
Executive Summary

The strategic objectives of PIARC Technical Committee 2.4 Road Network Operations/ITS during the Cycle 2020-2023 focus on new mobility modes and optimisation of network operations through new technologies and innovations.

The 2nd conference of TC2.4 was held on 17 Nov – 3 December 2020 via online mode, and it aimed to:

- share the State of Art of TC 2.4 activities
- consolidate TC 2.4 composition and main roles and responsibilities
- validate TC 2.4 Final Work Program and its roadmap for delivering PIARC products
- completely launch of Work Group activities, with a clear definition of detailed tasks and ownership, according to guidelines stated from PIARC General Secretariat (GS).

Dr Clarissa Han (ARRB) and Matthew Hall (Victoria DoT) are attending members of the committee and both attended the second conference. Clarissa is the Co-Chair of the Working Group 2.4.2 – Optimizing RNO decision-making through new technologies and digitalization along with Galen McGill from the USA. Matthew is also working alongside the Co-Chairs to assist with administrative and technical input.

Background

TC 2.4 - Road Network Operations and ITS is part of Strategic Theme 2 – Mobility.

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.

The second conference of TC2.4 was a 5-day online event covering the following sessions:

Day 1 Plenary session – Opening, 17 November 2020

Day 2 Working group session – WG 2.4.1 MaaS and RNO, 19 November 2020

Day 3 Working group session – WG 2.4.2 Big Data and RNO, 25 November 2020

Day 4 Working group session – WG 2.4.3 ITS Manual, 27 November 2020

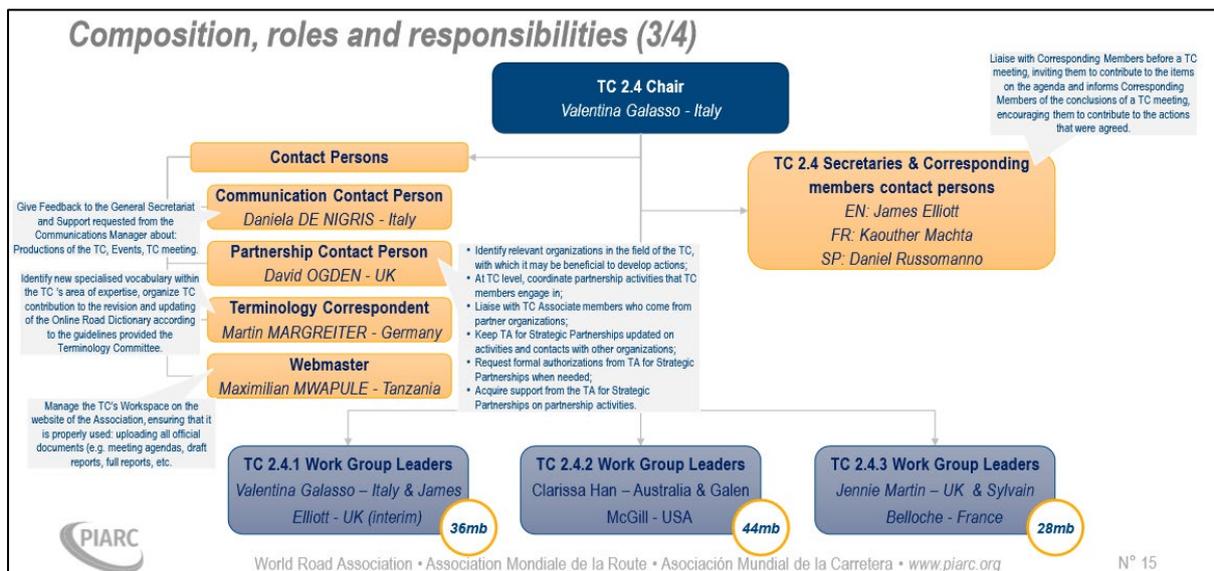
Day 5 Plenary session – Closing, 3 December 2020.

Overview of TC2.4 composition, roles and responsibilities

The demographic distribution of TC2.4 members are as follows:

- 75 members
- 46 Full members
- 22 Corresponding members
- 3 Associate members
- 4 Young Professionals
- 39 countries on 4 continents
- More than 20 languages spoken
- Heterogeneous expertise: from Traffic Managers to Economy specialists
- Mostly English-speaking persons
- Only 1 TC member out of 5 is woman.

The figure below shows the governance structure of TC2.4 including TC chair, WG leaders and other key contacts.



WG session summary – TC 2.4.1 Implication of new mobility to RNO

- Reminded and confirmed ToR and what we agreed in Paris with a focus on the first issue
- One excellent key note speech “The role of MaaS for RNOs” from Piia Karjalainen of the MaaS Alliance
- Discussed the structure, format and timescales of the literature review (the first WG deliverable)
- Brainstormed a definition for MaaS, mobility modes and other transport organisations
- Reviewed MaaS experience in a selection of countries
- Compiled an initial list of relevant literature
- Discussed how to incorporate Covid-19, partnerships, terminology and working with other TCs.

Confirmed work plan of TC2.4.1 before next conference in April/May 2021:

- November 2020, confirm work plan
- December 2020, call for case studies drafting and circulation
- January 2021, literature review.

WG session summary – TC 2.4.2 Optimizing RNO decision-making through new technologies and digitalisation

- Good attendance, 25 members from 20 countries
- Two brilliant key note presentations from US and Spain:
 - Big Data and Network Operations, from Prof. Michael L Pack, Regional Integrated Transportation Information System (RITIS)
 - Big Data and COVID 19, from Ana Luz Jimenez Ortega, Directorate General of Traffic for Spain (DGT)
- Very active roundtable sharing session on proposed case study topics
- Members nominated a dozen case studies with good relevance
- Updated Terms of Reference (ToR) confirmed and submitted to PIARC GS
- Working plan including timeline, milestones, and deliverables all confirmed

Work Group (WG) 2.4.2 is planning two separate cycles for gathering case studies. This first request for case studies focuses on uses of data for monitoring system performance and for system/network planning efforts. A later second request for case studies will focus on the use of data in real time applications related to road network operations.

For this first request, the WG will look specifically for case studies that illustrate innovative uses of data from emerging technologies or the merging of new data sources with traditional data sources to measure the performance of the system and to plan improvements to the system/network. Specific categories of interest include:

- Project Evaluation – Use of data to perform before and after evaluations of projects.
- Road System Performance – Use of data for key performance measures related to system performance, comparisons between corridors, and identification of problem areas.
- Public Transport System Performance – Use of data related to public transport system operations and performance.
- Performance for other transport modes – Use of data for measuring system performance related to freight, bicycles, or pedestrians.
- COVID-19 Pandemic Response – Use of data to evaluate public response to the pandemic.

Work plan for round 1 case study and report:

- Jan 2021, Upload identified contemporary literature to workspace
- March 2021, Round 1 case study draft submission
- March 2021, Produce Table of Contents for technical report,
- May 2021, Review of Case Studies by WG members to leverage content for reporting,
- Nov 2021, Draft Technical Report.

Work plan for round 2 case study and report are similar to round 1, with the aim to produce a Draft Technical Report in Nov 2022.

WG session summary – TC 2.4.3 Sharing RNO & ITS Knowledge through PIARC dedicated online resources

- Fourteen people attended from eight countries and five continents
- Strong respect for all the previous editions of the RNO-ITS Manual, the people who worked on them, and the importance of such a PIARC resource
- Aspirations: supporting LMIC in implementing ITS, supporting student and early careers, sharing knowledge of the latest work such as in C-ITS and in automation, covering political and institutional as well as technical aspects, interested in the nearly published EU EIP ITS Handbook, making lessons from the pandemic
- Funding / sponsorship / support with person hours will be crucial for success. All agreed: the WG on its own cannot fulfill the set task.
- New presentational ideas: A walk in library? Videos by practitioners as case studies?
- Finding and reusing existing resources provided by others will be essential. Collaboration with other organisations will be a major part of this stage of the Manual's life cycle.
- A «Lean RNO-ITS Manual» – what does it mean?

Confirmed work plan before next meeting:

- December 2020 – Get final version of Potential User Questionnaire to PIARC for setting up
- (once questionnaire is set up by PIARC online) December 2020 –January 2021 – collect Questionnaire responses
- January – February 2021 – evaluate Questionnaire responses and finalise Manual structure
- March 2021 –next meeting
- March – Work on editing and creating Manual content (Pending feedback from GS)
- 2023 – Publish manual (Pending feedback from GS).

Special issue discussion – COVID 19 response

PIARC leadership team is actively engaged in the knowledge development and sharing of COVID-19 responses and actions and practice amongst member countries. The PIARC COVID-19 response team have organised more than 20 webinars in three languages in 2020.

PIARC COVID-19 Response Team



Summary Terms of Reference (Revised PIARC Strategic Plan)

- To explore rapid sharing of knowledge and practice between PIARC members on COVID-19 impacts, responses & associated socio-economic crisis
- To propose and implement short-term actions to support PIARC members and transport professionals in COVID-19 mitigation and response
- To track the course of COVID-19 over time and advise on further actions to be taken by PIARC and others during the crisis and into the recovery
- To advise on medium- and long-term implications of COVID-19 on the roads and transport sector and how these should be reflected in PIARC activities
- To prepare and publish technical reports, surveys and other analysis on COVID-19, alone or in collaboration with other industry bodies & stakeholders

Currently established to 31st December 2021, extendable as required



Current Membership

- Patrick Mallejacq, Secretary General, PIARC (Chair) (FR)
- Christos Xenophonos, Rhode Island DOT, TC 1.1 Chair (USA)
- José Manuel Blanco Segarra, Ministerio de Transportes, Movilidad y Agenda Urbana, TC 1.1 Spanish Secretary (ES)
- Jonathan Spear, Atkins, TC 1.1 WG 2 Leader (UK)
- Fabio Pasquali, ANAS S.p.A., TC 1.2 Chair (IT)
- Caroline Evans, National Transport Commission, TC 1.4 Chair (AU)
- Yukio Adachi, Hanshin Expressway Engineering Co, TC 1.5 Chair (JP)
- Andrea Simone, University of Bologna, TC 2.1 Chair (IT)
- Luis Miranda-Moreno, TC 2.1 Spanish Secretary (CA)
- Martin Ruesch, Rapp Trans Ltd, TC 2.3 Chair (CH)
- Valentina Galasso, Deloitte Consulting, TC 2.4 Chair (IT)
- Pascal Rossigny, CEREMA, TC 3.3 French Secretary (FR)
- Saverio Palchetti, ANAS S.p.A., TF 3.1 Chair (IT)
- Andrea Peris, Paraguay National Committee (PY)

PIARC COVID-19 Response Team

More than twenty webinars... in English, French, and Spanish

Covid-19 Phase 0 – Economic consequences for a NRA



Freight & Logistics

- On site: main concerns are
 - Drivers health and food
 - Employees health and safety (G&M is Egis Exploitation Aquitaine, 100 people)
 - Maintain area clean and secure
 - Service provider economic sustainability (limited turnover) – 4 service stations (total approx. 100 employees)



1. Ensuring employees health and safety

- Primary concern for contractors and their Professional Associations (PA)
- In many countries, recommendations were published regarding appropriate safety measures to be adopted by contractors
- Often drawn up jointly by government and PAs
- Either general or specific (e.g. in France, road contractors, pipe fitters...)
- Also differences urban/rural environment, building/infrastructure
- PAs have organized training sessions (mainly aimed at SMEs), pilot projects



COVID-19 & roads in Paraguay

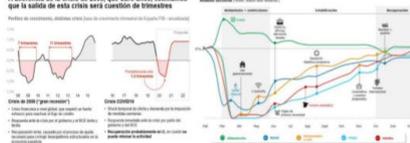


The road transport situation

- Generalisation of electronic toll collection on motorways and limitation of the loading of toll cards on line
- Prohibition of inter-city travel without highly justified authorization
- Abolition of collective means of transport except for taxis with only one passenger per taxi
- Limitation of vehicular movements in the residential area except for justified professional necessity



RECOVERY



COVID-19 Transportation Impacts: New York City



World Road Association • Association Mondiale de la Route • Asociación Mundial de la Carretera • WRA/AMR/AMC

N° 21

COVID 19 Impacts on TC2.4:

TC 2.4 members discussed and confirmed that from the point of view of ITS, it is a unique opportunity to consider how data and intelligence have been used to monitor road and transport networks and respond to and reframe the way they are managed and operated. There is willingness to participate the PIARC & COVID-19 conferences also through our network. It is confirmed that no amendments are required to the ToR at current stage.

Special Projects – Announcement of Call for Submissions

PIARC has launched two calls for proposals for Special Projects "Smart Roads Classification" and "Bridges and tunnels strikes by oversize vehicles" to be carried out in 2021. (Submissions close 25 January 2021). [PIARC Special Projects](#)

The "Smart Road Classification" project will have a Project Oversight Team (POT) comprising members from a number of different technical committees and task forces including TC 2.4. Nominations to be part of the POT have not yet been discussed within the TC.

Future TC Meetings, International Seminars & Workshops

In accordance with PIARC policy, the TC needs to have two meetings per year, two international seminars per cycle – preferably in Lower and Middle Income Countries (LMIC) – and at least one workshop per cycle.

Due to the impact of the pandemic, the followed plan was proposed and may adjust in due course.



Actions

The TC key contact persons and all members will continue with the next steps as outlined in the work program, namely:

- Collect relevant literature and cast studies for WG2.4.1 and 2.4.2 following the agreed the work plan.
- Collect questionnaire responses for WG2.4.3.
- Prepare for the 2021 first meeting scheduled for April / May 2021 most likely in an online mode.

Dr Clarissa Han
National Leader
Sustainability and Resilience
Principal Professional Leader
Future Transport Systems
Australian Road Research Board

MATTHEW HALL
Manager Managed Motorways and Network
Optimisation
Road and Traffic Engineering
Network Planning
Victoria – Department of Transport

25 January 2021