## Transportation Performance Management Webinar Series

Presentations from the PIARC's (World Road Association)
Technical Committee 1.1: Performance of Transport
Administrations

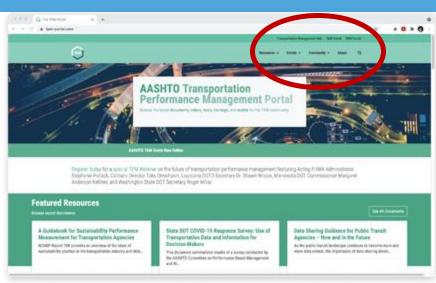


Sponsored by AASHTO and FHWA

Wednesday, November 29, 2023 TPM Webinar 20

## Transportation Performance Management Webinar Series

- Our TPM webinar series is held every two months, on topics such as communications, system performance management, data sources, and many more to come!
- Today is the 20<sup>th</sup> webinar in our bi-monthly series
- We welcome ideas for future webinar topics and presentations
- Use the webinar chat panel during the webinar
  - Submit questions for today's presenters
  - Submit ideas for future webinar topics



Find us on the AASHTO TPM Portal <a href="https://www.tpm-portal.com">https://www.tpm-portal.com</a>

## Webinar Agenda

- 1:30 Introduction
  - Christos Xenophontos, Chair, AASHTO CPBM & PIARC TC 1.1 CHAIR
- 1:35 FHWA: Importance of International Programs
  - Leslie Wright, Director and Agnes Velez, Multinational Relations Team Lead FHWA, Office of International Programs
- 1:40 AASHTO: Partnership with PIARC
  - King Gee, Director of Safety and Mobility, AASHTO
- 1:45 PIARC: Introduction to World Road Congress (WRC).
  - Patrick Mallejacq, Secretary General, PIARC
- 1:50 Performance of Transport Administrations TS11 Introduction
  - Christos Xenophontos, AASHTO CPBM & PIARC TC 1.1 CHAIR

## Webinar Agenda

#### 1:55 Work Group 2 Presentations

- Anne-Séverine Poupeleer, Flanders Agency for Roads and Traffic, Belgium,
   The Role of Transport Agencies in Shaping Disruptive Transport
   Technologies & Service Models
- Jonathan Spear, Atkins Réalis, The Role of Transport Agencies in Shaping Disruptive Technologies & Service Models – Conclusions & Recommendation

#### 2:25 Work Group 1 Presentations

- Ilaria Coppa, ANAS, Italy and Deanna Belden, Minnesota DOT *Customer Experience & Public Value Creation* 

#### 2:55 Work Group 3 Presentation

- José Manuel Blanco Segarra, MITMA and Karen Bobo, U.S. DOT, It's All About People Defining & Promoting Diversity & New Talent Management
- **3:25** Final Q&A.
- 3:30 What's Next for PIARC and Wrap-Up.
  - Christos Xenophontos, Rhode Island DOT.

# FHWA: Importance of International Programs

**Leslie Wright,** Director **Agnes Velez,** Multinational Relations

Team Lead

FHWA, Office of International Programs





## **AASHTO: Partnership with PIARC**

## King Gee

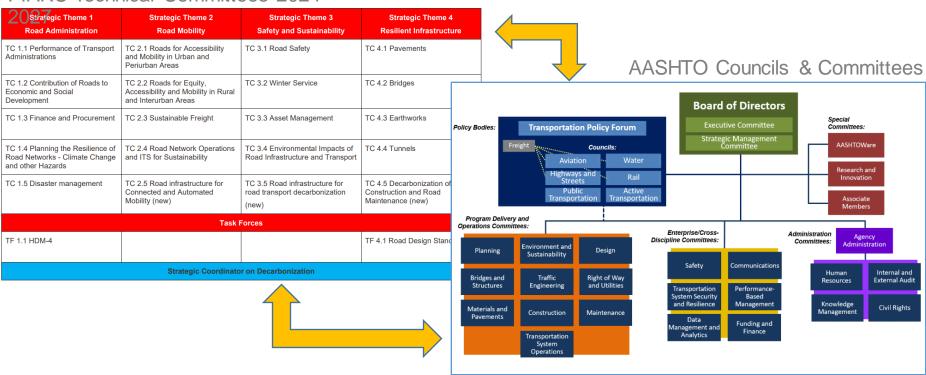
Director of Safety and Mobility **AASHTO** 







#### PIARC Technical Committees 2024-



## PIARC: 27th World Road Congress

Patrick Mallejacq Secretary General PIARC





#### THE TRANSPORT AGENCY OF THE FUTURE

#### PATRICK MALLEJACQ (FRANCE), SECRETARY GENERAL, WORLD ROAD ASSOCIATION (PIARC)

As Secretary General of PIARC, Patrick's mission is to provide support to road administrations and professionals across the globe. Since kick-starting the 2020-2023 cycle in 2020, he has organized more than 30 online seminars on the impact of the COVID-19 crisis on roads, worked on the 16<sup>th</sup> World Winter Service and Road Resilience Congress in February 2022 and the 27<sup>th</sup> World Road Congress in Prague, and he is now already working on the kick-off meetings for the 2024-2027 cycle.

Patrick is a French civil servant (« Ingenieur général des Ponts, des eaux et des forêts »).















# Feedback from the World Road Congress and Further steps

Patrick Malléjacq

PIARC Secretary General

AASHTO's Committee on Performance Based Management Webinar, 28 November 2023

## What is PIARC?

- PIARC = World Road Association
- We were **founded in 1909** as a non-profit, non-political association
- First global forum for the exchange of knowledge, policy and practice on roads and road transport
- Recognised for the quality and neutrality of our work
- Work with HICs as well as with LMICs.
- We have 126 member governments, as well as regions, groups/companies and individuals.
- The Association mobilizes the experience and knowledge of 1,200 experts from more than 80 countries in 20+ Technical Committees and Task Forces.



## Knowledge exchange: The core of PIARC

PIARC mobilises international road and transport experts through more than 20 Committees:

- Ad-hoc dialogue among peers
- Network building
- Joint work towards commonly-agreed deliverables
- These deliverables are widely accessible:
  - Hundreds of Reports, Case studies, Literature reviews, etc.
  - Seminars or workshops
  - 5 comprehensive manuals (online)
  - Software and tools (HDM-4, QRAM)
  - Usually in English, French and Spanish. Usually free of charge.
- PIARC Congresses and events are world-class focus points for:
  - Dissemination of these deliverables
  - Further discussions and debate World Road Association \* Association mondiale de la Route Asociación Mundial de la Carretera www.piarc.org



## PIARC Technical Committees 2020 – 2023

1. Road Administration	2. Mobility	3. Safety and Sustainability	4. Resilient Infrastructure	
TC 1.1 Performance of Transport Administrations	TC 2.1 Mobility in Urban Areas	TC 3.1 Road Safety	TC 4.1 Pavements	
TC 1.2 Planning Road Infrastructure and Transport to Economic and Social Development	TC 2.2 Accessibility and Mobility in Rural Areas	TC 3.2 Winter Service	TC 4.2 Bridges	
TC 1.3 Finance and Procurement	TC 2.3 Freight	TC 3.3 Asset Management	TC 4.3 Earthworks	
TC 1.4 Climate change and resilience of Road Network	TC 2.4 Road Network Operation/ITS	TC 3.4 Environmental Sustainability in Road Infrastructure and Transport	TC 4.4 Tunnels	
TC 1.5 Disaster management				
TF 1.1 Well-Prepared Projects	TF 2.1 New mobility and its impact on road infrastructure and Transport	TF 3.1 Road Infrastructure and Transport Security	TF 4.1 Road Design Standards	
(TF 1.2 HDM-4)	TF 2.2 Electric Road Systems			
TF 1.3 Well-Prepared Projects in LMICs				
Terminology Committee				

**Road Statistics Committee** 

## Overview

## • 27th World Road Congress

- Prague, Czech Republic
- 2 6 October 2023



## Some figures:

- 74 sessions, National reports, Int'al Call for papers, Side events...
- Over 4,000 delegates (our record, tied with Mexico in 2011) from >100 countries
- 2,000 students
- 38 participants in the ministerial session
- 28 national pavilions
- 229 exhibitors

## **Key points**

- Rich output of PIARC's Technical Committees presented the 80 technical reports (again a record) that were published throughout the 2020-2023 cycle.
- Strong involvement of private stakeholders.
- Strong involvement of PIARC partners. UN, TRB (USA), CHTS (China), ITF/OECD, World Bank, Asian Development Bank, CAF, iRAP, IRF, IENE, ERF, EAPA, EUPAVE, CEDR...
- Geographical diversity: USA, Japan, Germany, as well as e.g. Indonesia, Mexico, South Africa and Senegal
- "Traditional" topics retained their importance: Two full sessions on bridges, Multiple sessions on road safety, Pavements...
- Some topics that emerged or were confirmed: Decarbonization of road transport, Electrification, Equity, Financing, Resilience, Adaptation to CC, Road Safety, Cycle paths...

## Main sessions organised by/with Committee 1.1

- Technical Session 1.1 Performance of Transport Administrations
- Special Project Session 4 Innovation policies in the road sector
- Strategic Direction Session 1 Road and road transport in a changed world
- Workshop 05 The Transport Administration of the Future
- Foresight Session 03 Enhancing transportation equity globally: Outlook, challenges, and future issues









World Road Association · Association Mondiale de la Route · Asociación Mundial de la Carretera · www.piarc.org

## Committee 1.1 received an Award!

- Committee 1.1, Chaired by Christos Xenophontos, was awarded the PIARC Award for Promotion of Gender Inclusion and Diversity.
- This was the inaugural prize.
- Promotion of gender inclusion and diversity was recognised as a PIARC value in 2022.

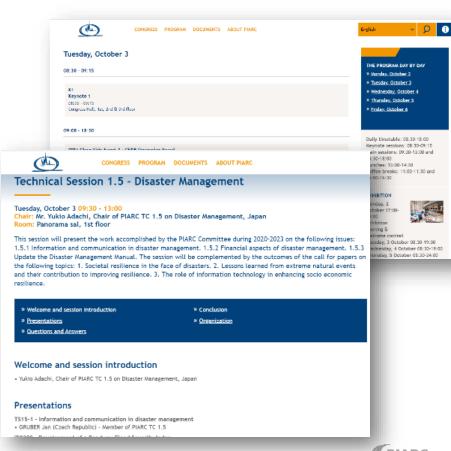


## **Detailed Congress Program**

- Available online
- In English French and Spanish
- Each session is presented in depth
- Registered delegates can download the articles from the international call and the national reports
- Final preceedings will be available early 2024

https://pre-proceedingsprague2023.piarc.org/en/program/at-a-glance





## 2024 – 2027: Themes and Committees

			Committees		
Strategic Theme 1	Strategic Theme 2	Strategic Theme 3	Strategic Theme 4		
Road Administration	Road Mobility	Safety & Sustainability	Resilient Infrastructure		
TC 1.1 Performance of Transport Administrations	TC 2.1 Roads for Accessibility and Mobility in Urban and Periurban Areas	TC 3.1 Road Safety	TC 4.1 Pavements		
TC 1.2 Contribution of Roads to Economic and Social Development	TC 2.2 Roads for Equity, Accessibility and Mobility in Rural and Interurban Areas	TC 3.2 Winter Service	TC 4.2 Bridges		
TC 1.3 Finance and Procurement	TC 2.3 Sustainable Freight	TC 3.3 Asset Management	TC 4.3 Earthworks		
TC 1.4 Planning the Resilience of Road Networks-Climate Change and other Hazards	TC 2.4 Road Network Operations and ITS for Sustainability	TC 3.4 Environmental Impacts of Road Infrastructure and Transport	TC 4.4 Tunnels		
TC 1.5 Disaster management	TC 2.5 Road infrastructure for Connected and Automated Mobility	TC 3.5 Road infrastructure for road transport decarbonisation	TC 4.5 Decarbonisation of road Construction & Road Maintenance		
			TC 4.6 Road Design Standards		
Task Forces					
TF 1.1 HDM-4					
	Cross-Cuttin	g Committees			
Terminology Committee		Road Statistics Committee PIAI			
	Strategic Coordinate	or on Decarbonisation			

## **Next PIARC Congresses**

- 17th World Winter Service and Road Resilience Congress
  - 10-13 March 2026
  - Chambéry, France



## 28th World Road Congress

- 4-8 October 2027
- Vancouver, Canada





## Thank you for your attention!



## Patrick Malléjacq

PIARC Secretary General

patrick.mallejacq@piarc.org

@PMallejacq

World Road Association (PIARC) Grande Arche – Paroi Sud – 5° étage 92055 – La Défense Cedex – France



@PIARC\_Roads



World Road Association PIARC



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www.piarc.org











TS11 - INTRODUCTION

CHRISTOS S. XENOPHONTOS

**CHAIR** 

PIARC, TECHNICAL COMMITTEE 1.1

## CHRISTOS S. XENOPHONTOS (USA), PIARC TC 1.1 CHAIR

Christos S. XENOPHONTOS is the Chair of PIARC's TC 1.1, Performance of Transport Administrations, Chair of AASHTO's Committee on Performance Based Management, and co-Chair of TRB's International Coordinating Council.

He has more than 35 years of experience in the transportation field as an Engineer, Project Manager and Administrator, mostly with the Rhode Island DOT. He is a visionary leader who is active, both at the national and international level, and has a keen interest on the impact of emerging and disruptive technologies on the performance of Transport Administrations, workforce development, and public value creation and societal impacts of transport.







## **DEDICATED TO...**









# Alice A. Mathew, FCIS, BSc, MBA

- Company Secretary, for the South African National Roads Agency SOC Ltd (SANRAL)
- Active Member of Working Group 2 and a great friend to all
- Champion of corporate governance, anti-corruption, transparency, and organizational performance
- Married with two married children and two grand children ☺
- Interested in nature (with a special interest in birds)
- Oct. 19, 1959 Nov. 3, 2023

#### **SECRETARIES**



Alan COLEGATE English Secretary



José Manuel BLANCO SEGARRA Spanish Secretary



Joseph AHISSOU French Secretary





#### AGENDA INTRODUCTION

Working Group 1: Understanding how Road and Transport Administrations are measuring the efficiency and effectiveness of Customer Experience and Public Value Creation

 WG Co-Leaders: Alan COLEGATE (Australia), Ilaria COPPA (Italy) & Deanna BELDEN (USA)

Working Group 2: The Role of Transport Agencies in Shaping Disruptive Technology and Service Models

WG Co-Leaders: Jonathan SPEAR (UK) & Anne-Séverine POUPELEER (Belgium)

**Working Group 3: Organization of Staff and Human Resources** 

WG Co-Leaders: Anna WILDT-PERSSON (Sweden) & Alex WALCHER (Austria)





## **WG LEADERS**



















# Working Group 2 Presentations: The Role of Transport Agencies in Shaping Disruptive Technologies & Service Models

## Anne-Séverine Poupeleer

Flanders Agency for Roads and Traffic, Belgium

Jonathan Spear

Atkins Réalis



## ANNE-SÉVERINE POUPELEER (BELGIUM), HEAD OF DEPARTMENT, FLEMISH BRABANT AT THE AGENCY FOR ROADS AND TRAFFIC, FLEMISH GOVERNMENT

Head of Department Flemish Brabant at the Agency for Roads and Traffic, Flemish Government. Managing a provincial road department with 150 employees, including engineers for the construction of new roads, bridges and tunnels as well as those responsible for maintenance and day-to-day management. Dealing with asset management and innovation (BIM, mobility data, etc.).

Teaching Professor Doctor Engineer of civil engineering at the Catholic University of Leuven at Sint-Katelijne Waver, Road construction. Active in PIARC since 2008 as a workgroup leader of TC1.1 Performance of Road and Transport Administrations and as a member of the Executive committee, and Chair of the Finance Commission.







## JONATHAN SPEAR (UK), TRANSPORT POLICY & STRATEGY ADVISOR, ATKINS

Jonathan SPEAR is a Transport Policy and Strategy Advisor experienced in strategy, governance, and capacity building. He has worked extensively in UK, Europe, Middle East, Africa, and Asia-Pacific. Jonathan is a Fellow of the Chartered Institute of Highways and Transportation (CIHT) and Chartered Transport Planning Professional (CTPP).

Jonathan has supported various PIARC Technical Committees, including work on Disruptive Technologies. Over the past four years, he has also supported PIARC on Task Force 2.1 on New Mobility and Infrastructure, COVID-19 Response Team and through the Project Oversight Team for the Special Project on Innovation Policies in the Roads Sector.







# Working Group 2 Presentations: The Role of Transport Agencies in Shaping Disruptive Technologies & Service Models

# Anne-Séverine Poupeleer Flanders Agency for Roads and Traffic, Belgium

https://www.dropbox.com/scl/fi/u4vckjxihpe4o53ilka18/WRC-051023-Disruptive-Technologies-overview-work-ASP\_video.mp4?rlkey=nqavy07wth44iazhpnay6ibjm&dl=0







# THE ROLE OF TRANSPORT AGENCIES IN SHAPING DISRUPTIVE TRANSPORT TECHNOLOGIES AND SERVICE MODELS – CONCLUSIONS AND RECOMMENDATION

**TECHNICAL COMMITTEE 1.1** 

JONATHAN SPEAR
TRANSPORT POLICY AND STRATEGY ADVISOR



### **BREAKING NEWS FROM DUBAI**



Published Apr 12, 2021, 14.05 PM GST



















### DISRUPTIVE TECHNOLOGIES AND SERVICE MODELS



























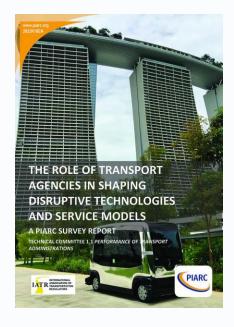


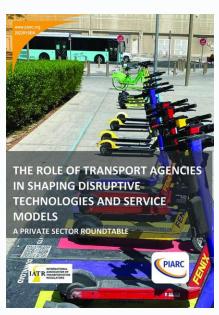




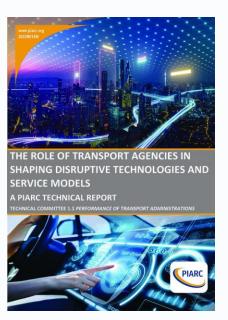


#### TC 1.1 PUBLISHED REPORTS





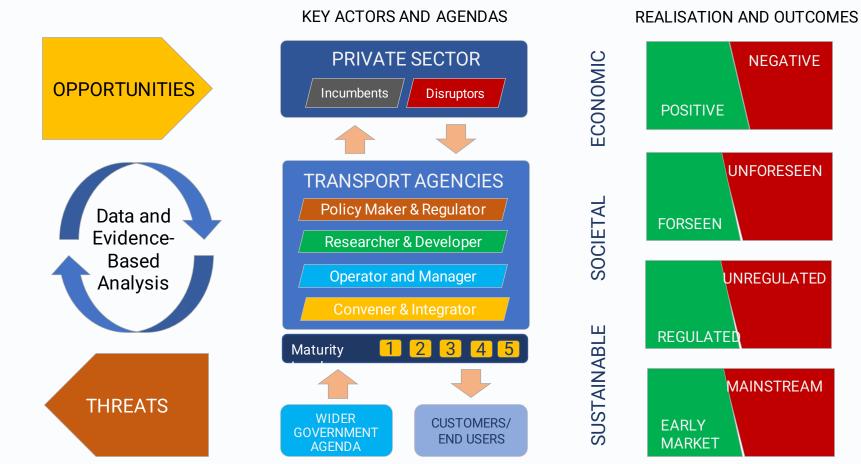








### A FRAMEWORK FOR NAVIGATING FUTURE MOBILITY



#### POTENTIAL FUTURE ROLES FOR TRANSPORT AGENCIES

I. Policy Maker and Regulator

2. Researcher and Developer

3. End User, Operator and Manager

4. Convener, Enabler and Integrator



















#### **Regulatory Approach**

#### Restrictive (Ban)

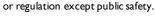
Prohibition (or lack of legislation) of testing, deployment or other presence of technologies in a public setting.

May be a temporary position whilst industry engagement, policy and regulations are devised.

E.g. USA







May be a temporary position to attract industry interest whilst policy and regulations are devised.

Open (Laissez Faire)

Direction and deployment largely left to

the market with minimal requirements

E.g. USA





#### **Regulated Partnership**

Public Sector provides enabling environment and controls such as permitting or contracts.

Balanced Regulatory Approach.

May include conditional access to public roads and assets.

E.g. UK





#### **Guiding Hand**

Direct initiatives by Public Sector.

Strong Public-Private Partnerships.

May include Leadership Role by Government directly or indirectly via University Sector

E.g. Singapore









#### **FUTURE MOBILITY MATURITY MODEL**

**Awareness** 

technologies & service

no clear vision for how

Stage I

models, but reactive with

organisation will respond.

what its role is or how to

Aware of emerging

mobility trends,

start

#### Holistic Transformation

Pursuing capability and competence across the whole organisation focused on delivering new mobility roles, pursuing ecosystem goals and outcomes and maximising benefits

Stage 4

### **Inactivity**

Unwillingness or inability to recognise dynamic change, future uncertainty or take any clear position or action in response, possibly even with deliberate resistance and clinging to Business as Usual

Stage 0

Stage 2

#### **Engagement**

Development of a vision, early leadership and starting to mobilise for future mobility trends within defined position and role with the ecosystem

# **Asymmetric Transformation**

Vision, engagement with key actors and leadership starts to be matched with evolving roles, capabilities and competencies taking concrete actions and adapting culture within key parts of the organisation, but not yet universal or full transformational

Stage 5

#### **Fully-Embedded**

Future mobility roles, informed approach to new technology and service models fully embedded within fundamentally restructured organisation and supported by new capabilities, competencies, agile culture and skills across all functions

<sup>&</sup>lt;sup>1</sup> Adapted and expanded from Deloitte Insights (2018, 2020) and TC 1.1 Discussions





# **DEVELOPING BENCHMARKS FOR FUTURE MOBILITY MODEL**

Inactivity

Awareness

Engagement

Asymmetric Transformation

Holistic Transformation

New Normal

Role	Existing Characteristics	Key Enabling Characteristics	New Characteristics
Policy Maker & Regulator	Setting policies and regulations based on long- established principles and lead times     Focused on addressing market failures and negative externalities     Developing mode-specific specifications for infrastructure and services	Deep technical, technological and industry knowledge Agile planning and policy making Appropriate level of private sector engagement Risk identification, mitigation and management	Creation of less prescriptive, more agile and outcome-focused regulation Dynamically balancing innovation, economic development, safety and public interest/value Integrated across modes, infrastructure and services within an objective-led and end user approach
Researcher & Developer	Commissioning of conventional planning, design and management studies with known risk profiles     Planning and deployment within existing regulations and standards     Organisation of experimental trials prior to permanent deployment	Deep technical, technological and industry knowledge     Knowledge and aptitude for research and development, corporate learning and creation of new concepts     Technological Readiness Levels	Progression of a broader range of planning, design, testing and demonstration exercises, including focusing on areas overlooked by market actors with uncertain risk profiles  Support for new industry players/start-ups Exploring societal implications of technology and service models Adaption of/changes to existing regulations and standards
Operator & Manager	Focused on providing a baseline level of service within an integrated, but closed, system     Deploying long-term contracts based on fixed service specifications and schedules     Emphasis on asset utilisation and output rather than service delivery of user experience	Dynamic infrastructure and service planning, deployment and performance management Collaborative public-private partnerships on multiple models Outcome-based planning, delivery and contracting models	Delivery of on-demand, dynamic and personalised services driven by, and adapted to, end user needs Provision of seamless, integrated services with other public and private operators and service providers Crafting of shorter-term and more flexible delivery or contracting arrangements supported by shared risk/reward
Convener & Integrator	Engaging and convening stakeholders around key issues, infrastructure and service requirements     Focus on direct transport community     Traditional formats and methods of engagement     Provision of financial support through grants	Complex relationship ecosystem management Intellectual property and technology investment models Focus on end user needs, experience and interests Flexible procurement procedures	Provision of new platforms (technology, service models, communications, data sharing and management) to facilitate collaboration and integration  Broader forms of engagement, including online and social media  Development of a wider range of incentives (e.g. competitions) to spur innovation  Encouragement of market-led proposals, whilst retaining broader capacity to engage

#### STRATEGIES FOR IMPLEMENTING THE ROLES

# Data Gathering, Policy and Strategy Development

- · Technical Studies & Investigations
- · Strategies & Road Maps
- Robust Impact Analysis
- Future Scenario Planning and Forecasting for Uncertainty
- Development of Datasets & Databases
- Engagement with Industry within and outside Transport Sector
- Partnering with Academic or Research Organisations
- Public Surveys, Focus Groups and Awareness Raising
- · Benchmarking and Gap Analysis
- Skills Analysis, Capacity Building and Training Needs Assessment

# Legal, Regulatory and External Governance

- Reviewing, Amending or Developing Policies
- Reviewing, Amending or Developing Laws or Regulations
- Reviewing , Amending or Developing Standards and Guidelines
- Reviewing or Strengthening Sector Governance and Stakeholder Relations
- Pursuing Public-Private
   Partnerships (or Equivalent)
- Pursuing Partnerships with Academia (or Equivalent)
- Balancing Innovation with Protection of Public Interest
- Addressing Market Failure

# Technical Development and Implementation

- Sponsorship/Participation in Research and Development
- · Demonstration Projects
- Innovation Competitions/ Challenges
- Direct Public Procurement Specifications and Contracting
- Public Operating Franchises or Concessions
- Technology Testbeds/Sandboxes
- Data Governance and Management
- Implementation/Facilitation of Infrastructure
- Implementation/Facilitation of Equipment and Facilities

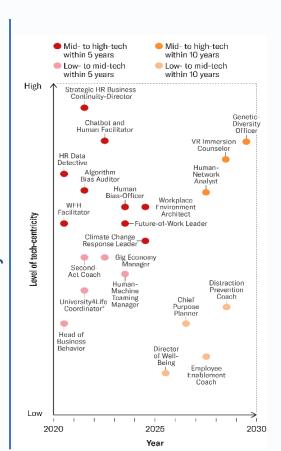
# Internal Organisational Changes and Capacity

- Changes to Vision, Mission or Objectives
- Changes to Strategic or Business
   Plan
- Changes to Organisational
   Structure
- Changes to Organisational Processes
- Changes to Business Model and Funding
- Setting up a New Unit, Department or Division
- · Innovation/Ideas Schemes
- Changes to People and Skills
- Changes to Culture
- Engagement with Users, Citizens





### WIDER ORGANISATIONAL DEVELOPMENT

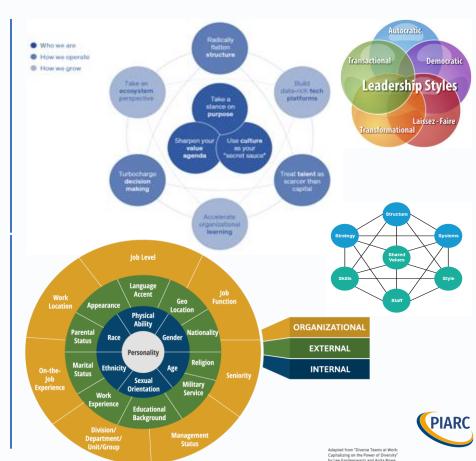


Future ganisation R for ead

the

**Diversity in** 

**Morkplace** 



Sources: Cognizant Centre (2020), McKinsey (2021), Gardenwartz and Rowe (2008) for Future of Work and Future Workplace

### **ATTITUDES TO INNOVATION**









# LOW AND MIDDLE INCOME COUNTRIES









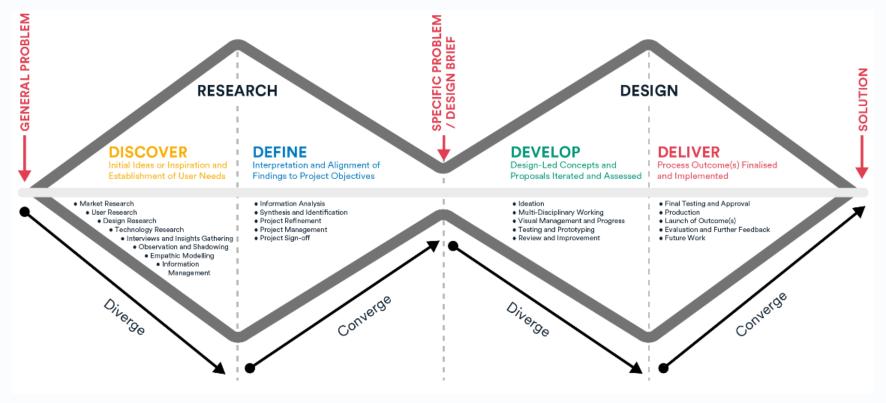








### **BROADER ISSUE - INNOVATION AS A BROADER THEME**







## **BROADER ISSUE – THE TRANSPORT AGENCY OF THE FUTURE**





- Corporate Purpose and Vision
- · Strategy and Planning
- · Policy and Regulation
- Operating Model and Stakeholder Ecosystem
- Organisational Functions and Structure
- · Data, Processes and Procedures
- · Technology, Systems and Physical Design
  - Customer Services and Propositions

- Organisational Culture and Values
- Workforce, Skills and Competencies Performance Management
- Corporate Learning and Innovation





#### **OVERALL CONCLUSIONS**

- Transport agencies will be substantially impacted by disruptive technologies and associated service models, but many seem ill-prepared or reacting to events rather than adopting a clear strategy
- Timelines, shape and form of the Future Mobility Ecosystem are uncertain (and disputed) but road transport will be certainly be electric before it is autonomous
- Public entities will often not deliver directly Private sector will lead in many aspects
- Transport agencies need to decide their objectives, guiding principles, roles and approach to proportionate and informed regulation
- No one size fits all and not every agency is the same Maturity Model with an S-Curve based on capacity, attitudes to innovation, leadership and risk
- Collaboration across organisations and sectors will be key and is an area for improvement
- A key focus area and gap is the design and operation of public infrastructure for new mobility solutions
- There is a need for more and more contextualised evidence and good practice relevant to LMICs
- COVID-19 has certainly had an impact, not least on replacement of physical mobility by digital connectivity
- There are bigger questions We need to consider and design the Transport Agency of the Future in multiple aspects and dimensions





#### RECOMMENDATIONS

#### TRANSPORT AGENCIES

- Preparing for (rather than reacting to) disruption
- Self-Assessment on Role, Activities, Maturity Model
- Creating the Innovative Organisation
- Prioritising stakeholder mapping and engagement
- Regulating (proportionately) the private sector
- Investigating the implications for public infrastructure
- Agreeing protocols for data governance
- Imagining the Transport Agency of the Future
- Planning for Uncertainty Post-COVID
- Contexualising for transport agencies in LMICs

#### PIARC

- Investigating specific technologies (electrification and digital services)
- Supporting transport agencies in adapting to change
- Future research into road and right of way design
- Focus on cases and good practice for LMICs
- Connect with external bodies (e.g. WB, OECD, UITP) for joined up debates and directions





#### **ACKNOWLEDGEMENTS – WORKING GROUP 2**

#### **Co-leaders:**

- Jonathan SPEAR, United Kingdom
- Anne-Séverine POUPELEER, Belgium

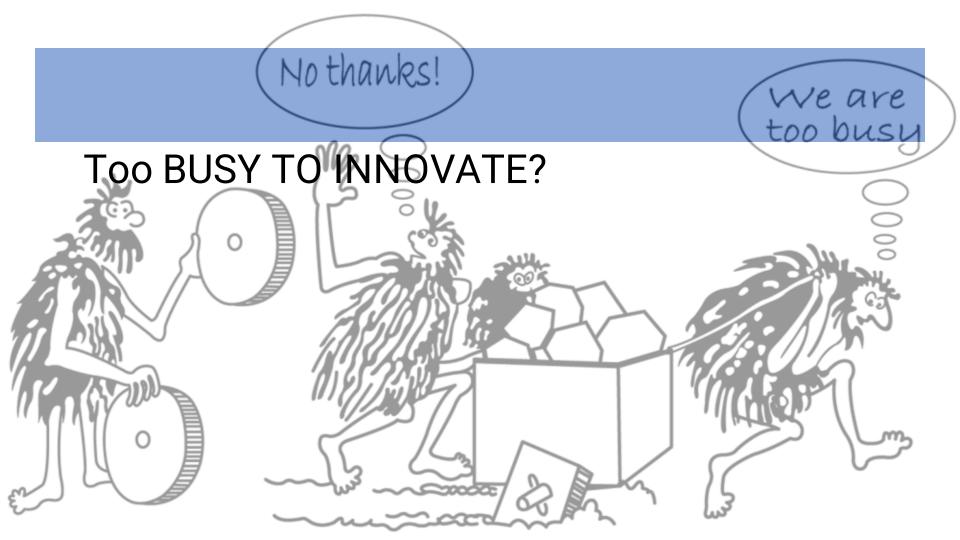
#### **Active Members:**

- Wee SHANN LAM, Singapore
- Kian KEONG CHIN, Singapore
- Alice MATHEW, South Africa
- Jihyun PARK, South Korea
- María Eugenia MARTÍNEZ, Spain
- Matthew W. DAUSS, USA
- Nathan HIGGINS, USA
- Christos XENOPHONTOS, USA









# **AtkinsRéalis**

#### **JONATHAN SPEAR**

TRANSPORT POLICY AND STRATEGY ADVISOR

Tel: +971 52 140 3978

Email: Jonathan.spear@atkinsglobal.com

Website: www.atkinsglobal.com





# Working Group 1 Presentations: Customer Experience and Public Value Creation

Ilaria Coppa ANAS S.P.A., Italy

Deanna Belden Minnesota DOT



#### TC 1.1 PERFORMANCE OF TRANSPORT ADMINISTRATIONS

ILARIA COPPA (ITALY), HEAD OF TRANSPORTATION PLANNING SERVICE, ANAS S.P.A

Ilaria COPPA, engineer, gained her professional experience mainly at Anas S.p.A., where she began her career as head of a road maintenance center in Liguria. She then focused on the design of important road infrastructures and environmental impact assessment.

She is currently in charge of the Transport Planning Unit, where she deals with road safety, traffic studies and cost-benefit analysis.







#### TC 1.1 PERFORMANCE OF TRANSPORT ADMINISTRATIONS

DEANNA BELDEN (USA), DIRECTOR OF PERFORMANCE, RISK & INVESTMENT ANALYSIS, MINNESOTA DOT (MNDOT)

Deanna BELDEN is the Director of Performance, Risk and Investment Analysis at the Minnesota Department of Transportation (MnDOT). Her group is responsible for MnDOT's performance dashboard and annual report; implementation of MnDOT's Enterprise Risk Management program; and various economic forecasts and analyses.

She is involved in AASHTO's Committee on Performance Based Management as the co-chair of the Task Force on Emerging Performance Areas. She is also a member of the Transportation Research Board's performance management committee AJE20. At the international level, she is a working group co-leader and webmaster for the PIARC Technical Committee 1.1 Performance of Transport Administrations.











# **CUSTOMER EXPERIENCE & VALUE CREATION**

TC1.1 PERFORMANCE OF TRANSPORT ADMINISTRATIONS

**ALAN COLEGATE** 

**EXEC. DIR. STRATEGY & COMMUNICATIONS** 

MAIN ROADS WESTERN AUSTRALIA



### STRATEGIC ISSUE

"Understanding how Road and Transport Administrations are measuring the efficiency and effectiveness of Customer Experience and Public Value Creation"







### **DEFINING CUSTOMER EXPERIENCE**

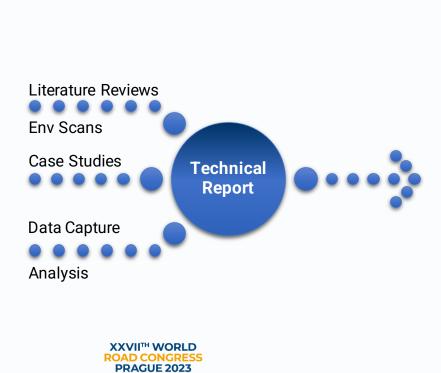
"The sum of all interactions in the journey between a customer and an organization in the delivery of a service"





## **SIX ELEMENTS**

#### RESEARCH FINDINGS









# **HOW DID WE GET HERE?**

ILARIA COPPA

DIRECTOR TECHNICAL MANAGEMENT

ANAS



### TRENDS IN CUSTOMER EXPERIENCE

#### CASE STUDY - CUSTOMER EXPERIENCE





(3) Customer complaints





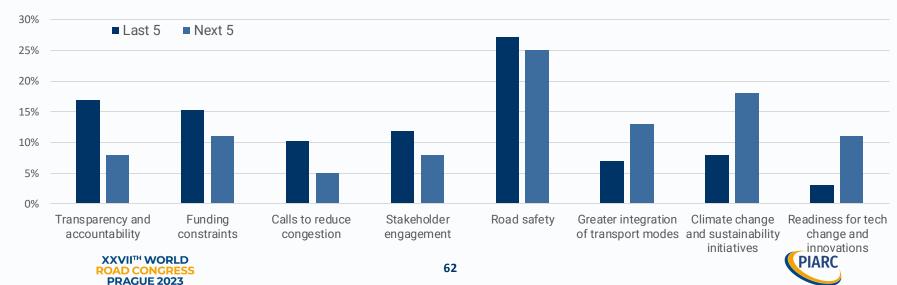
### TRENDS IN CUSTOMER EXPERIENCE

#### CASE STUDY – CUSTOMER EXPERIENCE



### **Drivers and influences**

#### Comparison last 5 vs next 5 years



#### TRENDS IN CUSTOMER EXPERIENCE

#### CASE STUDY – CUSTOMER EXPERIENCE



# **Measurement approaches**

"the results are reflective of community sentiment, they are not necessarily reflective of the entire customer journey"

> XXVII<sup>™</sup> WORLD ROAD CONGRESS PRAGUE 2023

# The provision of parking and rest areas for trucks is a key strength for the region

KPI performance has shown significant improvements across most measures, performing only slightly below the WA average across the board

#### Key strengths:

- · Providing parking and rest areas for trucks
- · Providing easy to access retime information\*
- · Road Safety improvements'

\*Based on detailed ratings, not priority matrix.

#### Key priorities:

- · Providing sufficient overtaking lanes
- · Condition of the road surface
- Managing traffic congestion
- Timing roadworks
- Overall ride/drive quality
- · Infrastructure for heavy vehicles
- Building new roads and adding lanes





#### **ASSET MANAGEMENT**

#### **CASE STUDY**

#### **Customer**

- How they receive services
- Relates to their experience and perception
- Outcome statements about service

#### **Technical**

- Physical service provided by the asset
- Technical interpretations of plain language
- Must be deliverable by those managing activities

#### How our customers want to feel





#### **ASSET MANAGEMENT**

#### **Case Studies**

- 37 organisations
- 17 countries
- 92% public entities
- 70% had no toll roads



# **Findings**

- Tolling organisations more likely to survey customers
- 40% conduct annual surveys
- Main objective for the survey
  - Customer perception
  - Improve service levels
  - Decision making
- Asset management aspects
  - Traffic and roads works information
  - Network condition and Safety
  - Maintenance







# **PUBLIC VALUE CREATION**

**DEANNA BELDEN** 

DIRECTOR OF PERF, RISK & INVESTMENT ANALYSIS

MINNESOTA DEPARTMENT OF TRANSPORTATION



#### **PUBLIC VALUE CREATION**

The private sector's bottom line of success is shareholder value
The public sector's measure is public value

The definition that remains equates managerial success in the public sector with initiating and reshaping public sector enterprises in ways that increase their value to the public in both the short and long run.

Mark Moore, 1995

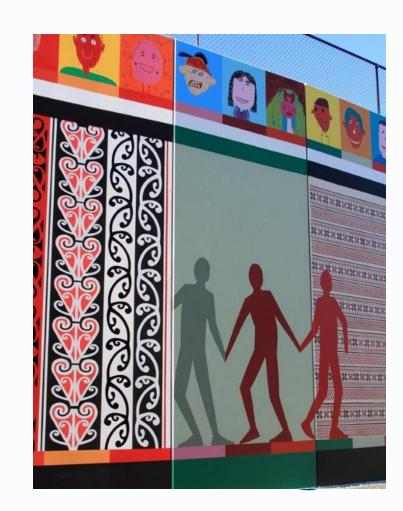




### **CREATING PUBLIC VALUE**

# PRIOR CYCLE AND SUMMARY OF RECENT LITERATURE

- Public sector faces challenges that are different from the private sector
- Integrated thinking is about creating and protecting value
- Public value methods should help governments decide on actions now that can deliver benefits in the long term



## RELATED PUBLIC VALUE PRACTICES IN TRANSPORTATION

- Ex-ante before building (cost-benefit analysis) and ex-post (for existing infrastructure) Austria
- New Visions: Quality of Life Framework (Utah DOT); Making Lives Better through Transportation (Iowa DOT) – USA
- NCHRP Moonshots project looking to redefine the North Star of our transport agencies







# POTENTIAL PUBLIC VALUE MODEL FOR A TRANSPORT AGENCY

- Model represents further development of Integrated Reporting Capitals from prior cycle
- How an agency might approach recognizing and reporting the value it creates
- Document what they are trying to achieve, approaches to meet or support objectives, and reporting on measures to track progress

Resources	Objectives	Strategies/Approaches	Measures
Our People	Safe & secure operating environment     Engaged employees with the right capabilities & training     Inclusive workplace that resembles the population it serves     Great workplace reputation	Develop a strong safety culture     Support employee development     Invest in skill development to address current & futrure needs     Institutional learning	On the job injuries Employee recruitment measures Employee retention rate Employee training measures Diversity Measures
Know-How	Recognize & cultivate innovation in processes and technology to take up the challenges ahead	Reward employees who suggest innovation that gets deployed     Invest in forward-looking research     Leverage innovation & technology     Implement best practices	<ul> <li>Innovation and efficiencies reporting</li> </ul>
Assets	Strategically build, manage, maintain & operate all transportation system assets     Ensure efficienct & effective use of resources     Maintain transportation network	Advance asset management; move away from fixing worst first to system management     Consider capital & maintenance costs in project decision making	Asset condition measures     Remaining service life measures     Life cycle cost measures
Network Performance	Increase system reliability     Reduce travel times for individuals     Goods     Increase resilience to climate change & extreme weather	Utilize active traffic managmenet strategies Provide transportation options Adapt infrastructure to withstand climate change	Travel time reliability measures     Congestion measures     Accessibility measures     System & asset resilience measures
ransportation Safety	Protect the safety of users     Reduce fatal & serious injury crashes	Collaborate with partners on eduction, engineering, enforcement, & emergency medical services     Employ a safe system approach by fostering a culture of safety	Traveler safety measures: annual fatalities & serious injuries
Nautral Resources	Manage enviromentnal impacts of delivering our services including animals & their habitats, plants & their habitats, & biodiversity	Reduce GHG emissions from transport sector     Reduce salt use during snow and ice operations     Design projects that are appropriate to the surrounding natural elements	GHG emissions measures     Measure of salt use     Native plantings in     highway right-of-way     measure     Other evironmental     sustainability measures
Financial Resources	Demonstrate effective & efficient stewardship of public resources     Optimize financial capital     Optimize wider economic impacts     Minimize/eliminate waste, fraud, & abuse	Manage resources strategically     Invest in projects that are financially efficient from either a traditional BC ratio or using an expanded time horizons view     Do not build what we cannot afford to maintain     Best practices to minimze waste, fraud and abuse	Project on time/on budget measures     Project scope measures     Measure of sustainable investments     Audit measures of waste, fraud, & abuse
Citizens & Society	Strengthen relationships & enhance trust     Create an equitable transportation system     Advance environmental justice	Employ meaningful & accessible engagement practices     Invest time & resources in relationship building     Conduct regular customer engagement & surveys     Advance equity in decision making processes at all levels     Remove barriers to engagement through	Public trust and confidence measures Project-level public engagement measures Equity lens for measures

statutory changes

#### CONCLUSIONS AND RECOMMENDATIONS

- Public value creation is continuing to evolve
- Transport agencies should consider increasing focus to encompass integrated thinking
  - Broaden our focus from purely operational outcomes to more holistic and integrated thinking
  - Investigate value and focus on longer term outcomes
- PIARC should conduct further research into value creation in relation to transport agencies









# **WRAP UP**

**ALAN COLEGATE** 

**EXEC. DIR. STRATEGY & COMMUNICATIONS** 

MAIN ROADS WESTERN AUSTRALIA

#### CONCLUSIONS

- Measuring customer experience delivers measurable impacts
- 2. Relationships between type of road network managed and customer influence
- 3. Lack of understanding creates greater risk
- 4. Public value creation is continuing to evolve
- 5. Key themes identified to assess progress

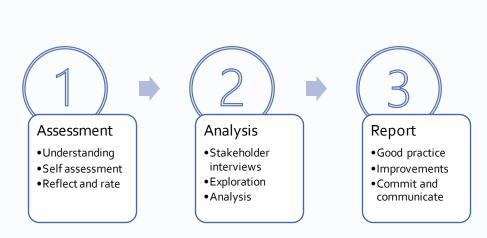






### **ASSESSMENT FRAMEWORK**

#### **DRIVING IMPROVEMENT**









# RECOMMENDATIONS

### FOR TRANSPORT AGENCIES

- Consider individual and community perspectives
- 2. Measure and evaluate your customers experience
- Assess your maturity and identify gaps
- Increase focus to encompass integrated thinking

"The quality of a society can often be judged by the state of its infrastructure and the level of care and attention given to those who depend on it"







# Working Group 3 Presentation: It's All About the People Defining & Promoting Diversity & New Talent Management

José Manuel Blanco Segarra MITMA, Spain

Karen Bobo U.S. DOT



#### TC 1.1 PERFORMANCE OF TRANSPORT ADMINISTRATIONS

JOSÉ MANUEL BLANCO SEGARRA (SPAIN), INGENIERO DE CAMINOS DEL ESTADO, MITMA

José Manuel BLANCO SEGARRA, M. Eng. in Roads (UPM, Madrid, 1981) has been active in PIARC since 2012. Spanish Secretary of PIARC's TC 1.1 and member of PIARC Finance Commission and member of CEDR's WG Network Governance. He is Director of the contract for expert support on pavement issues to the Technical Directorate of the Spanish Directorate General of Roads.

A state civil servant since 1986, he has been for 26 years Head of Provincial Unit and then Regional (Extremadura) State Road Demarcation and Director of numerous road designs and works and participated in the development of Spanish technical and management standards.





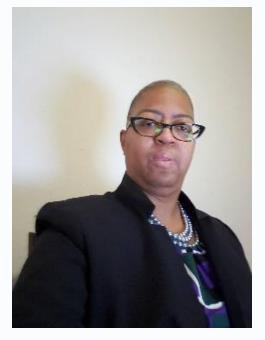


#### TC 1.1 PERFORMANCE OF TRANSPORT ADMINISTRATIONS

KAREN A. BOBO (USA), DIRECTOR – TRANSPORTATION WORKFORCE DEVELOPMENT TEAM, FEDERAL HIGHWAY ADMINISTRATION (FHWA)

Karen BOBO became the Federal Highway Administration (FHWA) Director – Transportation Workforce Development in May 2019. Karen recently completed a one-year detail as Sr. Advisor – Workforce Development and Interagency Coordination with US DOT Office of the Secretary.

Prior to returning to DC in 2019, Karen served as the Division Administrator in the FHWA – Iowa Division from 2015 to May 2019.









# IT'S ALL ABOUT PEOPLE - DEFINING AND PROMOTING DIVERSITY AND NEW TALENT MANAGEMENT

TECHNICAL COMMITTEE 1.1 – PERFORMANCE OF TRANSPORT ADMINISTRATIONS

# WHAT?

#### THE PURPOSE OF THE STUDY

- Investigate how Transport Administrations manage diversity and talent management
- Give examples of how to promote diversity and talent







# WHY?

#### STRONGEST MOTIVES ACCORDING TO TRANSPORT ADMINISTRATIONS

- → Increased overall performance and innovation
- → Customer orientation and value perception
- → Representation

"It's important to mirror the society and to ensure accurate representation"

"A prerequisite to better serve current and future customer needs" "A diverse workforce stimulates innovation and fresh perspectives"





# HOW?

#### LITERATURE STUDY



- Diversity Management a set of organizational strategies to recruit, retain and develop individuals from a variety of different backgrounds and facilitate good relationships among them
- Talent Management the systematic attraction, identification, development, engagement, retention, and deployment of talents
- It's all about people and skills! Many of the strategies are the same in diversity and talent management.





# HOW?

# 5 ROUND TABLE DISCUSSIONS & 1 SURVEY



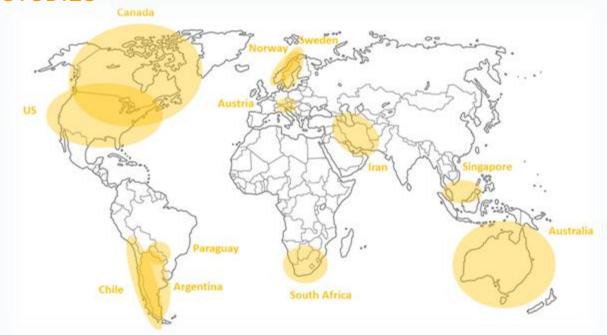






# HOW?

# 24 CASE STUDIES





PIARC



#### DIMENSIONS OF DIVERSITY

The following dimensions of diversity were analyzed as a part of this study:

- Age
- Disability
- Gender
- Ethnicity
- Indigenous People
- Language
- Sexual Orientation





#### PRIMARY FINDINGS

- It is acknowledged that countries are not homogenous
- Two different organizations can analyze the same dimension of diversity but define it differently
- The boundaries of how diversity is defined are informed by each respective country's national laws and regulations
- 3 operational approaches to diversity management:
  - Those that deal specifically with a number of diversity dimensions
  - Those that integrated diversity management principles in their HRM
  - Those that had a stand-alone diversity plan





#### PRIMARY FINDINGS

- Vision for diversity is directly related to the characteristics of each country
- The establishment of diversity committees, identification of barriers, management support and the implementation of diversity training were found to be pivotal interventions
- Diversity management policies have to deal with conscious and unconscious biases
- You can't manage what you can't measure





#### PRIMARY FINDINGS

- The simultaneous management of multiple dimensions of diversity is a lived experience of most organizations
- It is important to recognize and celebrate diversity
- Diversity management goals should be linked to KPI's





#### CONCLUSIONS

"We must ensure commitment at the top and create leaders that understand and are committed to change"

- Diversity management requires proactive strategies, monitoring and policies to create the desired culture
- It is important to supplement diversity with the principles of inclusion, equity and accessibility
- Diversity can be viewed through an internal and external lens
- The primary motive for addressing and managing diversity is representation, increased overall performance and innovation, and a customer orientation and value perception







#### TERMS AND DEFINITIONS

**Talent management:** The systematic attraction, identification, development, engagement, retention, and deployment of new talent and key competences.

**Key competence:** The competence and skills that Transport Administrations need to deliver their services in a sustainable manner.





#### FINDINGS FROM THE LITERATURE REVIEW

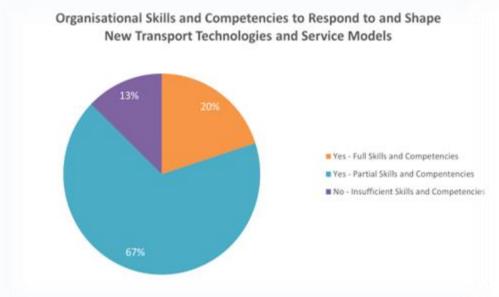
- Public sector brand
- Recruiting
- Graduate development programs
- Measuring performance
- Succession pipeline
- Manager commitment
- Designing jobs
- Training
- Work-life balance initiatives







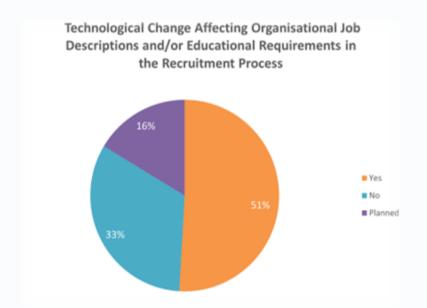
#### FINDINGS FROM THE SURVEY

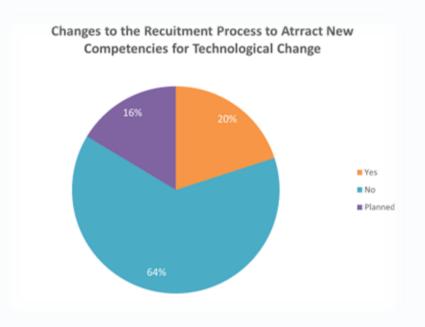






# FINDINGS FROM THE SURVEY









#### FINDINGS FROM THE CASE STUDIES

- Emphasis on the development of a culture of continuous learning to keep pace with the developments.
- Successful approaches and initiatives include more training programs for staff and more training/leadership development programs for managers, and more mentoring.
- Recognition of the need to cooperate with academia and the industry to recruit staff and to identify skills and competencies needed.
- Much attention paid to attracting new employees and to employee retention by developing skills and competencies and work-life balance initiatives.
- There is still some work to do when it comes to succession planning.





#### WRAP-UP OF FINDINGS FROM THE VARIOUS DATA SOURCES

- It is difficult to predict what exact skills and competencies will be required in the future, but it seems obvious that there will be more interdisciplinary working environments.
- Transport Administrations will have to change their learning culture and ways
  of working, and employees will have to be adaptive and engage in continuous
  learning.
- Transport Administrations need to have a shared understanding of the concepts of new talent and key competencies. The literature review provides definitions of these concepts.





#### WRAP-UP OF FINDINGS

- The survey and case studies demonstrate that Transport Administrations
  are responding to the societal and technological changes in different ways
  and at a different pace. This is as expected given that they operate within
  different systems, environments, and stages of development in general.
- It seems obvious that Transport Administrations will need a pool of employees who are talented, diverse, and versatile and able to cooperate across traditional fields of expertise.

"In the search for **new competence,** it's important to focus more on emotional intelligence, adaptability, leadership, ability to think outside the box, networking, data intelligence and collaboration"







# **CONCLUSIONS & RECOMMENDATIONS**

#### RECOMMENDATIONS FOR TRANSPORT ADMINISTRATIONS

- Need to make people the centre of their business
- Focus on, and reflect, all sections of society, mirroring this base within their own management structures and workforce
- Proactively identify barriers to diversity and talent management and develop strategies to mitigate





# **CONCLUSIONS & RECOMMENDATIONS**

#### RECOMMENDATIONS FOR TRANSPORT ADMINISTRATIONS

- Complete an honest and deep analysis of the current internal and external situation in terms of DEIA (Diversity, Equity, inclusion and Accessibility Analysis) and of the need for talent
- Implement diversity and talent management strategies, plans and practices that are consciously designed, implemented, and assessed. Many of the strategies are the same in diversity and talent management.
- Serve their customers, who are the taxpayers, and their needs should form the core of the organizational value creation process









#### **SPEAKERS**

ANNA WILDT-PERSSON, SWEDISH TRANSPORT ADMINISTRATION

ANNA.WILDT-PERSSON@TRAFIKVERKET.SE

SISANDA DYUBHELE, SANRAL SOUTH AFRICA

DYUBHELES@NRA.CO.ZA

MARIT DUE, NORWEGIAN ROAD ADMINISTRATION

MARIT.DUE@VEGVESEN.NO

KAREN BOBO, US DEPARTMENT OF TRANSPORTATION

KAREN.BOBO@DOT.GOV

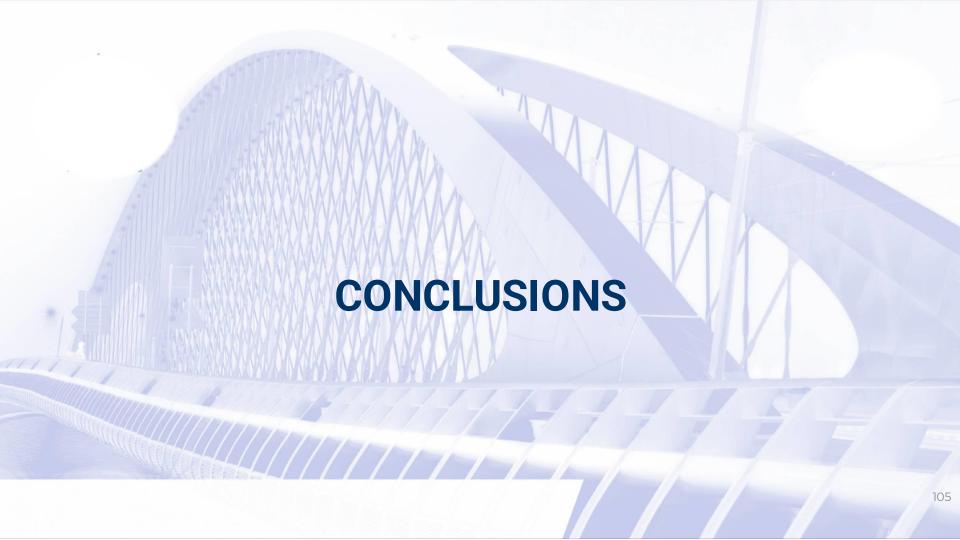
ALEXANDER WALCHER, ASFINAG AUSTRIA

ALEXANDER.WALCHER@ASFINAG.AT

JOSÉ MANUEL BLANCO SEGARRA

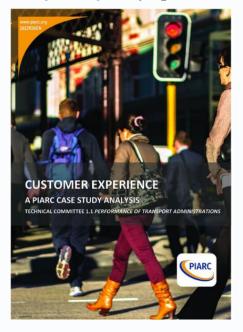
JMBLANCO@MITMA.SE





# **WORKING GROUP 1 - PUBLICATIONS**

<u>Customer Experience - A PIARC Case</u> <u>Study Analysis</u> (report 2022R26EN)



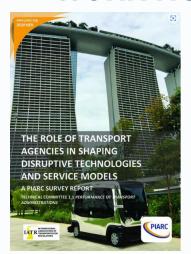
<u>Customer Experience and Public Value Creation-</u> <u>Technical Report (report 2023R06EN)</u>

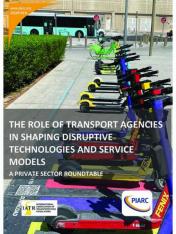






# **WORKING GROUP 2 - PUBLICATIONS**









The Role of Transport
Agencies in Shaping
Disruptive
Technologies and
Service Models Survey Report (report
2022R18EN)

The Role of Transport
Agencies in Shaping
Disruptive
Technologies and
Service Models - A
Private Sector
Roundtable (report
2022R19EN)

The Role of
Transport Agencies
in Shaping
Disruptive
Technologies and
Service Models Case Study Analysis
(report 2022R27EN)

The Role of Transport
Agencies In Shaping
Disruptive
Technologies And
Service Models Technical Report
(report 2023 R01EN)

THE ROLE OF TRANSPORT AGENCIES IN

SERVICE MODELS

A PIARC TECHNICAL REPORT

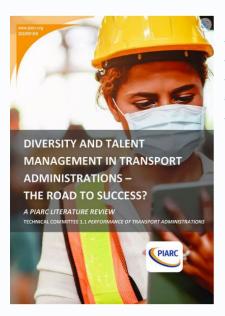
SHAPING DISRUPTIVE TECHNOLOGIES AND

The Role of Transport
Agencies in Shaping
Disruptive
Technologies and
Service Models - High
Impact Summary
(report 2023 R02EN)





## **WORKING GROUP 3 - PUBLICATIONS**



Diversity and Talent
Management in
Transport
Administrations - The
Road to Success?
(report 2022R01EN)



It's All About People Defining and Promoting
Diversity and New Talent
Management - Technical
Report (report
2023R12EN)



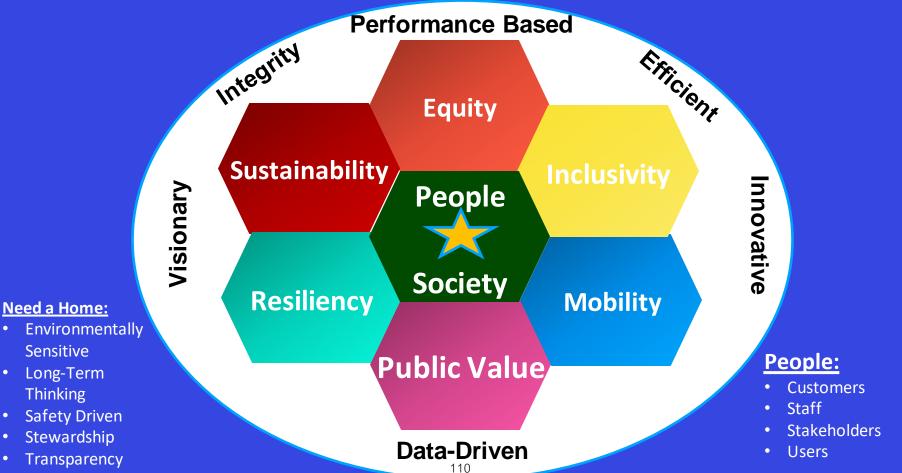




## STRATEGIC FRAMEWORK FOR THE TRANSPORT AGENCY OF THE **FUTURE**

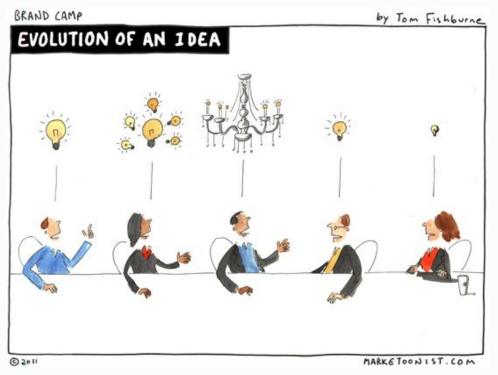
Sensitive

Thinking



## TS11 - PERFORMANCE OF TRANSPORT ADMINISTRATIONS

#### **WHAT'S NEXT**





## A NORTH STAR FOR GUIDING THE FUTURE OF TRANSPORT AGENCIES

#### **INPUTS**

(Constraints, Opportunities, STEEP, SWOT)

#### **GUIDING PRINCIPLES**

(Regulating Chosen Operating Model and Key Organisational Components)

#### **OUTCOMES**

(Economic, Efficient, Effective, Equitable)

Political Direction

Vision and Purpose

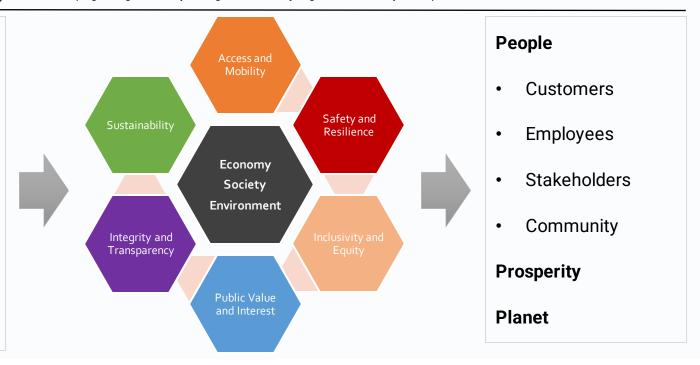
**Authority and Mandate** 

Data and Information

Finance and Resources

History and Legacy

**Culture and Values** 



#### **ISSUE 1.1.1. THE TRANSPORT AGENCY OF THE FUTURE**

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 business and operating models, **addressing issues of equity**, **diversity**, **and inclusivity**, addressing uncertainty, the impact of digitalization, including that of Artificial Intelligence (AI), and incorporating innovation at the organizational level to become an efficient and high-performing agency.

How to enable **effective engagement and dialog** with the evolving stakeholder ecosystem and how to work with other public and private entities to carry out this mission.



## **ISSUE 1.1.1. PRELIMINARY RESEARCH QUESTION/S**

- Equity and inclusiveness
- Identifying key megatrends and the process of addressing them
- New modes and mobility trends including multimodality
- Business and operating models of the TA of the Future
- How do you foster innovation and create a culture of innovation in Transport administrations?
- Artificial Intelligence (AI) and Digitalization (Dx) for better efficiency of road organizations



#### **ISSUE 1.1.2. PUBLIC VALUE CREATION BY TRANSPORT AGENCIES**

How should transport administrations consider the principles of public value as they redefine strategic frameworks to better represent a focus on more holistic societal expectations.

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?



#### **ISSUE 1.1.2. PUBLIC VALUE CREATION BY TRANSPORT AGENCIES**

- What drivers should transport agencies consider in their strategic framework review that are linked to public value creation?
- 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?







ISSUE 1.1.3. STRENGTHENING WORKFORCE THROUGH MODERNIZING SKILLS, ENHANCING DIVERSITY, EQUITY, AND INCLUSION

One of the most critical and universal issues facing 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 because 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.



## ISSUE 1.1.3. STRENGTHENING WORKFORCE THROUGH MODERNIZING SKILLS, ENHANCING DIVERSITY, EQUITY, AND INCLUSION

- How do we ensure inclusive engagement?
- How are Transport Agencies tackling the challenges and obstacles of the different dimensions of diversity in the workplace?
- What are the prominent equity issues that LMICs must deal with?
- How can Transport Agencies become an "attractive employer"?
- What tasks and future goals need to be embraced by TAs 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? What is the impact of AI?
- The Agency with Skills and Capacity Fit for the Future competencies and capabilities needed in the future. How can transport administrations deal with this?







# **Q&A SESSION**





#### **CHRISTOS S. XENOPHONTOS**

CHAIR, PIARC TC 1.1

Tel:

Email: christos.xenophontos@dot.ri.gov

Website: PIARC | World Road Association













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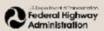
Visit TPM-Portal.com to register for future webinars

#### **Joint Quarterly CPBM & TPM TSP Meeting**

Feature Topic: Preview Topics of Interest to the Performance Management Community at the Upcoming TRB Annual Meeting
December 7, 2023

TPM Webinar 21: *The Future Transportation Agency: Pioneering a Performance Path* 

March 20, 2024 (2-3:30 PM)





Webinars Typically Begin at 2:00 PM Eastern Time



For more information or to register: