

PIARC (World Road Association) Strategic Plan - 2024-2027

TECHNICAL COMMITTEE 1.1 – PERFORMANCE OF TRANSPORT ADMINISTRATIONS

Overview

The arrival of the 4th Industrial Revolution and the rapid development and fusion of multiple disruptive and innovative technologies are changing the behaviour and the expectations of customers and stakeholders all over the world. At the same time demographic, economic, development, environmental, technological, and other trends are changing the demand for moving people and freight; the mobility options available to serve our customers; and the capacity of Transport Administrations to carry out their mission.

During the 2020-2023 Cycle, PIARC's Technical Committee (TC) 1.1 "Performance of Transport Administrations" explored topics on Customer Experience, Public Value Creation, Emerging and Disruptive Technologies, Workforce, and issues on Diversity, Equity, and Inclusiveness. One of the common threads identified among these topics was how Road and Transport Agencies will need to evolve in the future to address the challenges brought forward by the many externalities.

In the 2024-2027 cycle, TC 1.1 will extend their work through the umbrella topic of the "Transport Agency of the Future" with furthering the analysis of the following three (3) topics:

1.1.1 The Transport Agency of the Future

1.1.2 Public Value Creation by Transport Agencies

1.1.3 Strengthening Workforce Through Modernizing Skills, Enhancing Diversity, Equity, and Inclusion

Through the three areas of work identified above, TC 1.1 with support from PIARC's Communication Commission, will also investigate the cross-cutting issue of how road agencies can improve their image and standing with the public and stakeholders.

1.1.1 The transport agency of the future

Purpose: The purpose of this work is to investigate how the transport agency of the future must evolve to meet the changing customer needs, how to leverage technology and innovation, with highlights on different important aspects such as, role and function, changing and evolving transport agencies, business and operating models, addressing issues of equity, diversity, and inclusivity, addressing uncertainty, impact of digitalization including the impact of Artificial Intelligence (AI), and incorporating innovation at the organizational level, the efficient and high-performing agency. How do transport agencies enable effective engagement and dialog with the evolving stakeholder ecosystem and how do they work with other public and private entities to carry out this mission.

Preliminary research questions:

- Identifying key megatrends and process of addressing them
- Special attention to equity and inclusivity
- New modes and mobility trends including multimodality
- Business and operating models of the TA of the Future
- The Innovative Agency (Promote innovation / The Contribution of Transport Agencies Disruptive Technology and Service Models) [Innovation – How do you foster innovation, create a culture of innovation in Transport administrations?]

- Artificial Intelligence (AI) and Digitalization (Dx) for better efficiency of road organizations

Importance to roads agencies: This work is important to road and transport agencies as they are dealing with key issues and uncertainties that would reflect their future organizational development, function and form. Furthermore, the importance of this work ties directly to the delivery of the evolving mission of road and transport agencies and the shifting importance from hard infrastructure to user experience, and societal public value creation.

Audience: Road and transport agencies, customers and stakeholders, wider government and other public administration, researchers.

Deliverables: Technical report, round table discussions, seminar, workshop or conference, promotion at PIARC partner events.

Background to TC's work on this topic: See previous publications from TC 1.1 and TC A.1, including the Workshop organized by TC 1.1 on the Transport Administration of the Future as part of 27th WRC in Prague.

Low and lower-middle income countries: LMICs could directly contribute and benefit from the work as they are also dealing with key issues of uncertainty that would reflect their future organizational development, function and form.

Gender inclusion & diversity: Gender inclusion and diversity is integral to the work undertaken through this topic.

Potential duration: 4 years.

1.1.2 Public value creation by transport agencies

Purpose: The purpose of this work is to explore how the principles of public value can be considered by transport administrations as they redefine strategic frameworks to better represent a focus on more holistic societal expectations.

Preliminary research questions:

- What drivers should transport agencies consider in their strategic framework review that are linked to public value creation? Are there other drivers beyond resilience, sustainability, digitization, decarbonization, equity, accessibility, health, and security that agencies should consider in their strategic framework review linked to public value creation?
- How can Transport Agencies communicate the public value created and improve their overall image with the public?
- Can the use of customer experience in evaluating the implementation of new technologies contribute to increasing the acceptance of new technologies and increasing public value?
- Is there any evidence that links improved design and planning approaches that include more comprehensive engagement that improves public value creation?
- What would agencies need to change in their existing strategic frameworks in order to capture more holistic societal expectations?
- How can agencies measure their progress in these emerging areas?

Importance to roads agencies: This work is important to transport agencies because transport agencies should produce value and a net positive for society. The approach adopted should be aimed at improving outcomes in areas not traditionally measured by transportation. Many emerging measures are closely tied to diverse societal goals through a more comprehensive strategic framework.

Audience: The audience for this work is governments who are exploring public value creation. This would include transport agencies considering a review and update of their strategic framework to better reflect holistic societal values.

Deliverables: Technical report, round table discussions, seminar, workshop or conference, promotion at PIARC partner events.

Background to TC's work on this topic: See Measuring Customer Experience and Public Value Creation for Transport Administrations; PIARC TC 1.1 Technical Report 2023.

Low and lower-middle income countries: The breadth of issues and drivers for lower and lower-middle income countries will be similar to that of higher income countries. There is an opportunity to learn from LMICs who have been dealing with the broader issue of public value creation of transport infrastructure for several decades.

Gender inclusion & diversity: The pure nature of public value creation is inclusive. Gender inclusion and diversity are part of equity, which is a driver included in non-traditional transportation and holistic societal values.

Potential duration: 4 years.

1.1.3 Strengthening workforce through modernizing skills, enhancing diversity, equity and inclusion

Purpose: One of the most critical and universal issues facing not only transport agencies in the public sector but the entire transportation industry is the one of workforce shortage, diversity, equity, and inclusiveness. This topic includes the inter-related issues of talent management, new competencies required as a result of new technological disruptions taking place within the transportation sector, and identifying what makes an attractive employer. Building upon the work of TC 1.1 in the 2020-2023 cycle, the issue of strengthening the workforce through modernizing skills, enhancing diversity, equity, and inclusion will be further developed under the umbrella topic of the Transport Agency of the Future.

Preliminary research questions:

- How do we bring together the aspects of Customer Experience and Equity, Inclusiveness, and Diversity to ensure inclusive engagement?
- What can be done to promote diversity acceptance in the workplace, and deepen the analysis of equity and diversity broader than what was covered by the TC 1.1 in the 2020-2023 Cycle?
- How are Transport Agencies tackling the challenges and obstacles of the different dimensions of diversity (Ethnicity/Indigenous/Gender/Age/Disability/Sexual Orientation/Language) in the workplace (to further the initial work covered in previous cycles)?
- What are the prominent equity issues that LMICs have to deal with (to further the initial work covered in previous cycles).
- How can Transport Agencies become an “attractive employer” – how to attract competent human resources to the transportation sector. What tasks and future goals need to be embraced by Transport Administrations to build an exciting professional image that appeals to inquiring and creative minds?
- Are there skills, new and old, that are more important than others when technology evolves fast? Skills on big data? What are the skills affected by AI? Are there certain skills that are extra important for Workforce ability to adapt to change?
- The Agency with Skills and Capacity Fit for the Future - competencies and capabilities needed in the future. How can transport administrations deal with this?

Importance to roads agencies: This work is important to road agencies because the issues of workforce development, diversity, equity and inclusion are universal. The ability of transport agencies to meet the challenges faced in their respective environments rely heavily on the capacity and ability of their workforce to meet those challenges. The transformational and technological disruptions faced by the transport sector requires the continuous development of the workforce. Attracting, training, and retaining talent with the diverse skillset required is a challenge that transport and road agencies face universally, many times competing for the same talent with the private sector. Furthermore, public agencies have a responsibility to ensure that they create an environment that values diversity, equity, and inclusiveness.

Audience: Road and transport agencies, other government and other public administrators, but also the private stakeholders in the transport sector. Academia and researchers may also find interest in the work and findings.

Deliverables: Technical report, round table discussions, seminar, workshop or conference, promotion at PIARC partner events.

Background to TC's work on this topic: See previous publications from TC 1.1 including the Foresight sessions and Special project on gender and inclusion.

Low and lower-middle income countries: The breadth of issues and drivers for lower- and middle-income countries will be similar to that of higher income countries. There is an opportunity to learn from LMICs who have been dealing with the broader issue of workforce development, diversity, equity and inclusiveness and talent management.

Gender inclusion & diversity: This topic is about gender inclusion and diversity in the workforce.

Potential duration: 4 years.