

SAFETY

U.S. Participation in PIARC | 2016-2019 Cycle Benefits and Accomplishments



U.S. Department of Transportation
Federal Highway Administration



Around the world, transportation-industry professionals and organizations are focused on safety in all stages of road infrastructure, from planning to construction to operation. The World Road Association, also known globally as PIARC, aims to foster global collaboration to develop solutions for transportation challenges – chief among them is improving safety.

The Federal Highway Administration (FHWA) shares this commitment in the United States. FHWA's safety goal seeks to make its transportation system safer for all: *to prioritize safety and public health using informed decision-making and data-driven approaches, working toward a future where transportation-related serious injuries and fatalities are eliminated.* Participation from U.S. delegates in PIARC furthers these objectives.



Safety is an overarching principle integral to the work of many PIARC technical committees. The following U.S. delegates were instrumental in ensuring the published works of their committees included safety concerns and considerations for the benefit and protection of communities around the world.

COMMITTEE	DELEGATE / POSITION	ROLE IN PIARC	TECHNICAL REPORTS
ROAD TRANSPORT SYSTEM ECONOMICS AND SOCIAL DEVELOPMENT			
The Road Transport System Economics and Social Development Committee analyzed many factors related to transportation systems planning, and with thorough understanding comes greater awareness of potential issues such as safety.	David Luskin , FHWA, Economist, Investment & Economic Analysis Team	Member, Road Transport System Economics and Social Development	<ul style="list-style-type: none"> Journey Time and Travel Reliability Ex-Post Evaluation of Road Projects
RISK MANAGEMENT			
The Risk Management Committee evaluated a wide variety of risks, that, when better understood can be mitigated, increasing safety.	Firas Ibrahim , FHWA, Stewardship/Oversight Team Leader	Member, Risk Management	<ul style="list-style-type: none"> Project risk catalogue Evaluation of organizational approaches to risk
	Jean Wallace , Minnesota Department of Transportation Position: Assistant Modal Planning & Program Management Division Director	Member, Risk Management	
SAFETY			
The Safety Technical Committee is the preeminent committee involved in studying and developing safety initiatives within PIARC, including producing the Road Safety Manual, and focusing on the Safe System approach to road safety.	John Milton , Washington State Department of Transportation (WSDOT); Director of Transportation Safety and Systems Analysis	Chair, Safety Technical Committee/ National Road Safety Policies and Programs Subcommittee/Road Safety Manual Working Group	<ul style="list-style-type: none"> Implementation of National Safe System Policies: A Challenge Update of the Road Safety Manual 3rd Edition
	Karen Scurry , FHWA, Office of Safety Programs, Implementation Team	Member, Safety Technical Committee/ National Road Safety Policies and Programs Committee	
	Michael Griffith , FHWA, Director, Office of Safety Technology	Corresponding Member, Safety Technical Committee/National Road Safety Policies and Programs Committee	
ROAD NETWORK OPERATIONS / INTELLIGENT TRANSPORTATION SYSTEMS			
The Road Network Operations / Intelligent Transportation Systems Committee focused on the collection and use of data to better planning efforts and operations, with safety being a prime consideration.	Valerie Briggs , FHWA, Director, Office of Transportation Management	Corresponding Member, Road Network Operations/Intelligent Transportation Systems	<ul style="list-style-type: none"> Big Data For Road Network Operations Low Cost ITS
	Galen McGill , Oregon Department of Transportation, ITS Manager	Member, Road Network Operations/ Intelligent Transportation Systems	
WINTER SERVICE			
Winter weather is a major safety concern, and preparedness strategies, including new technologies studied by the Winter Service Committee, increased safety worldwide.	Gabriel Guevara , FHWA, Road Weather Team	Member, Winter Service	<ul style="list-style-type: none"> The Snow and Ice Data Book 2018 International Development of Application Methods of De-icing Chemicals - State of the Art and Best Practice Intra- and Inter-Agency Integration of Winter Maintenance Management: Case Studies
	Steve Lund , Minnesota DOT, Principal State Maintenance Engineer, MNDOT	Member, Winter Service	

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SUSTAINABLE MULTIMODALITY IN URBAN AREAS			
By evaluating highly populated areas in terms of traffic congestion and more broad mobility and accessibility needs, the Sustainable Multimodality in Urban Areas Committee focused on quality of life in an urban area, which directly correlates to the safety of its transportation system.	Harlan Miller , FHWA, Planning Engineer	Member, Sustainable Multimodality in Urban Areas	<ul style="list-style-type: none"> Sustainable Multimodality in Urban Regions
FREIGHT			
As a common factor in traffic-related crashes, specifically regarding fatalities, the safe operation of the freight industry within a transportation system was paramount to the Freight Committee.	Tiffany Julien , FHWA, Office of Freight Management and Operations, Program Delivery Team	Member, Freight	<ul style="list-style-type: none"> National Policies for Multi-Modal Freight Transport and Logistics Truck-Traffic on Highways for Sustainable, Safer and Higher Energy Efficient Freight Transport Good Practices on Multi-Modal Freight Transport Policies and Truck Management on Highways
	Lori Porreca , FHWA, Federal Highway Administration IDAHO (HDA-ID) Position: Community Planner	Corresponding Member, Freight	
BRIDGES			
By prioritizing the strategies for timely inspection and maintenance of bridges, the Bridges Committee work had direct safety outcomes within infrastructure.	Dr. Joseph Hartmann , FHWA, Director, Office of Bridges and Structures	Member, Bridges	<ul style="list-style-type: none"> Bridge Design Toward Improved Inspection and Maintenance Technical and Economic Considerations of Bridge Rehabilitation Methods Damage and Deterioration Assessment Decision-Making for Highway Bridge Safety Inspections and Damage Assessment Techniques - Case Studies
	Scot Becker , Wisconsin Department of Transportation Position: Director of Bureau of Structures/State Bridge	Member/Secretary, Bridges	
ADAPTATION STRATEGIES / RESILIENCY			
Preparing resilient infrastructure and refining the ability to adapt to change, which are outcomes focused on by the Adaptation Strategies and Resiliency Committee, inversely make a transportation system safer.	April Marchese , FHWA, Director, Office of Natural and Human Environment	Member/Secretary, Adaptation Strategies/Resiliency	<ul style="list-style-type: none"> Refinement of PIARC's International Climate Change Adaptation Framework for Road Infrastructure Adaptation Methodologies and Strategies to Increase the Resilience of Roads to Climate Change – Case Study Approach
DISASTER MANAGEMENT			
Prompt and coordinated disaster response from road administrators, which was strategized by the Disaster Management Committee, helps ensure heightened safety in the aftermath of an emergency event.	Herby Lissade , California Department of Transportation (Caltrans) Chief, Office of Emergency Management	Member, Disaster Management	<ul style="list-style-type: none"> Disaster Information Management for Road Administrators

Safety Committee Activities


At the helm of safety principles for the betterment of the industry is PIARC's Safety Committee, which made significant strides toward improving transportation safety during the 2016-2019 cycle. The main accomplishment of the Safety Technical Committee's working group led by U.S. Delegate, John Milton, was an update to the PIARC Road Safety Manual (RSM) a comprehensive guide that is designed to assist countries around the world during every stage of developing infrastructure in order to achieve safety objectives.


Founded in the Safe System approach, the update added more than 40 case studies and PIARC documents. The updated RSM is available online at no cost and has been published in several languages. Further, the document is linked by chapters, so it is practical and easy to download and use. The update of the RSM directly supports the United States Department of Transportation and the Federal Highway Administration's (FHWA) highest-priority: **Safety**.


Key Takeaways

★★★★★ **Safe System** – Outlines inter-connected pillars of responsibility for road safety: safe roads, safe people, safe vehicles, and safe speeds involving everyone from: public agencies, automobile manufacturers, road users, enforcement officials and others. The Safe System approach, which is gaining traction in the U.S. transportation community, stems from:



 **Human Factors** – Human-centered road design and an integrated road traffic system that accounts for human capabilities and limitations.

 **Connected and Automated Vehicles (CAV)** – Seen as a great opportunity to improve road safety, but CAV technology is constantly changing, and countries will face a learning curve when it is ready for adoption into the road system.

 **Consideration of Vulnerable Road Users** – Injury and death rates of pedestrians and cyclists, as well as specific age and gender groups are overrepresented in road user casualty rates.

Benefits

There are many benefits to the U.S. transportation community from committee participation, including:

Demonstrating U.S. leadership in fulfilling safety objectives


Advancing implementation of the Safe System approach in the U.S.

Learning proven strategies from across the globe that align with NSC "Road to Zero" and global plan for "Decade of Action for Road Safety" initiatives

Sharing knowledge learned with U.S. peers and promoting Road Safety Professional certification

Adoption of many of these strategies should have positive impacts and help the U.S. achieve the long-term vision of zero fatalities on the nation's roads.

Next Steps

 *Continue to disseminate knowledge on road safety.*

 *Continue to communicate with the global transportation safety community to develop new ideas and share best practices and information.*



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WORLD ROAD ASSOCIATION