

# **ANNUAL REPORT**

**October 2017 – September 2018**



## Contents

<b>1</b>	<b>FOREWORD FROM THE PRESIDENT</b> .....	<b>3</b>
<b>2</b>	<b>ACTIVITIES FROM OCTOBER 2017 TO SEPTEMBER 2018</b> .....	<b>6</b>
2.1	Executive Committee.....	6
2.2	Conference of PIARC National Committees .....	7
2.3	General Secretariat .....	7
2.4	Congresses of the World Road Association.....	7
2.5	Technical Committees and Task Forces.....	8
2.6	Special Projects.....	8
2.7	Communication.....	9
2.8	New developments in the website www.piarc.org.....	9
2.9	Electronic Manuals .....	11
2.10	Publications .....	13
2.11	Translation activities.....	13
2.12	Cooperation with other associations/organizations.....	14
2.13	Softwares.....	15
	<b>ANNEX 1. THE ASSOCIATION IN 2018</b> .....	<b>16</b>
	Organisation .....	16
	Governing bodies .....	17
	Members.....	17
	National Committees .....	19
	General Secretariat .....	19
	<b>ANNEX 2. STRATEGIC PLAN 2016-2019</b> .....	<b>21</b>
	<b>ANNEX 3. PUBLICATIONS OF THE WORLD ROAD ASSOCIATION</b> .....	<b>23</b>



## 1 Foreword from the President

I ended the foreword from last year's annual report by expressing a wish that the two years of upcoming congresses "will sustain this tremendous enthusiasm and shared effort, to the benefit of our members and all road industry partners". Looking back at the past twelve months, I am grateful that this hope was not in vain. Indeed, there have been no shortage of pleasing developments including a visible presence on all continents, the creation of several national committees, and good progress on the Strategic Plan.

Before expanding on these various points, I would nevertheless like to mark some of the less pleasant events that also affect the life of a community like our own. Firstly, I would like to mention the sudden death of our friend, Carlo Mariotta, on 26 April 2018. It would be impossible to summarise his illustrious domestic career in Switzerland here. As concerns PIARC, of which he was an ex-officio member, Carlo successively held posts as member of the Association Council from 2000 alongside President Olivier Michaud (2001-2004), member of the Executive Committee in 2005, and chair of the Finance Commission until 2011, before more recently becoming a member of the Strategic Planning Commission and Infrastructure Theme Coordinator. To my Swiss colleagues, I would like to express, once again, my deepest sympathy and my own sense of personal loss. On the subject of darker times for our great road industry family, it would be remiss not to mention the tragedy that occurred in Genoa on 14 August 2018. When a bridge collapses, it hits road engineers like ourselves particularly hard, regardless of the causes, and provides a stark reminder of the need for vigilance and cooperation. PIARC's recent publication of the special project on unpredicted infrastructure failures sadly highlights the current harsh realities.

As promised, I will now look back briefly at this year's achievements. Firstly the XVth International Winter Road Congress in Gdansk was truly remarkable. Although there was little snow to speak of (fortunately the weather was kind to us and there was some snow on the day of the snowplough competition), there were no shortage of participants. I would like to congratulate and thank our Polish colleagues on their behalf for being such excellent and welcoming hosts. We all came away with fantastic memories of our stay in this city of amber, beer and freedom.

PIARC's international seminars are among its key contributions to the dissemination of knowledge on roads throughout the world. The pace was maintained in this third year of the work cycle, with a special emphasis on countries in which our association had not yet organised events, such as Ukraine, Cuba, Costa Rica and Iran. I would also like to highlight a "first" – a joint AGEPAR-PIARC seminar in Cotonou, Benin, attended by experts from around ten French-speaking African countries to conclude the work of the two regional groups. I would like to express my gratitude to the heads of AGEPAR and the leaders of the two groups, Doyen Tchona Idossou and Jean-François Corté.



The recent International Conference on Tunnels organised in Lyon (France) by our technical committee D.5 was attended by some 500 participants, some of whom had travelled a very long way to be there. This was an incredible achievement for an event that was also a first and reflects the tireless efforts of our largest committee.

Closer to us geographically, PIARC was present at the SURF congress in Brisbane, Australia and next week I will have the pleasure of attending the opening of the 10th Malaysian Road Congress and REAAA Council Meeting.

Finally, this tour of the world would be incomplete without mentioning our Executive Committee meeting in Campeche, Mexico in April, which provided an opportunity for a convivial meeting with DIRCAIBEA directors of roads. With activities in Europe, Africa, Oceania, America, and now Asia, there is clearly no question of PIARC slackening its pace.

In terms of our outputs, I am also pleased to see that the special projects are progressing steadily – a universally accessible report on the two projects presented to you in Bonn is now available on the PIARC website and you will soon receive feedback on the two projects chosen in Bonn.

Of course such an array of activities cannot be organised without incurring a cost. At this Council meeting, the Secretary General and the chair of the Finance Commission, Friedrich Zotter, will present steps taken to limit the impact of such expenditure and their proposals to mitigate various financial uncertainties.

Finally, it would not be possible to achieve the desired outcomes of all this work without widespread dissemination of its findings. The General Secretariat and Communications Commission work hard to achieve this goal. Due to the policy introduced in 2017, there is no doubt that the association's work is gaining in visibility and clarity, through increased presence at international transport sector events, the newsletter and Routes/Roads magazine, the website, which is currently being upgraded, social media, webinars, etc. The general picture is indisputably positive and I would like to thank all those in Paris, the technical committees, the national committees or in their countries, who make their own unique contribution to PIARC's global technical standing. In particular, I would like to thank Diane Gamble, chair of the Communications Commission, for her energy and enthusiasm. Unfortunately, due to other commitments, she will be resigning from this role.

It goes without saying that this heightened level of publicity has had an impact – we are increasingly asked to contribute to high-level international events (International Transport Forum, TRB, World Bank Sustainable Mobility for All initiative, COP, etc.). Due to the growing complexity of transport issues (urban mobility, automated vehicles, and climate change to name but a few), it is clear that we must be aware of the need to strengthen and broaden our vision to encompass other disciplines and partners, without in any way abandoning our roots in roads or ignoring our Council's, and namely your expectations. Therefore, roots and openness are sure to be watchwords in future years.



The Strategic Plan 2020-2023, on which the Association has worked tirelessly this year under the supervision of the Secretary General and the Strategic Planning Commission Chair, Óscar Callejo, is designed to reflect just this. I would like to take this opportunity to praise the working group chaired by Maria del Carmen Picón for all its hard work. As a result, it has been possible to present you with a draft plan in record time. We hope that this will ensure a smoother and more efficient transition between the two work cycles.

The Strategic Plan and World Congress are the two pinnacles of any PIARC president's term in office. One is forward-looking, while the other acknowledges past work. I am therefore determined to devote just as much attention to preparations for our next Congress in Abu Dhabi. The entire team is now in place, a fantastic website has gone live, and we have received many proposals for contributions. Everything is set for this Congress to be a yet another success.

So, I look forward to seeing you in Abu Dhabi in early October 2019 to celebrate the culmination of four years' tireless efforts together and wish you an excellent 2018 Council Meeting in Yokohama.



Claude Van Rooten  
President of the World Road Association (PIARC), 2017-2020



## 2 Activities from October 2017 to September 2018

### 2.1 Executive Committee

The Executive Committee manages the Association in accordance with the guidelines and decisions of the Council, with the goal (Goal 1) set by the Strategic Plan to constantly improve the management and operation of the Association.

The Executive Committee holds two meetings a year. They were held on 24-25 October 2017 in Bonn, Germany, and on 24 and 25 April 2018 in Campeche, Mexico. The current membership of the Executive Committee is included in Annex 1 of this report.

The two meetings mainly focused on the preparation of the future Strategic Plan 2020-2023, and on the development of the communication policy of the Association.

#### 2.1.1 Strategic Planning Commission

The Strategic Planning Commission (SPC) met on 23 October 2017 in Bonn, Germany, and then in Campeche on 23 April 2018, Mexico, under the chairmanship of Oscar Callejo (Mexico). Other meetings were also held by videoconference.

The SPC work has focused on monitoring the current Strategic Plan, especially at the mid-term meeting held on 5-7 December 2017 in Rome (Italy) involving all the key members responsible for the Technical Committees and Task Forces (TC/TF). The Commission also worked on the preparation of the next Strategic Plan and on tools to be implemented to further improve and assess the quality of the productions of the Association.

The preparation work on the next Strategic Plan, covering the 2020-2023 period has been initiated with a large consultation of the members, technical groups and partners of the Association. The objective is to develop a working tool at the service of the members that is both ambitious, flexible and proactive.

#### 2.1.2 Finance Commission

The Finance Commission met on 5 and 6 March 2018 in Vienna (Austria) and on 19 and 20 July in Paris (France), under the chairmanship of Friedrich Zotter. In addition to its usual tasks, i.e. reviewing the previous year's accounts, implementation of the current year budget and preparation of the next budget, the Commission is in the process of developing a financial strategy for the Association, on proposal of its Chairman.

Just like in 2016, the Association had its accounts certified by an external auditor for legal reasons linked to the amount of the subsidy provided by the French ministry in charge of transport.

#### 2.1.3 Communications Commission

The Communications Commission met in Bonn, Germany, on 27 October 2017 and in Campeche, Mexico, on 27 April 2018, under the chairmanship of Diane Gamble (New Zealand). Several meetings were also held by videoconference. The Communications Commission contributes to identify the strategic direction of the work of the General Secretariat. Recently the Commission has among others worked on the Association's visual identity.



## 2.2 Conference of PIARC National Committees

The National Committees (NC) met on the occasion of the Council meeting in Bonn in October 2017. They discussed the action plan submitted by their representative, Saverio Palchetti (Italy). Regional meetings were also held; one in Casablanca (Morocco) on 14 March 2018 intended to the French-speaking African NCs, and another in Campeche (Mexico) for the Spanish-speaking NCs.

At the Executive Committee meetings in Bonn (October 2017) and Campeche (April 2018), three new National Committees were recognized: *Polski Kongres Drogowy* (Polish Road Congress); *Asociación Paraguaya de Carreteras* (Paraguay Road Association), and *Tanzania Roads Association*. This brings the number of National Committees to 43.

## 2.3 General Secretariat

In addition to the logistic support brought by the General Secretariat (GS) to the Association's bodies, the day-to-day running of the Association, participation in the work of the Commissions and the publication of the Routes/Roads magazine, it is worth pointing out the following actions led during the past year (described in more detail in the next pages):

- release online of almost all Technical Reports from the 2012-2015 cycle (see paragraph 2.7.1) and the proceedings of the XVth International Winter Congress in Gdansk;
- further development of the various web-based Manuals of the Association (see paragraph 2.9);
- co-operation with partner associations and institutions (see paragraph 2.12).
- publication of the final reports of the special projects launched in 2016 and start of those decided in Bonn.

Lastly, a new Technical Advisor seconded by South Korea, Hyunseok Kim, has succeeded Woo Chul Kim for Strategic Theme A – Management and Finance.

## 2.4 Congresses of the World Road Association

### **2.4.1 XVth International Winter Road Congress, Gdansk 20-23 February 2018**

The Gdansk Winter Congress took place in the presence of 4 ministers and attracted 1 000 delegates, featuring technical 180 papers presented at sessions and on posters. The high level of hospitality and the ceremonies, and the general atmosphere of the Congress were praised by all participants.

### **2.4.2 XXVIth World Road Congress, Abu Dhabi, 6-10 October 2019**

The United Arab Emirates authorities have selected the ESL company as the professional congress organizer. The Organizing Committee met twice in 2018: on 14-15 May in Paris, and on 24-25 September in Abu Dhabi.

The call for papers was released in May 2018, which included 41 topics. Over 600 abstracts have been submitted.



The Congress brochure was circulated in September 2017. The brochure and the Congress website [www.piarcabudhabi2019.org](http://www.piarcabudhabi2019.org) are key tools to attract sponsors and exhibitors to the event.

### **2.4.3 XVIth International Winter Road Congress 2022 - Calgary**

The call for candidacies for hosting the XVIth International Winter Road Congress was finalized at the Council meeting in Bonn in October 2017 with the selection of Calgary, Canada, as the host city of the XVIth International Winter Road Congress in February 2022.

### **2.4.4 International Conference on Road Tunnel Operations and Safety - 2018**

Although it is not strictly speaking a PIARC Congress, the Association has brought a substantial contribution to the organization and success of the first International Conference on Road Tunnel Operations and Safety organized on 3-5 October 2018 in Lyon, France, by the French National Committee and by PIARC Technical Committee D.5 on Road Tunnel Operations (500 participants).

## **2.5 Technical Committees and Task Forces**

PIARC's 22 Technical Committees and Task Forces have continued the implementation of their work program at a steady pace.

The seminars held over the past year are the following:

- TC A.1: seminar in Beijing (P. R. China), 25-27 April 2018;
- TC A.1: seminar in Kiev (Ukraine), 22-25 October 2018;
- TC A.3, E.1 & E.3: seminar in La Habana (Cuba), 6-10 November 2017;
- TC C.1: seminar in Tehran (Iran), 25-27 November 2017;
- TC C.1: conference in Lisbon (Portugal), 19-20 April 2018;
- TC C.1 & C.2: seminar in Beijing (P. R. China), 17-19 October 2018;
- TC D.1: workshop in Tokyo (Japan), 1<sup>st</sup> November 2017;
- TC D.1: seminar in Kuala Lumpur (Malaysia), 31 October to 2 November 2018;
- TC D.2: conference in Brisbane (Australia), 2-4 May 2018, on the occasion of the 8<sup>th</sup> SURF Symposium;
- TC D.2: seminar in Durban (South Africa), 9-11 October 2018;
- TC D.3: seminar in Campeche (Mexico), 18-21 April 2018;
- TC D.4: conference in Madrid (Spain), 19-20 April 2018;
- TC E.1: seminar in Beijing (P. R. China), 17-19 October 2018;
- TC E.2: seminar in San José (Costa Rica), 11-13 April 2018;
- TC E.3: workshop in Santiago (Chile), 15 June 2018.

## **2.6 Special Projects**

The development process of the Special Projects is now well established. The two Special Projects approved in Cape Town in 2016, i.e. « Unpredicted Infrastructure Failure » and « Use of Unmanned Aerial Systems (UAS) » were presented during the Council meeting in Bonn and the related final reports are available on line on the website of the Association. Two projects were launched in 2017: “Electric Roads” and “Contribution of road transport to sustainability and economic development”.





## 2.7 Communication

In the framework of the communication strategy initiated in 2017, the Association has implemented the following actions:

- production of a monthly electronic newsletter in three languages;
- increased presence at various major events in the transport area, i.e. TRB in Washington DC, PPRS in Nice, ITF in Leipzig, ITS in Copenhagen with new communication supports (kakemonos, publications catalog, goodies, etc.);
- presence on Tweeter and LinkedIn (1000 followers);
- first trials of webinars on topics connected to the Special Projects.

## 2.8 New developments in the website [www.piarc.org](http://www.piarc.org)

The website is at the heart of the Association’s communications and operations.

The English and French version of the website are updated by the General Secretariat, while the Spanish version is updated by the secretariat of the Spanish National Committee (ATC).

The current version of the website was introduced on the occasion of the World Road Congress in Mexico City at the end of September 2011. Over the last year, no major development was introduced. In accordance with the decisions made, reflections about redesigning the website have started. The aim is to improve search and reading comfort and adjust to new digital tools such as responsive web design.

The table below shows the statistics of the number of visitors of the website, with a 10% increase from one year to the other:

Period	01/08/2015 - 31/07/2016	01/08/2016 - 31/07/2017	01/08/2017 - 31/07/2018
Number of visits	90 611	94 288	110 280
Number of single users	46 176	46 403	50 494
Number of pages viewed	494 826	497 071	547 740
Average number of pages per visit	5,46	5,27	4,97
Average duration of visits (minutes)	5:09	4:47	4:34

Note: consultations by the General Secretariat are not taken into account in these statistics.



### Top 25 downloads from 1st August 2017 to 31st July 2018

Document	Downloads
Strategic-Plan-2016-2019-November-World-Road-Association.pdf	549
2017R01EN.pdf - Design fire characteristics for road tunnels	512
2017R05EN.pdf - Management of road assets: Balancing of environmental and engineering aspects in management of road networks	502
Gdansk-2018-Call-For-Papers-World-Road-Association-PIARC.pdf - Gdansk 2018 Call For Papers	487
2017R02EN.pdf – Road tunnel operations: First steps towards a sustainable approach	357
05-05-B.pdf – Fire and Smoke Control in Road Tunnels	328
2016R32EN.pdf - Land use and safety: an introduction to understanding how land use decisions impact safety of the transportation system	278
2016R30EN.pdf - Advanced technology for data collection and information to users and operator	268
Brochure-2-of-the-XVth-International-Winter-Road-Congress-Gdansk-2018.pdf - Brochure 2 of the XVth International Winter Road Congress	244
2016R17EN-Road-Pavements.pdf - State of the art in monitoring road condition and road/vehicle interaction	213
WEB-2012R05-EN-revise.pdf - Road tunnels: vehicle emissions and air demand for ventilation	211
2016R33ES.pdf - Gestión de mantenimiento y mejora de caminos rurales	200
Plan-Estrategico-2016-2019-Noviembre-Asociacion-Mundial-de-la-Carretera-PIARC.pdf	191
Brochure-of-the-XVth-International-Winter-Road-Congress-Gdansk-2018.pdf	190
2016R04EN.pdf - Assessment of budgetary needs and optimisation of maintenance strategies for multiple assets of road network	188
05-16-bilingue0207.pdf - Systems and equipment for fire and smoke control in road tunnels	188
2016R35EN.pdf - Experience with Significant Incidents in Road Tunnels	186
2016R27EN.pdf - Key issues for improving mobility strategies in large urban areas	178
2016R34EN.pdf - Vulnerable road users: Diagnosis of design and operational safety problems and potential countermeasures	171
Plan-strategique-2016-2019-Novembre-Association-Mondiale-de-la-Route-AIPCR.pdf	160
2017R03EN.pdf - Adaptation of road bridges to climate change	157
2011R02ES-Seguridad-Gestion-Explotacion-Tuneles.pdf - Túneles de carretera: Estrategias de control de la ventilación en situación de emergencia	157
WEB-2011R02.pdf - Road tunnels: operational strategies for emergency ventilation	150
2016R03EN.pdf - Fixed fire fighting systems in road tunnels: Current practices and recommendations	149
2016R18ES-Road-Pavements.pdf - La vida útil que se espera de las capas de rodadura	145
<b>Total: 9,234 unique documents for 47,469 downloads</b>	<b>47 469</b>



## 2.9 Electronic Manuals

The first three electronic manuals of the Association were introduced during the Seoul Congress in November 2015. Over the 2016-2019 work cycle, the related Technical Committees (TC) are responsible for developing and updating the manuals. The TCs involved have organized themselves to achieve that task, combining research and technical rigor—one of the strengths of the Association—with the constraints of this new media.

In addition, the Association is further implementing its policy aiming at expanding the electronic manuals, with the release online, in early October 2017, of the manual on Road Asset Management produced within the TC on Asset Management.

As a support to the related TCs, the General Secretariat brings support services to the definition and design of the manuals and organizes an exchange of experiences among practitioners as was the case at a meeting held in Paris in June 2018.

### ***Road Safety Manual***

Period	01/11/2015 – 31/07/2016 9 months	01/08/2016 – 31/07/2017 12 months	01/08/2017 – 31/07/2018 12 months
Number of visits	11 048	14 970	24 404
Number of single users	7 671	10 646	18 023
Number of pages viewed	46 635	50 826	68 669
Average number of pages per visit	4,22	3,4	2,81
Average duration of visits (minutes)	4:11	3:47	3 :03

### ***Manual on Road Network Operations and ITS***

Period	01/11/2015 – 31/07/2016 9 months	01/08/2016 – 31/07/2017 12 months	01/08/2017 – 31/07/2018 12 months
Number of visits	7 579	10 854	25 621
Number of single users	5 173	7 604	20 446
Number of pages viewed	36 331	42 660	55 206
Average number of pages per visit	4,79	3,93	2,15
Average duration of visits (minutes)	5:14	4:22	2 :29

### ***Road Tunnels Manual***

Period	01/11/2015 – 31/07/2016 9 months	01/08/2016 – 31/07/2017 12 months	01/08/2017 – 31/07/2018 12 months
Number of visits	7 910	20 793	46 045
Number of single users	5 390	15 780	37 227
Number of pages viewed	42 353	75 528	110 232
Average number of pages per visit	5,35	3,63	2,39
Average duration of visits (minutes)	5:58	3:38	2 :17

**Road Asset Management Manual**

Period	01/11/2015 – 31/07/2016 9 months	01/08/2016 – 31/07/2017 12 months	01/10/2017 – 31/07/2018 10 months
Number of visits		-	5 890
Number of single users	-	-	3 644
Number of pages viewed	-	-	29 059
Average number of pages per visit	-	-	4,93
Average duration of visits (minutes)	-	-	5 :14



## 2.10 Publications

### 2.10.1 Technical reports

Forty-one (41) reports from the 2012-2015 cycle have been released online in English and in French since the end of the cycle; 25 reports have also been published in Spanish.

Translations that were not provided by the Technical Committees were able to be achieved thanks to the support of AGEPAR, Canada, Canada-Quebec and France for the French language; thanks to the support of ASANRA for the English language; and thanks to the support of DIRCAIBEA member countries for the Spanish language (Chile, Colombia, Costa Rica, Cuba, El Salvador, Mexico; and also Spain and Mexico for the revision process).

The list of reports is included in Appendix 3 of the Annual Report.

### 2.10.2 Routes/Roads magazine

The *Routes/Roads* magazine is an essential product of the Association, contributing to its mission of knowledge dissemination.

*Routes/Roads* is now printed in three separate monolingual editions in English, French and Spanish.

The topics covered since the Council meeting in Bonn are the following:

- Winter Service - RR 375, December 2017
- Road Safety – RR 376, March 2018
- General Report of the XVth International Winter Road Congress - RR 377, June 2018
- Road Tunnels - RR 378, September 2018.

## 2.11 Translation activities

The Association's decision to adopt 3 working languages (English, French and now Spanish) and to develop an active trilingual communication, has considerably increased the volume of translations done by the General Secretariat and its service providers and partners.

As an illustration, over the 2017-2018 period, the volumes are as follows:

Type of document	Words	Pages
Routes/Roads magazine	100,000	200
Monthly newsletter	2,500	50
Internet pages	2,500	50
Letters and e-mails	2,500	50
Statutory meeting documents	100,000	200
Technical reports	300,000	600
Electronic manual	-	-
Other documents	-	-
<b>Total</b>	<b>575,000</b>	<b>1150</b>



## 2.12 Cooperation with other associations/organizations

Promoting cooperation with regional associations of road administrations and with international organizations having similar objectives is one of the goals of the Association's Strategic Plan. This enables to position roads as a key player of the transport system and also contributes to a fruitful development of the products of the Association.

The past year was marked by several actions related to this goal:

### 2.12.1 National events and regional road organizations

- Presentation of the activities of regional road organizations at the Council meeting in Bonn in October 2017;
- Participation of the General Secretariat in the meetings of the Conference of European Directors of Roads (CEDR), to ensure coordination of the activities and strategic plan of both organizations;
- Participation of PIARC at the TRB meeting in Washington, DC in January 2018, and the traditional meeting with US experts on Technical Committees, in cooperation with FHWA and AASHTO;
- Joint meeting of the PIARC Executive Committee and DIRCAIBEA in Campeche (Mexico) in April 2018;
- Participation of the President at the congress of FGSV, the PIARC German National Committee in Erfurt (Germany) in September 2018;
- PIARC-AGEPAR joint seminar in Cotonou (Benin) in September 2018.

### 2.12.2 Other organizations

- involvement of experts from the World Bank and the International Transport Forum notably, as associate members of Technical Committees;
- Participation of the Secretary General in the « Sustainable mobility for all » project meeting at the World Bank in Washington, D.C., also in January 2018;
- Participation of the President in the Aurora Congress at Kittilää (Finland) in January 2018;
- intervention by the PIARC President and participation of the Secretary General in the International Transport Forum in May 2018 in Leipzig (Germany); PIARC was present at the exhibition on a joint booth with Abu Dhabi to promote the upcoming 26th World Road Congress in October 2019;
- Organization in Leipzig in May 2018 of the first Advisory Group meeting, gathering the main organizations with which PIARC cooperates such as the World Bank, WHO, etc; the meeting provided the opportunity to discuss the next Strategic Plan and ways to cooperate;
- Participation of the PIARC President in TRA 2018 in Vienna (Austria) and in the CEDR annual general meeting in May 2018;
- PIARC booth and interventions of the President and the Secretary General at PPRS 2018 in Nice (France) in May 2018;
- PIARC was represented at the SURF 2018 Symposium in Brisbane (Australia) in May 2018;
- Participation of the President in the 13th International Symposium on Concrete Pavements (EUPAVE) in Berlin, Germany, in June 2018.



## 2.13 Softwares

### 2.13.1 HDM-4

In January 2018, the World Bank hosted a meeting of the Steering Committee chaired by Oscar De Buen. HDM Global, the concessionaire, has initiated the upgrading process of the software to consolidate its software bases and improve the interfaces. The upgrading process is coordinated with Technical Committee D.1 Asset Management. An international conference gathered 200 HDM-4 experts in September 2017, reflecting the vitality of the community of users.

### 2.13.2 QRAM

Following a fund-raising campaign from a number of European governments in 2016-2017, the redesign of the software was actively pursued. A first version will be available in the fall 2018 and a new upgrading is currently in process.



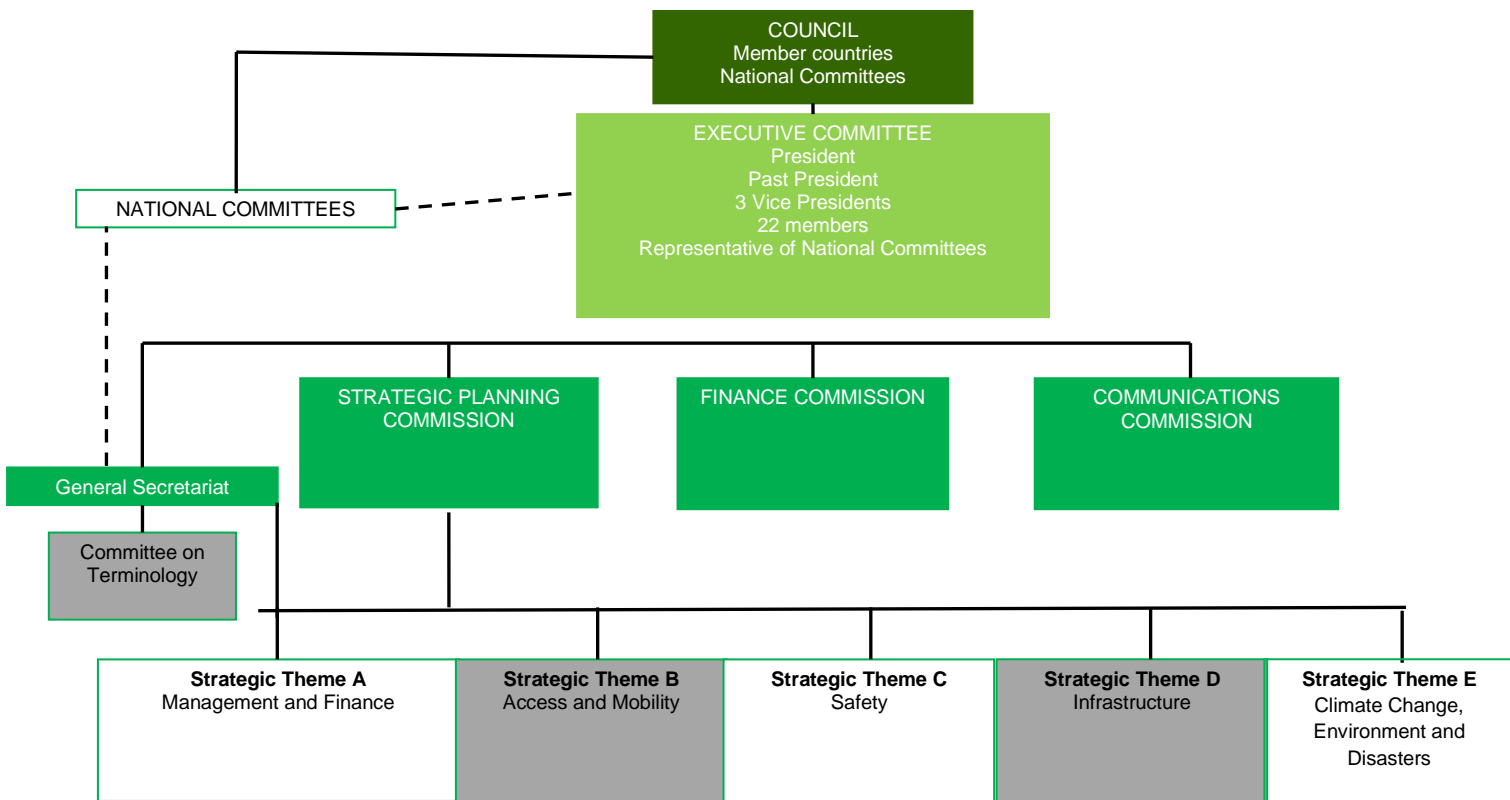
# Annex 1. The Association in 2018

## Organisation

The World Road Association (PIARC), established in 1909 as a non-profit organization, is the oldest international association concerned with all issues related to roads and road transport. The Association was granted consultative status with the United Nations Economic and Social Council in 1970.

The current structure of the organization is presented below.

THE WORLD ROAD ASSOCIATION STRUCTURE







## Governing bodies

The **Council** is the highest governing body responsible for the Association. At its meeting held on 25-26 October 2018 in Bonn (Germany), 93 delegates, representing 43 member countries were present.

As at 1<sup>st</sup> September 2018, the **Executive Committee** comprises the following membership:

- President: Claude Van Rooten (Belgium)
- Past President: Oscar de Buen Richkarday (Mexico)
- Vice-Presidents: Cheick Oumar Diallo (Mali), Shigeru Kikukawa (Japan), Miguel Ángel Salvia (Argentina)
- Members: Ahmed Al Hammadi (United Arab Emirates), Graham Pendlebury (United Kingdom), Oscar Callejo Silva (Mexico), Richard Charpentier (Canada-Québec), Mārtiņš Dambergs (Latvia / BRA), Lena Erixon (Sweden/ NVF), Diane Gamble (New Zealand), Stefan Krause (Germany), Bojan Leben (Slovenia), Kang Hoon Lee (Rep. of Korea), Meor Aziz Bin Osman (Malaysia), José Miguel Ortega (Chile), Marie-Claude Petit (Canada), Maria del Carmen Picón (Spain), Massimo Schintu (Italy), Alex Van Niekerk (South Africa), Dejin Wu (People's Rep. of China), Friedrich Zotter (Austria) and Saverio Palchetti (Italy), representative of National Committees on the Executive Committee;
- Secretary General: Patrick Malléjacq (France).

Three Commissions, chaired by members of the Executive Committee, assist the activities of the Executive Committee:

- Strategic Planning Commission, chaired by Óscar Callejo (Mexico),
- Finance Commission, chaired by Friedrich Zotter (Austria),
- Communications Commission, chaired by Diane Gamble (New Zealand).

## Members

There are five categories of Association members: national governments, regional authorities, collective members, individual members and honorary members.

As at 1<sup>st</sup> September 2018, **the Association's member countries include 121 national member governments**, from around the world. Approximately two thirds of the member countries are developing countries or countries in transition. In addition, there are approximately 2,000 other members (about half of which are individual members) from more than 140 countries.

**PIARC National Member Governments (as at 1<sup>st</sup> September 2018)**

ALGERIA	CROATIA	LATVIA	RUSSIA
ANDORRA	CUBA	LITHUANIA	SALVADOR)
ANGOLA	CYPRUS	LUXEMBOURG	SAUDI ARABIA
ARGENTINA	CZECH Rep.	MADAGASCAR	SENEGAL
AUSTRALIA	DENMARK	MALAYSIA	SINGAPORE
AUSTRIA	DOMINICAN	MALI	SLOVAK REPUBLIC
AZERBAIJAN	Rep.	MALTA	SLOVENIA
BAHRAIN	ECUADOR	MAURITANIA	SOUTH AFRICA
BANGLADESH	EGYPT	MAURITIUS	SPAIN
BELGIUM	ESTONIA	MEXICO	SRI LANKA
BENIN	FINLAND	MOLDAVIA	SWAZILAND
BHUTAN	FRANCE	MONGOLIA	SWEDEN
BOLIVIA	GABON	MOROCCO	SWITZERLAND
BRAZIL	GERMANY	MYANMAR	SYRIA
BULGARIA	GHANA	NAMIBIA	TANZANIA
BURKINA FASO	GREECE	NEPAL	THAILAND
BURUNDI	GUATEMALA	THE NETHERLANDS	TOGO
CAMBODIA	GUINEA	NEW ZEALAND	TONGA
CAMEROON	HONDURAS	NICARAGUA	TUNISIA
CANADA	HUNGARY	NIGER	TURKEY
CANADA-QUEBEC	ICELAND	NORWAY	UGANDA
CAPE VERDE	INDIA	PAKISTAN	UKRAINE
CHAD	INDONESIA	PANAMA	UNITED KINGDOM
CHILE	IRAN	PAPUA NEW GUINEA	UNITED STATES
CHINA (PEOP. REP.)	IRELAND	PARAGUAY	UNITED ARAB
COLOMBIA	ISRAEL	PERU	EMIRATES (UAE)
CONGO (REP.)	ITALY	PHILIPPINES	URUGUAY
CONGO (DEM REP)	JAPAN	POLAND	UZBEKISTAN
COSTA RICA	KENYA	PORTUGAL	VENEZUELA
CÔTE D'IVOIRE	KOREA (Rep.)	ROMANIA	VIET NAM
	KUWAIT		YEMEN
			ZIMBABWE



## National Committees

In several member countries, National Committees have been established, or existing organizations have been recognized as acting as National Committee, to promote the Association, provide leadership within the road community on a national level, contribute towards ensuring more participation in the activities and to ensure a wider dissemination of the work of Technical Committees. The representatives of the National Committees meet once a year in conjunction with the Council meeting.

The Association has in total **43 National Committees** or organizations recognized as acting as a National Committee.

### National Committees

Algeria	Canada-Quebec	India	Poland
Argentina	Chile	Ireland	Portugal
Austroroads ( <i>Australia, New Zealand</i> )	Congo (Rep.)	Italy	Romania
Austria	Czech Republic	Japan	Senegal
Belgium	Dominican Rep.	Korea (Rep.)	Slovak Republic
Benin	Ecuador	Madagascar	Slovenia
Burkina Faso	France	Malaysia	Spain
Cameroon	Germany	Mali	Switzerland
Canada	Greece	Mexico	Tanzania
	Hungary	Mongolia	United Kingdom
		Morocco	United States
		Paraguay	Uruguay

## General Secretariat

As at 1<sup>st</sup> September 2018, the PIARC General Secretariat includes:

- a Secretary General, Patrick Malléjacq and a Deputy Secretary General, Robin Sébille, both seconded by France;
- a Technical Director, Miguel Caso-Florez, seconded by Spain and Mexico;
- six Technical Advisors seconded from Canada-Quebec, Germany, Japan, South Korea, Mexico and Sweden for various durations;
- seven permanent staff who are remunerated by PIARC: Véronique Anselin (executive assistant), Alain Charles (web manager), Marina Domingo Monsónis (communications), Cécile Jeanne (publications), Marie Pastol (translation-interpretation), Hanitra Rabetaliana (accountancy), Nathalie Sabbah (office clerk),
- Mirella Valoir (bachelor's degree student in computer science on a learning programme) and Vincent Lavenac (communications assistant on internship).



With regard to the Technical Advisors, the situation is as follows:

- Hyunseok Kim (South Korea) joined PIARC General Secretariat in Paris in February 2018; he is in charge of the follow-up of Strategic Theme A, replacing Woo Chul Kim;
- Yuya Namiki is seconded by Japan; he joined the General Secretariat in Paris in September 2017 and follows up on Strategic Theme B;
- Kirsten Graf-Landmann (Germany), works part time in Paris and is in charge of the follow-up of Strategic Theme C;
- Claudine Tremblay (Canada-Québec), based in Québec City, has been in charge of Strategic Theme D since October 2017;
- Verónica Arias Espejel (Mexico) is based in Mexico City. Since January 2016, she has been working for the General Secretariat and follows up the work of Strategic Theme E;
- Kajsa Ström (Sweden) is in charge of the development of PIARC partnerships.



## Annex 2. Strategic Plan 2016-2019

The Council approved the Strategic Plan 2016-2019 at its meeting in Seoul (South Korea) in October 2015. The Council delegated to the Executive Committee minor modifications that could result from the comments made by the Council members, from the discussions at the Seoul Congress and from suggestions by the Technical Committees.

The Strategic Plan sets a series of goals for the Association and structures the activity of Technical Committees in five Strategic Themes, each led by a Coordinator.

### Strategic Themes for the 2016-2019 period

Strategic Theme A – Management and Finance	
Goal	The goal of this Strategic Theme is to encourage the development of policies and strategies that result in transport administrations that perform well, measure performance, and incorporate innovative financing mechanisms to meet the ever changing needs of the road transportation community. It is intended to provide examples of good governance, performance management, evaluation methods, and showcase the efforts of transport administrations that consider and manage risk and incorporate knowledge transfer strategies between agencies operating at different levels of government.
Coordinator	<i>Ernesto Barrera (Chile)</i>
Strategic Theme B – Access and Mobility	
Goal	The goal of this Strategic Theme is to encourage the improvement of access and mobility provided to the traveling public and industry through efficient road network operation and integration with other transport modes.
Coordinator	<i>Shigeru Kikukawa (Japan)</i>
Strategic Theme C – Safety	
Goal	The goal of this Strategic Theme is to improve the safety and efficiency of road transport, including the movement of people and goods on the network, while effectively and widely promulgating knowledge of all aspects of road safety and encouraging implementation of positive practices.
Coordinator	<i>Jean-François Corté (France)</i>
Strategic Theme D – Infrastructure	
Goal	The goal of this Strategic Theme is to improve the quality and efficiency of road infrastructure through the effective management of assets in accordance with user expectations and government requirements.
Coordinator	<i>Oscar Gutierrez (Spain)</i>
Strategic Theme E – Climate change, Environment and Disasters	
Goal	The goal of this Strategic Theme is to increase resiliency and protect investments in transportation infrastructure from impacts of climate change events while lessening the impact of road transportation on the environment.
Coordinator	<i>Roberto Aguerrebere (Mexico)</i>

The list of PIARC Technical Committees and Task Forces, with the name of Chairs and English, French and Spanish-speaking Secretaries is included in the following page. Technical Committees are linked to one of the five Strategic Themes above, while the Terminology Committee is directly linked to the General Secretariat.



**TECHNICAL COMMITTEES 2016-2019 – LIST OF CHAIRS AND SECRETARIES**

	Chair		English-speaking Secretary		French-speaking Secretary		Spanish-speaking Secretary	
TC A.1 Performance of Transport Administrations	José Manuel BLANCO SEGARRA	Spain	Christos S. XENOPHONTOS	United States	Michel DEMARRE	France		
TC A.2 Road Transport System Economics and Social Development	Fred AMONYA	United Kingdom					Sergio VARGAS BUSTAMANTE	Chile
TC A.3 Risk Management	Ioannis BENEKOS	Greece	Firas IBRAHIM	United States	Alain LEFEBVRE	Belgium	Gustavo MORENO RUÍZ	Mexico
TF A.1 Innovative Financing	Massimo SCHINTU	Italy	Zara FOX	Australia	Christophe BOUTIN	France		
TF A.2 Coordination between National and Sub-National Authorities	King GEE	United States					Clemente POON	Mexico
TC B.1 Road Network Operations/Intelligent Transportation Systems	Jacques EHRlich	France	Valentina GALASSO	Italy	Sylvain BELLOCHE	France	Daniel RUSSOMANNO	Argentina
TC B.2 Winter Service	Didier GILOPPE	France	Alan CHAMBERS	United Kingdom			José Carlos VALDECANTOS	Spain
TC B.3 Sustainable Multimodality in Urban Areas	André BROTO	France	Harlan MILLER	United States	Mathieu LUZERNE	France	Oscar FARINA	Argentina
TC B.4 Freight	Martin RUESCH	Switzerland	Jonathan JAMES	United Arab Emirates	Bernard JACOB	France	Carlos SANTILLAN DOHERTY	Mexico
TF B.1 Road Design and Infrastructure for Innovative Transport Solutions	Éric OLLINGER	France	Ian PATEY	United Kingdom	Abdelmename HEDHLI	France	Ana Luz JIMÉNEZ ORTEGA	Spain
TF B.2 Automated Vehicles	Éric OLLINGER	France	Ian PATEY		Abdelmename HEDHLI	France	Ana Luz JIMÉNEZ ORTEGA	Spain
TC C.1 National Road Safety Policies and Programs	Roberto ARDITI	Italy	Rob McINERNEY	United Kingdom	Laurent CARNIS	France	Juan Emilio RODRIGUEZ PERROTAT	Argentina
TC C.2 Design and Operations of Safer Infrastructure	Shaw Voon WONG	Malaysia	Lucy WICKHAM	United Kingdom	Mathieu HOLLAND	France	Alberto MENDOZA DÍAZ	Mexico
TF C.1 Infrastructure Security	Saverio PALCHETTI	Italy			Philippe CHANARD	France	Luz Angélica GRADILLA HERNANDEZ	Mexico
TC D.1 Asset Management	Thomas LINDER	Germany	Gerardo FLINTSCH	United States	Pascal ROSSIGNY	France	Ricardo SOLORIO	Mexico
TC D.2 Pavements	Seung-Hwan HAN	South Korea	Johan MAECK	Belgium	Serge KRAFFT	France	Diego CALO	Argentina
TC D.3 Bridges	Kiyohiro IMAI	Japan	Scot BECKER	United States	Pierre GILLES	Belgium	Luis ROJAS NIETO	Spain
TC D.4 Rural Roads and Earthworks	Roberto SANDOVAL	Bolivia	Iqbal GOOLAM-HOSEN	South Africa	Isabelle LAPPE	France	Natalia PÉREZ GARCIA	Mexico
TC D.5 Road Tunnel Operations	Marc TESSON	France	Gary CLARK	United Kingdom	Jean-Claude MARTIN	France	Rafael LOPEZ GUARGA	Spain
TC E.1 Adaptation Strategies/Resiliency	Jürgen KRIEGER	Germany	April MARCHESE	United States	Eric DIMNET	France	Juan Fernando MENDOZA SÁNCHEZ	Mexico
TC E.2 Environment Considerations in Road Projects and Operations	Helen MURPHY	Australia	Rob HANNABY	New Zealand			Sergio LÓPEZ NORIEGA	Mexico
TC E.3 Disaster Management	Keiichi TAMURA	Japan	Yukio ADACHI	Japan			Marcelo MEDINA SANTIBANEZ	Chile
Terminology	Daniel VERFAILLIE	Belgium	Annelies GLANDER	Austria	François GUÉNOT	Switzerland	Cristina HIGUERA TOLEDANO	Spain



## Annex 3. Publications of the World Road Association

### Technical reports on line from the 2012-2015 cycle

#### In English: 41 reports

- 2015R01EN - Security of road infrastructure
- 2015R02EN - New repair and rehabilitation methods for road bridges
- 2015R03EN - International climate change adaptation framework for road infrastructure
- 2016R01EN - Best practice for life cycle analysis for tunnel equipment
- 2016R02EN - Estimation of load carrying capacity of bridges based on damage and deficiency
- 2016R03EN - Fixed firefighting systems in road tunnels: Current practices and recommendations
- 2016R04EN - Assessment of budgetary needs and optimisation of maintenance strategies for multiple assets of road network
- 2016R05EN - Risk-based management of the bridge stock
- 2016R06EN - Improving safety in road tunnels through real-time communication with users
- 2016R07EN - Preserve your Country's roads to Drive Development
- 2016R08EN - Cooperative Vehicle Highway Systems
- 2016R09EN - Role of risk-assessment in policy development and decision-making
- 2016R10EN - Uses of ITS including consideration of planning for future improvements, upgrades and the economy
- 2016R11EN - Road network management for improved mobility
- 2016R12EN - Methodologies and tools for risk assessment and management applied to road operations
- 2016R13EN - Moving freight transport forward - Green, smart and efficient
- 2016R14EN - Crisis management of unusually severe and/or sustained snow events
- 2016R15FR - Promoting sustainable maintenance of rural roads networks
- 2016R16EN Lay bys and protection against lateral obstacles - Current practices in Europe
- 2016R17EN - State of the art in monitoring road condition and road/vehicle interaction
- 2016R18EN - Expected service life of wearing courses
- 2016R19EN - Road tunnels: complex underground road networks
- 2016R20EN - Human factors guidelines for a safer man-road interface
- 2016R21EN - Good Governance and Anti-Corruption Measures
- 2016R22EN - Guide to good practice performance frameworks
- 2016R23EN - Evolution of the mission and structure of transport administrations
- 2016R24EN - The Role of Road Engineering in Combatting Driver Distraction and Fatigue Road Safety Risks
- 2016R25EN - Transport Strategies for Climate Change Mitigation and Adaptation
- 2016R26EN - Risk Management for Emergency Situations
- 2016R27EN - Key Issues for Improving Mobility Strategies in Large Urban Areas
- 2016R28EN - Framework for Citywide Road Freight Transport Management
- 2016R29EN - Appraisal of Sustainability of Transport Infrastructure Plans and Programs
- 2016R30EN - Advanced technology for data collection and information to users and operators
- 2016R31EN - Sustainability and Climate Change Considerations in Winter Operations
- 2016R32EN- Land use and safety: Understanding how land use decisions impact safety of the transportation system
- 2016R34EN - Vulnerable Road Users; Diagnosis of Design and Operational Safety Problems and Potential Countermeasures
- 2016R35EN - Experience with Significant Incidents in Road Tunnels
- 2017R01EN - Design fire characteristics for road tunnels
- 2017R02EN - Recommendations for sustainable road tunnel operation
- 2017R03EN - Adaptation of road bridges to climate change
- 2017R05EN - Balancing of Environmental and Engineering Aspects in Management of Road Networks





## In French: 41 reports

- 2015R01FR - Sécurité des infrastructures routières
- 2015R02FR - Nouvelles méthodes de réparation et de remise en état des ponts routiers
- 2015R03FR - Cadre international d'adaptation au changement climatique pour les infrastructures routières
- 2016R01FR - Bonnes pratiques pour l'analyse du cycle de vie des équipements des tunnels routiers
- 2016R02FR - Estimation de la capacité portante des ponts basée sur les dommages et les déficiences
- 2016R03FR - Systèmes fixes de lutte contre l'incendie dans les tunnels routiers : pratiques actuelles et recommandations
- 2016R04FR - Évaluation des besoins budgétaires et optimisation des stratégies d'entretien des différents ouvrages du réseau routier
- 2016R05FR - Analyse et gestion des risques appliquée aux ponts
- 2016R06FR - Améliorer la sécurité dans les tunnels routiers grâce à la communication en temps réel avec les usagers
- 2016R07FR - La préservation des routes nationales comme moteur du développement
- 2016R08FR - Systèmes coopératifs véhicule-route
- 2016R09FR - Rôle de l'évaluation des risques dans l'élaboration des politiques et la prise de décision
- 2016R10FR - Implication des STI : planification des évolutions et modernisation futures, la dimension économique
- 2016R11FR - Gestion des réseaux routiers pour une meilleure mobilité
- 2016R12FR - Méthodologies et outils d'évaluation et de gestion des risques appliqués à l'exploitation routière
- 2016R13FR - Évolution du transport de marchandises : plus vert, plus intelligent et plus efficace
- 2016R14FR - Gestion de crise en cas de chutes de neige prolongées et/ou particulièrement abondantes
- 2016R15FR - Promouvoir l'entretien durable des réseaux de routes rurales
- 2016R16FR - Garages et protection contre les obstacles latéraux - Les pratiques actuelles en Europe
- 2016R17FR - Etat de l'art du suivi de l'état des réseaux routiers et interaction route/véhicule
- 2016R18FR - Prédiction de la durée de vie des couches de roulement
- 2016R19FR - Tunnels routiers : réseaux routiers souterrains complexes
- 2016R20FR - Guide de facteurs humains pour une interface homme/route plus sûre
- 2016R21FR - Bonne gouvernance et mesures anti-corruption
- 2016R22FR - Cadres de performance des administrations routières et des transports - Guide des bonnes pratiques
- 2016R23FR - Évolution des missions et des structures des administrations des transports
- 2016R24FR - Rôle de l'ingénierie routière dans la lutte contre les risques, pour la sécurité, de la distraction et de la fatigue des conducteurs
- 2016R25FR - Stratégies de transport pour la limitation du changement climatique et l'adaptation
- 2016R26FR - Gestion des risques pour les situations d'urgence
- 2016R27FR - Questions clés pour les stratégies d'amélioration de la mobilité dans les grandes aires urbaines
- 2016R28FR - Cadre de gestion du transport routier de marchandises à l'échelle de la ville
- 2016R30FR - Technologie avancée de recueil des données et information aux usagers et aux exploitants
- 2016R31FR - Durabilité et considération sur le changement climatique dans les opérations de viabilité hivernale
- 206R32FR - Aménagement du territoire et sécurité : une introduction à la compréhension des effets de l'aménagement du territoire sur la sécurité du système de transport
- 2016R33FR - Gestion de l'entretien et de l'aménagement des routes rurales





- 2016R34FR - Usagers vulnérables de la route - diagnostic des problèmes de sécurité liés à la conception et à l'exploitation, et mesures correctives potentielles
- 2016R35FR - Retour d'expérience en matière d'incidents significatifs dans les tunnels routiers
- 2017R01FR - Caractéristiques des incendies de dimensionnement en tunnels routiers
- 2017R02FR - Recommandations pour une exploitation durable des tunnels routiers
- 2017R03FR - Adaptation des ponts routiers au changement climatique
- 2017R04FR - Utilisation optimale des matériaux locaux dans les terrassements routiers

### **In Spanish: 25 reports**

- 2015R01RS - Seguridad de la Infraestructura Vial
- 2015R02ES - Nuevos métodos de reparación y conservación de puentes de carretera
- 2015R03ES - Marco Internacional de Adaptación al Cambio Climático para la Infraestructura Vial
- 2016R01ES - Buenas prácticas para el análisis del ciclo de vida de los equipamientos instalados en los túneles
- 2016R02ES - Estimación de la capacidad resistente de los puentes basada en los daños y deficiencias
- 2016R03ES - Sistemas fijos de extinción de incendios en túneles de carretera: sistemas actuales y recomendaciones
- 2016R04ES - Evaluación de las necesidades presupuestarias y optimización para los múltiples activos de la red de carreteras
- 2016R05ES - Análisis de riesgos y gestión de riesgos en puentes
- 2016R06ES - Mejora de la seguridad en túneles de carretera mediante la comunicación en tiempo real con los usuarios
- 2016R07ES – Conservar las carreteras de su país para fomentar el desarrollo
- 2016R14ES - Gestión de crisis de nevadas excepcionalmente graves y prolongadas
- 2016R16ES - Apartaderos y protección contra los obstáculos laterales - Prácticas vigentes en Europa
- 2016R17ES - Técnicas de vanguardia para la supervisión del estado de la carretera y la interacción carretera/vehículo
- 2016R18ES - La vida útil que se espera de las capas de rodadura
- 2016R19ES - Túneles de carretera: Redes complejas subterráneas de carretera
- 2016R21ES - Buena gobernanza y medidas anticorrupción
- 2016R22ES - Guía de buenas prácticas para marcos del funcionamiento
- 2016R23ES - Evolución de la estructura y funciones de las administraciones de transporte
- 2016R30ES - Tecnología avanzada para la recolección de datos e información a usuarios y operadores
- 2016R31ES - Consideraciones de Sostenibilidad al Cambio Climático en la Vialidad Invernal
- 2016R33ES - Gestión de mantenimiento y la mejora de caminos rurales
- 2016R35ES - Experiencia con incidentes significativos en túneles de carretera
- 2017R01ES - Características de los incendios para el diseño de los túneles de carretera
- 2017R02ES - Explotación de túneles de carretera: Primeros pasos hacia un enfoque sostenible
- 2017R03ES - Adaptación al cambio climático de los puentes de carreteras.



## Technical reports on line from the 2016-2019 cycle

### In English

- 2018CS01EN - Inspections and Damage Assessment Techniques - Case Studies

## Special projects on line

### In English

- 2018SP01EN - Investigating Unpredicted Infrastructure Failure
- 2018SP03EN - The Use of Unmanned Aerial Systems for Road Infrastructure

### In French

- 2018SP03FR – Les défaillances imprévisibles d’infrastructures

### In Spanish

- 2018SP03ES - Investigación de fallas imprevistas en la infraestructura