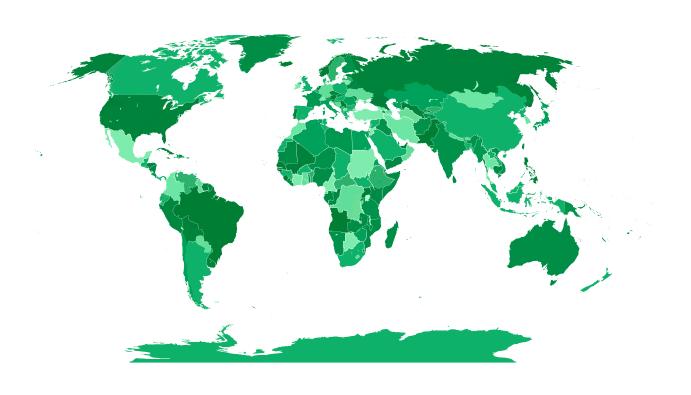


GLOBAL TOLLING & MOBILITY NEWSLETTER

A SCAN OF TOLLING & MOBILITY DEVELOPMENT AROUND THE GLOBE SUMMER 2019



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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.

AFRICA/MIDDLE EAST

AFRICAN TRANSPORT NETWORK PROJECTS, 2019 - \$430.3B INVESTMENT VALUE, WITH FOCUS ON ROAD, RAILWAY AND BRIDGES

Economic growth in the Africa region remains high, particularly in sub-Saharan Africa (SSA), which has some of the fastest growing economies in the world. The International Monetary Fund (IMF) and African Development Bank (AfDB) have both predicted that Africa's overall growth will improve in 2019 and 2020. However, the region's growth prospects continue to be constrained by a lack of infrastructure to support the expansion in trade, both within the region and externally.

Nigeria, with 49 projects, has the highest number of transport projects in the project pipeline, amounting to US\$48.3 billion, while Egypt, with 20 transport projects, has the highest value in the pipeline, amounting to US\$52.9 billion, followed by Algeria (30 projects valued at US\$37.9 billion), Kenya (27 projects valued at US\$31.8 billion), Tunisia (nine projects valued at US\$21.2 billion) and Tanzania (20 projects valued at US\$16.7 billion).

When completed in their entirety, the tracked projects will total over 110,000km in length (54,110km for roads, 55,345km for railway and 599km for bridges) of which 75,297km will be newly constructed, 29,197km will be upgraded and 5,561km will have an element of both construction and upgrade, crisscrossing the African continent.

NEW BUSES LAUNCHED IN ABU DHABI AHEAD OF ROAD TOLLS LAUNCH

The government wants to reduce traffic congestion in the capital. Beginning October 15, 2019, four toll gates will be activated at Sheikh Zayed Bridge, Sheikh Khalifa bin Zayed Bridge, Al Maqtaa Bridge and Mussafah Bridge. A total of Dhs4 will be charged every time a vehicle passes through one of the gates between Saturday and Thursday, from 7am-9am and then from 5pm-7pm. During off-peak hours, Fridays and public holidays the toll will be reduced to Dhs2 and daily maximum fee of Dhs16 will be placed on each vehicle.

Drivers will be required to create an account and top it up with credit to continue driving on the roads in the city before the tolls launch in October.

More details will be announced in the coming weeks ahead of the introduction of the system.

The Department of Transport - Abu Dhabi says the measure aims to reduce traffic congestion and raise the efficiency of public transport services. With this in mind, the Integrated Transport Centre has announced the addition of 40 new buses that will be active in the city from October 11.

The move is part of a Dhs473m investment to purchase 327 new buses to cater to the increased demand for public transport and improve connectivity between different areas of Abu Dhabi.

The new buses will increase the frequency of bus services, especially during peak times, and allow more passengers to use the transport network to navigate the city.

ASIA AND OCEANIA

INDONESIAN TOLL OPERATOR DEVELOPS IOT LAB

Indonesia's state-owned toll operator PT Jasa Marga TBk is developing an Internet of Things (IOT) lab in Jakarta to boost research and development innovation. Goals include improving services for toll road users and improving traffic monitoring.

State-owned toll operator PT Jasa Marga TBk has begun the development of an internet of things (IoT) laboratory in the company's former Jakarta-Tangerang branch office in Jakarta as part of the company's preparation to enter the Industry 4.0 era. The laboratory would become the center of research and technology development to create new innovations that can provide more benefits for toll road users. The IoT Lab would create the latest technologies that can support Jasa Marga's performance in providing the best services for its users.

In addition to improving services for toll road users, the development of the digital technology within the IoT laboratory is also intended to improve the traffic monitoring system and social media comment center.

Jasa Marga, the country's largest toll road operator, plans to operate 245 kilometers of new toll roads in Java, Sumatra, Kalimantan and Sulawesi this year. The new toll roads include the Cengkareng-Kunciran (14.2 km), Kunciran-Serpong (11.2 km) and Serpong-Cinere (10.14 km), as well as the Jakarta-Cikampek II elevated toll road (36.4 km), the Pandaan-Malang road (38.49 km) and the Gempol-Pandaan (1.6 km).

AUSTRALIA CONSIDERS TOLL ROAD TO IMPROVE ACCESS TO REMOTE REGION

The Dampier Peninsula is a top tourist destination in remote Western Australia, and the country is considering a toll road to make accessing the region easier. The income from tolls could be used to fund improved services for the expected influx of tourists.

NLEX CORP. IS TARGETING TO BEGIN NEXT MONTH THE CONSTRUCTION OF THE TOLL ROAD THAT WILL LINK NORTH LUZON EXPRESSWAY (NLEX) TO SOUTH LUZON EXPRESSWAY (SLEX) IN THE PHILIPPINES

The 8-kilometer toll road linking the tail of NLEx Harbor Link Segment 10 in C3 Road, Caloocan City to PUP Sta. Mesa, Manila aims to provide an alternate route for trucks coming from the port area. From Sta. Mesa, vehicles traversing the expressway may connect to the Metro Manila Skyway Stage 3 through an elevated road. The target is to open the expressway by December 2021. Once operational, it is expected to reduce travel time from NLEx to SLEx to 20 minutes from the usual two hours. It will have a capacity of 35,000 motorists daily. NLEX is part of the Metro Pacific Tollways Corp., the tollways unit of Metro Pacific Investments Corp. (MPIC).MPIC is one of three key Philippine units of Hong Kong-based First Pacific Co. Ltd., the others being Philex Mining Corp. and PLDT, Inc. Hastings Holdings, Inc., a unit of PLDT Beneficial Trust Fund subsidiary MediaQuest Holdings, Inc.

MALAYSIA PLANS TO ACQUIRE FOUR HIGHWAYS IN ORDER TO PREVENT AN INCREASE IN TOLL RATES

Deputy International Trade and Industry Minister Ong Kian Ming said the government had shown its commitment to reducing and eventually eliminating tolls, particularly intracity tolls. "So instead of allowing toll hikes to happen or compensate toll companies in lieu of toll hikes, the government is taking the money for compensation to acquire the tolls with a promise of toll discounts during off-peak periods without the increase of toll rates."

He added that by acquiring these tolls, the temptation to defer compensation for toll concessionaires by extending the length of concessions would also be removed.

This, he said, was something the previous administration had done when it did not want to pay toll concessionaire's compensation and instead increased the length of toll concessions by 10 to 15 years.

"This is something which could have taken place if there was no change of government. "Instead, this acquisition of tolls is funded by the proceeds of toll collections with no cost implications to the government. It will not increase our budget deficit."

Ong said the takeover of tolls would be fully funded by toll collections which would be channeled to a special purpose-vehicle while allowing users to enjoy off-peak discounts.

Putrajaya said in February that it intends to abolish the existing toll mechanism upon successful takeover of the highways and introduce a congestion charge instead.

EUROPE

SAFER TRANSPORT PLATFORM

The European Investment Bank (EIB) launched the Safer Transport Platform (STP) — Road Safety Advisory. The STP is defined as a "gateway to advisory services to support the uptake of funding and financing opportunities that improve road safety."

More concretely, the platform is a one-stop shop to EIB advisory services and financial products that aims to offer support to potential promoters from the public and private sectors that would like to invest in road safety, promoted as an area of transport investment. It has also been tasked with carrying out a market assessment "to establish any further investment needs for road safety and appropriate tools to address them," which could open a door for lobbying actions by stakeholders in related sectors.

LAUNCH OF THE CCAM PLATFORM – COOPERATIVE, CONNECTED, AUTOMATED AND AUTONOMOUS MOBILITY

The objective of the C-ITS Strategy, adopted on 30th of November 2016, is to facilitate the convergence of investments and regulatory frameworks across the EU, in order to see deployment of mature C-ITS services in 2019 and beyond.

The Cooperative, Connected, Automated and Autonomous Mobility (CCAM) Single Platform, set up by the European Commission consists of an informal group of both private and public stakeholders. The group includes one hundred experts, representing European organizations. The CCAM Single Platform is a joint initiative of Directorate-General for Mobility and Transport (DG) MOVE, Directorate-General for Communications Networks, Content and Technology (DG CNECT), Directorate-General for Internal Market, Industry, Entrepreneurship and SME's (DG GROW) and Directorate-General for Research and Innovation (DG RTD).

The aim of this platform is to advise and support the EC in the area of open road testing and making the link to predeployment activities. Six working groups have been set up to address issues related to data access and exchange, digital and road transport infrastructure, communication technology, cybersecurity and road safety.

THE GERMAN VIGNETTE FOR THE USE BY PASSENGER VEHICLES OF FEDERAL ROADS IS CONTRARY TO EU LAW

Since 2015, Germany has put in place a legal framework for the introduction of a charge for the use by passenger vehicles of federal roads, including motorways: the 'infrastructure use charge'.

By that charge, Germany intends to move in part from a system of financing by means of taxation to a system of financing based on the 'user pays' and 'polluter pays' principles. The revenue from that charge will be entirely allocated to financing the road infrastructure, the amount of which will be calculated based on cylinder capacity, the type of engine and the emission standard of the vehicle.

Every owner of a vehicle registered in Germany will have to pay the charge, in the form of an annual vignette, of no more than €130. For vehicles registered abroad, payment of the charge will be required (from the owner or driver) for use of the German motorways. In that regard, a 10-day vignette is available costing between €2.50 and €25, a 2-month period costing between €7 and €50 and annual vignettes are available, at no more than a maximum of €130.

In parallel, Germany has provided that, from the revenue from the infrastructure use charge, the owners of vehicles registered in Germany will qualify for relief from the motor vehicle tax to an amount that is at least equivalent to the amount of the charge that they will have had to pay.

Austria considers that, on the one hand, the combined effect of the infrastructure use charge and the relief from motor vehicle tax for vehicles registered in Germany and, on the other, the structuring and application of the infrastructure use charge are contrary to EU law, in particular the prohibition of discrimination on the grounds of nationality.

Having brought the matter before the Commission for an opinion, which was not delivered within the prescribed period, Austria brought infringement proceedings against Germany before the Court. In these proceedings, Austria is supported by the Netherlands whereas Germany is supported by Denmark.

In today's judgment, the Court finds that the infrastructure use charge, in combination with the relief from motor vehicle tax enjoyed by the owners of vehicles registered in Germany, constitutes indirect discrimination on grounds of nationality and is in breach of the principles of the free movement of goods and of the freedom to provide services.

NORTH AND SOUTH AMERICA

AMERICA'S TRANSPORTATION INFRASTRUCTURE ACT

Introduced in the Senate, America's Transportation Infrastructure Act of 2019 is the largest amount of funding provided for highway reauthorization legislation in history. The bill authorizes \$287 billion from the Highway Trust Fund over five years to maintain and repair America's roads. The legislation includes provisions to improve road safety, accelerate project delivery, improve resiliency to disasters, reduce highway emissions, and grow the economy. Below are a few of the highlights of the bill.

Funds Highways and Grows Economy - The bill provides \$287 billion in highway spending from the Highway Trust Fund over five years, of which \$259 billion, or over 90%, is distributed to states by formula. The five-year funding level is more than a 27% increase above the FAST Act and will be the largest highway bill in history. The legislation maintains each state's share of highway formula funding and expands the flexibility and eligible uses of formula funds provided out of the Highway Trust Fund.

Enhances and Improves Road and Bridge Safety - The legislation authorizes over \$6 billion over five years, including \$3.3 billion from the Highway Trust Fund, for a competitive bridge program to address the backlog of bridges in poor condition nationwide. Every state with a well-justified proposal will receive funding to improve the condition and safety of its aging bridges. In addition, in order to enable agencies to support the large bridge projects that they often struggle to

complete due to lack of adequate funding, no less than 50% of the program will support bridges with a total project cost larger than \$100 million.

VIRGINIA'S I-95 COULD RETURN TO ITS ROOTS AS A TOLL ROAD

Interstate 95's Richmond-Petersburg Parkway was the first part of I-95 to open in Virginia in 1958, and did so as a toll road. Planned express lane extensions in Stafford County will also be tolled, but director of engineering King Gee of the American Association of State Highway and Transportation Officials (AASHTO) said tolling should be a larger part of the highway picture.

MEXICO LOOKS TO MAKE PROGRESS ON DELAYED TOLL ROAD PROJECTS

Mexico's transport and communications ministry (SCT) has announced plans to resume work on long-running toll highway projects. These include the Barranca Larga-Ventanilla highway, Mitla-Tehuantepec highway and the Atizapan-Atlacomulco Highway, which have all seen significant delays and setbacks due to various obstacles.

GM ADVANCES AUTONOMOUS RESEARCH

GM is refining and expanding autonomous-vehicle testing in tricky environments while it awaits federal approval on an exception to rules requiring brake pedals and steering wheels in cars. The company is also focusing on building public trust in its testing, and it has the talent and processes to eventually make safe, reliable autonomous cars, writes Michael Martinez.

INTERNATIONAL INDUSTRY EVENTS CALENDAR

2019

IBTTA 87th Annual Meeting and Exhibition

Halifax, Nova Scotia, Canada, September 15-17, 2019 www.IBTTA.org/halifax

XXVIth World Road Congress - PIARC

Abu Dhabi, United Arab Emirates, October 6-10, 2019 www.piarc.org/en/calendar/World-Road-Congresses-World-Road-Association

26th ITS World Congress

Singapore, October 21-25, 2019 https://itsworldcongress2019.com

IBTTA Global Tolling Summit

Lisbon, Portugal, October 27-29, 2019 www.IBTTA.org/all-events

2020

IBTTA Board of Directors & Committee Meetings

Coral Gables, Florida, January 8-10, 2020 www.IBTTA.org/all-events

TRB Annual Meeting

Washington, DC, January 12-16, 2020 www.trb.org/AnnualMeeting/Blurbs/177818.aspx

IBTTA Leadership Academy

Washington, DC, February 23-28, 2020 www.IBTTA.org/leadershipacademy

IBTTA Annual Technology Summit

San Diego, California, April 2-4, 2020 www.IBTTA.org/sandiego

IBTTA Summit on Finance & Policy

Denver, Colorado, May 7-9, 2020 www.IBTTA.org/denver

14th ITS European Congress

Lisbon, Portugal, May 18-20, 2020 https://itsineurope2020.com

48th ASECAP Study & Information Days

Belgium, End of May / beginning of June 2020 (Date TBC) www.asecap.com/asecap-days.html

IBTTA Maintenance & Roadway Operations Workshop

Louisville, Kentucky, July 12-14, 2020 www.lBTTA.org/louisville

IBTTA 88th Annual Meeting & Exhibition

Austin, TX, September 13-15, 2020 www.lBTTA.org/austin

IBTTA Global Tolling Summit

Buenos Aires, Argentina, October 18-20, 2020 www.lBTTA.org/buenosaires

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

B00T 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

ETC Electronic Road Pricing
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 Mondale 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 AmericaV2I 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