







ASECAP 14ht Road Safety Conference in cooperation with AISCAT

New models of mobility in Europe The technological breakthrough and the Vision Zero

MADONNA DI CAMPIGLIO (TN) | 3rd - 5th April 2022

The 14th Conference on Road Safety, focusing on *New Models of Mobility in Europe – the technological breakthrough and the Vision Zero*, was held on 4 April 2022 in the beautiful setting of Madonna di Campiglio (TN). The Conference was organised by Autostrada del Brennero S.p.A. in together with the European Association ASECAP, the Italian Association of Toll Motorways and Tunnel Operators (AISCAT) and the Italian Traffic Police.

Three institutional round tables were scheduled for the first part of the day, whilst two technical sessions were held during the second part of the day. The first round table, moderated by journalist Maria Concetta Mattei, centred on past, present and future mobility; the second one, moderated by journalist Gianni Dragoni, centred on Technology and Road Safety; whilst the third one, moderated by journalist Fabrizio Apostolo, addressed the trans-European transport network (TENT).

The Conference was introduced and opened by several institutional addresses, including a welcoming speech by **Diego Cattoni**, President of AISCAT and CEO of Autostrada del Brennero S.p.A.. Mr. Cattoni mentioned, how, at such an historical time – comparable with the one experienced at the end of the Second World War, where an attempt is being made to create three ideal conditions at once: technological evolution, political and economic context and social and cultural changes – the focus of the conference was Future Mobility.

President Cattoni then introduced several speakers also attending by video conference from abroad, including **Mykhailo Opanashchenko** - Chairman of the Board of Ukrmostobud Corporation — who thanked ASECAP for its support and concern at this tragic time for his people, and gave a witness account of what was happening in his country in terms of infrastructure that had either been destroyed or been put out of service.

Speeches were then given by **Antònio Nunes de Sousa** –ASECAP President – and **Claire Depré** – Head of the DG MOVE "Road Safety" Unit, European Commission. The latter mentioned how 2021 traffic and safety data had been made public, thus providing an overall updated view of road safety. What is clear is that 9 countries (Denmark, Germany, Ireland, Cyprus, Lithuania, Malta, Poland, Portugal and Sweden) are achieving incredible results in terms of fatality reductions. The goal is to increase cooperation among Members States in order to reduce accidents through new safety systems and state of the art vehicles. Ms Depré then pointed out how digitalisation is essential and how most efforts come from the lower levels, trying to assist the distribution of data so as to improve Road Safety as much as possible.

A final speech was then given by **Fabrizio Palenzona** – President of AISCAT Servizi s.r.l. and former President of AISCAT – who clarified the importance of cooperation among institutions and road operators for the purpose of infrastructure efficiency.

DETAILS OF THE ROUND TABLES

1st Round table – *The mobility of yesterday, today and tomorrow*

Moderator: Maria Concetta Mattei (Journalist) Speeches from the following experts were given:

- **Diego Cattoni:** President of Aiscat and CEO of Autostrada del Brennero
- Antònio Nunes de Sousa: ASECAP President
- Roberto Tomasi: Vice-President of Aiscat and CEO of Autostrade per l'Italia
- Edoardo Valente: President of ANAS
- Maurizio Tamagnini: Managing Director of FSI and President of STMicroelectronics
- Gianmaria Riccardi: Head Of Global business development and Sales Enel X Way

Enrico Giovannini, the Minister of sustainable infrastructure and mobility introduced the first round table by video conference from Rome, drawing attention to the effects of the Recovery and Resilience Plan (PNRR). The Minister clarified how the PNRR had been conceived also to encourage investments and transform the mobility system. The Minister mentioned a series of measures, such as a review of the motorway operators economic plan. There are significant funds, above and beyond the PNRR, which shall need to be invested towards safety, and especially towards the modernisation of infrastructure assets and development in terms of digital and ecological transformation.

Diego Cattoni – President of Aiscat and CEO of Autostrada del Brennero – then took the floor, describing the history and development of Aiscat. Mr. Cattoni described how Italy is home to the coexistence of 2 of the most important operators in the world, namely Atlantia and the Gavio Group and that, although the motorway sector only accounts for 2.5% of all Italian infrastructure, it moves 25% of all goods. Mr. Cattoni pointed out how, through its motorway operators, Aiscat helps and is behind all of the large projects concerning digitalisation, the ecological transition and intermodal transportation, and shares innovative projects among motorway operators. Aiscat is also working on common rules and is collaborating with Institutions to develop the most efficient model possible. The railway and airport sectors are also addressed for the purpose of improving intermodal transportation. Lastly, Aiscat may also be seen as the ideal catalyst to implement new technologies, such as Truck Platooning.

Antònio Nunes de Sousa, ASECAP President, then took the floor and immediately introduced the subject of ASECAP's significant investments, since safety, at a European level, is a key mission. Road operators need to commit to reaching Vision Zero, even though motorways are, as of today, the safest infrastructure. Accidents are not only an unpleasant event, they also come with a very high social cost for Countries. Vision Zero can be reached only through cooperation and by being connected, improving and modernising infrastructure and introducing self-driving cars to reduce human errors which are, today, still the main cause of accidents. Lastly, Antònio Nunes de Sousa reiterated the importance of ongoing dialogue and building together: indeed, ASECAP can count on 4 technical committees for essential coordination on the Association's various subjects of interest. Roberto Tomasi, Vice-President of Aiscat and CEO of Autostrade per l'Italia (ASPI) then took the floor to describe the achievements of his company. The network managed by ASPI accounts for the transit of 800 million vehicles/year, highlighting the networks' vulnerability and strategic nature. Mr. Tomasi mentioned how, precisely because Italy was the first Country to introduce electronic toll collections, the company has the know-how to develop new technologies, but coordination is

necessary. Mr. Tomasi mentioned the Mercury project, enabling information to be sourced from infrastructure through the use of digital systems. The focal points that must always be kept in mind are modernisation and development: in terms of development, ASPI already has 6 billion Euros

worth of projects in the pipeline, whilst in terms of modernisation it is worth mentioning that the company is, as of today, totally self-funded through toll collections.

Edoardo Valente, President of ANAS, took the floor to address intermodal transportation and logistics as the backbones of mobility. ANAS is the company managing a non-tolled network of approximately 32,000 km, whose main activity is the maintenance of this valuable infrastructure asset. The group's planning is also quite unique, in that it is carried out in an intermodal fashion, in combination with railway transportation. In terms of Smart Road projects, ANAS has already built several stretches of road (such as the Roma-Fiumicino stretch) using fibre optic and sensor technologies.

Maurizio Tamagnini, Managing Director of FSI and President of STMicroelectronics then took the floor, clarifying how ST is an example of how research and development can be carried out in Europe, especially in terms of the use of semiconductors: very many are manufactured for the automobile and industrial sector, whereas Europe does not manufacture, but rather imports, semiconductors for the telephone sector. At any rate, the country needs to produce more semiconductors. Over the past few years the intensity of their use has soared and the pandemic has increased the number of semiconductor applications. Lastly, Mr. Tamagnini mentioned how silicon carbide will be the future for the industrial sector and that cooperation between companies is increasingly key.

The **Minister of sustainable infrastructure and mobility** took the floor again, describing how the ministry is presently also working on sectors affected by the crisis in Ukraine. The Minister also pointed out how the ecological transition in the automotive sector comes with different choices: all of which are aimed at reorganising motorway Service Areas. This is a European commitment and a very complex challenge, where systems of cooperation between motorway operators play a very important role in avoiding unnecessary interference, and AISCAT can play a key role here.

Gianmaria Riccardi, Head Of Global business development and Sales Enel X Way, described how Enel produces more than 50% of renewable energy and how, through Enel X, it encourages electric mobility, which is fundamental to reduce greenhouse gasses and decarbonisation. He also pointed out how electric mobility has three important factors: the regulatory factor, or rather the possibility of having a system that encourages electric vehicle mobility; the development of infrastructure, or rather the possibility for people to charge their vehicles on public domain land, thereby encouraging charging columns on the national territory; the advantages of choosing an electric vehicle over an endothermic one, available from 2025/2026.

Finally, **Diego Cattoni** ended with a thought: Autobrennero is already launched into the future to reach the zero accidents and zero emissions goals, and is also very sensitive towards the question of intermodality, with projects ready to be developed. Thanks to AISCAT, and with public and private funding, we hope to spread our Italian model across Europe and the world.

2nd Round table: - *Technology and Safety*

Moderator: Gianni Dragoni (Journalist)

Antonio Avenoso: CEO European Transport Safety Council, started by describing ETSC as a non-governmental organisation to disseminate scientific information. He then reminded attendees of how, despite a 13% reduction compared with the pre-pandemic year, road safety data is always somewhat concerning. The EU has a goal: to reduce deaths and serious injuries by 50% by 2030, and this is why much is expected from road safety technology.

Francesco Bettoni, Vice-President of Aiscat and President of Autostrade Lombarde and of Brebemi S.p.A. took the floor mentioning how, for Brebemi S.p.A. all investments have been of a private nature and that many investments are being made in road safety, especially electric mobility through the "Arena del Futuro" project (a dynamic induction experiment aimed at solving the

problem of electrification and battery charging, also thanks to universities, the Traffic Police and the many private parties who have believed in the project).

Francesco Grillo, Manager of "Vision & Value" took the floor and started by explaining how, although Italy isn't one of the most innovative Countries in the world, the Country is moving towards sustainable mobility: the clearest proof of this is in the number of new registered hybrid and electric vehicles.

Carlo Costa, General Technical Director of Autostrada del Brennero took the floor, introducing the subject of safety, and talking about "guided" (rather than independent) mobility, requiring that vehicles communicate between each other and behave more stringently, somewhat like trains. The cars are ready; what isn't yet ready are the regulations and infrastructure. As for the ecological transition, Mr. Costa highlighted the fact that we are running out of hydrocarbons and an alternative, such as hydrogen must be found, and conditions for hydrogen powered vehicles need to be created.

Lorenzo Rossi, Managing director of Movyon, pointed out how technology is extremely important for mobility and that his company's mission is to produce — and encourage take-up — of new technologies across Europe. The company has been growing continuously, its key ingredients being: technological know-how, the value of its people, the ability to integrate software and hardware and to work as a system with other players. One of the most advanced technologies available today is the ARGO system, which allows more effective and efficient management and monitoring of an infrastructure's life-cycle. This is all done using a tablet, which traces defects back to single bridge components. When the inspection is over, the system calculates and assigns the bridge a certain "class", according to which repair and maintenance work is then scheduled.

Paolo Maria Pomponio, Traffic Police Service Director, took the floor to describe how one of the responsibilities of the Police is to report the infringement of traffic and road rules. Human error is among the main causes of accidents, and whilst technology may be an aid to increase road safety, it will never be able to fully replace the human intellectual component. This is where the police is trying to focus its effort: trying to get people, especially the younger generations, to understand how certain driving habits are doomed to disaster. That said, the accident trend (compared with 2019) is encouraging. Finally, Mr. Pomponio gave his opinion on "de-responsibilization" owing to excessive trust in technology, which could be dangerous. Self-driving cars are welcome, but in a conscientious way.

Fabrizio Longo, Director General of Audi Italia, also talked about Road Safety, clarifying that the technology contained in today's cars makes it possible to connect vehicles with both the infrastructure as well as with other vehicles. Today, technology is inherent in vehicles, but the lawmaker is behind. Audi is currently at level 3 of automation, but traffic laws block the technological rollout. A number of things need to be done, including renewing the vehicle fleet. Old cars are not only more dangerous, they also pollute more. As for electric vehicles, Audi has a clear position and is ahead, deeming electric cars to be the end destination.

3rd Round table *The motorways leading the future TEN-T networks*

Moderator: Fabrizio Apostolo (Journalist)

Malika Seddi, ASECAP Secretary General and CEO, kicked-off the round table by addressing the globally shared challenges that being faced, climate changes and mobility optimisation through ITS projects funded by the European Commission. ASECAP's priority is to make infrastructure safe and reduce traffic congestion along it. The goal is to implement different transport modes and strive for intermodality. All this is supported by large investments: electric vehicles, hydrogen vehicles, alternative fuels, sharing mobility, self-driving cars, etc. Ms Seddi also reminded attendees that traffic management is at the heart of the whole process. There is a need to move towards

digitalization in order to flag accidents in real time for example, or in order to warn the police of bad weather conditions, sourcing data from various innovative systems. This might also prove useful to understand where work is needed to improve specific infrastructure.

Maurizio Paniz, Vice-President of Aiscat and President of Autovie Venete, noted how border traffic is a special case for Autovie Venete, where 50 million vehicles per year is a number that has a very strong impact, especially when the vehicles are heavy ones. Mr. Paniz mentioned that the broadening of the third lane, in such a strongly anthropized area, is important. The objectives of Autovie Venete are currently: to ensure safety, to develop the digitalisation process, and to work to reduce environmental impact. All this is possible thanks to innovations.

Stefan Siegele, Director of ASFINAG, took the floor to remind attendees of how Austria lies at the heart of the TEN-T networks, and the importance of carefully considering the constant increase in the volume of traffic. Indeed, the Association's challenge is to ensure planned maintenance along the entire network. ASFINAG has already met the requirements proposed for vehicle parking by creating safe parking areas along motorways, but safety needs to be taken into consideration and cooperation with lawmakers to increase the number of charging columns and improve service quality is necessary.

Massimo Penasa, Founder and CEO of CAEmate Srl, explained how the company builds digital twins of infrastructures. These are not merely geometric depictions, but rather include within them a simulation of how the structure behaves and make a predictive analysis also through the use of information-acquiring fibre optic sensors. This enables the calculation of a safety coefficient of a structure every day, several times a day, and, through artificial intelligence, will make it possible to predict how infrastructure will react in the near future.

Olivier Quoy, CEO of ATLANDES then took the floor, explaining the existence of a strong discrepancy between urbanised and non-urbanised land, and how this is one TEN-T's special features.

Fernando De Maria, SVP Operations of Autostrade per l'Italia (ASPI) took the floor immediately afterwards, noting the key importance of carefully analysing accidents occurring along the network. ASPI carries out such analysis in a structured way using *Above Average Accident Points* (AAAP), to analyse and then adopt corrective actions depending on accident features. ASPI then assess the effectiveness of its measures by monitoring the accident index. Clearly, with the many motorway works currently in progress this has become quite a difficult task, but special programming has been implemented to minimise risks for motorway users and staff. Safety is an enormous subject and ASPI cooperates actively with the Traffic Police also thanks to a Safety Academy. The preparation of a worksite, for example, is the riskiest phase of road works, and efforts are being made to improve safety here by developing lane invasion sensors that emit sound warnings when lanes are invaded. **Gabriele Benedetto**, CEO of Telepass, described how TELEPASS has developed a cloud to collect infrastructure data. There is no need for additional sensors, but the artificial intelligence to connect them is still lacking.

Lastly, **Joost Vantomme**, CEO of ERTICO (European ITS), joined via video conference to explain how ERTICO has been actively involved in the digitalization effort for the past 30 years. He pointed out how the future shall depend on cooperation between operators, the automotive sector, the vehicle, the infrastructure and among vehicles themselves. It is important to share safety and infrastructure information and data so as to be able to monitor events and ensure that roads are safer. Clean transportation is also very important, especially for heavy vehicles (service areas, parking areas, etc.). The fact is that whilst motorways end at city gates, the infrastructure actually goes on, and therefore, according to Vantomme, it will be important to focus on the urban environment too. Transportation and logistics are yet other important aspects warranting careful attention in order to optimise the entire process of transport production and the delivery of goods.

A very robust technical session was held in the afternoon called: "The safe road towards Vision Zero: perspectives and challenges" (addressing the Vision Zero accident reduction). The session was broken down into two parts. The first part of the session was moderated by Emanuela Stocchi, Director of International Affairs of AISCAT, whilst the second part was moderated by Alessandro Musmeci, Technical Affairs Officer of AISCAT. Here below is a list of the sixteen speakers, with the titles of their presentations. The presentations may be seen and downloaded at the following ASECAP website link: https://www.asecap.com/eventasecap.html?layout=edit&id=167

The second part of the technical session also saw a very interesting discussion on trans-border cooperation. This was precisely because the conference was hosted by a bordering region and it was interesting to highlight cooperation between Italian and neighbouring country operators. In this regard, two joint presentations were given. One was between Asfinag (Austria) and Autostrada del Brennero, given by Ilaria De Biasi, and the second was between DARS (Slovenia) and Autovie Venete. Federica Deledda, Deputy Commissioner of the Italian State Police and a member of ROADPOL (the European Traffic Police Association) also participated, presenting the activities of ROADPOL. Although the vast technical session took place at the end of the day, with fewer attendees, it proved

Although the vast technical session took place at the end of the day, with fewer attendees, it proved nonetheless very interesting and concrete, receiving positive feedback from attendees, who found the topics very interesting.

PART 1: THE SAFE ROAD TOWARDS VISION ZERO: PERSPECTIVES AND CHALLENGES

<u>Moderator</u>: **Emanuela Stocchi**, ASECAP COPER II Chair and Director of International Affairs at AISCAT, Italy

<u>KEYNOTE SPEAKER</u>: **Bernhard Lautner**, ASECAP COPER II Vice Chair and ASFINAG Technical Director, Austria - **ASFINAG Road Safety Programme 2030** - **Safety Performance Indicators**

<u>Statement</u>: Accident data is not only a statistic report – it is the backbone of Road Safety work

Safety Corridor (presentation with a video), Christophe Boutin, ASFA CEO and Past ASECAP President, France

Statement: Campaigning for the safety of our personal is a two-sided coin. You must explain their job and explain there are human beings behind the trucks and signals in work areas. But you must also include it in the law even though this behavior that should be seen as common sense.

ASECAP in-depth study on the Road Safety Assessment Methodology for Motorways, Federico Di Gennaro, Head of Strategic Projects, AISCAT Servizi, Italy

Statement: Road safety should not be a privilege; it should be a right: and we have the capability to be a determining factor in ensuring this right.

Cooperative ITS - How Digital Signs and Warnings Increase Road Safety, Jacqueline Erhart, ASECAP COPER III Chair and Teamlead "Cooperative, Connected and Automated Driving", ASFINAG, Austria

<u>Statement</u>: Cooperative ITS systems is an embedded safety system which does not need any additional purchased or installed system. C-ITS offers an opportunity to warn road users even if a critical situation is out of their sight. Road operators can equip their blue/yellow light vehicles to contribute to safeguard hazardous locations and warn in-coming vehicles.

Mobile App at the service of Vision Zero Commitment, Anna Filipa Morais, Norscut - Concessionária de Auto-Estradas S.A. / APCAP, Portugal

A4/Waze, Carlos Ursua, CEO of A4 Madrid-Ocaña Highway, ROADIS/SEOPAN, Spain

Statement: "Digital technologies are giving us the opportunity to improve Road Safety in unprecedented ways. To do so, in addition to be technical knowledgeable and competent it is required to break silos and approach the problem in innovative and holistic ways. It may require a new working culture where experts from different fields work together to bring real mobility improvements. Nevertheless, these solutions in itself present exceptional challenges which have to be addressed properly. Aspects such as mobile device misuse, data ownership and responsibilities, non-discriminatory solutions or autonomous vehicles and its ethical consideration, are examples of some of them. It is our obligation to increase the benefits and minimize the downsides of these technologies".

Presentation by **Zuzana Krajcirikova**, International Affairs Coordinator, NDS, Slovak Republic

Statement: It's never too late to start making changes.

Abertis global strategy for a road safety culture - the Italian experience, Nelly Girlanda, A4 Holding – Abertis Group, Italy

Statement: Global strategy and local actions for a road safety culture.

<u>PART 2</u>: THE SAFE ROAD TOWARDS VISION ZERO: PERSPECTIVES AND CHALLENGES WITH A FOCUS ON COLLABORATION BETWEEN CONCESSIONAIRE AND TRAFFIC POLICE: THE CROSS-BORDER EMERGENCIES' MANAGEMENT

Moderator: Alessandro Musmeci, Responsible of Technical Affairs at AISCAT, Italy

<u>KEYNOTE SPEAKER</u>: **Ms Federica Deledda**, Member of the ROADPOL Executive Committee, Deputy Commissioner of the Italian State Police & Chief of the Traffic Police of the Province of Cremona

Presentation on ROADPOL, Federica Deledda

Traffic Management Plan - from Fax to APP, Ulrich Zorin, Management Director, DARS, Slovenia

<u>Statement</u>: Guided international traffic management is becoming an increasingly important activity of road operators, as no one wants to stop the traffic on highways.

Traffic Management Plan - the cross-border implementation Davide Sartelli, Technical Director AUTOVIE VENETE/AISCAT, Italy

Cross-border cooperation to better manage roadways, Ilaria De Biasi, Chief of the Department for European Projects, AUTOSTRADA DEL BRENNERO/AISCAT, Italy

<u>Statement</u>: **Technology and cross-border cooperation contribute to a successful management of European roadways**

Cross-border cooperations for emergency and traffic management, René Moser, ASFINAG, Austria

Statement: To achieve our Vision 2030 "As a reliable, innovative, and sustainable mobility partner, we connect regions and people in the heart of Europe. "It is crucial for us to further strengthen our cross border as well as stakeholder cooperation. Traffic does not stop at borders nor does cooperation. Innovative solutions to further enhance road safety, comfort, and capacity, like cooperative ITS solutions, require common standards and coordinated implementation approaches between all partners.

Cross-border emergencies management, Yanez Dalle, SITRASB Director, Italy

Ascendi's Speed Yearbook: a (new) step forward to increase road safety, João Neves, Head of the Road Traffic Unit, ASCENDI/APCAP, Portugal

Campaign on education and awareness of truckers, Hrvoje Ordulj, Chief engineer – HAC/HUKA, Croatia

Statement: **Drive responsibly**