



# **4<sup>th</sup> ASECAP SUSTAINABILITY FORUM**

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Hosted by



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# Collaborative Decarbonization

## Emerging trends and the PIARC approach

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4<sup>th</sup> ASECAP Sustainability Forum  
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## PIARC Strategic Plan 2024-27 Technical Committees Focus on Decarbonization

### Strategic Theme 1

1.1.1 The transport agency of the future	Policy
1.2.1 Summarizing the role of road investment in recent infrastructure investment for de-carbonization	Policy, planning, investment, impact analysis
1.3.2 How to make funding and finance de-carbonized: case studies	Financing, funding studies
1.4.1 Development of a resilience framework for road networks, climate change and other hazards	Climate Change Adaptation

### Strategic Theme 2

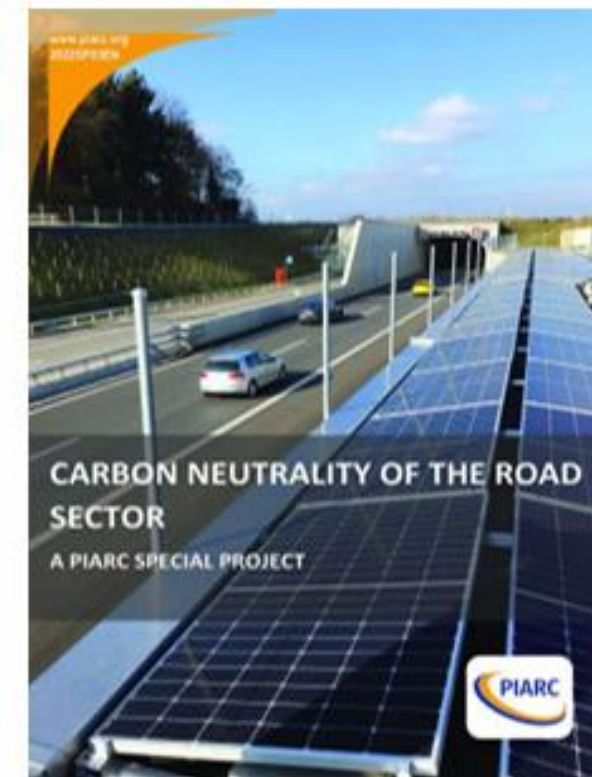
2.1.2 Urban vehicle access regulations (UVARs)	Zero Emission Zones (urban)
2.3.2 Greening of road freight	Greening Freight Transport
2.4.2 Conceive ITS solutions for sustainable mobility	ITS for Sustainability
2.5.3 Architectures and business models for NRAs for automated vehicles	ITS and business models for automation

### Strategic Theme 3

3.4.1 Air pollution mitigation and zero-emission zones	Zero Emission Zones
3.4.3 Innovative and sustainable eco-infrastructure solutions for roads and streets	Climate Change Adaptation
TC 3.5 Road Infrastructure for Road Transport Decarbonisation	Policy, specific goals, electrified infrastructure, production of energy, energy efficiency

### Strategic Theme 4

4.1.3 Reducing carbon footprint for pavements	Decarb technologies applied to pavements
4.2.5 Bridges – Low carbon materials	Decarb technologies applied to bridges
4.3.3 De-carbonization of earthworks – construction and maintenance	Decarb technologies applied to earthworks
TC 4.5 Decarbonization of road construction and maintenance	Decarb technologies applied to road construction, maintenance and operation, emission measurement



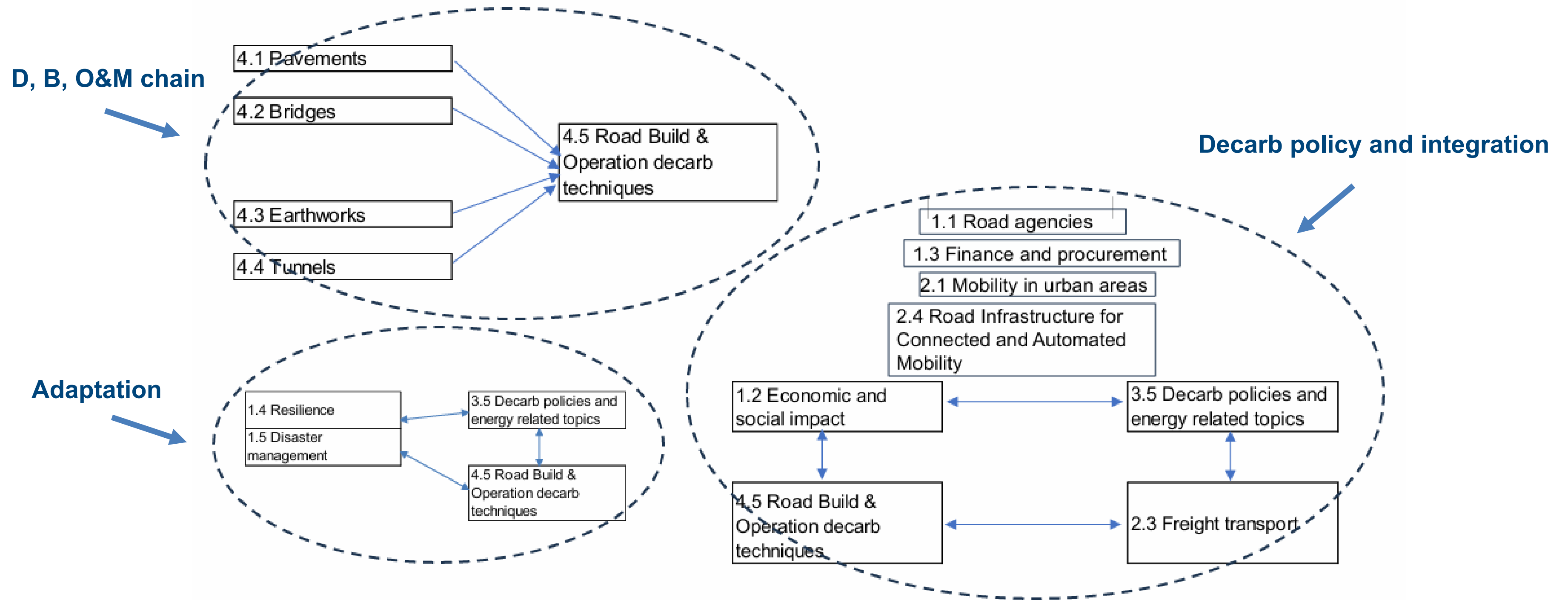
### A roadmap for the NRAs

1. Strategy
2. Applied knowledge throughout the processes and the Lifecycle
3. Proactive in setting standards and practices
4. Integration
5. Collaboration
6. Dissemination



# PIARC and Decarbonization 2024-27

## The input-output flow between Technical Committees



# Emerging global trends in decarbonization



Those first 2 years of the PIARC Strategic Plan have shown some emerging trends in decarbonization worldwide:

1. Ambitions and targets without coordination of responsibilities and efforts do not bring about perceivable results
2. Electrification of the industry is pre-requisite for decarbonizing, but EVs and recharging points are neither the sole problem, nor the sole solution: mindset is the main obstacle
3. The State (within the EU) and the market cannot be efficient without collaboration and common goals, and allocated finance is essential for both
4. Innovation in the policies and actual achievements mostly come from the «action chains»

# Successful “action chains”



An action chain is a combination of technical, economic and administrative actions in which two or more aspects of decarbonization are implied, connected and associated with specific GHG reduction goals

## Example #1 Victoria State – Australia

### *Reduction of GHG emission through the whole Road Agency Chain*

- Adoption of a unified carbon management standard and carbon calculator
- Integrate carbon impact in the cost benefit analysis and the use cases
- Application of a carbon value (123 €/ton) aligned with the NDC targets
- Update procurement procedures to embed carbon reduction in tenders
- Include carbon measurement in all construction and O&M contracts
- Support the industry to test and apply carbonless road techniques

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## Example #2 CAREMA – France

### *Integrating infrastructure and mobility services to increase Car Pooling*

- Adoption of a National Carpooling Plan in 2022 (14 measures to triple CP trips in 2027)
- Development of a “French doctrine” for the design of reserved lanes
- Evolution of the HOV lanes to the VR2+ lanes (specifically dedicated to CP), dynamic (use of the left lane for CP in congestion) and static (permanent conversion of the hard shoulder)
- Active carpooling planning and coordination by local authorities (CP anticipé and CP spontané), with total integration with privates’ supply of mobility
- Monitoring and continuous improving of the solution
- Financial support throughout the chain

# Which models for a near future and the toll companies?



- Road decarbonization plans are complex, costly and not very popular for the voters. Nevertheless they are necessary and urgent, so which can be some near future trends?
  - The carbon measurement as a core public choice criterion
  - A more active and efficient use of infrastructure, vehicles, public transport and mobility services: the users will have more options, instead of less traditional «mobility rights»
  - The development of a new concept of infrastructure + service combination such as city logistic hubs, commuters' platforms (both physical and virtual)
- The Toll Concession company could become a core player in this field, since they are...
  - efficient, (fair) profit oriented and regulated
  - integrated in the mobility management, used to public utility considerations
  - familiar with the infrastructure concept
  - open to diversification within the same knowledge arena
  - well equipped for a multi-player dialogue
  - able to manage a sub-concession related to a new infra+service business



# THANK YOU



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