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# STRATEGIC PLAN 2012-2015



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## 1. Foreword

The World Road Association was created in France, more than 100 years ago under the name of the Permanent International Association of Road Congresses (PIARC), on 29 April 1909, some seven months after the First International Road Congress was held in Paris. While at that time the subjects of concern focused on the design of infrastructure suited to motor vehicles, today the key issue driving our work is access to safe, environmentally-friendly and sustainable mobility for all. Climate change, which seemingly causes increasingly frequent natural disasters, reminds us of the need to gather and share our collective research, knowledge and experience.

Road administrations across the world are seeking to address these issues at the highest management and political levels. The World Road Association is participating in this effort through the work of its Technical Committees composed of experts appointed by member governments. The activities carried out at the international level are reiterated and complemented by actions at the national level: these include meetings, seminars, outreach activities to the road community through the National Committees, and the promotion of our activities to young professionals to ensure their future involvement. These principles are reflected in the 2008-2011 Strategic Plan.

**The 2012-2015 Strategic Plan** reflects further new reforms introduced during the previous cycle aimed at better meeting the expectations of the Association's members through mechanisms that make it easier to contribute to and access the results of the work. The Strategic Plan is the result of an extensive consultation process with First Delegates, Technical Committee members and other organisations, and, through its goals, issues and deliverables, describes the work assigned to the various bodies of the Association. In total, three Commissions, 17 Technical Committees, a Committee on Terminology and two Task Forces will ensure that the objectives are achieved and that the Strategic Plan is successfully implemented.

During the period 2012 to 2015, **the Association will have three dedicated Commissions**: the Finance Commission, the Strategic Planning Commission and the Communications Commission. The terms of reference assigned to the Communications Commission will ensure that the actions of the Association are aligned with and focused on the needs of all its members. Its mission will also be to enhance, promote and disseminate widely the results of the work of the Technical Committees. The Communications Commission will include a working group on knowledge sharing in order to set the direction for the actions of the Association on this strategic aspect, which lies at the heart of our mission. The Strategic Planning Commission is in charge of supervising the implementation of the Strategic Plan, as well as the preparation of the future Association congresses, which are scheduled to take place in Andorra in 2014 and in Seoul, Republic of Korea, in 2015. It will also be responsible for developing the next Strategic Plan.

**The 17 Technical Committees** will work on current issues that are important to roads and transport systems. They are structured into four Strategic Themes focusing respectively on Management and Performance; Access and Mobility; Safety; and Infrastructure. The World Road Association, through the coordinated actions of several Technical Committees, will contribute to the **United Nations Road Safety Decade of Action**. Our determination is reflected by a firm commitment of the Association to participate in this worldwide effort.

In addition to the Technical Committees of the Strategic Theme on Safety, two Task Forces have been created. The first will be tasked with updating and complementing the Road Safety Manual of the Association. The second is tasked with opening joint discussions on issues related to transport infrastructure security.

The Strategic Plan expresses the World Road Association's determination to remain a leading international forum for discussion and exchange in the area of transport, which it has become in the course of the past one hundred years. The Association is committed to reaching out to international organisations dealing with roads and transport whose activities are complementary.

I would like to thank all those who have contributed to the preparation of this Strategic Plan, which will enable the World Road Association to continue its activities on issues that the transport sector is facing.

September 2011

**Anne-Marie Leclerc**

**World Road Association President (2009 to 2012)**

## 2. Introduction to the World Road Association

### 2.1 THE WORLD ROAD ASSOCIATION AND ITS MEMBERSHIP

2.1.1 **The World Road Association** (PIARC) was established in 1909 as a non-profit association. Its broad aim has been to promote international cooperation on issues related to roads and road transport.

2.1.2 **The World Road Association** recognised the following classes of member:

- **National governments;**
- **Regional authorities** (representatives of the first administrative tier below the national government);
- **Collective members** (such as associations, international organisations, local authorities, companies and research institutes);
- **Individual members;**
- **Honorary members.**

2.1.3 **As of November 2012**, the Association has 120 national member governments from all over the world. Two-thirds of these members are developing countries (DC) and countries in economic transition (CIT). There are over 2000 other members, about half of whom are individual members.

### 2.2 THE WORLD ROAD ASSOCIATION AND ITS RELATIONSHIP WITH OTHER ORGANISATIONS

2.2.2 **The World Road Association** has formal alliances with other international organisations in the form of Memoranda of Understanding (MoUs). The purpose of the MoUs is to facilitate and strengthen the collaboration between the Association and other organisations in addressing issues of local, regional and international importance. The Association has formal alliances with organisations such as:

- **Regional organisations** of road administrations (Road Engineering Association of Asia and Australasia – REAAA, Conference of European Directors of Roads – CEDR, Council of Road Directors from Iberia and Latin America – DIRCAIBEA, the Nordic Roads Association);
- **International Organisations** (The World Bank);
- **Technical and scientific organisations** (Institute of Transportation Engineers – ITE, International Tunnelling and Underground Space Association – ITA, International Federation of Automotive Engineering Societies – FISITA, Transportation Research Board – TRB).

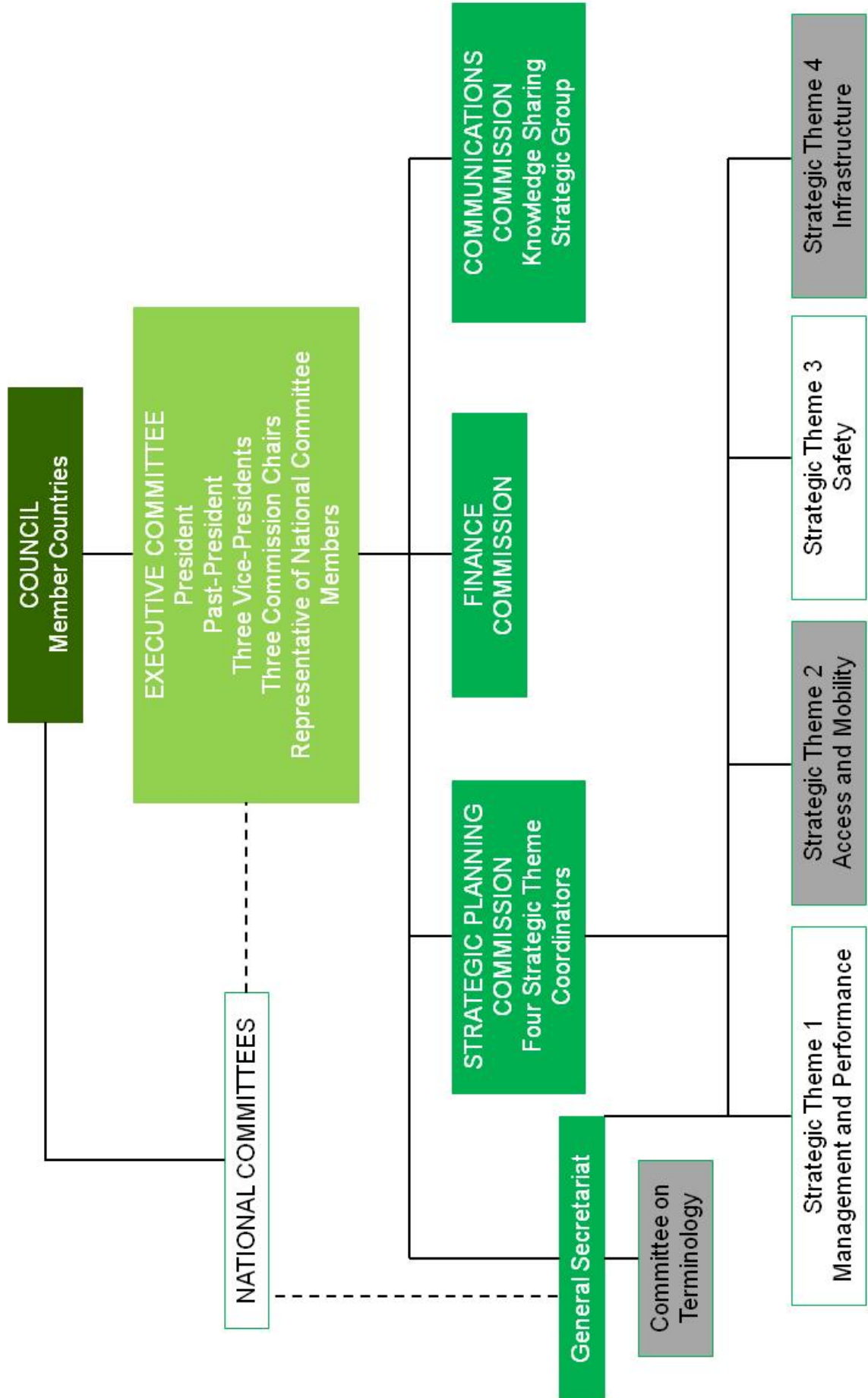
### 2.3 HOW THE WORLD ROAD ASSOCIATION IS GOVERNED AND MANAGED

- 2.3.1 **The Council** has the ultimate responsibility for the governance of the World Road Association. It is composed of delegations from member countries, each led by a First Delegate. The Council elects the President, the Vice-Presidents, the Secretary General and the members of the Executive Committee. The Council meets once each year.
- 2.3.2 **The Executive Committee** is responsible for the administration of the Association in accordance with policies approved by the Council. It is supported by the Commissions (Strategic Planning, Finance and Communications) and the General Secretariat.
- 2.3.3 **The General Secretariat** is located in Paris. It ensures the daily management of the Association in accordance with the resolutions and decisions of the Council and of the Executive Committee. It also provides a secretarial service for the Council, the Executive Committee and the Commissions and services to the Technical Committees. The General Secretariat is responsible for the Association's website, and for editing of the *Routes/Roads* magazine and various publications. It provides assistance in the planning and preparation of World Road Congresses and International Winter Road Congresses.
- 2.3.4 **National Committees** in 37 member countries (as of November 2012) contribute to the dissemination of the Association's outputs, organise local activities such as meetings, conferences and seminars, and undertake some membership services and administration duties in their own countries.
- 2.3.5 **The technical work of the World Road Association** has been divided into four Strategic Themes. Under these themes are 17 Technical Committees and two Task Forces that work on various subjects in the road and transport field as shown in the diagram on the facing page.

In addition, the Committee on Terminology works directly under the supervision of the General Secretariat.

- 2.3.6 **As and when needed, working groups** are created to address focussed issues in a given timeframe. These working groups are placed under the umbrella of a Strategic Theme.

# THE WORLD ROAD ASSOCIATION STRUCTURE



## Strategic Themes, Technical Committees and Task Forces for 2012-2015

### Strategic Theme 1: Management and Performance

- TC 1.1 Performance of Transport Administrations
- TC 1.2 Financing
- TC 1.3 Climate Change and Sustainability
- TC 1.4 Road Transport System Economics and Social Development
- TC 1.5 Risk Management

### Strategic Theme 2: Access and Mobility

- TC 2.1 Road Network Operations
- TC 2.2 Improved Mobility in Urban Areas
- TC 2.3 Freight Transport
- TC 2.4 Winter Service
- TC 2.5 Rural Road Systems and Accessibility to Rural Areas

### Strategic Theme 3: Safety

- TC 3.1 National Road Safety Policies and Programs
- TC 3.2 Design and Operations of Safer Road Infrastructure
- TC 3.3 Road Tunnels Operations
  
- TF 1 Road Safety Manual Task Force
- TF 2 Security Task Force

### Strategic Theme 4: Infrastructure

- TC 4.1 Management of Road Assets
- TC 4.2 Road Pavements
- TC 4.3 Road Bridges
- TC 4.4 Earthworks and Unpaved Roads

### Committee on Terminology



## 2.4 THE WORLD ROAD ASSOCIATION'S ACTIVITIES

Framework for the World Road Association's Activities	
Scope of the World Road Association	Roads in the wider transport context
Goal of the World Road Association	To identify, develop and promulgate policy and practices that contribute to safer and more efficient management and use of road and road transport systems within an integrated sustainable transport context
Tool for this Goal	World Road Association's Strategic Plan
Strategic Plan	Roadmap setting the structure, the method and content of the actions for the Association
Outputs	Publications, Seminars, Congresses, etc.
Outcomes	Better performing, safer and more sustainable road use and road transport in member countries

**2.4.1 The World Road Association's principal means for achieving its outputs** are through the activities of its Technical Committees that undertake studies and prepare reports and papers on various topics related to roads and road transport issues. In addition, the Technical Committees arrange seminars in order to promote one of the World Road Association's main aims: i.e. knowledge sharing and exchange among member countries.

**2.4.2 The World Road Association organises** a World Road Congress every four years. The most recent ones were in Paris, France in 2007 and Mexico City, Mexico in 2011. The next will be in Seoul in the Republic of Korea in 2015.

It also organises an International Winter Road Congress once every four years in the interval between the World Road Congresses. The most recent ones were in Turin-Sestriere in Italy in 2006 and Québec City in Canada-Québec in 2010. The next International Winter Road Congress will be held in Andorra in 2014.

**2.4.3 The World Road Association produces** a wide range of publications including a quarterly magazine *Routes/Roads*, Technical Committee reports, Congress Proceedings, Flagship Publications, dictionaries of technical terms and software products (especially HDM-4 for economic evaluation).

**2.4.4 The World Road Association also undertakes** special projects for the benefit of developing countries and countries in economic transition.

## 3. World Road Association's Vision, Mission, Values and Role

### 3.1 VISION

The World Road Association is committed to taking a leading international role in the sharing and exchange of knowledge on roads and road transport policy and practices within an integrated, sustainable transport and land use context.

### 3.2 MISSION

The World Road Association exists to serve all its members by:

- Being a leading international forum for analysis and discussion of the full spectrum of transport issues relating to roads and road transport.
- Identifying, developing and disseminating best practices and facilitating improved access to international information.
- Fully considering within its activities the needs of developing countries and countries in economic transition.
- Developing and promoting efficient tools for decision-making on matters related to roads and road transport.
- Providing advice on directions to the world's transportation system.

### 3.3 VALUES

The World Road Association's values are:

- To provide universal quality of service to its members.
- To be open, objective and impartial.
- To promote the development of sustainable solutions.
- To recognise road transport in an integrated transport and land use context.
- To be customer-driven.
- To respect the differing international road transport needs.

### 3.4 THE WORLD ROAD ASSOCIATION'S ROLE

- 3.4.1** The road system plays a vital role within the transport context, in the performance of economies, in the social functioning of communities, sustainable mobility and in achieving effective land use and regional development.
- 3.4.2** As an international open forum for information exchange, the World Road Association is in a unique position to address a full range of road transport and road infrastructure issues, to be proactive in setting the agenda for addressing these issues and to support institutional integrity in road administrations. Participants in the World Road Association have found that they have much to learn from one another. They can develop more effective policies and technical approaches by learning from successes and failures elsewhere.
- 3.4.3** The benefit of the World Road Association's activities will be reflected through having better performing, safer and more sustainable road use and road transport in member countries.

## 4. Road and Road Transport Goals

### 4.1 INTRODUCTION

The definition of the terms of reference for the activity of the Technical Committees in the 2012-2015 period is the result of an extensive consultation process. This process commenced in June 2010 with consultation involving the Chairs and Secretaries of all Technical Committees and members of the Executive Committee. Following this, further consultation with First Delegates took place in order to identify the key priorities of member countries.

A draft document was derived from these consultations, circulated for presentation and consideration at the World Road Association Council at its October 2010 meeting. The main lines (identification of the Strategic Themes, structure of the Technical Committees, main issues to consider) were approved by the Council. The comments expressed since then by Council, Executive Committee and Technical Committee members, and later the outcome of the sessions of the 24<sup>th</sup> World Road Congress in Mexico City and the first meetings of new Technical Committees, contributed to the development of the current draft. This final version results from the decision made by the Council at its meeting in October 2012.

### 4.2 ORGANISATION FOR IMPROVEMENTS

**4.2.1 One of the key roles** of the Council and the Executive Committee is to consider the emerging issues that the World Road Association will address. In order to address these issues, the Association has defined clear strategies to be adopted and the outputs to be achieved. The issues, strategies and outputs are summarised in the tables in Section 4.3.

**4.2.2 A Strategic Theme Coordinator** takes responsibility for each of the four defined Strategic Themes. Each Strategic Theme Coordinator oversees the work of those Technical Committees whose issues are most closely related.

The Strategic Theme Coordinators are responsible for coordinating and making sure that all the activities of each Technical Committee are implemented according to the strategies approved in the Strategic Plan. The Strategic Theme Coordinators are responsible to and report to the Strategic Planning Commission, the Chair of which Commission reports and is responsible to the Executive Committee.

**4.2.3 Technical Committees** are required, when they elaborate their work plans within the broad issues defined in their terms of reference detailed in Section 4.3, to select strategies and outputs of relevance to developing countries and countries in transition.

### 4.3 GOALS, ISSUES, STRATEGIES AND OUTCOMES FOR STRATEGIC THEMES AND TECHNICAL COMMITTEES

These terms of reference for the Strategic Themes and Technical Committees provide the framework within which a programme of work will be developed by each Technical Committee. In developing these programmes Technical Committees, and in particular the Technical Committee Chairs and Strategic Theme Coordinators, should bear in mind the need to build upon the work undertaken by Technical Committees in the previous and earlier cycles and to ensure that the outputs of the Technical Committees have a genuine and lasting value.

To this end, there is a significant move towards the development of a more structured approach to delivering information in each subject area. This is intended to assist Technical Committees and Strategic Theme Coordinators in developing interlinked products that will be of very high value to members and the broader road and transport community. These will develop over a number of cycles and will, in time, become definitive internationally-recognised sources of advice, guidance and best practice information. In time these may develop and be developed into more formal Manuals and Handbooks of which the current ITS Handbook, Road Tunnels Manual and Road Safety Manual provide excellent examples.

Each Technical Committee must develop a subject overview that effectively describes the full width and breadth of the relevant knowledge area(s), identifying where the contributions detailed in the Committee's terms of reference lie. This activity should be undertaken during the first meeting(s) of the Technical Committees and form the first output before the end of the first year of the cycle. This activity should be undertaken in close collaboration with the relevant Strategic Theme Coordinator. Each Technical Committee should then organise existing knowledge, in particular that produced by the Association, within that structure and develop web-pages introducing and commenting upon existing reports in order to populate the knowledge-base.

In developing the Technical Committees' programmes full account must be taken of the need to ensure that outputs are not simply delivered at the end of the four-year cycle but that articles for *Routes-Roads*, seminars, reports, and chapters of handbooks or manuals are produced at interim stages within the cycle as well. All Technical Committees are expected to produce articles during the four-year cycle for *Routes-Roads*.

During the currency of any Strategic Plan it is inevitable that the need for emerging and highly-focused topics to be addressed may arise. Such issues may be addressed by Technical Committees, including sub-groups thereof, or specific groups formed expressly to address such topics. The Strategic Planning Commission will review such proposals as they arise and make recommendations to the Executive Committee.

### 4.3.1 Strategic Theme 1: Management and Performance

#### Goal

Encourage the development of transport policies and strategies that result in transport administrations that perform well and that are funded sustainably. Provide exemplars of good governance and transport administrations that fund their activities in an appropriate manner, that incorporate best practice in respect of climate change mitigation and adaptation, and the management of associated and other forms of risk.

#### Overview

Strategic Theme 1 brings together matters related to the policies and strategies that transport administrations develop and enact.

The integration of road administrations and other transport modes within single transportation administrations presents both challenges and opportunities. Performance assessment reflects such new structures and increased stakeholder power and media scrutiny mean that good governance and effective anti-corruption measures remain of paramount importance. **Technical Committee 1.1** will develop guidance on these issues based on the experiences of member countries.

The sustainability of funding is a major issue for many member countries and the introduction of private sector tolls and of road user charging remains a delicate political issue in many countries. Indeed, contractual aspects of private sector funding and the associated costs of such funding are changing in the light of the global financial crisis. These issues are studied in **Technical Committee 1.2**.

**Technical Committee 1.3** deals with transport strategies for climate change mitigation and adaptation in the context of national policies for such actions as well as assessing the available tools for understanding carbon outputs and for the sustainability appraisal for transport infrastructure plans.

Investment in roads can create substantial social and economic benefits and improvements to quality of life. Incorporating these benefits into the appraisal process is of great assistance to decision-makers in setting priorities for limited available resources. **Technical Committee 1.4** will investigate new developments in this arena alongside methods of long-term post-project monitoring that fully capture the benefits of schemes and plans.

Risk assessment and management is fundamental to the operation of a transport network. **Technical Committee 1.5** will focus on the role of risk assessment and management in policy development and decision making, road operation and emergency response. This includes the study of combined and large magnitude hazards, the consequences of which might reasonably be described as disastrous or catastrophic. Issue 1.5.4 sits somewhat outside the usual orbit of the Association's Technical Committees. The Association does, however, recognise the important contribution that its members make in times of crisis and deems it appropriate to offer leadership in this important arena. This Issue will be addressed by a Working Group led by Japan and comprised of volunteers from countries with a specific interest in this subject. The Working Group remains part of, and will report through, the Technical Committee and its Chair.

#### Technical Committees:

- 1.1 Performance of Transport Administrations
- 1.2 Financing
- 1.3 Climate Change and Sustainability
- 1.4 Road Transport System Economics and Social Development
- 1.5 Risk Management

## TC 1.1 – Performance of Transport Administrations

Issue 1.1.1 Evolution of structures and missions of the administrations	
<i>Strategies</i>	<i>Outputs</i>
Investigate the recent changes in road administrations (integration of transport modes, scope of responsibilities, nature and size of road network, increased stakeholder power and involvement, etc.). Analyse and understand the drivers for these changes, the challenges involved in their implementation, the expectations of those driving the change and identify the impacts.	Lessons learned and guidance report on changes within transport administrations.
Issue 1.1.2 Assessment of administrations' performance	
<i>Strategies</i>	<i>Outputs</i>
Investigate and compare how road or transport administrations assess and measure their overall performance and identify good practice in the development of performance frameworks and benchmarks.	Guidance report identifying benchmarks for transport administration performance.
Issue 1.1.3 Good governance and anti-corruption measures	
<i>Strategies</i>	<i>Outputs</i>
Understand and investigate current situations of and key issues affecting institutional integrity with a focus on anti-corruption measures in the road sector and identify the effective benchmarks of integrity laws, policies and measures, transferable lessons including implications of increased scrutiny by the media.	Guidance report on the key issues impacting upon institutional integrity including relevant case studies.

## TC 1.2 – Financing

Issue 1.2.1 Funding strategies for a sustainable road system	
<i>Strategies</i>	<i>Outputs</i>
<p>Investigate the new developments in funding strategies. Catalogue these new developments. Analyse their objectives, implementation processes and challenges (including acceptability by payers), collection costs, evolution of revenues raised (including fuel / energy / carbon taxation measures), proportion of collected revenues going to the road sector, and sustainability. Examine whether these new funding streams are additional or substitutional to prior funding strategies for the road sector.</p>	<p>State of practice including lessons learned.</p>
Issue 1.2.2 Private sector financing	
<i>Strategies</i>	<i>Outputs</i>
<p>Investigate how key contractual aspects (i.e. risk allocation and transfer, risk mitigation and management, contract flexibility during concession period, rules of anticipated ending of concession, traffic and revenue risks, financing risk, etc.) have changed through time (differentiating pre- and post-global financial crisis) and their impact on project structure in order to reach financial closure and value for money.</p> <p>Establish the costs of private financing, i.e. expected equity rate of return and debt interest rate, by payment mechanism and by geography and how these have changed through time (differentiating between pre- and post-global financial crisis).</p> <p>Benchmark capital costs of similar infrastructure services (e.g. railways, and power and water utilities) and identify reasons for variances between these different sectors and the road sector.</p>	<p>Report and case studies, where appropriate, adopted by countries at different development stages, illustrating their evolutions and achievements.</p> <p>Report on costs of private financing in comparison with public financing.</p> <p>Review of benchmark results in comparison with different infrastructure services.</p>

## TC 1.3 – Climate Change and Sustainability

Issue 1.3.1 Transport strategies regarding climate change mitigation and adaptation	
<i>Strategies</i>	<i>Outputs</i>
<p>Identify and compare the boundary conditions within which national transport authorities in different countries have strategies to address climate change mitigation and adaptation: e.g. influence over levels of demand, interaction /collaboration with other modes, low- / zero-carbon technologies, etc., and how they are working within these boundaries.</p> <p>Analyse the different national transport targets, in the context of national targets, and the proposed routes to achieving them.</p>	<p>State-of-the-art report with recommendations on the development of successful strategies.</p>
Issue 1.3.2 Tools for understanding climate change mitigation	
<i>Strategies</i>	<i>Outputs</i>
<p>Investigate the approaches and tools used for understanding climate change mitigation (Carbon accounting and auditing, carbon foot-printing including life-cycle analysis, etc.)</p> <p>In the analysis, compare the methodologies, examine the uncertainty of the results, identify the challenges regarding implementation, benchmark the presentation and use of the results.</p>	<p>State-of-the-art report and recommendations.</p>
Issue 1.3.3 Appraisal of sustainability of transport infrastructure plans	
<i>Strategies</i>	<i>Outputs</i>
<p>Investigate how sustainability of transport infrastructure plans is being appraised and used in decision-making processes.</p> <p>Report on the extent to which sustainability is being considered for countries at different stages of economic development.</p>	<p>State-of-the-art report and recommendations.</p>



TC 1.4 – Road Transport System Economics and Social Development

Issue 1.4.1 Appraisal of economic and social decision-making methodologies for transport infrastructure projects	
<i>Strategies</i>	<i>Outputs</i>
<p>Investigate new developments in appraisal of economic and social aspects in decision-making methodologies for transport projects.</p> <p>Identify where and how they have been applied and if this has induced changes to standard practices.</p>	<p>State-of-the-art report on the methodologies, complemented by case studies.</p>
Issue 1.4.2 Post-project monitoring / long term evaluation of transport infrastructure projects	
<i>Strategies</i>	<i>Outputs</i>
<p>Investigate how post-project monitoring and long term evaluation are carried out for transport infrastructure projects.</p> <p>Benchmark the institutional contexts, the methodologies and how the results are actually being used.</p>	<p>State-of-the-art report complemented by case studies and recommendations.</p>

**TC 1.5 – Risk Management**

Dealing with natural and manmade hazards including combined and high magnitude hazards

<b>Issue 1.5.1</b>	
<b>Role of risk assessment in policy development and decision making</b>	
<i>Strategies</i>	<i>Outputs</i>
Analyse how risk assessment is being used and incorporated in policy development and decision making within the road authorities.	State-of-the-art report and recommendations for road authorities.
Up-date the work of TC C.3, of the previous cycle, on public perception and acceptance of risk regarding the road transport system, including recent events.	Up-dated report on public perception and acceptance of risk.
<b>Issue 1.5.2</b>	
<b>Methodologies and tools for risk assessment and management applied to road operations</b>	
<i>Strategies</i>	<i>Outputs</i>
Identify and evaluate methodologies and tools for the management of natural and man-made risks in road operations and subsequent decision making.	Further development of a tool box as part of the Association's web-based knowledge base for dissemination of basic risk management techniques in the road community.
Identify strategies applied to manage the risks associated with natural and man-made hazards including the adaptation of road infrastructure to climate change.	Case studies on techniques for managing the risks associated with natural and man-made hazards including the adaptation of road infrastructure to climate change.
Integration in a web-based manual of the outputs of the current and past cycles.	Web-based electronic version of a Risk Management Manual.
<b>Issue 1.5.3</b>	
<b>Management of emergency situations</b>	
<i>Strategies</i>	<i>Outputs</i>
From selected case studies analyse how emergency situations affecting the road transport system are managed. Investigation will consider in particular the issues of coordination between the different authorities, the coordination between the different modes of transport, the information to users, the response of the public.	Recommendations based on a presentation of case studies.
<b>Issue 1.5.4</b>	
<b>Risk and emergency management for combined and large hazards</b>	
<i>Strategies</i>	<i>Outputs</i>
Analyse how risk / emergency management is undertaken from case studies of combined / large scale hazards (e.g. earthquake/ tsunami, earthquake / landslide).	State-of-the-art report and recommendations for road authorities preparing for such scenarios.

### 4.3.2 Strategic Theme 2: Access and Mobility

#### Goal

Encourage the improvement of access and mobility provided to the community and industry by improved road network operation and integration with other transport modes.

#### Overview

Strategic Theme 2 recognises that road authorities provide a service to the community and industry, thus recognising these groups as customers. At the heart of this issue is the need to provide services in a predictable manner and to ensure that the resilience of the network is set at an appropriate level.

Obtaining maximum benefit from existing network infrastructure is a priority for many member countries. Improvements to journey time reliability are particularly important whether achieved by interfacing with other modes and/or the use of ITS. **Technical Committee 2.1** will examine these issues and update key handbooks as well as pursuing work on cooperative vehicle highway systems.

**Technical Committee 2.2** will build on the work of the previous cycle comparing strategies of urban mobility, identifying transport infrastructure design for multimodality and investigation measures to promote non-motorised mobility.

The importance of effective and efficient freight transport to the economy is patent. **Technical Committee 2.3** will examine issues surrounding interurban and urban freight management and investigate freight co-modality. Co-modality is defined as the use of different modes on their own and in combination with the aim of obtaining an optimal and sustainable utilisation of resources.

Road networks are particularly vulnerable to the adverse effects of winter weather and maintaining acceptable levels of service in the light of budget cuts during sustained snow events can be particularly challenging. Issues such as sustainability and climate change must also be considered and the provision of appropriate data to road users is vital. **Technical Committee 2.4** will study these issues in addition to actively preparing the technical programme for the 2014 Winter Road Congress.

Accessibility of road infrastructure for rural communities remains an important topic for poverty alleviation, via access to social, educational and employment opportunities. **Technical Committee 2.5** will focus on the effect of national policies on such provision and new strategies for the sustainable management and maintenance of rural roads.

#### Technical Committees:

- 2.1 Road Network Operations
- 2.2 Improved Mobility in Urban Areas
- 2.3 Freight Transport
- 2.4 Winter Service
- 2.5 Rural Road Systems and Accessibility to Rural Areas

TC 2.1 – Road Network Operations

Issue 2.1.1 Road network management for improved mobility	
<i>Strategies</i>	<i>Outputs</i>
<p>Investigate successful approaches and identify the factors taking into consideration improved capacity, more reliable journey times, energy saving, safety and minimizing greenhouse gas emissions. Particular attention should be given to solutions considering interfaces with other modes and organisational/governance issues.</p>	<p>Best practice report.</p> <p>Upgraded web-version of the Network Operation Handbook.</p>
Issue 2.1.2 Use of ITS including consideration of planning for future improvements and upgrades; consideration of economy	
<i>Strategies</i>	<i>Outputs</i>
<p>Study more efficient and effective use of ITS from the perspective of the cost and benefit analysis considering initial investment in early stage, operating costs and future maintenance cost (full life cycle analysis).</p> <p>Investigate applications of ITS technologies in developing countries and identify those that are the most promising and relevant for these countries.</p> <p>Update and upgrade the Association's ITS Handbook.</p>	<p>Guidance report.</p> <p>State of practice report and recommendations.</p> <p>Upgraded web-version of the ITS Handbook.</p>
Issue 2.1.3 Cooperative vehicle highway systems	
<i>Strategies</i>	<i>Outputs</i>
<p>Investigate innovative approaches of better use of ITS for the purpose of improved network operation, with particular focus on vehicle-based technology and vehicle-infrastructure/vehicle-vehicle communications in cooperation with FISITA.</p>	<p>State-of-the-art report.</p>

## TC 2.2 – Improved Mobility in Urban Areas

Issue 2.2.1 Comparison of strategies for sustainable urban mobility	
<i>Strategies</i>	<i>Outputs</i>
Investigate how the concept of sustainable urban mobility is being translated into strategies and plans for actions in large cities.  Benchmark the approaches used for decision making, and the methods and tools for assessing the results.	Report presenting case studies and recommendations.
Issue 2.2.2 Design of transport infrastructure for multimodality in urban areas	
<i>Strategies</i>	<i>Outputs</i>
Identify good practice for the design of urban roads in central and peripheral areas of large cities including effective provision for public transport networks, parking policies, urban environmental management of infrastructure works, etc.	Report presenting good practices.
Issue 2.2.3 Promotion of walking and cycling	
<i>Strategies</i>	<i>Outputs</i>
Investigate effective and innovative measures taken to promote walking and cycling including the design of sustainable neighbourhoods, measures to secure safety for vulnerable users, involvement of NGOs in decision-making, public awareness and empowerment.	Report presenting effective measures.

## TC 2.3 – Freight Transport

Issue 2.3.1 Freight management	
<i>Strategies</i>	<i>Outputs</i>
<p>Study the overall system of interurban/ urban freight management, considering the influence of logistics strategies on: delivery models and road freight transport, overnight transport, dangerous goods transport, road access and guidance control, terminals and transfer stations, truck parking and security.</p> <p>Investigate truck management strategies and measures to improve the economic and environmental efficiency of road freight (including noise reduction).</p>	<p>Report based on case studies.</p>
Issue 2.3.2 Co-modality for freight transport	
<i>Strategies</i>	<i>Outputs</i>
<p>Investigate how the concept of co-modality is implemented with the objective of an optimal use of the different modes of transport for freight. Identify the initiatives, objectives, results and obstacles.</p> <p>Analyse, in particular, the outcomes regarding modal shift of freight transport from roads to other modes.</p>	<p>Report on case studies and recommendations.</p>

TC 2.4 – Winter Service

Issue 2.4.1 Crisis management of unusually severe and/or sustained snow events	
<i>Strategies</i>	<i>Outputs</i>
From actual case studies of unusually severe and/or sustained snow events which have produced large disturbances to the transport system, investigate how the institutional arrangements, operations measures (including supply and distribution of de-icing agents), coordination between transport modes and the provision of information to users can most effectively contribute to minimise disturbances and lead to a rapid return to 'normal' conditions.	Case studies report and recommendations.
Issue 2.4.2 Sustainability and climate change considerations in winter operation	
<i>Strategies</i>	<i>Outputs</i>
Study the environmental impacts of winter maintenance taking into consideration increased variability in weather conditions including uncertainty regarding the occurrence and magnitude of harsh winter conditions.	Guidance report.
Issue 2.4.3 Advanced technology for data collection and information to users and operators	
<i>Strategies</i>	<i>Outputs</i>
Investigate innovative approaches for data collection and information to users and operators for the purpose of safer winter operation, with particular focus on vehicle-based technology.	Case studies.
Issue 2.4.4 Preparation of the 2014 Winter Road Congress in Andorra	
<i>Strategies</i>	<i>Outputs</i>
Identify the priority themes for the congress while taking into consideration the concerns and possible contributions from other Technical Committees (e.g. bridges, pavements, etc.) and prepare the scientific program.	Definition of the technical programme incorporating session(s) on the various criteria of winter operation for decision makers and acceptable levels of service.  Production of the proceedings.
Up-date the Snow and Ice Data book	Up-dated electronic version of the Snow and Ice Data Book

## TC 2.5 – Rural Road Systems and Accessibility to Rural Areas

Issue 2.5.1 National policies for sustainable accessibility to road areas	
<i>Strategies</i>	<i>Outputs</i>
Analyse the national policies implemented in different countries, including developing countries, for the development and maintenance of the rural roads systems focusing on institutional aspects, decentralization issues and funding mechanisms.	Report presenting a benchmark of the national policies, achievements, issues and conclusions for decisions makers and other stakeholders.
Issue 2.5.2 Management of rural road planning, maintenance and improvement	
<i>Strategies</i>	<i>Outputs</i>
Over the past decade a number of initiatives have been launched to promote the development of micro-enterprises and involve the participation and consultation of local communities in the planning, maintenance of and improvements to rural roads. Based on country case studies, review the evolution over time, lessons learned and identify conditions for success and difficulties for different geographical and socio-economic contexts.	Report on case studies and recommendations.
Issue 2.5.3 Promoting sustainable maintenance of rural road systems	
<i>Strategies</i>	<i>Outputs</i>
From case studies highlight the socio-economic and financial consequences of insufficient maintenance of rural roads.	Report for the attention of politicians and decision makers.



### 4.3.3 Strategic Theme 3: Safety

#### Goal

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 effective implementation.

#### Overview

Roads play a fundamental part in the provision of safe access to education, welfare, leisure and employment opportunities. The Association's Declaration of Support for the **UN Decade of Action on Road Safety** reflects the importance of continued improvements to road safety. The work of Technical Committees 3.1 and 3.2, and Task Force 1 will contribute in particular to the following three of the five pillars of the Decade of Action:

- Building management capacity.
- Influencing road design and network management.
- Influencing road user behaviour.

**Technical Committee 3.1** will examine the policies and strategies underpinning safety investment decision making, strategies used to apply systematic road safety improvements to routes and networks, and the integration of road safety into land use and urban planning. This work will be incorporated into the Road Safety Manual.

**Technical Committee 3.2** will focus on issues pertinent to vulnerable road users, driver distraction and fatigue, and the role of human factors in accident investigation. The work will be incorporated into the Road Safety Manual and also lead to revised Accident Investigation Guidelines.

The successful past work of the Association in the area of road tunnel operations will be built upon by **Technical Committee 3.3**. It will study how sustainable road tunnel operations may be ensured, develop an improved understanding of safety management in the light of accidents and fires and begin study of underground road networks. Much of the work will be incorporated into an updated Road Tunnels Manual.

**Task Force TF1** will, with the assistance and close collaboration of the General Secretariat, be responsible for the delivery of a major revision and update to the Association's Road Safety Manual.

**Task Force TF2** will forge links with relevant sectors to assemble knowledge pertaining to transportation security, and to bring that knowledge to the attention of the Association's membership.

#### Technical Committees:

- 3.1 National Road Safety Policies and Programs
- 3.2 Design and Operations of Safer Road Infrastructure
- 3.3 Road Tunnels Operations

#### Task Forces

- TF1 Road Safety Manual Task Force
- TF2 Security Task Force

## TC 3.1 – National Road Safety Policies and Programmes

Issue 3.1.1 Road safety investments and planning	
<i>Strategies</i>	<i>Outputs</i>
Building on the efforts of TCs C.1 and C.2, of the previous cycle, identify and document approaches and strategies for making broad safety investment programme decision. Decision-making tools that include financial models, cost-benefit analysis approaches, and other investment tools are part of the scope.	Case studies of successful strategies and practices.  Chapter content for the Road Safety Manual.
Issue 3.1.2 Methodological safety approach	
<i>Strategies</i>	<i>Outputs</i>
Identify and document strategies for taking a systematic, holistic approach to address safety features in need of improvement on road routes and networks.	Case studies of successful strategies and practices.  Chapter content for the Road Safety Manual.
Issue 3.1.3 Land use and urban planning	
<i>Strategies</i>	<i>Outputs</i>
Develop strategies (including legal and political ones) for the integration of road safety in land use and urban planning especially in the context of linear settlements and new developments.	Recommendations for the integration of road safety in land use planning and urban development.  Chapter content for the Road Safety Manual.

## TC 3.2 –Design and Operation of Safer Road Infrastructure

Issue 3.2.1 Vulnerable road users	
<i>Strategies</i>	<i>Outputs</i>
<p>Building from the efforts of TCs C.1 and C.2, of the previous cycle, and the Technical Sheets of the Road Safety Manual:</p> <ul style="list-style-type: none"> <li>- Create guidelines for safer urban and interurban roads with the focus being on the needs of vulnerable road users including pedestrians, young people, cyclists, motorcyclists and others.</li> <li>- Revise the road safety audit and inspection guidelines and checklists for urban and interurban roads to incorporate safety knowledge for vulnerable road users.</li> </ul>	<p>Create new or updated guidelines and checklists.</p> <p>Upgrade of the Road Safety Manual on accounting for the safety of vulnerable road users.</p>
Issue 3.2.2 Revision of the Association's Accident Investigation Guidelines	
<i>Strategies</i>	<i>Outputs</i>
<p>Review the Association's existing Accident Investigation Guidelines for engineers and the Human Factors Guidelines to identify knowledge gaps and opportunities to upgrade and update the content.</p>	<p>Revised Accident Investigation Guidelines, which take into consideration human factors information and all accident severity levels.</p> <p>Upgrade of the Road Safety Manual.</p>
Issue 3.2.3 Driver distraction and fatigue	
<i>Strategies</i>	<i>Outputs</i>
<p>Identify and document successful strategies for addressing driver distraction and fatigue with the focus on engineering solutions (including road infrastructure, vehicle and road design solutions).</p>	<p>Case studies of successful strategies and practices.</p> <p>Upgrade of the Road Safety Manual.</p>

## TC 3.3 – Road Tunnels Operations

Issue 3.3.1 Sustainable road tunnel operations	
<i>Strategies</i>	<i>Outputs</i>
Identify methods for ensuring sustainable road tunnel operations through the review of current practices and consideration of innovative approaches.	<p>Recommendations and case studies on sustainable road tunnel operations including cost, environmental and other issues to consider during the design, installation and maintenance of road tunnels.</p> <p>Best practice for life cycle analysis, both for new and existing tunnels.</p>
Issue 3.3.2 Integrated road tunnel safety	
<i>Strategies</i>	<i>Outputs</i>
Draw lessons from current practice regarding safety management, the analysis of road tunnel accidents data and fires worldwide and application of risk analysis.	<p>Best practice for fixed fire fighting systems (FFFS) in road tunnels.</p> <p>Best practice on measures to support persons with reduced mobility.</p> <p>Report from experience on tunnel safety (including accident data analyses and application of risk analysis) as a basis for risk management.</p> <p>Recommendations on real-time communications with users.</p>
Issue 3.3.3 Underground road networks	
<i>Strategies</i>	<i>Outputs</i>
Identify and analyse existing and planned complexes of urban underground road networks with interchanges and multimodal concerns from the point of view of operations and safety.	Report on case studies and recommendations.
Issue 3.3.4 Knowledge sharing on tunnel operations and safety	
<i>Strategies</i>	<i>Outputs</i>
<p>Upgrade the web-based version of the Road Tunnels Manual.</p> <p>Develop a training course on road tunnel operations and safety for emerging countries.</p>	<p>Further developments towards a fully-integrated online Road Tunnels Manual.</p> <p>Training courses and training material on road tunnel operations and safety, in cooperation with the International Tunnelling and Underground Space Association (ITA / AITES).</p>

TF1 – Road Safety Manual Task Force

Issue TF1.1 Lead the development and maintenance of the Road Safety Manual structure	
<i>Strategies</i>	<i>Outputs</i>
<p>Examine the proposed outline generated by the Chairs of Technical Committees C.1 and C.2 of the last cycle, and confirm the structure for the revised Road Safety Manual.</p> <p>For all Technical Committee products intended for inclusion in the Road Safety Manual, confirm the appropriate placement within the established structure.</p>	<p>Final structure of the updated Road Safety Manual.</p>
Issue TF1.2 Oversee the work of the Road Safety Manual contractor	
<i>Strategies</i>	<i>Outputs</i>
<p>Manage tasks generated by the Technical Committees for the contractor.</p> <p>Review and approve draft products from the contractor based on task orders.</p>	<p>Updated components of the Road Safety Manual.</p>
Issue TF1.3 Final approval of the Road Safety Manual	
<i>Strategies</i>	<i>Outputs</i>
<p>Review and approve complete Road Safety Manual containing the results of tasks performed by the contractor and inputs from the Technical Committees.</p>	<p>Complete Road Safety Manual.</p>

TF2 – Security Task Force

Issue TF2.1 Defining the scope of the effort	
<i>Strategies</i>	<i>Outputs</i>
<p>Establish outreach process to secure expertise from sectors not traditionally part of the Association's membership.</p> <p>Articulate the scope of investigations pertaining to infrastructure-related aspects of transportation security.</p>	<p>Task Force configuration that will determine the scope of knowledge review and dissemination that can be undertaken.</p>
Issue TF2.2 Review of current knowledge	
<i>Strategies</i>	<i>Outputs</i>
<p>Identify key issues of interest to developed and developing countries related to road transportation security (based on the scope agreed upon through the first strategy).</p>	<p>Outline of topics related to infrastructure hardening, including bibliographical references.</p> <p>Proposal on how to make this information resource available to the Association's members.</p>
Issue TF2.3 Dissemination of knowledge	
<i>Strategies</i>	<i>Outputs</i>
<p>Information gathering to determine topics of critical interest to the membership.</p> <p>In consultation with the General Secretariat, organise one or two workshops based on selected topics found to be of greatest interest to the Association's membership.</p>	<p>Conduct a survey or similar instrument to gauge interest in specific aspects of security (derived from the topics contained in the outline of topics mentioned above).</p> <p>Workshops or seminars organised during works cycle to focus on specific issues identified.</p>

#### 4.3.4 Strategic Theme 4: Infrastructure

##### Goal

Improve the quality and efficiency of road infrastructure through the effective management of assets in accordance with user expectations and government requirements while adapting to climate change and changing energy scenarios and policies

##### Overview

While new technological, social and environmental developments are expanding the sphere of interest for road authorities, management of road infrastructure remains their core business. The need for more efficient and effective use of budgets requires constant balancing of funds to road assets in terms of construction and maintenance.

Assessing the budget level needed to provide optimal maintenance for road infrastructure and balancing the needs of multiple assets with budgetary constraints is an important part of the work of road administrations. This is reflected in the work of **Technical Committee 4.1**, which will also examine the issue of balancing these important engineering needs with environmental constraints.

**Technical Committee 4.2** will study rapidly developing technology surrounding road condition monitoring and the service life of road pavement wearing courses, in particular means of obtaining a longer service life. Means and materials to reduce the carbon footprint of pavement materials will also be studied.

The adaptation to climate change of road bridge construction, maintenance and operation will be studied by **Technical Committee 4.3** alongside repair and rehabilitation materials, risk-based management of the bridge stock and the estimation of load carrying capacity.

In the arena of earthworks and unpaved roads, **Technical Committee 4.4** places a strong emphasis on the optimal use of local materials in support of the 'proximity principle' and maintenance techniques for unpaved roads in developing countries, as well as the very important topic of slope and foundation drainage, and storm water management.

The impacts on construction, management and operation of these different asset classes due to climate change – such as increased rainfall, increased temperatures, more frequent extreme weather events and greater climate instability – are reflected in the terms of reference of these Technical Committees. Communication and coordination of effort with Technical Committee 1.3 is essential in order to ensure that duplication of effort is minimised and that outputs are complementary.

##### Technical Committees:

- 4.1 Management of Road Assets
- 4.2 Road Pavements
- 4.3 Road Bridges
- 4.4 Earthworks and Unpaved Roads

## TC 4.1 – Management of Road Assets

Issue 4.1.1	
Assessment of budgetary needs for maintenance of road infrastructure	
<i>Strategies</i>	<i>Outputs</i>
<p>Review the approaches and practices taken by countries for assessment of budgetary needs for maintenance of road infrastructure.</p> <p>Define a common framework allowing comparison, between different countries, of the cost of maintenance of road pavements for given categories of comparable roads.</p>	<p>Development of case studies.</p> <p>Illustrate through case studies the best practice for road infrastructure authorities.</p>
Issue 4.1.2	
Optimisation of maintenance strategies for multiple assets of road networks	
<i>Strategies</i>	<i>Outputs</i>
<p>Investigate what are the approaches implemented for determining maintenance strategies aiming at making the best use of allocated budgets.</p> <p>In particular investigate:</p> <ul style="list-style-type: none"> <li>- if and how the strategy is related to the search for an optimum level of expenditure;</li> <li>- approaches used for determining the allocation of maintenance resources under budgetary constraints between the categories of assets (pavements, bridges, tunnels, geotechnical structures, roadside equipment).</li> </ul>	<p>Report presenting the methodologies, conditions for implementation of these approaches, lessons learned from the application of these approaches.</p>
Issue 4.1.3	
Balancing of environmental and engineering aspects in management of road networks	
<i>Strategies</i>	<i>Outputs</i>
<p>From case studies investigate how environmental aspects are taken into consideration in complement of engineering aspects in the management strategies applied to road networks.</p>	<p>Report on case studies and recommendations.</p>
Issue 4.1.4	
Road Assets Management Manual	
<i>Strategies</i>	<i>Outputs</i>
<p>Building on the work of the previous cycles, design and start the development of a Road Assets Management Manual, which will integrate the outputs of the current cycle.</p>	<p>Web-based electronic Road Asset Management Manual</p>



## TC 4.2 – Road Pavements

Issue 4.2.1 Road condition monitoring and road/vehicle interaction	
<i>Strategies</i>	<i>Outputs</i>
Review the progress in road condition monitoring and road/vehicle interaction technologies, including Intelligent Transport Systems.	Symposium SURF2012 and state of the art report on road condition monitoring and road/vehicle interaction.
Identify and review the different approaches taken by institutions and industries in assessing and determining the service life of wearing courses.	State of practice report and recommendations.
Issue 4.2.2 Recycling and reuse of materials for pavements	
<i>Strategies</i>	<i>Outputs</i>
Building on the guidelines produced by past TCs on in-place and in-plant recycling, up-date, upgrade and complement (in the area of concrete pavements in particular) the guidelines taking into consideration the knowledge and experience gained during the recent years and the progress in technology.	Electronic version of the up-graded guide lines.
Attention should be paid to recommendations for countries where recycling is not yet widespread.	
Issue 4.2.3 Reducing the life cycle carbon footprint of pavements	
<i>Strategies</i>	<i>Outputs</i>
Review field feedback on recent innovations (products, equipment) which contribute to reduce the carbon footprint in pavements. This will include in particular warm asphalt concrete technologies.	Report on assessment of recent innovations.
Critical review of the assessment of reductions in the carbon footprint as compared to standard methods of construction including the use of reused, recycled and recovered materials.	Report on the assessment of performance of carbon footprint reduction.

## TC 4.3 – Road Bridges

Issue 4.3.1 Adaptation to climate change	
<i>Strategies</i>	<i>Outputs</i>
Identify the technical aspects of road bridges subject to adaptation to climate change taking into consideration the assessment produced by <i>Working Group II: Impacts, Adaption and Vulnerability</i> of the Intergovernmental Panel on Climate Change, IPCC.	A review outlining potential impacts on road bridge construction, maintenance and operations.
Issue 4.3.2 New repair and rehabilitation methods	
<i>Strategies</i>	<i>Outputs</i>
Undertake a review of the new repair and rehabilitation methods, including materials, developed and/or installed and/or studied by consideration of their cost-effectiveness.	Case studies with a summary of the cost-benefit analysis of the new repair and rehabilitation methods.
Review the methodologies for assessing the new repair and rehabilitation methods and materials.	Report on the methodologies for assessing new repair and rehabilitation methods and materials.
Issue 4.3.3 Risk-based management of the bridge stock	
<i>Strategies</i>	<i>Outputs</i>
Review how risk assessment is used in the management of the bridge stock (type of risks considered, risk analysis, relation to decision-making, etc.).	State-of-the-art report including case studies.
Investigate the existing tools and make a critical review.	Report on existing tools.
Issue 4.3.4 Estimation of load carrying capacity of bridges based on damage and deficiency	
<i>Strategies</i>	<i>Outputs</i>
Analyse existing estimation methods of load carrying capacity of bridges based on damage and deficiency.	Report presenting a critical review of existing estimation methods of load carrying capacity.
Identify best practice approach for the use of data in supporting the estimation of load carrying capacity for reducing damage and deficiency.	Produce case studies of data collection and use for the estimation of load capacity.

## TC 4.4 – Earthworks and Unpaved Roads

Issue 4.4.1 Optimal use of local materials	
<i>Strategies</i>	<i>Outputs</i>
<p>Building on the work of past cycles update and complement the recommendations regarding the optimal use of local materials, including:</p> <ul style="list-style-type: none"> <li>- lateritic, and other soils that are highly susceptible to environmental weathering;</li> <li>- construction under extreme weather conditions.</li> </ul> <p>Investigate construction methods and alternative materials with the potential to reduce the environmental impacts of earthworks, in particular:</p> <ul style="list-style-type: none"> <li>- the reduction of the consumption of water;</li> <li>- the removal of water from 'wet' materials;</li> <li>- the use of 'wet' and 'dry' materials in their in situ state;</li> <li>- the use of reused, recycled and recovered materials, particularly where lightweight construction is indicated;</li> <li>- the reduction of energy and greenhouse gas emissions.</li> </ul>	<p>Report upgrading and complementing the previous reports on the use of local materials.</p> <p>Recommendations on construction methods and materials.</p>
Issue 4.4.2 Slope and foundation drainage and storm water management	
<i>Strategies</i>	<i>Outputs</i>
<p>Review the efficient methods and approaches with regard to slope and foundation drainage, and storm water management, including the effects of climate change and the associated need for adaptation.</p>	<p>A report and a seminar to report on and share the methods and approaches of slope and foundation drainage, and storm water management.</p>
Issue 4.4.3 Maintenance techniques for unpaved roads in developing countries	
<i>Strategies</i>	<i>Outputs</i>
<p>Review the progress made in maintenance techniques, including localised or 'spot' improvements, for unpaved roads that have been introduced by developing countries.</p>	<p>Guidance report on maintenance techniques for unpaved roads in developing countries.</p>

#### 4.3.5 Committee on Terminology

Issue T.1 Updating and upgrading the dictionaries of the World Road Association	
<i>Strategies</i>	<i>Outputs</i>
<p>Update the existing version of the dictionaries of the Terminology database in each of the current languages, including on-going upgrading of the French and English dictionaries, in liaison with the Technical Committees of the World Road Association</p> <p>Increase the number of languages of translation of the dictionaries in liaison with World Road Association member countries.</p>	<p>Upgrade the terminology section of the World Road Association website</p>

## 5. World Road Association's Organisational Goals

### 5.1 INTRODUCTION

**The World Road Association** has established a set of organisational goals that will assist in fulfilling its mission. These goals have been translated into issues and strategies that will lead to a number of expected outcomes, as shown in Section 5.3, and allow the goals to be achieved.

**Roles, responsibilities and terms of reference** have been developed for each Commission, and these are shown in Section 5.2.

**Lead responsibility** for each organisational goal has been assigned to one of the World Road Association's three Commissions, the Conference of National Committees, the General Secretariat or the Executive Committee. These assignments are shown under each goal statement in Section 5.3.

## 5.2 ROLES, RESPONSIBILITIES AND TERMS OF REFERENCE OF THE COMMISSIONS

### 5.2.1 Strategic Planning Commission

The **Strategic Planning Commission** is responsible for the World Road Association's formal strategic planning process, through which it shall oversee the development and implementation of the work programme in accordance with its Vision, Mission and Values.

**In order to maintain** an effective strategic planning process, the Commission shall draw up a four-year plan of action to be implemented through its Strategic Themes, Technical Committees, other partners and particularly the Secretary General.

**The plan of action shall include the following aspects:**

- maintenance of the World Road Association's formal strategic planning process through the development of a strategic planning calendar for the four-year cycle, paying particular attention to issues of continuity between consecutive cycles;
- overseeing development of the work programme for the four-year cycle from the Strategic Plan;
- monitoring implementation of the World Road Association's Strategic Plan and work programme on a regular basis throughout the four years;
- overseeing the management of the World Road Association International Seminar programme. The Commission shall ensure a representative geographic spread, carry out an evaluation of the programme and derive recommendations;
- overseeing revisions to the work programme during the four-year cycle;
- revision of the World Road Association's Strategic Plan for the next four-year cycle, in accordance with the calendar, and involving an extensive consultation process;
- review of the World Road Association's structure – Commissions, Strategic Themes and Technical Committees – needed to deliver the Strategic Plan;
- overseeing the planning and development of strategic direction and special sessions for the World Road Congress and the International Winter Road Congress;
- such other projects and tasks as the Executive Committee assigns to the Commission from time-to-time.

### 5.2.2 Finance Commission

The **Finance Commission** is responsible for developing and overseeing the implementation of a financial management strategy for the World Road Association. The Commission is also responsible for supervising the accounting system for the Association, the allocation of funds to its various activities and making recommendations on any such matters.

**In order to establish** appropriate accounting documents, namely: income statement, compared balance sheet, stock portfolios and business plan, the European Union standardised accounting plan will be followed by the General Secretariat.

**In order to carry out** its role and fulfil its responsibilities, the Commission shall draw up a four-year plan of action to be implemented by the Secretary General.

**The plan of action shall include the following aspects:**

- identification of the cost of the projects run by the Association as clearly as possible;
- development of an active policy of revenues and expenses in order to meet the operational requirements of the Association and to complete the projects it develops, including:
  - proposals on membership fees,
  - rules on financial assistance for the Committees and Working Groups,
  - rules on financial assistance for official representatives;
- safeguarding the rules concerning the Finance Commission, in particular the role of the internal auditors;
- providing guidance for prudent management of the funds of the Association with care;
- preparation of a rolling four-year financial plan;
- receiving World Road Congress and International Winter World Road Congress budget proposals and proposals for Congress fees from the relevant local organising committee for consideration and, after acceptance, recommendation to the Executive Committee for submission to Council, including proposals for the allocation of net Congress receipts between the local Organising Committee and the World Road Association;
- responsibility for the guidelines for, and the monitoring and control of, the use of the World Road Association Special Fund by representatives from developing countries;
- such other projects and tasks as the Executive Committee assigns to the Commission from time-to-time.

### 5.2.3 Communications Commission

The responsibilities of the **Communications Commission** are to develop a rolling Communications and Marketing Plan, which will

- demonstrate the value of Association membership to existing and potential members
- increase participation in the Association's activities – both by members and the wider audience of individuals and organisations with an interest in roads
- develop open, attractive and interactive external and internal communications

It will also implement the knowledge sharing and exchange strategy for the World Road Association in accordance with its Vision, Mission and Values. The Communications and Marketing Plan shall be implemented through the various partners and particularly the General Secretariat.

**The Commission shall build** on the work of the previous Commissions on Communications and International Relations and on Technological Exchanges and Development.

The Association has a need for specialist expertise in order to develop its directions in knowledge sharing and transfer such that they reflect best practice. A **Knowledge Sharing Strategic Group** shall be part of the Communications Commission and build on the work of the previous Commission on Technological Exchanges and Development. The Group will consider all forms of knowledge sharing including *inter alia* social media, electronic communications, web collaboration, etc.

**The Commission shall implement the Communications and Marketing Plan with particular emphasis on:**

- the World Road Association's role as an international forum for the exchange of information and technologies;
- developing and implementing the Association's policy in relation to knowledge sharing and exchange through the **Knowledge Sharing Strategic Group**;
- overseeing the implementation of the World Road Association's policy on knowledge sharing and exchange;
- developing and undertaking dialogue with international bodies to encourage collaboration in the area of knowledge sharing and exchange;
- identifying opportunities for potential expansion of membership among countries;
- identifying opportunities for increased participation in the work of the Association more generally;
- identifying ways to collaborate with other international organisations to promote the work of the Association, including knowledge sharing and exchange;
- widely disseminating the results from the work of the Technical Committees and Task Forces;
- overseeing the revision of current membership benefits resulting in enhanced benefits for members;
- raising the profile of the Association or its partners through increased marketing activities;
- organising the Association prizes for the 2015 World Road Congress;
- such other projects and tasks as the Executive Committee assigns to the Commission from time-to-time.



### 5.3 ISSUES, STRATEGIES AND OUTCOMES FOR THE WORLD ROAD ASSOCIATION'S ORGANISATIONAL GOALS

#### Goal 1: Management and Operation of the World Road Association

*To continuously improve the management and operation of the World Road Association in order to provide members with a service that represents good value for money.*

(Assigned to the Executive Committee and the General Secretariat.)

Issue 1.1 Improve the effectiveness of the Council and the Executive Committee	
<i>Strategies</i>	<i>Outcomes</i>
<b>Provide</b> Council with better information on which to base policy decisions	<b>Clear decision</b> making and more rapid management response
Issue 1.2 Improve communications between the Technical Committees and the Executive Committee and the Council	
<i>Strategies</i>	<i>Outcomes</i>
<b>Provide</b> direction to Technical Committees on the priorities for study by meetings of the Strategic Theme Coordinators with the Chairs and Secretaries of the Technical Committees and by using telematics and internet communications	<b>Better management</b> of the outputs of the Technical Committees and feedback to the Executive Committee of expert views
Issue 1.3 Improve the effectiveness of Technical Committees	
<i>Strategies</i>	<i>Outcomes</i>
<b>Adopt</b> a project orientated approach for the definition of the outputs and the management of Technical Committees	<b>Outputs</b> that provide a better fit with needs

**Goal 2: Cooperation with International and Regional Organisations**

*To promote cooperation, including knowledge sharing and exchange and joint projects, with regional organisations of road authorities and with other international organisations with related goals.*

(Assigned to the Executive Committee, the Communications Commission and the General Secretariat.)

Issue 2.1	
Improve cooperation with international and regional organisations with related goals	
<i>Strategies</i>	<i>Outcomes</i>
<p><b>Invite</b> representatives of other professional organisations to attend Council meetings as observers</p> <p><b>Develop</b> agreements for cooperation and collaboration with relevant international and regional organisations</p> <p><b>Monitor</b> the World Road Association’s relationship with international and regional bodies, including the implementation of MoUs where necessary</p> <p><b>Involve</b> other organisations in Technical Committees</p> <p><b>Seek cooperation</b> in special purpose conferences – joint sessions</p> <p><b>Undertake</b> discussion with international bodies to establish opportunities for joint working or support</p>	<p><b>Improved studies</b> of issues that cut across professional boundaries</p> <p><b>More effective</b> use of human and knowledge resources, leading to more and improved products with wider appeal</p> <p><b>Increased</b> visibility of the Association</p> <p><b>Greater uptake</b> of the Association’s outputs</p> <p><b>Improved participation</b> by regional associations and improved information exchange</p> <p><b>Joint projects</b> with a wider range of international groups</p>
Issue 2.2	
Enlarge the geographical distribution of conference activity	
<i>Strategies</i>	<i>Outcomes</i>
<p><b>Identify</b> opportunities to cooperate with other organisations to participate in regional and technical conferences</p>	<p><b>More interaction</b> between different regions</p> <p><b>Activity in more regions</b></p>

**Goal 3: Congress Management**

*To host major Congresses that are valuable events for setting the direction for the future, provide knowledge exchange and networking opportunities among members of the road transport community, and develop a range of options that are viable from the World Road Association's point-of-view.*

(Assigned to the Executive Committee and the General Secretariat.)

Issue 3.1 Improve the effectiveness of the Congresses for information exchange	
<i>Strategies</i>	<i>Outcomes</i>
<p><b>Encourage</b> sessions which are looking towards the future</p> <p><b>Encourage</b> contributions from the different stakeholders including the different categories of users, and from other international organisations</p>	<p><b>More effective Congresses</b> – oriented towards the future activities of the World Road Association</p> <p><b>Stimulate</b> growth in membership</p> <p><b>Better mutual recognition</b></p>

**Goal 4: Activity and Visibility at the National Level**

*To build and strengthen the activity and visibility of the Association at the national level.*

(Led by the Conference of National Committees and supported by the Communications Commission.)

Issue 4.1	
Improve the sharing of information to a wider audience	
<i>Strategies</i>	<i>Outcomes</i>
<p><b>Promote</b> the activity of the Association by actions led at national level by National Committees or correspondent organisations when they exist and promote the establishment of a national committee in other cases</p> <p><b>Strengthen</b> the relationship between existing National Committees by sharing information on actions at national level and by jointly organised events</p>	<p><b>More</b> professionals within member countries linked to the World Road Association's activities worldwide</p> <p><b>More</b> efficient working</p>
Issue 4.2	
Cooperation with relevant national organisations	
<i>Strategies</i>	<i>Outcomes</i>
<p><b>Strengthen</b> links with other relevant national organisations</p>	<p><b>Improved</b> visibility of the Association in member countries</p>

**Goal 5: Knowledge Sharing and Exchange Policy**

*To develop directions designed to freely facilitate practical means for efficient and effective knowledge transfer among countries.*

(Assigned to the Knowledge Sharing Strategic Group within the Communications Commission.)

Issue 5.1 Develop the World Road Association's directions on knowledge sharing and exchange	
<i>Strategies</i>	<i>Outcomes</i>
<b>Develop</b> directions designed to best achieve knowledge sharing and exchange between the World Road Association countries	<b>More effective</b> and efficient sharing and exchange of knowledge between member countries

**Goal 6: Communications with Members and Outside Groups**

*To improve participation of member governments and others, and to increase the number of members of the road community benefiting, whether through National Committees or by direct participation, in the World Road Association Technical Committees.*

(Assigned to the Communications Commission.)

Issue 6.1 Improve communications with members and outside groups	
<i>Strategies</i>	<i>Outcomes</i>
<b>Develop</b> a clear identity for the Association and raise its profile	<b>Interest</b> in the World Road Association, stimulate and encourage membership, especially among young professionals
<b>Develop and implement</b> a rolling action plan	<b>Worldwide</b> road community better informed about international experience on road and road transport issues and best practice
<b>Examine</b> methods to attract and retain new members including identifying enhanced member benefits	<b>Increased</b> membership and increased levels of retention through improved membership satisfaction
<b>Oversee</b> the World Road Association Prizes Competition 2015	<b>Wider</b> , targeted audience for the World Road Association's publications and products

## Goal 7: Publications and Products

*To develop practical means for efficient and effective knowledge transfer among countries and to produce and disseminate authoritative, impartial and interesting publications and products that address current road and road transport issues*

(Assigned to the Communications Commission.)

Issue 7.1 Oversee implementation of the World Road Association's policy on knowledge transfer	
<i>Strategies</i>	<i>Outcomes</i>
<p><b>Implement</b> the policy to best achieve knowledge transfer between the World Road Association countries</p> <p><b>Explain</b> and promote this policy to First Delegates, National Committees and Technical Committees</p>	<p><b>A new approach</b> to transferring knowledge between member countries</p> <p><b>Support</b> from member countries in adopting the new approach to knowledge transfer</p>
Issue 7.2 Oversee the World Road Association's publications and products	
<i>Strategies</i>	<i>Outcomes</i>
<p><b>Support</b> <i>Routes/Roads</i> (define target groups, editorial policy, layout, etc.)</p> <p><b>Oversee</b> the quality of the World Road Association's publications and the presentation of its products</p> <p><b>Continually improve</b> the website as a tool for the exchange of knowledge</p>	<p><b>Appreciation</b> of the World Road Association's publications and products with increased readership</p> <p><b>Increased attractiveness</b> of the World Road Association's publications and products</p> <p><b>Increased accessibility</b> of the World Road Association's publications and products</p>
Issue 7.3 Flagship publications	
<i>Strategies</i>	<i>Outcomes</i>
<p><b>Develop</b> flagship publications in key areas of interest and promote widely</p>	<p><b>Improved awareness of and response to</b> key issues and an increased profile for the association</p>

## Goal 8: Financial Management

*To put in-place transparent and rigorous financial management of the Association and in the service of its purpose, and to optimise its resources in order to meet future challenges.*

(Assigned to the Finance Commission.)

Issue 8.1 Put the financial management of the Association in the service of its purpose	
<i>Strategies</i>	<i>Outcomes</i>
<p><b>Review</b> the costs and financing of the projects of the Association to help control their execution</p> <p><b>Develop</b> a proactive policy for the management of revenues and expenses in order to meet the operational requirements of the Association and to complete the projects it develops</p>	<p><b>Members</b> can find out more about what is done with their membership fees</p> <p><b>Ensure</b> complete coverage of the running costs and promotion of the Association's projects</p>
Issue 8.2 Optimise investment performance for the funds managed by the Association	
<i>Strategies</i>	<i>Outcomes</i>
<p><b>Provide guidance</b> for the prudent management of the funds of the Association and oversee their management</p> <p><b>Provide guidance</b> for the development of the annual budget and a four-year financial plan for the strategic planning period</p>	<p><b>Safeguard</b> the assets of the Association</p> <p><b>Optimise</b> the management of the assets</p>
Issue 8.3 Ensure transparency of financial management	
<i>Strategies</i>	<i>Outcomes</i>
<p><b>Ensure</b>, as far as is reasonably practicable, a balanced geographical representation of the Finance Commission (despite travel difficulties)</p> <p><b>Safeguard</b> fully the rules concerning the Finance Commission, in particular the role of the management auditors</p>	<p><b>Opportunities</b> for involvement from all the regions of the world in the financial management of the Association</p> <p><b>Maintain</b> an independent monitoring of the General Secretariat via management auditors</p>
Issue 8.4 Responsible and effective use of the World Road Association Special Fund	
<i>Strategies</i>	<i>Outcomes</i>
<p><b>Review</b> and update policies and application procedures for the use of the Special Fund</p> <p><b>Promote</b> the use of the Special Fund in combination with actions undertaken by the Association for the benefit of developing countries</p>	<p><b>Increased</b> participation and presence of road professionals from developing countries in the World Road Association's activities</p> <p><b>A more efficient</b> use of the financial resources of the Association</p>



## Goal 9: Strategic Planning

*To identify, develop and promulgate policy and practices that contribute to safer and more effective management and use of road and road transport systems within an integrated sustainable transport context.*

(Assigned to the Strategic Planning Commission in cooperation with the General Secretariat.)

Issue	
Meet the needs of members for improved road and road transport policy and practices through a systematically developed and monitored technical and supporting work programme	
<i>Strategies</i>	<i>Outcomes</i>
9.1	<p><b>Maintain</b> a formal strategic planning process through the development of a strategic planning calendar for the four-year cycle</p> <p><b>Timely</b> delivery of the Strategic Plan and the work programme</p>
9.2	<p><b>Oversee</b> the development of a four-year work programme from the Strategic Plan</p> <p><b>A well-directed</b> and transparent work programme that meets members' needs</p>
9.3	<p><b>Monitor</b> the implementation of the work programme on a regular basis and coordinate the work across the Technical Committees</p> <p><b>A work programme</b> that remains focussed on target to achieve its goals</p>
9.4	<p><b>Oversee</b> revisions to the work programme</p> <p><b>A flexible work programme</b> that is responsive to members' changing needs and emerging issues</p>
9.5	<p><b>In close cooperation with the General Secretariat:</b></p> <p><b>Monitor the use of</b> the guidelines on seminar characteristics, expected outcomes, relevance to developing countries and on economic assistance for organising seminars</p> <p><b>Prepare</b> a seminar programme for 2012-2015 in consultation with the Technical Committees</p> <p><b>Work with the General Secretariat</b> to assist Technical Committees and National and Regional Committees, etc. with the organisation of seminars</p> <p><b>Participation</b> of each Technical Committee in two seminars in developing and transitional countries during 2012-2015</p>

<i>Strategies</i>		<i>Outcomes</i>
9.6	Revise the Strategic Plan for the next four-year cycle through an extensive consultation process	<b>A Strategic Plan</b> to direct the work programme that is up-to-date, relevant and addresses priority issues for members
9.7	Review proposals to address emerging and highly-focussed issues during the currency of the Strategic Plan <b>and recommend</b> appropriate actions to Executive Committee	<b>Ensure</b> that the Association's Strategic Plan and activities are dynamic and responsive to events
9.8	<b>In conjunction with</b> the four-yearly revision of the Strategic Plan, review the World Road Association structure – Commissions, Strategic Themes and Technical Committees	<b>A structure best-suited</b> to efficient and effective delivery of the work programme and achievement of the World Road Association's strategic goals
9.9	Oversee the planning and direction of the Strategic Direction and Special Sessions at the World Road Congress and the International Winter Road Congress	<b>Shared understanding</b> of emerging and priority issues both for road administrations and to be addressed in the World Road Association's forward work programme

## Appendices

### A1 MEMBER GOVERNMENTS - 120 AS OF NOVEMBER 2012

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

## A2 NATIONAL COMMITTEES (37 COUNTRIES) AS AT NOVEMBER 2012

ALGERIA – ARGENTINA – AUSTRALIA (*) - AUSTRIA
BELGIUM – BENIN – BURKINA FASO
CAMEROON – CANADA – CANADA-QUÉBEC – CHILE - CONGO (REP.) – CZECH REPUBLIC
FRANCE
GERMANY - GREECE
HUNGARY
INDIA - IRELAND - ITALY
JAPAN
KOREA (REP.)
MALI – MADAGASCAR – MEXICO - MOROCCO
NEW ZEALAND (*)
PORTUGAL
ROMANIA
SENEGAL – SLOVAK REPUBLIC – SLOVENIA – SPAIN – SWITZERLAND
UNITED KINGDOM – URUGUAY - USA

(\*) AUSTROADS

### A3 PAST CONGRESSES

#### A3.1 World Road Congresses

1909, Paris (France)	1910, Brussels (Belgium)
1913, London (United Kingdom)	1923, Seville (Spain)
1926, Milan (Italy)	1930, Washington DC (USA)
1934, Munich (Germany)	1938, The Hague (The Netherlands)
1951, Lisbon (Portugal)	1955, Istanbul (Turkey)
1959, Rio de Janeiro (Brazil)	1964, Rome (Italy)
1967, Tokyo (Japan)	1971, Prague (Czechoslovakia)
1975, Mexico City (Mexico)	1979, Vienna (Austria)
1983, Sydney (Australia)	1987, Brussels (Belgium)
1991, Marrakech (Morocco)	1995, Montreal (Canada-Québec)
1999, Kuala Lumpur (Malaysia)	2003, Durban (South Africa)
2007, Paris (France)	2011, Mexico City (Mexico)

#### A3.2 International Winter Road Congresses

1969, Berchtesgaden (Germany)	1971, Valloire (France)
1973, Jyväskylä (Finland)	1975, Salzburg (Austria)
1978, Dobbiaco (Italy)	1982, Davos (Switzerland)
1986, Tampere (Finland)	1980, Tromsø (Norway)
1994, Seefeld (Austria)	1998, Luleå (Sweden)
2002, Sapporo (Japan)	2006, Turin-Sestriere (Italy)
2010, Québec City (Canada-Québec)	