases from car sensor data  
Emiliano Heyns, *HAN University of Applied Sciences, The Netherlands*

## COMMERCIAL PAPER SESSIONS



### CP01 – TECHNOLOGY FOR MORE LIVEABLE CITIES

Tuesday 4 June 2019

10:30–11:30 (Commercial Theatre)

- CP1731** Supporting the electric mobility revolution: technologies to address range anxiety  
Louis Debatte-Monroy, *TomTom Enterprise, The Netherlands*
- CP1837** How will autonomous mobility bring Mobility Equity?  
Pierre Chehwan, *Navya, France*
- CP1872** Case study & field test “Intelligent Traffic Management” in the City of Darmstadt  
Bernhard Minge, *VITRONIC Dr.-Ing. Stein Bildverarbeitungssysteme GmbH, Germany*
- CP1893** Triplesign Solar VMS, ITS tool for sustainable traffic management of smart cities.  
Hans-Ivar Olsson, *Triple Sign System AB, Sweden*
- CP1980** The “Eye” of IoT  
Attiyah Lanier, *Intel, USA*



### CP02 – NEW TECHNIQUES AND SERVICES 1

Tuesday 4 June 2019

13:00–14:00 (Commercial Theatre)

- CP1713** The power of prediction – From collecting data to predictive traffic management services  
Hans Dombek, *Sweco, The Netherlands*
- CP1804** Shaping the future of mobility – risk profiling and assessment for smart mobility  
Guido von Scheffer, *Motion-S S.A., Luxembourg*
- CP1843** Multi-sensor fusion localization framework: map-based vehicle localization  
Siavash Shakeri, *TomTom, The Netherlands*
- CP1920** A take on concepts to deploy effective autonomous urban mobility  
Rodrigo Caetano, *Scania CV AB, Sweden*



### CP03 – NEW TECHNIQUES AND SERVICES 2

Tuesday 4 June 2019

14:30–15:30 (Commercial Theatre)

- CP1709** Why mobility providers need a control tower to orchestrate their vehicle fleets  
Luc Texier, *BestMile, Switzerland*
- CP1751** New generation of traffic light controllers: application of smart traffic  
Mahtab Joueiai, *Sweco Mobility Solutions, The Netherlands*
- CP1901** Situational awareness in tunnels with C-ITS during emergency  
Ola Martin Lykkja, *Q-Free Norway AS, Norway*
- CP1956** Smart C-ITS solutions for a safe, sustainable and efficient traffic system  
Rob Oldeheuveld, *Dynniq, The Netherlands*



**CP04 – NETWORK OPERATION SERVICES**

Wednesday 5 June 2019

10:30–11:30 (Commercial Theatre)

- CP1723** Big data and machine learning for traffic and accident predictions on highways  
Miguel Carpio, *Cintra Servicios de Infraestructuras, Spain*
- CP1749** Could Connected and Autonomous Vehicles transform asset inspection?  
Garry Staunton, *UKAEA/RACE, United Kingdom*
- CP1781** Innovation in extrapolation of data to optimize the construction of an active transportation observatory  
Laurent Guennoc, *Eco-Counter, France*
- CP1836** Automated pavement defect mapping and road lane marking condition analysis  
Markus Melander, *Vaisala Oy, Finland*



**CP05 – MAAS IN CITIES**

Wednesday 5 June 2019

14:30–15:30 (Commercial Theatre)

- CP1791** CITIX 3D, next generation, user-friendly and non-intrusive 3D sensor to count and classify pedestrians, cyclists and motorized vehicles with unmatched accuracy  
Laurent Guennoc, *Eco-Counter, France*
- CP1940** Maximising the utilisation of localised transport supply  
Anna Rothnie, *Shyft Mobility, United Kingdom*
- CP1946** Automated shuttles as a solution for urbanisation and the increasing demand for mobility  
Ferdinand Hoorweg, *The Future Mobility Network, The Netherlands*
- CP1958** End to the rush hour crush? How MaaS and data are liberating road and rail  
Alon Shantzer, *Moovit, Israel*



**CP06 – MAAS PLATFORMS**

Thursday 6 June 2019

09:00–10:00 (Commercial Theatre)

- CP1738** How demand-responsive transit bridges the gap between public mass transit and individual mobility in a Mobility-as-a-Service ecosystem  
Mark-Philipp Wilhelms, *moovel Group GmbH, Germany*
- CP1774** m2i – integrated mobility for Île-de-France: towards a multimodal mobility information system of excellence in Île-de-France  
Werner Kutil, *Cityway, France*
- CP1776** Moovizy 2 – an innovative full MaaS application with over 25.000 frequent users in a French Metropolitan Area  
Laurent Glorieux, *Cityway, France*
- CP1809** How a modular approach to Mobility-as-a-Service platforms enhances user experience, mobility services, and policy making  
Oliver Wohak, *d-fine GmbH, Germany*

# ERTICO Explores

## A series of innovative workshops

ERTICO ROOM – Ground floor, EVOLUON

### DIGITAL MARKETPLACE CONSTRUCTS IN SMART MOBILITY AND SMART CITIES

**Tuesday 4 June**

9.00-12.00

As a place where goods are traded and social contacts built and reinforced, a marketplace forms the hub of daily life, but it is also defined by the size and value of the community behind it.

Smart Cities, where a number of technological factors play an important role in addressing mobility, environmental protection and quality of life, are an integral part of digital marketplaces. The internet of things has allowed modern cities, which are equipped with numerous sensors, to collect vast quantities of data potentially creating a Smart City that is an internet of everything, including services. But the true value of the data generated and collected can only be realised by pooling and sharing it with the diverse digital communities that exist in the Smart City and that provide services across sectors such as energy, mobility, health, etc.

Discussions in this workshop will centre on monetisation strategies based on unlocking the potential of different data sources in the Smart Cities context. These will be anchored on three types of challenges: creating new shared services in urban areas, supporting cross-sector services, and the socio-economic impacts of building communities around the marketplace.

### ALL YOU NEED TO KNOW ABOUT BLOCKCHAIN AND DLT USE IN SMART MOBILITY

**Tuesday 4 June**

13.00-15.00

Blockchain and Distributed Ledger Technologies (DLT) have the potential to address many challenges from the Mobility sector by enabling more decentralised, trusted, secured, traceable and user-centric digital services. They can improve inter-company processes and stimulate new business models. While Blockchain and DLT are well known for financial use cases, the concept is still abstract when in use for smart mobility. Many applications based on DLTs have been developed by industry and start-ups for supply chain and transport. Other actors of the sector, like public authorities are considering more and more the possibilities to apply DLTs to improve processes or enable more efficient mobility services.

The first workshop on Blockchain and DLT for Mobility organised by ERTICO in September 2018 at the ITS World Congress in Copenhagen explored potential areas of deployment for MaaS and digital supply chains. This second ERTICO workshop will introduce existing use cases with a focus on benefits, applicability criteria and implementation challenges and explore potential areas where the technology might be of value. It will bring together specialists from industry and research with mobility stakeholders interested in exploring the potential of DLTs in an interactive discussion, rich in idea exchange. The role of policy-makers and the needs for stakeholder collaboration, standardisation and harmonisation will also be addressed.

### AN ARCHITECTURE FOR EUROPEAN LOGISTICS INFORMATION EXCHANGE: THE AEOLIX PLATFORM

**Tuesday 4 June**

16.00 -17.00

Supply chain visibility and use of large logistics related information is an important issue for the deployment of pan-European logistics solutions. This workshop focuses on a new ICT platform, able to achieve a cloud based cooperative logistics ecosystem. More in detail, the platform is proposed as a user-configurable and secure intelligent dashboard, where information flows, provided by multiple sources, can be collected, organized, connected, manipulated and used depending on the role of the logistics and supply chain actors. The proposed platform aims to simplify the complexity of capturing fragmented data, aggregating and creating actionable information from multiple sources and actors in the logistics sector.

**OPEN DATA ACCESS TO MOBILITY DATA****Wednesday 5 June**

9.00 -12.00

The integration of Big Data and IoT platforms is creating new data-driven business models that will undoubtedly transform Europe's industry. The use of Open Data for deploying IoT platforms for Smart Mobility, however, presents a number of challenges. The main barriers that must be overcome fall into three categories: 1) technical issues such as interoperability and scalability of data and platform technologies; 2) policy surrounding access to data, particularly in-vehicle data; and 3) awareness across the industry about the benefits of data-driven models.

This workshop is an opportunity to examine the benefits of data-driven services from use cases in data marketplaces, analyse ICT architectures and data-sharing platforms, and to discuss policy requirements for Smart Cities and Connected and Automated Mobility. A concrete expected outcome of this workshop is a taskforce that will work on establishing an Open Data Forum for mobility data. The Forum will allow stakeholders to have a dialogue on the economic potential of vehicle data, addressing the benefits, risks and architectures for data-driven services, and to establish a structured topology of Open Data access and the economics of data sharing.

**5G DEPLOYMENT FOR AUTOMATED MOBILITY****Wednesday 5 June**

13.00-16.30

5G is expected to contribute to the digital transformation of the transport sector towards a global Digital Smart Mobility paradigm, providing breakthrough mobility concepts and new innovative applications and services matching user needs and societal challenges. EU funded actions, aiming at deploying and trialing 5G technologies for Cooperative, Connected and Automated Mobility (CCAM) started at the end of 2018 in collaboration with 5G-PPP. The European Commission is also preparing a framework for launching the Connecting Europe Facility (CEF) digital projects to co-finance 5G infrastructure with the intent to accelerate the deployment of 5G CAM corridors.

The purpose of this workshop is to bring about an exchange of views on the vehicle and roadside infrastructure needs for CCAM using 5G. The discussion will focus on the vehicle and roadside infrastructure needs and cellular network requirements for deploying 5G technologies and architectures to run trials on national and the cross-border corridors. Interactive panel discussions will provide insights into the 5G technologies for CCAM, the envisioned business models as well as state-of-the-art results from the 5G-PPP projects, in particular the three 5G for CCAM Innovation Actions (5G-MOBIX, 5G-CROCO, 5G-CARMEN) in the context of cross-border testing.

**A VISION FOR TRANSPORT & MOBILITY – MOVING FORWARD****Thursday 6 June**

09.00-10.00

This is a brainstorming workshop co-organised by ERTICO and the European Commission, DG MOVE for the second year. This workshop will focus on how thanks to innovative concepts, schemes and technologies mobility might evolve in the future. It will also consider what our options for transport and mobility will look like in 10 years from now with regards to freight, traffic management, clean or urban mobility, digital infrastructure and other aspects of mobility. The 3-minute visionary presentations of the invited speakers will be followed by an interactive discussion with the audience which will look at how we as users and citizens will move from A to B in the future and the ways in which we can make our society a better, safer, more environmentally friendly place to live in. This workshop hopes to provoke an 'out of the box' discussion so an open mind is very welcome. Come armed with ideas!

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### Demonstrations

This year's demonstrations will push the boundaries of modern mobility, so be sure to visit the innovative solutions that will be showcased between the Evoluon and Automotive Campus. Demonstrations will run between the Evoluon and the Helmond Automotive Campus – a living lab for smart mobility solutions! Your experience starts when you step into the shuttle bus at the Evoluon. On your way over to the Automotive Campus you will get an impression of implemented smart mobility solutions.

Shuttle buses will leave every 10–15 minutes from the Evoluon to the Automotive Campus and vice versa. Demonstration rides can be booked beforehand via the ITS European Congress 2019 App.

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#### Use Dynniq's GreenFlow on your transfer to the Automotive Campus



Experience the life of elite and premium-class passengers in our buses or VIP cars! By using Dynniq's GreenFlow for VIPs you will get to your destination faster. During your transfer, you will discover how our C-ITS applications can provide smart support to road users. GreenFlow prevents a stop-start at junctions, which saves fuel and CO2 emissions. The driver will experience a more comfortable and smoother drive. And it gives the road manager full control to tailor their traffic policies to suit different road users, such as cyclists, car and lorry drivers. This creates an effective management of traffic flow, with the ultimate goal of improving user experience.

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#### High-speed Autonomous Vehicle Demo



2getthere is excited to showcase a high-speed (40km/h) demonstration with our 3rd generation GRT vehicle on the Automotive Campus during the ITS 2019. During the demo the projects in which the vehicle will be featured, business park Rivium (Capelle aan den IJssel, the Netherlands) and Brussels Airport (Belgium), will present their deployment at the stations served by the autonomous vehicle.

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#### Creating awareness and stimulating the use of Advanced Driver Assistance Systems



Advanced Driver Assistance Systems (ADAS) can make a significant contribution to the road safety of drivers and fellow road users, but also to traffic flow and the environment. However, recent studies have shown that many drivers are insufficiently informed that their cars are equipped with such systems and do not use them sufficiently. With this ADAS demonstration – in which several car brands are involved – we want to draw special attention to the functionalities and usefulness of ADAS and also want to strengthen our European lobby.

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#### 'See through the eyes of our car'



The ATeam will navigate an urban intersection with a smart traffic light and perform an autonomous parking manoeuvre. Ride in the car and see how an autonomous and cooperative driving car senses its surroundings, and plans its path on the road!

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**AUTOPILOT: the use of Internet of Things to enhance Automated Driving**

The demonstration will show how information from a drone, roadside systems (cameras & traffic lights) and from vehicles (road hazard and VRU detection), is used through IoT for forming a car platoon, speed adjustment of platooning and for finding the best route to an available parking spot with automated valet parking.



**C-MOBILE C-ITS urban services demo**

The C-Mobile project is about large-scale deployment and interoperability of C-ITS services. These topics will be central to the demonstration, which shows four urban scenarios, with each scenario running different combinations of C-ITS services. For more information about the C-Mobile project see <https://c-mobile-project.eu/>.



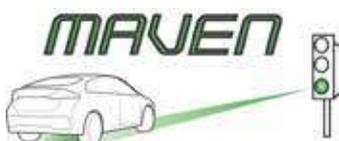
**Autonomous drones: opportunities for traffic research**

In the near future, drones will operate autonomously. Mapture.ai provides autonomous drone systems. This system will be demonstrated, as well as the possible applications of autonomous drones for traffic research (using cameras and AI). Previous experiences of Antea Group with this application will be shared.



**i-CAVE: a showcase of the benefits of vehicle cooperation**

In the i-CAVE project dual mode demonstrator vehicles are being developed, which showcase cooperative and automated driving. In this demo the difference between those two modes will be shown with two Renault Twizy's following each other automatically. The vehicle following distance achieved with cooperative driving would be unsafe without V2V communication.



**Traffic controller supported automated driving**

The European Maven project intends to provide vehicle management solutions for urban signalized intersections and corridors based on I2V and V2V interaction. This demo will show the intersection requesting automated vehicle lane or speed change based on traffic demand and vehicle information to the intersection causing it to change behaviour based on vehicle characteristics and trajectory.



**Experience the full connected road side ecosystem in operation**

Did you know the Netherlands already has an operational C-ITS ecosystem in place? We will demonstrate that it is up and running, integrated with various types of objects from competitive vendors. The data is visualized in-car by our partner's solutions. Hop in the demo ride and experience the possibilities!



### Automated driving made safer and more efficient by integrating intelligent roadside infrastructure in mobility solutions

The potential benefits of automated vehicles on safety, comfort and traffic efficiency are widely recognized by the automotive industry and authorities. Developments in cellular and ad-hoc communication technology are rapidly expanding possible mobility solutions, connecting vehicles and infrastructure. In this demonstration roadside infrastructure equipped with connectivity actively assists a platoon of automated vehicles approaching an intersection, showcasing an improvement in traffic efficiency and safety.

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Smart mobility.  
Dutch reality.

### Talking Traffic Experience: enabling road users to look 'far beyond their windscreen'

Get to know Talking Traffic in practice: new services for road users based on real-time data exchange and connectivity, enabling them to look far "beyond their windscreen". Make optimal use of real-time travel information and driving support via a dashboard screen, navigation system or simply via a smartphone: tailor-made and real-time, regardless of location and vehicle brand. Talking Traffic services include information on incidents, roadworks, sudden changes in weather conditions, traffic jams, maximum speeds (static and dynamic), matrix signs, closed lanes, parking options, time to red and green.

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### CACC with trucks on secondary roads with traffic light interaction

During the ITS European Congress Cooperative Adaptive Cruise Control (CACC) will be demonstrated by means of a platoon of trucks which is able to run smoothly across an intersection, with existing C-ITS capabilities, by giving priority to the trucks and extending green time for traffic lights. The dynamic length of the number of platooning trucks is taken into account.

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### Enabling L3 hand over and hand back by VI-DAS (Vision Inspired Driver Assistance Systems)

The aim of the demonstration is to show take-over and hand back transition strategies for SAE-L3: from manual to automated and from automated to manual. The approach is based on next generation 720° vision inspired driver assistance systems.

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**Concorda**

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**NAVYA**

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**Drone Deliveries**

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**Rijkswaterstaat**

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## Implementation visits

With millions of bikes, cars, trucks and trains on only 41.000 square kilometres, the Dutch do not just think smart mobility. Experience the innovations and advances in the Netherlands, and see what the country has done to improve mobility solutions for industry and citizens. Join the experts on a guided tour to various destinations expressing the character of an innovative, successful economy and a highly complex transport infrastructure.



### Visit one of the most advanced car manufacturing companies of Europe – VDL Nedcar

VDL Nedcar, part of VDL Groep, is one of the most advanced car manufacturing companies of Europe. VDL Nedcar is the only independent car manufacturer in the Netherlands and produces various types of MINI and the BMW X1 on behalf of BMW Group. During the visit you will information about VDL Nedcar and you will get the chance to see the factory.



 <b>Date</b> 05-06-2019	 <b>Duration</b> 3 hours	 <b>Price</b> 10,00 euro (excl. VAT)
 <b>Time bus leaves</b> 09:00	 <b>Time of return</b> 13:00	
 <b>Time visit start</b> 09:30	 <b>Max participants per visit</b> 60	



### Traffic Innovation Centre

The Traffic Innovation Centre is an experimental area where national, regional and local authorities test intelligent mobility solutions. Experiments occur in real life setting, in a real network, in real traffic. That way, impact on traffic management becomes visible immediately. The lab's main purpose is synergy and knowledge sharing between market parties, governments and research institutes. In the Traffic Innovation Centre, R&D is connected to the operation of traffic management. Parties can test and develop their intelligent mobility solutions. By doing so, we increase traffic safety, improve traffic flow and reduce CO2 emission. During the Experience Visits, a guided tour to the Traffic Innovation Centre and the Operational Traffic Management Centre is.

[www.innovatiecentrale.nl](http://www.innovatiecentrale.nl)



 <b>Date</b> 04-06-2019 05-06-2019 06-06-2019	 <b>Duration</b> 1.5 hours	 <b>Price</b> 20,00 euro (excl. VAT)
 <b>Time bus leaves</b> 15:00	 <b>Time of return</b> 17:00	
 <b>Time visit start</b> 15:15	 <b>Max participants per visit</b> 40	





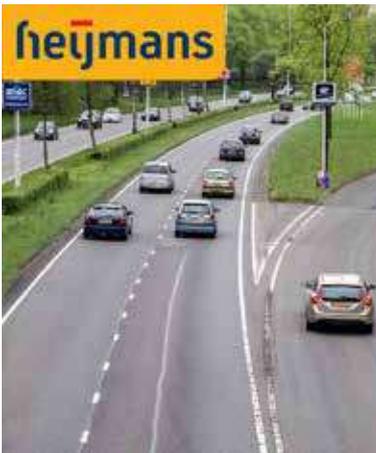
### TNO Advanced Solutions, Tooling and Innovative Methodologies for Connected and Automated Driving

TNO offers three visits in the unique testing facilities where our top researchers present vehicles, tools and insights into recent results of projects related to applications and methodologies for Connected and Automated Driving (C-AD). Every visit is 30 minutes. You are welcome to join multiple visits.

1. Streetwise scenario based validation for C-AD Streetwise- a unique scenario-based methodology for validation of C-AD, completely data driven, covering typical driving situations and broad supported by the automotive community. Location: in or around the VeHil facility (VEHIL = Vehicle in the Loop)
2. HIL simulation in combination with MicroSimulation for C-AD HIL Predictive A.I. based approach for energy management in hybrid drive chain of Trucks in communication with iVRi. Location: HiL Facility (HIL = Hardware in the Loop)
3. New Mobility Modeller and urban Strategy Demonstration of several simulation methods and instruments to predict the effects of C-AD on three levels: driver, mobility and urban planning questions. Location: VeHil facility (VEHIL = Vehicle in the Loop)

<https://www.tno.nl/nl/aandachtsgebieden/mobiliteit-logistiek/roadmaps/smart-traffic-and-transport/>

	<b>Date</b> 04-06-2019 05-06-2019 06-06-2019		<b>Time visit start</b> 04-06-2019: 10:15 05-06-2019: 06-06-2019: 13:15		<b>Time of return</b> 04-06-2019: 12:00 05-06-2019: 06-06-2019: 15:00
	<b>Time bus leaves</b> 04-06-2019: 10:00 05-06-2019: 06-06-2019: 13:00		<b>Duration</b> 1.5 hours		<b>Max participants per visit</b> 40
					<b>Price</b> 10,00 euro (excl. VAT)



### An intuitive measure to nudge drivers

In order to change habitual traffic behaviour directly, we take another approach by using nudging principles. For which an intelligent system is developed. We as humans react intuitively to environmental cues, processing the information automatically on a more unconscious level and therefore a nudging approach is particularly suitable for supporting our driving tasks.

Heijmans is one of the partners in the European Horizon 2020 project: MeBeSafe. Heijmans is developing the system and is responsible for the installation in the infrastructure. By providing road users feedback only when needed, we aim to improve their driving behaviour in a supporting way. This way we are helping road users to perform better driving behaviour without restricting their freedom of choice or punishing them. In other words, the intelligent system intuitively nudges the traffic of Eindhoven towards safety. By joining this visit you will be one of the first to witness this new approach in an on street situation.

<https://www.heijmans.nl/en/>

 <b>Date</b> 04-06-2019 05-06-2019	 <b>Duration</b> 1 hour	 <b>Price</b> 10,00 euro (excl. VAT)
 <b>Time bus leaves</b> 15 minutes before visit start	 <b>Time of return</b> 15 minutes after visit ends	 <b>Specific information</b> Safety measure: A high visibility safety vest will be provided at the location. It's mandatory to wear this at the location
 <b>Time visit start</b> 13:30, 15:00 and 16:30	 <b>Max participants per visit</b> 12	



## Cycling Innovation in Tilburg – Breda region

As a well-known cycling country improving and stimulating cycling always is very important to become more sustainable. From that perspective the Tilburg – Breda region started a state-of-the-art Cycling Lab, in which commercial and educational organizations can test and develop new products or services, focusing on the interaction between the bicycle (e.g. e-bikes or speed-pedelacs), the cycle path (cycle highways) and cyclists (behaviour). In this Implementation we will show unparalleled features of ITS and cycling in Tilburg, like:

- ISA (Intelligent Speed Adaptation) as a tool for high-speed bicycles to
- Cross-Cycle app as an interaction between cyclists and traffic lights to enlarge a green light for approaching cyclists
- VR-bicycle, using a virtual reality environment to visualize cycling friendly scenarios to help policymakers in renewal discussions
- CyclePRINT as a tool to visualize GPS-data of cyclists showing origin and destination, intensities, delays, speed of cyclists including the option to forecast future scenarios.

 <b>Date</b> 04-06-2019	 <b>Duration</b> 3 hours	 <b>Price</b> 10,00 euro (excl. VAT)
 <b>Time bus leaves</b> 09:00	 <b>Time of return</b> 13:00	
 <b>Time visit start</b> 09:30	 <b>Max participants per visit</b> 25	



**DAF Innovation trucks**

In the course of its 90-year heritage DAF has developed many transport innovations, enabling new standards in efficiency, uptime, emissions, safety and driver comfort. Examples include turbo technology which DAF pioneered in the fifties, turbo-intercooling introduced by DAF as an industry-first in the early seventies and the current PACCAR MX-11 and MX-13 drivelines, operating at low engine rpms for industry-leading fuel efficiency and extremely quiet operation.

In 2015, DAF demonstrated truck platooning. The EcoTwin vehicle system enabled trailing vehicles to automatically follow the lead truck resulting in lower fuel consumption, reduced CO2-emissions and improved traffic flow. Due to EcoTwin’s success, DAF was selected to exclusively participate in English platooning trials in 2017. DAF is engaged with leading European technology development projects to gain comprehensive experience with alternative electric and hybrid power trains.

<https://www.daf.com/en/about-daf/innovation/daf-ecotwin>

 <b>Date</b> 05-06-2019	 <b>Duration</b> 3 hours	 <b>Price</b> 10,00 euro (excl. VAT)
 <b>Time bus leaves</b> 09:00	 <b>Time of return</b> 13:00	
 <b>Time visit start</b> 09:30	 <b>Max participants per visit</b> 60	

**No talking but doing it, ITS 's-Hertogenbosch**

In 's-Hertogenbosch smart use is made of the infrastructure for all modalities. We have policy frameworks that we test and various special applications such as: Schwung app for cyclists, FLIP (dynamic panel for fast driving bicycle) I-VRIs with use case emergency services and acoustic signalling for pedestrians that is standardized. After a presentation we take a bike tour with expert explanations from, among others, Mark Wagenbuur (Bicycle Dutch) & Eric Greweldinger.

 <b>Date</b> 06-06-2019	 <b>Duration</b> 3 hours	 <b>Price</b> 10,00 euro (excl. VAT)
 <b>Time bus leaves</b> 09:00	 <b>Time of return</b> 13:00	
 <b>Time visit start</b> 09:30	 <b>Max participants per visit</b> 40	

### Smart Mobility at innovation hotspot High Tech Campus Eindhoven

High Tech Campus Eindhoven is the place where more than 12,000 bright minds from 85 nations come together to develop ground-breaking technology in the field of Health, Energy and Smart Environments. It is also the place where technology in Brainport Eindhoven is turned into business. This high-tech hotspot, also known as the smartest square kilometre in Europe, houses a unique, diverse mix of 180 companies, like established global brands, leading research institutes, fast growth enterprises, high-tech start-ups and service companies. At the Campus knowledge, experience, world-class research facilities and technical infrastructure are shared in an open innovation ecosystem. During this visit and Campus tour, some of our leading companies (TomTom, Holst Centre, NXP) will showcase their latest developments in the field of Smart Mobility and you will experience the great atmosphere of our Campus Community and collaborative environment.

One of the companies founded at High Tech Campus Eindhoven is Amber, providing on-demand fully electric cars. You will drive from the congress location to High Tech Campus Eindhoven with an Amber, so you can personally experience what it is to use a shared, electric car. Amongst all participants of this implementation visit, ten people will get the chance to drive. Amber Mobility contact you with instructions beforehand. Your email addresses will be shared with Amber for the sole purpose of providing instructions about this.

[www.hightechcampus.com](http://www.hightechcampus.com)



Date  
04-06-2019



Duration  
2 hours



Price  
25,00 euro  
(excl. VAT)



Time bus  
leaves  
12:00



Time of return  
15:00



Time visit start  
12:30



Max  
participants  
per visit  
30



### Living Lab Strijp-S – Smart Mobility

“Nowhere is Eindhoven’s makeover more evident than at Strijp-S, the former Philips complex.”- The New York Times.

Improving the quality of life for residents and visitors is the central goal in Strijp-S. Innovative products and services, contributing to this goal, are here developed. There is commitment to a more sociable, comfortable and sustainable way of living in the city. Strijp-S district is a living lab: a dynamic environment where products and services are developed, refined, demonstrated and replicated. One element is the Smart Mobility program, which presents better and more actual parking management information: reserved (license plate) parking, guided route and parking information. By offering these new technology and related services, we improved the routing in the area, the visitor has a more efficient trip, and therefore less unnecessary CO2 emission.

Every year Strijp-S welcomes more than 1 million international visitors to experience technology, design and user interaction! Please, join us too!

 <b>Date</b> 04-06-2019 05-06-2019	 <b>Duration</b> 2 hours	 <b>Price</b> 5,00 euro (ex VAT)
 <b>Time bus leaves</b> 12:00	 <b>Time of return</b> 14:00	 <b>Specific information</b> This visit is on walking distance of Evoluon, the visit will start directly at the Implementation Visit desk at Evoluon.
 <b>Time visit start</b> 12:00	 <b>Max participants per visit</b> 20	

## IMPLEMENTATION VISITS



### Urban Design by bike

As part of its city strategy, Eindhoven uses design to create an 'urban' understream. Design – by artists and by inhabitants – is used to create a city that inhabitants are proud of and feel safe in. Design is in this way used to influence emotions and behaviour on the street, as well as to actually make specific locations safer. To entice inhabitants to travel by bike within the city, specific projects were implemented that use design and technology to create comfort and safety for cyclists.

A tour guide from the Municipality of Eindhoven will guide you along this 20-kilometre bike tour across Eindhoven. You will see multiple design and technology projects, such as a floating cycling roundabout, a 'slow lane' and multiple street art tunnels. Projects that show design-ways to improve safety.



**Date**  
04-06-2019  
05-06-2019



**Duration**  
3 hours



**Price**  
20,00 euro  
(excl. VAT)



**Time bus leaves**  
09:30



**Time of return**  
12:30



**Specific information**  
This visit is a bike tour. A bike will be provided to each participant.



**Time visit start**  
09:30



**Max participants per visit**  
20



### Innovations by Bike

With its focus on high tech and innovation, Eindhoven is a hotspot for innovative cycling. During a round tour by bike (approximately 24 kilometers), you'll visit multiple innovation projects, amongst others: Hovenring (a floating roundabout for cycling), Synchronicity, C-Mobile, BikeScout, Time To Green and Flow/Smart Traffic. These are innovations aimed to improve efficiency of traffic flow, for example through using data and censoring or aerial space.



**Date**  
04-06-2019  
05-06-2019



**Duration**  
3 hours



**Price**  
20,00 euro  
(excl. VAT)



**Time bus leaves**  
13:30



**Time of return**  
16:30



**Specific information**  
This visit is a bike tour. A bike will be provided to each participant.



**Time visit start**  
13:30



**Max participants per visit**  
20

## Smart Society Eindhoven

Stratumseind is one of Eindhoven’s most prominent nightlife areas, attracting well over 20,000 visitors in weekend nights. In contrast, it is almost deserted during the day. As the area is in decline and the number of (severe) incidents on the rise, the city aims to turn Stratumseind’s back into a safe environment. As part of the action plan, innovative solutions involving lighting, social media, gaming technology, and the collection and processing of sensor data are tested and deployed. Stratumseind is a Living Lab where massive amounts of data about people’s activities and the environment are used to determine the effects of measures and to study which factors contribute to violence and discomfort.

	<b>Date</b> 04-06-2019 05-06-2019		<b>Duration</b> 1.5 hours		<b>Price</b> 5,00 euro (excl. VAT)
	<b>Time bus leaves</b> 16:00		<b>Time of return</b> 17:30		
	<b>Time visit start</b> 16:00		<b>Max participants per visit</b> 20		



### Experience ITS showcases in the Metropolitan Region Amsterdam

You are invited to experience the various applications of ITS and Smart Mobility in the Metropolitan Region Amsterdam (MRA). The MRA works closely together to test ITS and Smart Mobility solutions in real operational traffic, in public-private partnerships with the industry and knowledge institutions. This is important, because by adding technology to mobility, benefits can be gained in terms of traffic flow, traffic safety, quality of life and the environment. Due to many pilots over the past few years the region has grown into a mature testing ground for connected and automated driving, interactive traffic management and Mobility as a Service.

In this technical visit you will:

1. gain information about one of the world's first hybrid communication-infrastructure test bed (highway and regional roads) and about the pilots with connected and automated driving, such as the European CONCORDA project and CACC pilot.
2. experience the services of Talking Traffic and intelligent traffic lights in real operational traffic, such as GLOSA.
3. dive into advanced crowd management in the Red-Light District, a popular tourist attraction.
4. see innovative traffic management at the Johan Cruyff Arena (home of AJAX) elaborating the Operational Mobility Centre, the Common Operational Picture and the Amsterdam pilot of the pan-European project SOCRATES2.0.
5. find out more about the extensive public-private cooperation in the Metropolitan Region Amsterdam in order to put ITS into practise.

This visit gives you an unique opportunity to experience the smart solutions the Amsterdam region uses to the various challenges it faces. In short, experience Smart Mobility, Dutch Reality!

 <b>Date</b> 07-06-2019	 <b>Duration</b> 4.5 hours	 <b>Price</b> 15,00 euro (excl. VAT)
 <b>Time bus leaves</b> 08:30 at Evluon	 <b>Time of return</b> 07-06-2019: 15:00 at Schiphol	
 <b>Time visit start</b> 07-06-2019: 10:00	 <b>Max participants per visit</b> 40	



**Testing and practice of Autonomous Transport for Last Mile solutions in Metropolitan Region Rotterdam – The Hague**

Join the visit to the Metropolitan Region Rotterdam – The Hague, to see Autonomous Transport (AT) in action! Thanks to the presence of leading research institutes, incubators, accelerators and leading companies in the field of AT, the West Holland region offers a unique ecosystem for Autonomous Transport. West Holland has moreover made a head start with implementing the 5G network and has one of the best-developed road networks. During the visit we will share years of practical experience gathered in the region and show you the following aspects of the development and implementation of autonomous transport for the last mile:

- The Researchlab Automated Driving Delft where research and testing with various types of self-driving vehicles takes place. Here you will hear about current research and the region’s policy goals. At the same site, the The Researchlab Automated Shipping will be presented.
- A site where self-driving shuttles are operated to give insight into implementation and operation of autonomous transport.

<https://www.raddelft.nl/en/>

	<b>Date</b> 02-06-2019 07-06-2019		<b>Duration</b> 3.5 hours		<b>Price</b> 15,00 euro (excl. VAT)
	<b>Time bus leaves</b> 02-06-2019: 16:30 at Evluon 07-09-2019: 14:30 at Schiphol		<b>Time of return</b> 02-06-2019: 16:30 at Evluon 07-09-2019: 14:30 at Schiphol		<b>Specific information</b> Participants of this visit will be picked-up at Eindhoven and at the end of the visit will be dropped of at Schiphol Airport Amsterdam.
	<b>Time visit start</b> 02-06-2019: 11:30 07-06-2019: 10:00		<b>Max participants per visit</b> 40		



## Real life Dutch ITS Experience: ITS Corridor

The innovative international C-ITS Corridor project links developments on I2V communication in Germany, Austria and The Netherlands. The Dutch part of the C-ITS Corridor project develops and delivers major building blocks for the InterCor project, a project co-financed by the European Union. Within InterCor, the Dutch Corridor team cooperates with France, the United Kingdom and Belgium. Participating countries aim to enable and accelerate harmonization of vehicle and related road infrastructure communication through ITS-G5, cellular or a hybrid combination. The project is solving the last issues on technical subjects like cross-border harmonization of specifications and Public Key Infrastructure. Visitors will experience on the A16 motorway near Rotterdam the latest Dutch solutions for complex ITS-services for Smart Mobility, contributing to safe, smart and sustainable traffic and transport, as a major step towards automated driving.

[https://itscorridor.mett.nl/home+\\_eng/default.aspx](https://itscorridor.mett.nl/home+_eng/default.aspx)

 <b>Date</b> 07-06-2019	 <b>Duration</b> 3.5 hours	 <b>Price</b> 15,00 euro (excl. VAT)
 <b>Time bus leaves</b> 08:30	 <b>Time of return</b> 14:30 at Schiphol	 <b>Specific information</b> Participants of this visit will be picked-up at Eindhoven and at the end of the visit will be dropped of at Schiphol Airport Amsterdam.
 <b>Time visit start</b> 10:00	 <b>Max participants per visit</b> 30	

## Welcome reception

**Monday 3 June 2019 from 17:30–19:00**

You are cordially invited to join the Welcome Reception at the Evoluon in Eindhoven, which will be opened with a not-to-be-missed, spectacular show. The Welcome Reception is an excellent opportunity to meet up with your ITS colleagues and network with our commercial partners and exhibitors. Attending the networking experience is the perfect way to kick start your ITS conference participation and is included in your registration fee. Although free of charge, we kindly ask you to register for it.



## ITS Dinner Time at the DAF Museum

**Wednesday 5 June 2019 from 19.30–23:30**

Are you in for a night full of culinary surprises, live music while enjoying the company of ITS colleagues from around Europe? Then join us for the new and vibrant ITS Dinner at the museum of former car and truck manufacturer DAF. Food flavours from all over the world will charm you and a great live band makes it irresistible to stay seated! We would love to have you as our guest!

Make sure to secure your participation upon your registration, so you do not miss out on this exciting evening amongst this remarkable collection of cars and trucks! The fee of 145 € covers dinner, beverages, entertainment and transport from the main hotels and the Evoluon to the venue and shuttle service back to the main hotels after the event.



## SPECIAL FEATURES



### Mobifestival on Public Day ITS European Congress 2019

The week's activities will kick off on Sunday 2 June with a Mobifestival at the Automotive Campus in Helmond, from 13:00 to 17:00, targeted at the current and future users of ITS technology – the general public. Visitors to the festival will be able to get up to speed on the latest ITS applications, learn more about smart mobility and try out new technologies for themselves. What's more, participants will be able to witness the many innovative demonstrations that will be part of the ITS European Congress week.

There will be a lot to see and experience on the campus premises in Helmond and on the roads surrounding the campus – from flying cars, delivery drones and electric racing cars, to trendy e-bikes,

snazzy e-scooters and virtual reality games. Visitors will be able to learn more about autonomous driving, shared cars, electric cars, smart traffic lights, Adaptive Cruise Control and other driver assistance systems. There will be live demonstrations, trial circuits, a 'drive smart and sustainably' competition, a mini lecture for kids, and the opportunity to learn everything you have ever wanted to know about the digitalisation of transport.

There will be something for everybody – families, students, seniors and anyone else interested in the rapidly changing mobility of today. The festive atmosphere will be complemented by lots of food and some great music.



## Your Future Festival

For the first time ever, ERTICO – ITS Europe, HERE and Brainport Eindhoven are organising a ‘Your Future Festival’ during the ITS European Congress 2019. Students, young professionals and companies will be able to network, share inspiration, research and experience and make valuable connections for the future. The festival will have a laid-back vibe with small stages where students and young professionals looking for a job, thesis or traineeship can promote themselves and showcase their talent in various pitches, workshops and other activities.

For companies, the festival will be an opportunity to establish direct contact with students and to showcase their brand to top graduates and young professionals from all over Europe. They will be able to do this through



various activities, like a speed dating session matching companies with suitable young professionals, or ‘Drive your Future’ sessions, where recruiters and talents will get into special automobiles for one-on-one discussions.



## Start-up Zone

### Scale-up your start-up

This year the Congress will also feature a Start-up Zone, at which start-ups can network with decision-makers, companies and investors and connect with leading experts in future mobility, logistics and smart cities. The Zone will provide space for around 50 start-ups with ideas that aim to change our mobility systems and make mobility safer, more sustainable and social, to pitch these ideas to companies and experts with the experience needed to scale them up and take them to the next level.

At the Congress, ERTICO – ITS Europe, will also present its new Start-up Initiative – a mentorship programme. The programme will offer start-ups the opportunity to benefit from ERTICO’s network of partners and to work

with European leaders in smart mobility, connected and automated driving, clean mobility, transport and logistics, and urban mobility.

All in all, this year’s Congress represents an exciting opportunity for start-ups to plug into the ITS ecosystem, connect with an extensive network of experts in all areas of smart mobility and lay the foundations for their future development.

## REGISTRATION

### Registration

#### Registering onsite: procedure and badge

The registration desk will be located in the lobby at the main entrance of the Evoluon and will be open on Sunday 2nd June, from 14:00 to 18:00. We strongly advise you to pick up your badge on Sunday to avoid queues!

#### Registration desk opening hours

Date	Registration hours
Sunday, 2 June	14:00 – 18 :00
Monday, 3 June	08:00 – 19:00
Tuesday, 4 June	08:00 – 17:30
Wednesday, 5 June	08:00 – 17:30
Thursday, 6 June	08:00 – 12:00

#### For more information contact:

Registration & Accommodation  
ITS Congress Registration Secretariat  
Phone: +31 20 575 4220  
Email: [registrations@itsineurope.com](mailto:registrations@itsineurope.com)

All the fees are in Euro and excluding VAT. Should you wish to have further information about the registration fees or the terms and conditions for each category, please visit <https://2019.itsineurope.com/>

#### Registration fees

Access to Congress sessions and Exhibition				
Type of participant	Type of pass	Early until 12/04	Standard from 13/04	Onsite From 30/05
Congress delegate	Full event	EUR 960	EUR 1180	EUR 1285
	One-day (Mon–Wed)	EUR 560	EUR 710	EUR 700
	One-day (Thu)	EUR 440	EUR 590	EUR 700
Exhibitor/Sponsor Delegate	Full event	EUR 860	EUR 1010	EUR 1110
Speaker / Moderator	Full event	EUR 810	EUR 910	EUR 940
	One-day (Mon–Wed)	EUR 495	EUR 595	EUR 625
	One-day (Thu)	EUR 400	EUR 500	EUR 520
Student Delegate/ Speaker/ Moderator	Full event	EUR 250		
	One-day	EUR 135		
Dutch Public Sector	Full event	EUR 575		
	One-day (Mon–Wed)	EUR 290		
	One-day (Thu)	EUR 190		
Journalist/Media	Full event	FREE		
Access to exhibition only				
Type of participant	Type of pass	Early until 12/04	Standard from 13/04	Onsite From 30/05
Exhibition Visitor	Full event	EUR 50	EUR 75	EUR 100
Exhibition Stand personnel including lunches 2 per 9 sqm	Full event	Included in your stand package		
Exhibition Stand personnel excluding lunches max 2 per 9 sqm	Full event	Included in your stand package		
Additional Exhibition Stand personnel including lunches	Full event	EUR 195		
Accompanying person	Full event	EUR 75		

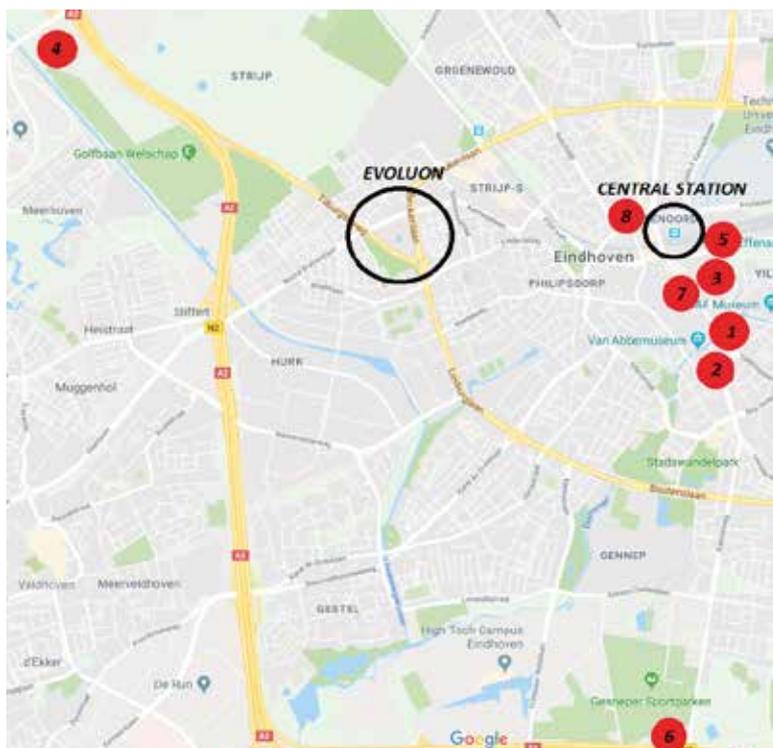
All fees are mentioned in € (EUR) and exclude Dutch VAT (21%) and catering VAT (9%).

## Accommodation & Hotels

Our Accommodation & Housing Specialists have secured rooms at a selection of high quality hotels with special terms and conditions exclusively for attendees of the 13th ITS European Congress. Book early to secure your room and let our dedicated accommodation team look after you.

For more information, please visit our website: <https://2019.itsineurope.com/delegate-hotels/>

**Note:** All prices include Dutch VAT and breakfast unless stated otherwise



### 1. Park Plaza Eindhoven

★★★★

**Address:** Geldropseweg 17, 5611 SC Eindhoven

### 2. Sandton Eindhoven center

★★★

**Address:** Stratumsedijk 23D, 5611 NA Eindhoven

### 3. NH Collection Eindhoven center

★★★★★

**Address:** Vestdijk 5, 5611 CA Eindhoven

### 4. Novotel Eindhoven

★★★★

**Address:** Anthony Fokkerweg 101, 5657 EJ Eindhoven

### 5. The Student hotel Eindhoven

★★★

**Address:** Stationsweg 1, 5611 AA Eindhoven

### 6. Van der Valk hotel Eindhoven

★★★★★

**Address:** Aalsterweg 322, 5644 RL Eindhoven

### 7. Crown hotel Eindhoven

★★★★★

**Address:** Vestdijk 14-16, 5611 CC Eindhoven

### 8. Holiday Inn Eindhoven

★★★★★

**Address:** Veldmaarschalk Montgomerylaan 1, 5612 BA Eindhoven

## GENERAL INFORMATION

### General information

#### Internet access

Wireless internet connection is available in all the areas of the Evoluon.

#### Language

English is the official language of the Congress. All spoken presentations, printed material and online information will be available in English only.

#### Insurance and security

Kindly note that all attendees are requested to wear their badge for admission at all times. Please do not leave your personal items or coats unattended. There will be a cloakroom at your disposal. In addition, regular badge control will take place throughout the Congress.

#### Transportation

Delegates of the ITS Europe Congress will have free access to the Hermes buses in Eindhoven and Helmond. Delegates can also use free shuttle service from the Evoluon to Automotive Campus in Helmond to attend the demonstrations. More information on the demonstrations page.

#### How to get to the Evoluon

Located in the heart of Brabant next to the A2 motorway, the Evoluon is most accessible. Den Bosch, Tilburg and Weert are less than half an hour away and Utrecht, Rotterdam or Maastricht not even one hour! The Evoluon is easily accessible by public transport. For this reason, we encourage all delegates and visitors to use public transport as a means of transportation.

Train passengers can travel from Eindhoven Central Station to the Evoluon within 7 minutes. From Eindhoven Airport a direct bus line takes you to the Evoluon within 7 minutes. Every 15 minutes a train leaves from Schiphol Airport to Eindhoven Central Station. The travel time to Schiphol is about 1,5 hour.

On an average day, buses will depart every 5 minutes from Eindhoven Central Station to the Evoluon.

You can also borrow a bike at the Eindhoven Central Station for the last mile. With the 'OV-fiets' (public transport bike) you will arrive at the Evoluon congress centre within 15 minutes cycling from Eindhoven Central Station.

By car it takes less than an hour driving from Utrecht, Rotterdam and Maastricht to go to the Evoluon. Amsterdam and Schiphol are about 75 minutes driving away. From the motorway you are able to drive directly to our parking lot with over 500 parking spaces, located on the edge of the centre of Eindhoven.

For more info and route description, please visit: <https://evoluon.com/en/contact/address-and-route>.

## For more information please contact:

### Registration & Accommodation

ITS Congress Registration Secretariat  
Phone: +31 20 575 4220  
Email: [registrations@itsineurope.com](mailto:registrations@itsineurope.com)

### Programme

Pamela Valente  
T: +32 (0) 2 400 0785  
E: [p.valente@mail.ertico.com](mailto:p.valente@mail.ertico.com)

Delphine Soubies (Technical/Scientific and  
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