

WORLD ROAD ASSOCIATION



www.piarc.org

Road Safety
Prof. Claude Van Rooten
President
10 /12 /2019





What is PIARC?

- **PIARC** is the new name of the **World Road Association**
- We were founded in 1909 as a **non-profit, non-political Association**
- Our goal is to organise **exchange of knowledge** on all matters related to **roads and road transport**





PIARC's Four key missions

- Be a **leading international forum for analysis and discussion** of the full spectrum of transport issues related to roads and related transport;
 - Identify, develop, and disseminate **best practice** and **give better access to international information**;
 - Consider within its activities the needs of **developing countries and countries in transition** fully; and
 - Design, produce, and promote **efficient tools for decision making** on matters related to roads and related transport.
-
- The Association mobilizes the expertise of its members
 - Through operations guided by a **4-year Strategic Plan**





Extensive membership base

- **PIARC addresses the needs of all countries**
- **124 National governments are members of the Association**
 - Recent additions: Montenegro, Mozambique
- **Members from a total of 140 countries**
 - National governments
 - Regional authorities
 - Collective members - public or private, e.g. companies, research institutes...
 - Individual members
- **More than 1 200 experts are currently mobilised in our working groups**





PIARC and Low and Middle Income Countries

- **One of our missions is to address the needs of all countries**
 - High Income Economies as well as Lower Income Economies
- **But several specific processes are implemented:**
 - Include possible specific needs of low and middle income countries (LMICs) in our Strategic Plan
 - Involve experts from LMICs in our Technical Committees
 - Organise International PIARC seminars in LMICs, among other events
 - Establish regional working groups
 - Budget support is available from PIARC





PIARC and South-Eastern Europe

An old story

- Early membership of the Kingdom of Serbs, Croats and Slovenes (1921)
- Kingdom of Yugoslavia member of PIARC Permanent Commission (1937)
- Restart of relations in 1951
- Formal application of SFR Yugoslavia in 1970
– active partnership 1970-1990





Since 1991

- Contacts from time to time since 1991
- Croatia joined PIARC in 1993 and Slovenia in 1996
- PIARC participated in the 2nd Serbian Road Congress in 2016 and in SEETO Council in Tirana the same year
- SEETO participated in PIARC World Road Congress in Seoul in 2015 and both organisations signed a MoU in 2017
- Montenegro joined PIARC in 2019





Knowledge exchange: The core of PIARC

- **PIARC mobilises international road and transport experts through more than 20 groups:**
 - Ad-hoc dialogue among peers
 - Network building
 - Joint work towards commonly-agreed deliverables
- **These deliverables are widely accessible:**
 - Reports
 - Seminars or workshops
 - Online manuals
 - Software and tools
- **PIARC Congresses are world-class focus points for:**
 - Dissemination of these deliverables
 - Further discussions

"PIARC has a good reputation as serious experts which is what we all need"
PIARC Advisory Group Meeting 23 May 2018





Knowledge exchange: Broad range of topics

The screenshot displays the PIARC website's navigation interface. At the top, there is a search bar with a magnifying glass icon and the text "Search", followed by an "OK" button. To the right of the search bar, the language is set to "English" with a dropdown arrow. Further right, there are social media icons for Twitter, LinkedIn, Facebook, and YouTube, preceded by the text "FOLLOW PIARC". Below the search bar is a dark blue navigation bar with four tabs: "DISCOVERING PIARC", "WORK TOPICS" (which is highlighted with an orange underline), "OUR ACTIVITIES", and "NEWS & AGENDA". To the right of these tabs are icons for a user profile and a lock. Below the navigation bar, the "WORK TOPICS" section is expanded, showing four main categories, each with a list of sub-topics and expand/collapse icons (+/-). The categories are: MANAGEMENT AND FINANCE, ACCESS AND MOBILITY, INFRASTRUCTURE, and CLIMATE CHANGE, ENVIRONMENT AND DISASTERS. Each category has a minus icon to its right, indicating it is currently expanded. The sub-topics are listed in a light beige box with a plus icon to their right, indicating they can be expanded further.

MANAGEMENT AND FINANCE	ACCESS AND MOBILITY	INFRASTRUCTURE	CLIMATE CHANGE, ENVIRONMENT AND DISASTERS
Design of inter-urban roads	Freight Transport	Earthworks	Environment
Economic Studies	Road Network Operations	Road Assets Management	
Financing of Road System	Urban Mobility	Road Bridges	
Governance of Road Authorities	Winter Service	Road Pavements	
Planning		Rural Roads	
Project Management		Road Tunnel Operations	
Risk Management			
Road Policies			



Some important features...

- **PIARC prepares and publishes knowledge products**
- **PIARC does not represent its member governments**
 - In Expert Groups of the Commission, for example
 - Our Members express their views themselves
- **PIARC reports are not binding**
- **PIARC does not engage in standardization**



Downloadable pdf files

Available for free at www.piarc.org



- **Cycle 2012-2015:**
 - 40 technical reports were produced by the Technical Committees
- **Cycle 2016-2019:**
 - 46 new reports





A multilingual Association

- **PIARC has three working languages:**
 - French
 - English
 - Spanish
- **Our products are all available in English**
- **Most of them in French and Spanish too**
- **Countries can translate them in their own language**
 - A MoU with PIARC is required






Online road dictionary

- Technical Dictionary of Road Terms
- Mainly: English, French, Spanish
- Plus 32 other languages
- 8th edition
- Online, free of charge





English

[DISCOVERING PIARC](#) [WORK TOPICS](#) [OUR ACTIVITIES](#) [NEWS & AGENDA](#)

[JOIN US](#)
[IDENTIFICATION](#)

Home » Our activities » Road Dictionary » Term search

Search a term in the Road Dictionary

Source language: English Target language(s):

Add criteria

- ☒ The term and its synonyms
- ☐ Only the term
- ☐ All content

Results for the term: winter maintenance

Themes	Terms
Operations - Winter Serviceability	tool for winter maintenance
	winter maintenance syn : winter service
	winter maintenance contractor

- **5 Strategic Themes**
 - A. Management and Finance
 - B. Access and Mobility
 - C. Safety
 - D. Infrastructure
 - E. Climate Change, Environment and Disasters
- Continuation of several lines of traditional work
- With an elevation of environment-related issues
- **18 Technical Committees and 4 Task Forces**
 - Including the Terminology Committee
- With clear topics to be addressed and expected results

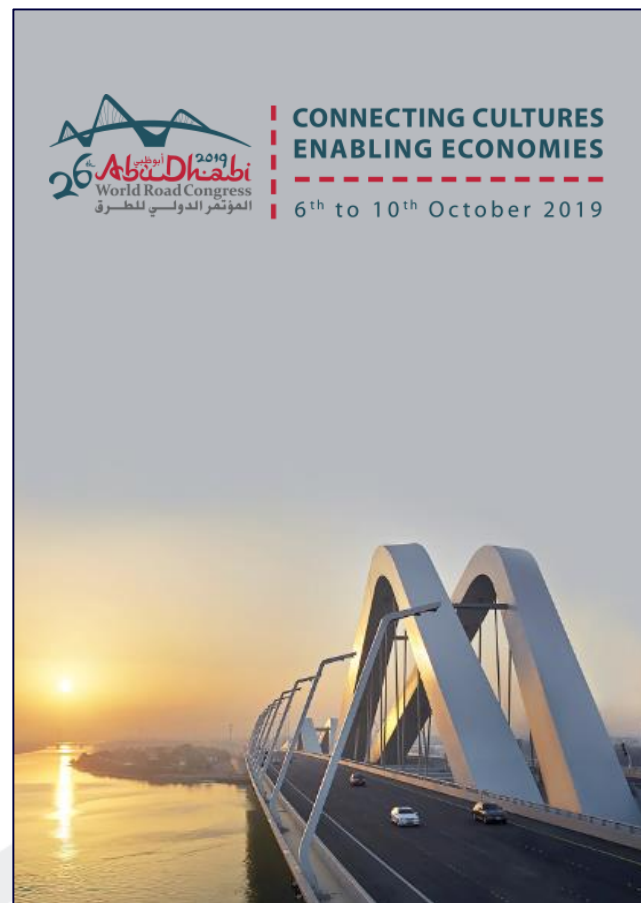
A. Management and finance	B. Access and mobility	C. Safety	D. Infrastructure	E. CC-Environment - Disasters
A.1 Performance of transport administrations A.2 Road transport system economics and social development A.3 Risk management	B.1 Road Network Operations / ITS B.2 Winter services B.3 Sustainable multimodality in urban areas B.4 Freight	C.1 National road safety policies and programs C.2 Design and operations of safer road infrastructure	D.1 Asset management D.2 Pavements D.3 Bridges D.4 Rural roads and earthworks D.5 Road tunnels operations	E.1 Adaptation strategies / Resilience E.2 Environment considerations in road projects and operations E.3 Disaster management
A.1 Innovative financing A.2 Coordinating National and Subnational adm.	B.1 Road design & infrastructure for innovative solutions B.2 Automated vehicles: challenges and opportunities for road operators and road authorities	C.1 Infrastructure security		

1. Road Administration	2. Mobility	3. Safety and Sustainability	4. Resilient Infrastructure
TC 1.1 Performance of Transport Administrations	TC 2.1 Mobility in Urban Areas	TC 3.1 Road Safety	TC 4.1 Pavements
TC 1.2 Planning Road Infrastructure and Transport to Economic and Social Development	TC 2.2 Accessibility and Mobility in Rural Areas	TC 3.2 Winter Service	TC 4.2 Bridges
TC 1.3 Finance and Procurement	TC 2.3 Freight	TC 3.3 Asset Management	TC 4.3 Earthworks
TC 1.4 Climate change and resilience of Road Network	TC 2.4 Road Network Operation/ITS	TC 3.4 Environmental Sustainability in Road Infrastructure and Transport	TC 4.4 Tunnels
TC 1.5 Disaster management			
TF 1.1 Well-Prepared Projects	TF 2.2 Automated vehicles – Challenges and opportunities	TF 3.1 Road Infrastructure and Transport Security	TF 4.1 Road Design Standards
TF 1.2 HDM-4	TF 2.1 New mobility and its impact on road infrastructure and Transport		
Terminology Committee			
Road Statistics Committee			

Road Safety at World Road Congress 2019 Abu Dhabi

6 – 10 October 2019

<https://pre-proceedings-abudhabi2019.piarc.org/en/>



26th World Road Congress

Keynote speech by Dr Etienne Krug (WHO)





26th World Road Congress

8 Road Safety Sessions

Session	Title	Organized with
Foresight Session	BUILDING PARTNERSHIPS FOR BETTER ROAD SAFETY	IRF Geneva, ITF/OECD, iRAP, PIARC
Strategic Direction Session	THE CHALLENGES SET BY THE DECADE OF ACTION FOR ROAD SAFETY	Jean-François Corté, PIARC Strategic Theme Coordinator, France
Technical Session C1	PROGRAMS AND POLICIES FOR ROAD SAFETY	PIARC TC C1, Roberto Arditì (Italy)
Technical Session C2	DESIGN AND OPERATIONS OF SAFER ROAD INFRASTRUCTURE	PIARC TC C2, Shaw Voon Wong (Malaysia)
Technical Session TF C1	INFRASTRUCTURE SECURITY	PIARC TF C1, Saverio Palchetti (Italy)
Workshop 3	ROAD SAFETY MANUAL & THE UN TARGETS	PIARC TC C1, Roberto Arditì ITF/OECD, Véronique Feypell
Workshop 6	DEVELOPMENT OF SUSTAINABLE RSA AND RSI IMPLEMENTATION IN LMICS	PIARC TC C2, John Barrell (UK) IRF Geneva, Susanna Zammataro
Workshop 12	REGIONAL ROAD SAFETY OBSERVATORIES	The World Bank, Verónica Raffo

Recent reports on Road Safety (2012-2015)

1. **Vulnerable road users: Diagnosis of design and operational safety problems and potential countermeasures**
2. **Land use and safety: an introduction to understanding how land use decisions impact safety of the transportation system**
3. **The Role of Road Engineering in Combatting Driver Distraction and Fatigue Road Safety Risks**
4. **Human factors guidelines for a safer man-road interface**
5. Fixed fire fighting systems in road tunnels: Current practices and recommendations
6. Improving safety in road tunnels through real-time communication with users
7. **Human factors in road design. Review of design standards in nine countries**
8. **Road accident investigation guidelines for road engineers**
9. **Comparison of national road safety policies and plans**
10. **Road safety inspection guidelines for safety checks of existing roads**
11. Best practices for road safety campaigns
12. Improvements in safe working on roads
13. State of the practice for cost-effectiveness analysis, cost-benefit analysis and resource allocation
14. Best practice for road tunnel emergency exercises

2016-2019 Strategic Plan: New reports

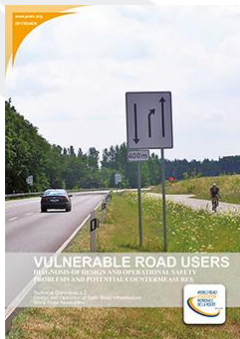
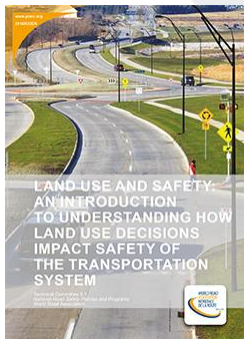
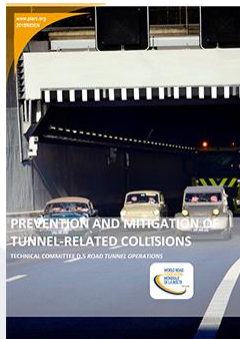
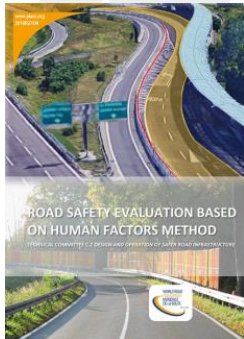
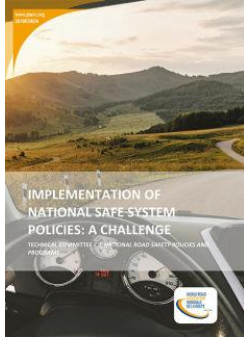
Already available:

- Implementation of National Safe System Policies
- Road Safety Evaluations Based on Human Factors Method
- Setting Credible Speed Limits
- Prevention and Mitigation of Tunnel-Related Collisions
- Land use and safety
- Vulnerable road users: Diagnosis of design and operational safety problems and potential countermeasures

Update of the Road Safety Manual

Soon:

- Catalogue of design, operations and maintenance safety problems and potential countermeasures for LMIC
- Road Safety Audit guidelines (amended version)



Key messages from recent Road Safety reports (1/5)

PILLAR 1: Road safety management

Implementation of National Safe System Policies: a Challenge

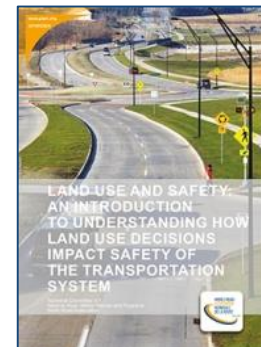
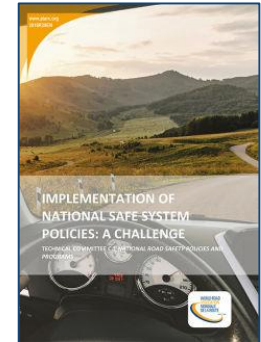
The results from this survey represent current activity in a wide variety of countries, including those in LMICs and HICs. All countries are encouraged to benchmark their own road safety activity against the actions undertaken by those contributing to this survey. All countries stand to gain some improved knowledge by assessing the policies and activities that will lead them to greater Safe System implementation.

Land use and safety: an introduction to understanding how land use decisions impact safety of the transportation system

Unplanned communities can create hazards for road users of all types such as motorists, cyclists and pedestrians, in countries at all stages of development. This extends beyond transport infrastructure decisions and includes land use, social and community services, management of resources

Comparison of national road safety policies and plans

Examination of road safety performance of several nations, review of reported policies and strategies in jurisdictions and attempts to establish linkages between adopted and implemented road safety policies, overarching multi - year strategies and performance outcomes. Findings are built upon survey returns from 16 countries and 8 selected state/provincial jurisdictions.

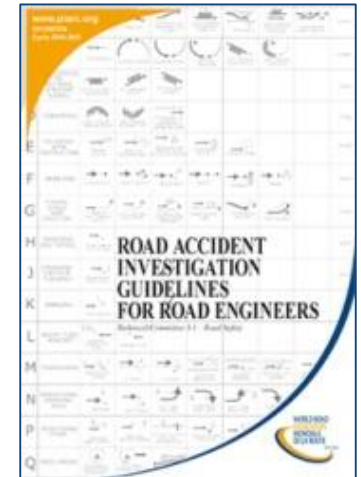


Key messages from recent Road Safety reports (2/5)

PILLAR 2: Safer roads and mobility

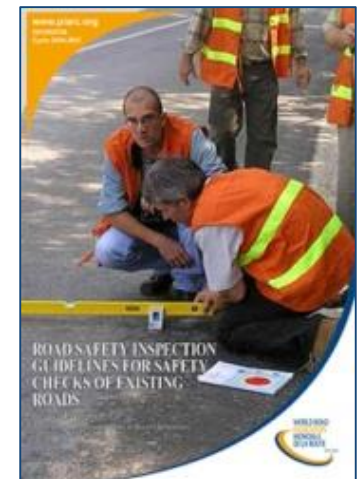
Road accident investigation guidelines for road engineers.

This PIARC report describes the accident data needed, how the location of crashes should be reported, and how accident data should be assessed. Focus is placed on collision diagram and on their analysis. A number of examples are presented in the appendices to illustrate the different situations.



Road safety inspection guidelines for safety checks of existing roads

Road safety inspections (RSI) are a safety management tool that can be implemented by road authorities as part of an overall safety process. To assist both the RSA and RSI procedures, detailed checklists have also been included in this PIARC report.



Key messages from recent Road Safety reports (3/5)

■ PILLAR 4: Safe road users

Vulnerable road users: Diagnosis of design and operational safety problems and potential countermeasures

This PIARC catalogue can be used as a proactive safety tool to ensure that design faults do not arise, and as a reactive tool to assist in designing cost-effective countermeasures where problems already exist on the road network. Road safety inspections and audits should address VRUs; PIARC checklists and tools include VRU needs and provide question-based guidance.



The Role of Road Engineering in Combatting Driver Distraction and Fatigue Road Safety Risks

Driver limitations have been built into standards and guidelines developed by road engineers over the years. For example: limiting road-side advertising, adequate sight distance requirements, proper road marks and signage. The majority of today's well-designed roads give drivers much surplus time to perform driving tasks.

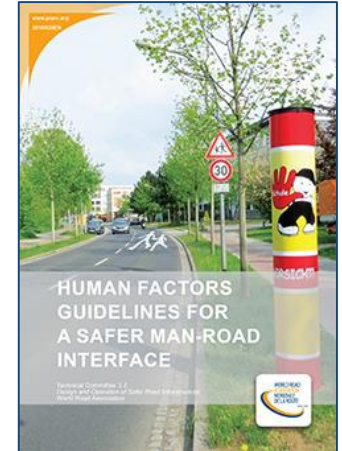


Key messages from recent Road Safety reports (4/5)

■ PILLAR 4: Safe road users

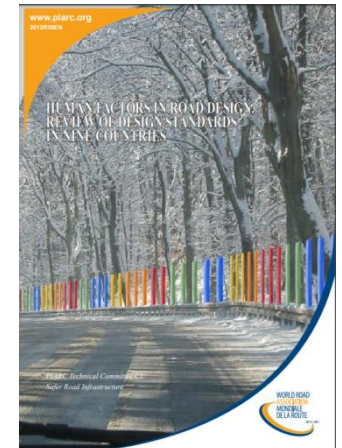
Human factors guidelines for a safer man-road interface

PIARC's report presents recommendations on road characteristics that aim at avoiding wrong perception and thus avoiding wrong reactions in drivers, most of which happen subconsciously. It provides detailed examples and sketches that allow designers to understand the relationship between misleading or irritating road characteristics and operational mistakes. The basic rules are: the six-second rule, the field of view rule, the logic rule.



Human factors in road design. Review of design standards in nine countries

This PIARC report reviews how human factors are explicitly or implicitly considered in the current road design standards of the following countries: Australia, Canada, China, Czech Republic, France, Hungary, Japan, the Netherlands and Portugal. For the different criteria and factors, it identifies best practices and provides recommendations for the missing links such as: the optical density of the field of view; transition zones; fixation objects in the lateral road side environment; depth of the field of view.



PILLAR 4: Safe road users

Setting Credible Speed Limits – Case Studies Report

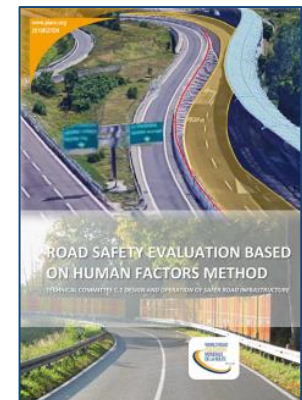
The case studies received are from all over the world. The collection of case studies represents an important step toward the construction of knowledge and should help Road Authorities and engineers to find helping solutions in their work to set credible speed limits. This PIARC document contains the description of a set of interventions in the stage of design, implementation and operation.

The analysis of the case studies puts in evidence that the effectiveness of a specific case study will vary according to the local conditions, driving habits, traffic rules, regulations and/or signing and marking standards. A countermeasure that seems to poorly impact road safety in a specific region, may demonstrate a better impact in other regions with different conditions (not only because of the road and its environment, but also because of cultural aspects).



Road Safety Evaluation based on Human Factors Method

The objective of this Report is to instruct responsible road Authorities on how to evaluate road safety quality along roads in operation, coupling the well-known reactive approach, based on accident data analysis and high accident concentration sections (or black spots) identification and prioritization, with the pro-active approach, aimed at identifying potentially risky situations before crashes occur. The pro-active approach is a non-accident-based methodology that applies the Human Factors' principles in road design to identify infrastructure deficiencies and select countermeasures in road geometry, equipment and road environment preventing accidents.





PIARC new TC 3.1 Road Safety Chair John Milton (USA)

Strategic Plan 2020-2023

ST 1 Road Administration	ST 2 Mobility	ST 3 Safety and Sustainability	ST 4 Resilient Infrastructure
TECHNICAL COMMITTEES			
TC 1.1 Performance of Transport Administrations	TC 2.1 Mobility in Urban Areas	TC 3.1 Road Safety	TC 4.1 Pavements
TC 1.2 Planning Road Infrastructure and Transport to Economic and Social Development	TC 2.2 Accessibility and Mobility in Rural Areas	TC 3.2 Winter Service	TC 4.2 Bridges
TC 1.3 Finance and Procurement	TC 2.3 Freight	TC 3.3 Asset Management	TC 4.3 Earthworks
TC 1.4 Climate change and resilience of Road Network	TC 2.4 Road Network Operation/ITS	TC 3.4 Environmental Sustainability in Road Infrastructure and Transport	TC 4.4 Tunnels
TC 1.5 Disaster management			
Terminology Committee			
Road Statistics Committee			
TASK FORCES			
TF 1.1 Well-Prepared Projects	TF 2.1 New mobility and its impact on road infrastructure and Transport	TF 3.1 Road Infrastructure and Transport Security	TF 4.1 Road Design Standards
TF 1.2 HDM-4			

TC 3.1 Terms of Reference

- Specific road safety issues for LMICs
- Implementation of proven countermeasures
- Update Road Safety Audit Guidelines
- Implications of connected and automated vehicles
- Update of the Road Safety Manual

New members are welcome!

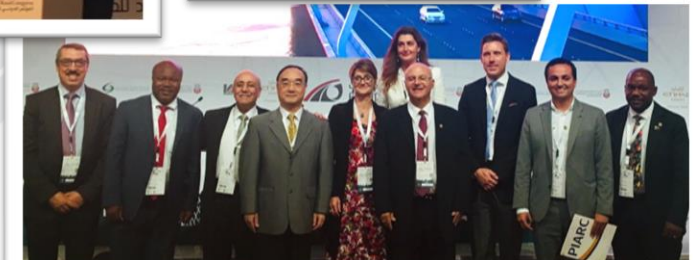
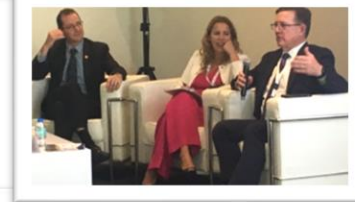
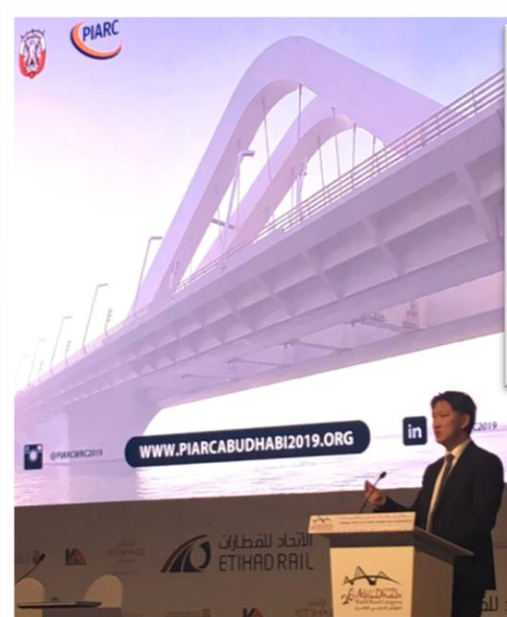
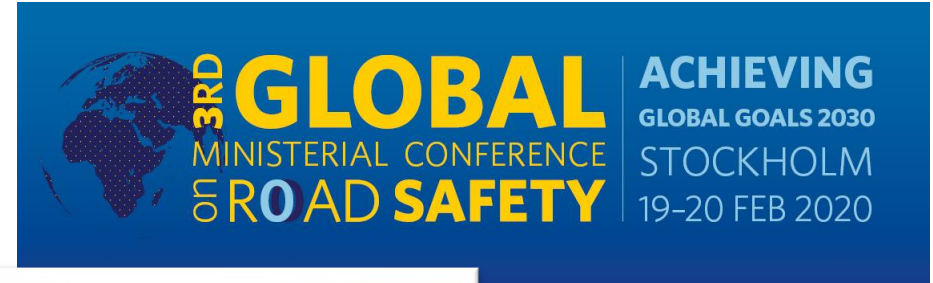


Please contact:
info@piarc.org



2020 Global Conference in Stockholm

Will mark the new UN Decade of Action





Conclusion The core of PIARC: World Wide Knowledge exchange!

- Aimed at practitioners more than research
- **PIARC mobilises international road and transport experts:**
 - We provide the network
 - Ad-hoc dialogue among peers
 - Showcasing national achievements
 - Learning from others
 - Building networks
 - Joint work towards commonly-agreed deliverables
- **International dialogue is more necessary than ever**
 - Efficient and Cost effective
 - Cf. FHWA report « Leading on the international stage » (2016)
- **Our outputs are open to all and widely accessible:**
 - Reports, Online tools, Workshops, Seminars, Congresses...





How can one work with PIARC?

- **Not yet member country? join us as a Government member!**
- **Use our reports and manuals – available for free**
- **Appoint or Become an expert in one of our new Technical Committees**
 - If the country is up to date with its membership fees
- **Host a PIARC Seminar or Conference, on any given topic**
 - With support from one of our Committees
- **Invite PIARC experts to take part in national conferences**
- **Take part in PIARC Seminars or Congresses**
- **Translate PIARC reports to own language**





PIARC CONGRESSES

Save the dates!

- **16th International Winter Road Congress**

- Calgary, Canada
- 8 – 11 February 2022



- **27th World Road Congress**

- Prague, Czech Republic
- 2 – 6 October 2023





Mirësevini në PIARC - Добродошли у ПИАРК

Dobrodošli u PIARC - Добредојдовте во ПИАРК



Thank you for your attention



www.piarc.org



info@piarc.org



[@PIARC_Roads](https://www.linkedin.com/company/piarc-roads)

World Road Association PIARC

Claude Van Rooten

PIARC President

claud.van-rooten@piarc.org

