

Exchange  
knowledges and techniques  
on roads and road transportation



# WORLD ROAD ASSOCIATION



[www.piarc.org](http://www.piarc.org)

*WCPAM, June 15, 2017*

*Claude Van Rooten, President of PIARC*



# What is PIARC

## Addressing members' expectations

- Non-political, non-profit association established in 1909
- Aim: promote international cooperation on issues related to roads and road transport
- Consultative Status on the Economical and Social Council of United Nations
- With its broad membership and geographic diversity, the vision of the World Road Association is to become:

***“The world leader in the exchange of knowledge on roads and road transport policy and practices within the context of integrated, sustainable transport.”***

- **Recognised for the quality of our outputs**

# 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**



# 2016 – 2019 Strategic plan

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

# Extensive membership base

- **121 National governments are members of the Association**
- **Members from a total of 140 countries**
  - Regional authorities
  - Collective members – public or private
  - Individual members
- **More than 1 000 experts are currently mobilised in our working groups**

# 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 outputs (1/2)

- **Technical committee reports**
  - 40 reports in 2012 – 2015
  - Available free of charge
- **International seminars and workshops**
  - 26 seminars and 7 workshops in 2012-2015
- **The Winter Road and World Road Congresses**
  - Andorra 2014, Gdansk 2018
  - Seoul 2015, Abu Dhabi 2019
- ***Routes/Roads* magazine**
  - Trilingual quarterly



# PIARC outputs (2/2)

- **Online Road Dictionary**
- **Online manuals:**
  - Road safety web-manual
  - RNO and ITS web-handbook
  - Road Tunnels web-manual
  - ...
- **Snow and Ice databook**
- **Software**
  - HDM-4
  - DG-QRAM





# Asset management Committee

## Chair : Thomas Linder (Germany)

Issue D.1.1 Road Asset Management Manual	
<i>Strategies</i>	<i>Outputs</i>
Produce a comprehensive tool guide to support road administrations in the implementation of road asset management programs, including assessment of proper network maintenance.	Upgrades to the Web Based Asset Management Manual supported by case studies and practical examples. (Web support version, tools, case studies, forums and communities of practice)
Issue D.1.2 Dissemination and education	
<i>Strategies</i>	<i>Outputs</i>
Introduction of Asset Management in tertiary educational programs, training for post-graduate engineers. Special treatment for LMIC countries and regional singularities.	Curriculum recommendations for academia.  Training and presentation materials for use of within road transportation agencies
Issue D.1.3 Innovative approaches to Asset Management	
<i>Strategies</i>	<i>Outputs</i>
Identify innovative approaches to maintenance management and life cycle management road administrations.	Comprehensive report including an assessment of concepts and methods.
Issue D.1.4 HDM-4 support	
<i>Strategies</i>	<i>Outputs</i>
HDM-4 support (oversight of upgrades that are determined by advisory group)	

# Pavements Committee

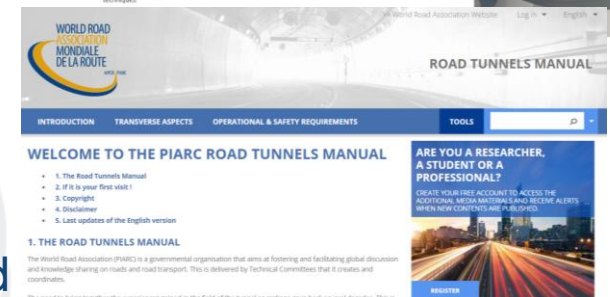
**Chair : Seung-Hwan HAN (South Korea)**

Issue D.2.1	
Sustainable paving solutions and sustainable pavement materials	
Strategies	Outputs
Investigate the challenges and incentives used in different countries to encourage the use of methods and materials that minimize the use of natural resources, reduce energy consumption and emissions, and improve health impacts during the lifetime of pavements (recycling, low temperature mixes/warm-mix asphalt, new binders/aggregates).	State of practice report and recommendations on the use of more sustainable solutions, challenges faced and incentives implemented to encourage use by member countries.
Issue D.2.2	
Low cost pavements systems	
Strategies	Outputs
Evaluate available technologies and practices for better sustainability and management of pavements.	Report on best practices that can be applied in all countries, with special consideration of low and middle income countries.
Issue D.2.3	
Non-destructive pavement monitoring and testing techniques	
Strategies	Outputs
Review use of technology such as laser, image processing and others in pavement monitoring and evaluation techniques	Symposium SURF 2017 and state of the art report on road condition monitoring and road/vehicle interaction.

# PIARC Online Manuals :

## Easy access to knowledge

- **Three online manuals have been developed by the Association:**
  - Road safety
  - Road network operations and ITS
  - Road Tunnels
- Three more are planned
- Comprehensive, state-of-the-art international reference
- A “living” tool that can assist all countries meet their objectives
- **Easy and attractive to use:**
  - Free of charge
  - Key principles for each of the topics are included and discussed in the sections
  - Case studies and links to detailed technical material and other references
  - Can be downloaded and printed in chapters




# ***New: PIARC Asset Management Manual***

# New!

# PIARC Asset Management Manual

- **Will be available for free**
- Current status : final quality control within PIARC Technical Committee D.1
- English version : September 2017
- French and Spanish to follow





WORLD ROAD  
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MONDIALE  
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ASSET MANAGEMENT MANUAL  
A GUIDE FOR PRACTITIONERS !

MANAGEMENT DATA AND MODELING PLANNING APPLICATION TOOLS

## ASSET MANAGEMENT MANUAL


The road infrastructure asset is the most valuable asset owned by the public sector in most countries. Infrastructure supports a nation's economy and lifestyle, enabling mobility while providing an acceptable level of speed, safety, security, comfort and reliability. Most of the road organizations have a long history of building roads, bridges and other infrastructure and managing an asset base. However, over the past decade there has been a growing awareness that current methods of transportation infrastructure management are inadequate to meet the demands of a nation's citizens and industry. In many cases, it is clear that the general public and elected officials will be demanding from and providers:

- greater accountability and transparency in the effective use of national, federal, and local funds, as well as funds from International Finance Institutions (World Bank, European Investment Bank, European Bank for Reconstruction and Development, Asian Development Bank, Development Bank of Latin America etc.),
- a longer term approach to management of assets, improving the value of the investment made,
- a greater focus on managing customer expectations,
- an improved relationship between performance and funding and
- more sustainable transportation solutions.

It is recognized that all road organizations manage their assets, but they do not necessarily all apply an asset management framework in order to achieve their desired outcomes from the delivery of their service to the traveling public and other stakeholders.

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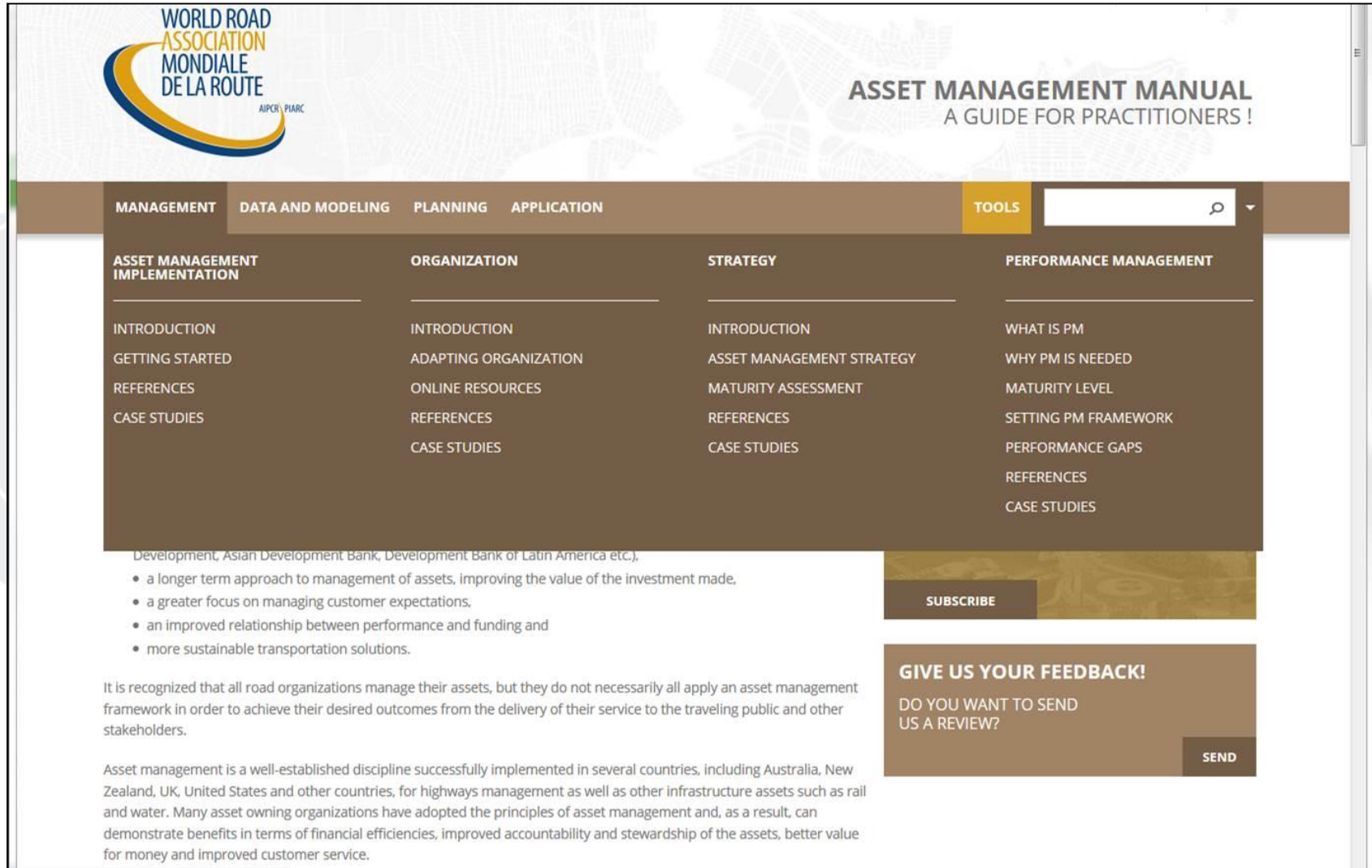


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## ASSET MANAGEMENT MANUAL A GUIDE FOR PRACTITIONERS !

MANAGEMENT	DATA AND MODELING	PLANNING	APPLICATION	TOOLS
<b>ASSET MANAGEMENT IMPLEMENTATION</b> <hr/> INTRODUCTION GETTING STARTED REFERENCES CASE STUDIES	<b>ORGANIZATION</b> <hr/> INTRODUCTION ADAPTING ORGANIZATION ONLINE RESOURCES REFERENCES CASE STUDIES	<b>STRATEGY</b> <hr/> INTRODUCTION ASSET MANAGEMENT STRATEGY MATURITY ASSESSMENT REFERENCES CASE STUDIES	<b>PERFORMANCE MANAGEMENT</b> <hr/> WHAT IS PM WHY PM IS NEEDED MATURITY LEVEL SETTING PM FRAMEWORK PERFORMANCE GAPS REFERENCES CASE STUDIES	

Development, Asian Development Bank, Development Bank of Latin America etc.).

- a longer term approach to management of assets, improving the value of the investment made,
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Asset management is a well-established discipline successfully implemented in several countries, including Australia, New Zealand, UK, United States and other countries, for highways management as well as other infrastructure assets such as rail and water. Many asset owning organizations have adopted the principles of asset management and, as a result, can demonstrate benefits in terms of financial efficiencies, improved accountability and stewardship of the assets, better value for money and improved customer service.

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# PIARC Asset Management Manual: A comprehensive resource

- **Comprehensive framework for road infrastructure asset management**
- Supports a **more efficient approach** to maintaining road infrastructure assets
- Provides **tools, examples, recommendations**
- Aimed at **senior decision makers, asset managers and practitioners**
- Designed to help **countries at every stage of infrastructure development**
- Aimed at **national as well as local road organizations**
- **Builds on existing asset management documents**
  - Examples: UK Roads Liaison Group's guidance document, FHWA and AASHTO etc.

# PIARC Asset Management Manual: 4 main chapters

- **Management**
  - Implementation
  - Organization
  - Strategy
  - Performance Management
- **Data and Modeling**
  - Inventory and Condition
  - Performance Monitoring
  - Risk
  - Lifecycle Planning
  - Other Resources
- **Planning**
  - Asset Management Plan
  - Financial Plan
  - Asset Valuation
  - Programming
- **Application**
  - Asset Management Tools
  - Communication
- Numerous references
- Case studies
- Glossary

# PIARC CONGRESSES

- **Save the dates!**



- **15th International Winter Road Congress**

- Gdansk, Poland
- 20 – 23 February 2018

- **26th World Road Congress**

- Abu Dhabi, United Arab Emirates
- 6 – 10 October 2019



# Thank you for your attention

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