

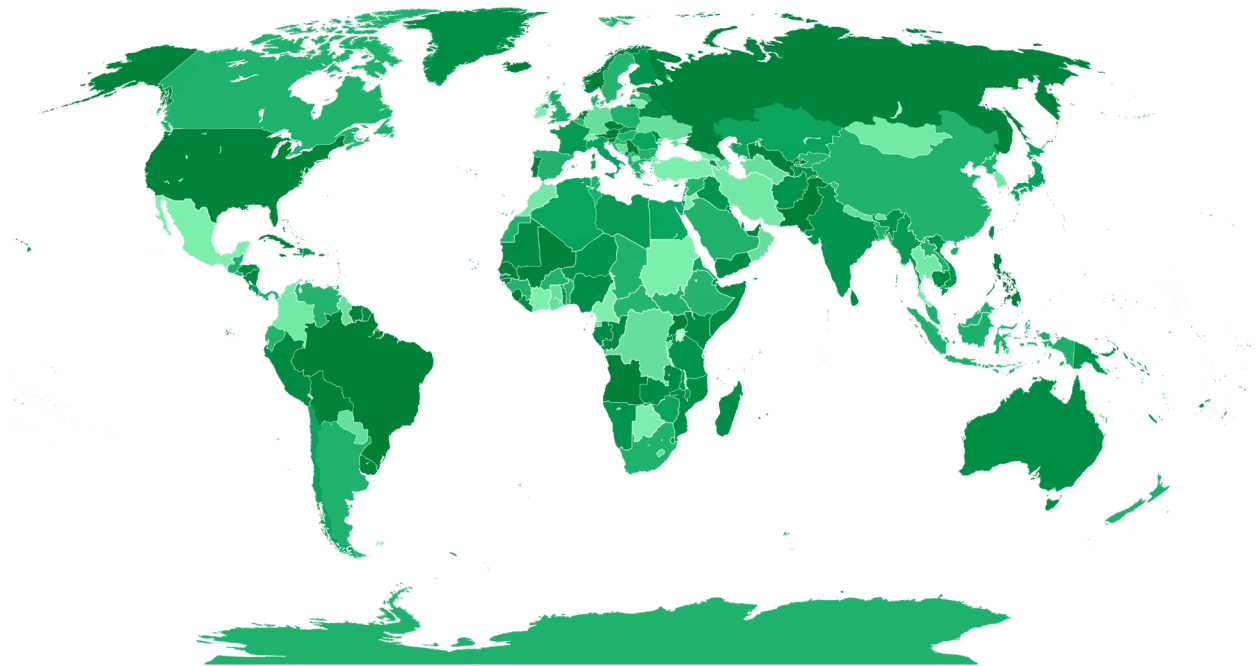


TOLLING. MOVING SMARTER.

GLOBAL TOLLING & MOBILITY NEWSLETTER

A SCAN OF TOLLING & MOBILITY DEVELOPMENT AROUND THE
GLOBE

WINTER 2021



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Main Sources: IBTTA International Members – all international members were invited to contribute to this newsletter.

ABOUT IBTTA

The International Bridge, Tunnel and Turnpike Association (IBTTA) is the worldwide association for the owners and operators of toll facilities and the businesses that serve them. Founded in 1932, IBTTA has members in 26 countries on six continents. Through advocacy, thought leadership and education, members are implementing state-of-the-art, innovative user-based transportation financing solutions to address the critical infrastructure challenges of the 21st Century.

EXECUTIVE SUMMARY

The Winter 2021 edition of the Global Tolling & Mobility Newsletter covers tolling and mobility highlights from different regions of the world. Instead of performing a desk research as for previous newsletters this time all international members were invited to contribute.

The highlights of the newsletter can be summarized as in the following:

In India digital toll payment through “FASTag” has reached Two Crore historical landmark, registering growth of 400 percent in a year. Further, huge investments are planned in the highway sector for post-COVID recovery of the economy.

In Europe the European Commission has published its Smart and Sustainable Mobility Strategy — a key part of its Green Deal that sets out 82 initiatives aimed at slashing emissions from transport. Further, transport ministers are close to reach an agreement on a new version of the European Tolling Directive that foresees significant discounts for emission free vehicles. Finally, the European Commission has released a proposed Regulation on European data governance.

National European highlights are:

- Austria: Starting from November 2020 onwards, Austrian motorways will be fitted with dedicated short-range communication equipment to enable a direct exchange of safety-relevant information between the road infrastructure and vehicles.
- France: The French Transportation regulatory body has published its first report about the economic model of highway concessions in France. With historic contracts approaching their terms and elected officials thinking of the future of these contracts, this report should help promote the virtues of a model that is often hastily criticized.
- Greece: A new electronic tolling service was implemented on all of Greece’s toll roads. The new service is effective since November 4, 2020 and it ensures interoperability between all eight (8) Toll Infrastructures of the country. Further, Greece will submit a set of extensions to its 2000+km motorway network that will act as key development stimulus for the peripheral economies of the country and will be contributing to the much-needed increase of the country’s GDP.
- Italy: AISCAT recently issued the first ever edition of its [Sustainability Report](#). It summarizes and illustrates, within an overall industry framework, the numerous activities of sustainable mobility carried out by the Association's concessionaires.
- Spain: Highlights from Spain include MaaS (Mobility-as-a-Service) applications, air taxis and drone parcels, the deployment of ultra-fast charging stations, the use of big data as well as a new program to protect highway workers and users.

In Canada a new proposed legislation in Alberta would allow a bridge to be built using tolls to pay for the construction. If passed the \$200-million Highway 697 bridge over the Peace River would be the first project financed in this manner. Further, the city of Vancouver, British Columbia is considering implementing mobility pricing. Finally, an interesting press article is proposing an expanded rail system as the best way for Canada to recover – by moving people and goods efficiently and in a climate-conscious fashion.

ASIA

INDIA

FASTAG CROSSES 2.0 CRORE USERS LANDMARK – NEW DELHI

FASTag users in the country has reached Two Crore historical landmark, registering growth of 400 percent in a year. This has increased the total toll collection to Rs. 92 crores per day which is a substantial increase in the daily toll collection from Rs. 70 crores per day, a year back. FASTag is contributing to nearly 75 percent of the total toll collection as of now.

https://nhai.gov.in/nhai/sites/default/files/2020-11/Press_Release_FASTag_crosses_2_0_Crore_Users_Landmark.pdf

‘WILL AWARD PROJECTS WORTH R2 LAKH CRORE BY FY21, COVID HAS MADE US MORE AGGRESSIVE’

Hit hard by the pandemic and the lockdown, the highways construction sector is back in business, racing to achieve its targets as the government identifies infrastructure works like building roads, as one of the areas for post-COVID recovery of the economy.

<https://nhai.gov.in/nhai/sites/default/files/2020-12/Indian%20Express%2030112020.pdf>

Contributor: Snehal Ambare, HNTB Corporation

EUROPE

EUROPEAN COMMISSION LAUNCHES ITS DATA GOVERNANCE ACT

The European Commission has released a proposed Regulation on European data governance (“Data Governance Act”). The proposal is the first of a set of measures announced in the 2020 European strategy for data. The Regulation will aim to facilitate data sharing across the EU and between sectors to create wealth for society, increase control and trust of both citizens and companies regarding their data, and offer an alternative European model to data handling practice of major tech platforms. The amount of data generated by public bodies, businesses and citizens is constantly growing. It is expected to multiply by five between 2018 and 2025. The new draft Regulation therefore aims to create the basis for a new European way of data governance that is in line with EU values and principles, such as personal data protection (GDPR), consumer protection and competition rules. Read the EC press release:

https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2102.

Contributor: Malika Seddi, ASECAP

MINISTERS GREENLIGHT 50% TOLL DISCOUNT FOR EMISSIONS-FREE TRUCKS

Hauliers driving emissions-free trucks will get at least half off road tolls in the EU under a new tolling system given the go-ahead by transport ministers today. Fossil Fuel trucks will be charged based on their CO2 emissions, with more efficient heavy-goods vehicles paying less.

<https://www.transportenvironment.org/press/ministers-greenlight-50-toll-discount-emissions-free-trucks>

EUROPEAN COMMISSION PUBLISHES SMART AND SUSTAINABLE MOBILITY STRATEGY

BRUSSELS — The European Commission Wednesday, December 9, published its Smart and Sustainable Mobility Strategy — a key part of its Green Deal that sets out 82 initiatives aimed at slashing emissions from transport, which currently accounts for more than a quarter of the bloc's CO2 emissions.

“Transport is one of the three sectors where more efforts are necessary. Emissions have been going up and we need to find a clear downward trend if we are to achieve climate neutrality,” said Commission Vice President in charge of the Green Deal Frans Timmermans.

Without reducing emissions from the sector, there's no chance of hitting the Green Deal's 2050 goal of becoming climate neutral; the deal calls on transport emissions to fall by 90 percent by mid-century.

https://ec.europa.eu/transport/themes/mobilitystrategy_en

Contributor: Bill Cramer, IBTTA

DIGITAL SERVICES ACT AND DIGITAL MARKETS ACT: COMMISSION REGULATES DIGITAL SPACE FOR NEXT DECADES

The European Commission unveiled on 15 December under the Digital Services Act and the Digital Markets Act a package of proposals that set out legal obligations for all digital services, including social media, online marketplaces and other online platforms, that operate in the EU. These new rules are aimed at tackling illegal content and unfair practices, including unfair competition, in today's digital environment. A review of EU legislation was urgently needed since the e-Commerce Directive dates back to the year 2000. In the meantime, the internet has changed tremendously: everyday millions of EU citizens use digital services for private and professional purposes. The massive use of digital services had led to the emergence of online giants. It was therefore crucial for the EU to align EU legislation with the current situation. The two texts, which in fact aim to limit the hegemony of dominant tech giants by ensuring that small businesses also have access to the digital space, will have major impact for both digital service providers based in the EU and companies outside the EU serving EU users. The two proposals serve one goal: to make sure that we, as users, have access to a wide choice of safe products and services online. Under the new proposal, digital service providers could face fines up to 10% of their annual revenues if there is evidence that they breach EU law. The EC text will now be forwarded to the EP and Council. EC press release:

https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2347

Contributor: Malika Seddi, ASECAP

AUSTRIA – ASFINAG

ASFINAG CONNECTS ROADS WITH VEHICLES ON A LARGE SCALE IN EUROPE

Starting from November 2020 onwards, Austrian motorways will be fitted with dedicated short-range communication equipment to enable a direct exchange of safety-relevant information between the road infrastructure and vehicles. Through a procurement of V2X roadside units, the Austrian motorway operator ASFINAG has taken an important step to enable the dialogue

between road infrastructure operators and road users. V2X stands for Vehicle-to-everything communication and includes co-operative, safety-related communication among vehicles and infrastructure. ASFINAG will start the deployment on selected sections and expand it to the overall Austrian motorway network within the next few years.

Europe's First Large Scale Deployment. “ASFINAG is starting the dialogue between roads and vehicles on the Austrian motorway network. The direct connection with our customers provides an important contribution to safe, efficient and sustainable mobility” says Josef Fiala, CFO of ASFINAG.

<https://c-its-deployment-group.info/news-events/news/nv-asfinag-c-its-rollout/>

SUSTAINABILITY: FOURTH PRIME RATING IN A ROW SHOWS PROGRESS FOR ASFINAG'S ENDEAVORS FOR CARBON NEUTRALITY

The Austrian highway operator ASFINAG has once again provided tangible impetus for sustainability management, such as with its work to increase the number of e-charging stations and continuing to erect photovoltaic systems along its network. These efforts are certified by the most renowned independent rating company in Europe – ISS ESG rating company – which appraises companies worldwide every year. ASFINAG – as the only highway operator in the world – has been able to decorate itself with this certificate for the fourth time in a row. The success results from the many successful management initiatives – from diversity and energy and environmental measures, human resources development, purchasing to traffic and occupational safety – and demonstrates that sustainability at ASFINAG is not just lip service but that it is increasingly becoming a corporate philosophy.

Sustainability as a chance for ASFINAG. ISS ESG rated ASFINAG in the field of infrastructure and transport. ASFINAG is already working today on the mobility world of tomorrow. When it comes to core tasks, ASFINAG has a great deal of responsibility for ensuring that the company addresses the matters current in society, the economy and the environment in a sustainable manner. Therefore, ASFINAG operates its core business in a manner that is socially and ecologically responsible as well as economically successful. All this helps ASFINAG on the way to carbon neutrality.

Contributors: René Moser, Jacqueline Erhart and Alexander Holzedl, ASFINAG

FRANCE – ASFA

ART PUBLISHES ITS QUINQUENNIAL REPORT

The French Transportation regulatory body has published its first report about the economic model of highway concessions in France. It has been five years since the Macron's bill on economic regulation was passed. It empowered the ART (Autorité de Régulation des Transports) to monitor the economics of the highway sector on behalf of the Parliament. This first quinquennial report was published this November after a long work of the Authority and gave a clear and comprehensive view on a complex model. It concluded that average IRR of the historic contracts would reach 7,9% at their term, in line with initial forecasts. With historic contracts approaching their terms and elected officials thinking of the future of these contracts, this report should help promote the virtues of a model that is often hastily criticized.

Contributor: Christophe Boutin, Association des Sociétés Françaises d'Autoroutes et d'Ouvrages à Péage (ASFSA)

GREECE – HELLASTRON

INTEROPERABILITY OF ETC FOR ALL GREEK TOLL ROADS IS A REALITY

A new electronic tolling service was implemented on all of Greece's toll roads. The new service is effective since November 4, 2020 and it ensures interoperability between all eight (8) Toll Infrastructures of the country, which together make up the 2,133.2 kilometers and constitute the Hellastron network which is covering most of mainland Greece. The new service was implemented on the principle one account, one device one invoice. All eight (8) entities have the role of a toll charger on their network, but only seven (7) of them are tag issuers, since Moreas Motorway elected not to distribute its own tags but to fully rely on interoperability, a decision which pays off as its ETC penetration ranks third in the country with 36%. As at the end of October 2020, Attiki Odos ranks first with 55% ETC penetration, with Egnatia Odos running last with 9%, a remarkable ETC penetration considering that Egnatia inaugurated its ETC for the first time in September 2020.

<https://www.ekathimerini.com/256507/gallery/ekathimerini/in-images/highways-set-to-become-interoperable-in-november>

<https://www.ekathimerini.com/257938/article/ekathimerini/news/interoperable-tolling-system-kicks-in-next-month>

<https://www.itsinternational.com/its1/news/greek-odyssey-now-needs-just-one-e-pass>

<https://ypodomes.com/grits-the-greek-highways-welcome-the-era-of-interoperability/>

MOTORWAY INFRASTRUCTURE PROJECTS: A KEY FACTOR FOR THE ECONOMY RECOVERY IN GREECE

Driving towards a speedy recovery of the economy following the COVID recession, Greece will submit a set of extensions to its 2000+km motorway network that will act as key development stimulus for the peripheral economies of the country and will be contributing to the much-needed increase of the country's GDP. The north part of Kentriki Odos (E-65) linking Central Greece to the east-west axis of Egnatia Odos Motorway, the underwater Tunnel connecting the island of Salamina with the Attica coastline, as well as other projects which may be mature enough to be financed by the EU Recovery Fund are included. The Road sector's share of the EU Recovery Fund is around 1,5bn€ and is aiming at mature and large projects that will have a target for completion by 2026.

<https://www.ekathimerini.com/256381/article/ekathimerini/business/greece-to-seek-eu-recovery-fund-money-for-major-road-projects>

<https://energypress.eu/tag/eu-recovery-fund/>

https://www.businessdaily.gr/english-edition/29232_greece-plans-path-eu-recovery-fund

<https://ypodomes.com/the-top-three-new-motorway-projects-in-greece/>

SUBMISSION OF FINANCIAL OFFERS FOR THE EGNATIA MOTORWAY CONCESSION ARE ANTICIPATED

The concession of Egnatia Odos Motorway with a total of more than 1000km is a long-awaited privatization project that seems to be coming soon, as deadline for submission of offers is approaching. During Phase A, seven (7) consortia have qualified and now on Phase B financial offers are anticipated to be submitted. The submittal date is December 11, 2020, unless the second lockdown in the country becomes a reason for extending once more the deadline. The evaluation process is set to begin next year. Eleven new toll stations are going into operation in order to fulfil the prerequisites set by the Hellenic Republic Privatization Fund. The bid has attracted almost all major players in the road sector with important players being part of the seven (7) participating schemes.

<https://ypodomes.com/egnatia-odos-11-new-toll-stations-are-put-into-operation-heat-in-the-concession-competition>

Contributors: Bill Halkias, P.E., Managing Director and CEO, Attica Tollway Operations Authority, HELLASTRON'S President Mr. Stavros Stavris, Technical Advisor, Charalampos Malimoglou and Communications Consultant Mr. Nikos Skylakakis

ITALY – AISCAT

EXCERPT FROM AISCAT SUSTAINABILITY REPORT

AISCAT recently issued the [first ever edition of its Sustainability Report](#). The document relates to 2019, which we may refer to as the year "zero"; a year to be praised for systematically collecting the contribution of AISCAT's Associates towards "Corporate Social Responsibility" and for a promise to develop, over the coming years, a way for structured sustainability.

AISCAT's Sustainability Report summarizes and illustrates, within an overall industry framework, the numerous activities of sustainable mobility carried out by the Association's concessionaires and does so whilst looking at sustainability within a broad prospective. Indeed, the report is not limited to purely environmental aspects, but also addresses ones relating to the services provided to users, the sector's contribution to economic development, the improvement of road safety, the development of human resources and the social impact connected with the work activities of road operators.

Contributors: Emanuela Stocchi and Massimo Schintu, AISCAT

SPAIN – SEOPAN

GLOBALVIA, MEEP AND SEVILLE CITY HALL LAUNCH MEEP SEVILLA BY GLOBALVIA, THE FIRST MOBILITY-AS-A-SERVICE (MAAS) APPLICATION

City transport will be available in the Meep App, both on iOS and Android, and represents a further step towards the expansion of mobility as a service in Spain. This consists of combining all the means of transport in a city in a single app with the aim of establishing more effective connections, increasing accessibility to the system, and encouraging users to choose this more sustainable way of moving, instead of using their vehicle private.

https://www.globalvia.com/sala_de_prensa/NoticiaDetalle.aspx?BtnSubMenu=30&id=5305

ENAIRES, SPAIN'S AIR NAVIGATION AUTHORITY, HAS ANNOUNCED PLANS TO BEGIN DEMONSTRATING FLYING TAXIS IN BARCELONA AND SANTIAGO DE COMPOSTELA IN 2022

ENAIRES works on European projects to manage the future mobility of people in urban and peri-urban areas. This will be via flying vehicles and, in particular, air taxis, as well as activities such as drone parcels. It currently participates in two EU-funded projects, which have just been awarded, financed with European Horizon 2020 funds through the SESAR Joint Undertaking on U-Space and Urban Air Mobility.

https://www.enaire.es/en_GB/2020_11_03/ndp_enaire_takes_part_european_projects

IBERDROLA AND PORSCHE JOIN FORCES TO PROMOTE THE ULTRA-FAST CHARGING OF ELECTRIC VEHICLES IN SPAIN

Iberdrola and Porsche have decided to join forces to push forward the electrification of transport, with a collaboration agreement to promote the deployment of ultra-fast charging in Spain. This agreement will see Iberdrola install 35 Premium stations, to be known as the Porsche Iberdrola High Power Charging Network, featuring the most powerful 150 kW and 350 kW chargers on the market which are compatible with Porsche Taycan vehicles.

<https://www.iberdrola.com/press-room/news/detail/iberdrola-porsche-join-forces-promote-ultra-fast-charging-electric-vehicles-spain>

ABERTIS: AGREEMENT WITH IBM TO DEVELOP MORE INNOVATIVE, SAFER, AND ECO-FRIENDLY MOTORWAYS

Abertis, the Spanish leading group in toll road management has signed a three-year agreement with IBM to launch an Innovation Garage. The project, based on the use of big data, will contribute to safer journeys, to optimize road maintenance, reduce impact of winter operations, and the development and design of a universal and interactive system of barrier-less mobility solution.

<https://www.abertis.com/en/the-group/about-abertis/latest-news/1041>

THE +VIAL PROGRAM BY FERROVIAL: PROTECTING HIGHWAY WORKERS AND USERS

The + VIAL program has four core principles: the first, Awareness, Information, and Training; the second, Control and Monitoring; the third, Regulations and Technical and Organizational Measures; and the last. Institutional Collaboration.

https://newsroom.ferrovial.com/en/inforvial_article/tolerancia-cero-a-los-accidentes/

TATTILE KEEPS EYES ON ROAD IN MADRID

Tattile has deployed 45 Vega Smart 2HD cameras for a road surveillance project in Spain's capital Madrid on behalf of traffic authority Dirección General de Tráfico.

<https://www.itsinternational.com/its2/news/tattile-keeps-eyes-road-madrid>

Contributors: Bruno de la Fuente and Abertis, Ferrovial and Globlavia

NORTH AMERICA

CANADA

ALBERTA BILL WOULD OPEN DOOR FOR ROAD AND BRIDGE TOLLS ON NEW PROJECTS

Proposed legislation in Alberta, Canada would allow a bridge to be built using tolls to pay for the construction. If passed the \$200-million Highway 697 bridge over the Peace River would be the first project financed in this manner. The bridge would replace the aging La Crete ferry in northern Alberta. The minister responsible said the fees would only go toward the cost of the project and would end once the project is paid for.

<https://www.cbc.ca/news/canada/edmonton/alberta-legislature-toll-roads-bridge-1.5788438>

CITY OF VANCOUVER PROPOSES TOLLS FOR CARS ENTERING DOWNTOWN

The city of Vancouver, British Columbia is considering implementing mobility pricing. The revenue could be used to help fund sustainable transportation options and other climate emergency actions. It would reduce the city's dependence on development levies, property taxes, and other indirect sources.

<https://dailyhive.com/vancouver/city-of-vancouver-metro-core-mobility-pricing-tolls-proposal>

POST-PANDEMIC, CANADIANS WILL NEED RAIL TO GET MOVING

Post-pandemic an expanded rail system is the best way for Canada to recover – by moving people and goods efficiently and in a climate-conscious fashion.

www.corporateknights.com/channels/clean-technology/post-pandemic-canadians-cant-move-without-rail-15984392/

Contributors: Steve Snider and Alison MacDonald, Halifax Harbour Bridges

GLOSSARY

AA	Automobile Association
ABB	Asea Brown Boveri
ADB	Asian Development Bank
AET	All-Electronic Toll
AfDB	African Development Bank
AAF	American Action Forum
AG	Stock company
AI	Artificial Intelligence
ALPR	Automatic License Plate Recognition
ALO	Avenida Longitudinal de Occidente
ANPR	Automated Number Plate Recognition
ARRB	Australian Road Research Group
ASECAP	Association euro penne des concessionnaires d'autoroutes et d'ouvrages à péage – European Association of Operators of Toll Road Infrastructures
AV	Autonomous Vehicle
AVI	Automatic Vehicle Identification
BOOT	Build-Own-Operate-Transfer
BOT	Build-Operate-Transfer
BPTJ	Greater Jakarta Transportation Management Authority
CABEI	Central American Bank for Economic Integration
CAGR	Compound Annual Growth Rate
CAV	Connected and Autonomous Vehicle
CCCC	China Communications Construction Company
CCR SA	Companhia de Concessões Rodoviárias
CCTV	Closed Circuit Control Center
CEO	Chief Executive Officer
C-ITS	Cooperative Intelligent Transportation Systems
CO2	Carbon Dioxide
COP	Climate Change Summit
CRBC	China Roads and Bridges Company
CRT	Concessionária Rio Teresópolis
CSIR	Council of Scientific and Industrial Research
CSS	Customer Service System
CTR	Austin's Center for Transportation Research

DC	District of Columbia
DDI	Diverging Diamond Interchange
DG Environment	Directorate-General for Environment
DG MOVE	European Commission's Directorate-General for Mobility and Transport
DOT	Department of Transportation
DPR	Detailed Project Report
DRC	Democratic Republic of Congo
DSRC	Dedicated Short-Range Communication
EBRD	European Bank for Reconstruction and Development
EC	European Commission
ECERDC	East Coast Economic Region Development Council
EETS	European Electronic Toll Service
EGNOS	European Geostationary Navigation Overlay System
EIB	European Investment Bank
EP	European Parliament
EPC	Engineering, Procurement and Construction
ERF	European Union Road Federation
ERP	Electronic Road Pricing
ETC	Electronic Toll Collection
EU	European Union
EV	Electronic Vehicles
FEMA	Federal Emergency Management Agency
FETC	Far East Electronic Toll Collection Company
FHWA	Federal Highway Administration
FIA	Federation Internationale de l'Automobile
GALILEO	European satellite navigation system
GDOT	Georgia Department of Transportation
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
HMI	Human Machine Interface
HOT	High Occupancy Toll
HOV lane	High Occupancy Vehicle lane
IADB	Inter-American Development Bank
IBTTA	International Bridge, Tunnel and Turnpike Association
IEC	International Electro Technical Commission

IIRSA	Initiative for the Integration of the Regional Infrastructure of South America
INEA	Innovation and Networks Executive Agency
IoT	Internet of Things
ISO	International Organization for Standardization
ITC	International Trade Commission
ITF	International Transport Forum
ITS	Intelligent Traffic System
ITSSA	Intelligent Transport Society of South Africa
JLR	Jaguar Land Rover
JORR	Jakarta Outer Ring Road
KFD	National Road Fund
KPC	Kuantan Port City
KURA	Kenya Urban Roads Authority
LAMBDA-V	Learning through AMBient Driving styles for Autonomous-Vehicles
LTA	Land and Transport Authority
LTA	La Trobe Autonobus
MaaS	Mobility-as-as-Service
MdTA	Maryland Transportation Authority
MENA	Middle East & Africa region
MOPC	Ministry of Public Works Commission
MOT	Ministry of Transport
MTA	Metropolitan Transportation Authority
MTM app	MyTransport.SG mobile application
NHAI	National Highways Authority of India
NPRA	Norwegian Public Roads Administration
NTE	North Tarrant Express
nVDC	Vehicle Detection and Classification Sensor
OBE/OBU	On Board Equipment/On Board Unit
OCTA	Orange County Transportation Authority
OECD	Organization for Economic Cooperation and Development
ORT	Open Road Tolling
OUTA	Organization Undoing Tax Abuse
PANYNJ	The Port Authority of New York & New Jersey
PIARC	Association Mondiale de la Route – World Road Association
PKM	Peshawar-Karachi Motorway

PPP	Public-Private Partnership
PT JLJ	PT Jalantol Lingkarluar Jakarta
QMB	Atténuateur d'impact, barrières automatisées et mobiles
RACV	Royal Automobile Club of Victoria
RFID	Radio Frequency Identification
RGV	Rio Grande Valley
RIA	Road Infrastructure Agency
RIDOT	Rhode Island Department of Transportation
RMS	Roads and Maritime Services
RSU	Road Site Units
RTA	Roads and Transport Authority
RUTA	Red Urbana de Transporte Articulado
SANRAL	South African National Roads Agency Ltd.
SCDOT	South Carolina Department of Transportation
SCT	Secretariat of Communications and Transport
SLEX-TR4	Southern Luzon Expressway-Toll Road
SRTA	State Road and Tollway Authority
SUMP	Sustainable Urban Mobility Planning
SwRI	Southwest Research Institute
TCC	Traffic Control Center
TEN-T	Trans-European Transport Network
TMETC	Tata Motors European Technical Center
TMT	Technology, Media and Telecommunications
TRA	Transport Research Arena
TRB	Transportation Research Board
TRY	Turkish Lira
TTI	Texas A&M Transportation Institute
TxDOT	Texas Department of Transportation
UAS	Unmanned Aerial Systems
UHF	Ultra-High-Frequency
UK	United Kingdom
UN	United Nations
UNECE	Economic Commission of the United Nations for Europe
US	United States of America
V2I	Vehicle-to-Infrastructure

V2V	Vehicle-to-Vehicle
V2X	Vehicle-to-Everything
VAT	Value Added Tax
VW	Volkswagen
WHSD	Western High-Speed Diameter
WIM	Weigh In Motion