



An Roinn Iompair
Department of Transport



Cumann Lucht Bainistíochta Contae agus Cathrach
County and City Management Association



ROADS Services Training Group

LOCAL AUTHORITY ROADS CONFERENCE and EXHIBITION - 2022

Radisson Blu Hotel & Spa, Sligo May 2022



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LOCAL AUTHORITY ROADS CONFERENCE and EXHIBITION – 2022

Climate Adaptation & Network Resilience

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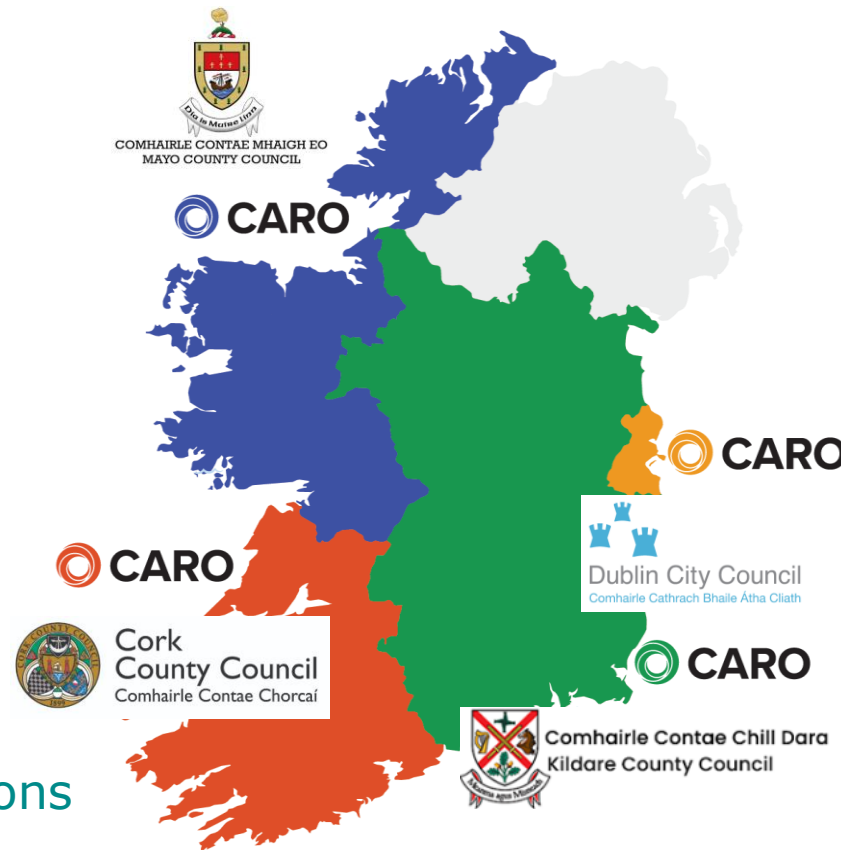
Presentation Outline

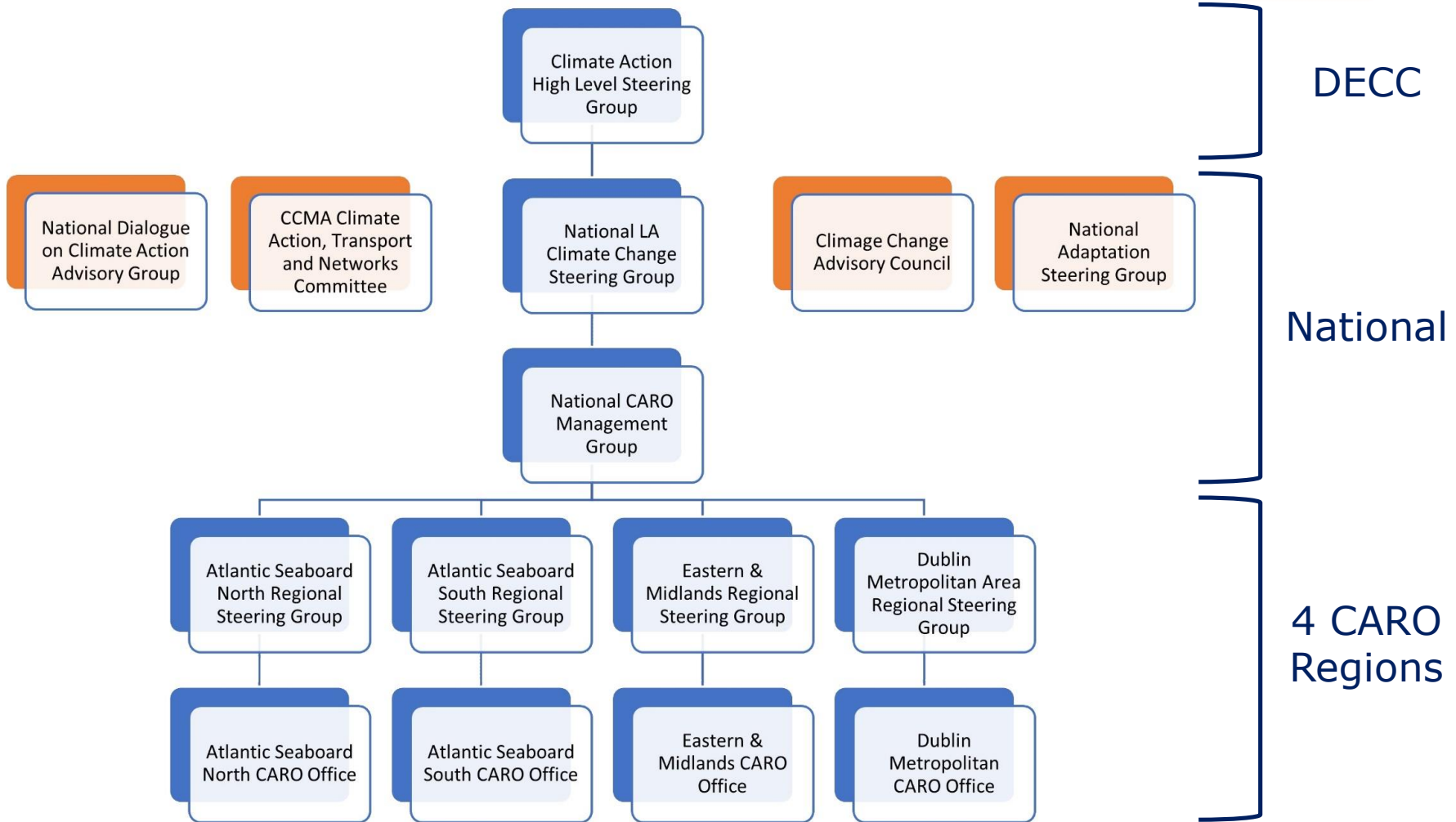
- The “CAROs”
- Mitigation & Adaptation
- Development of Guidance for Local Authorities on Climate Adaptation of Regional and Local Roads.....(Roads CA Project)



The CAROs?

- Climate Action Regional Office
- Four offices in 2018
- Locations
- The CAROs: a shared service to coordinate and assist the LA sector to deliver climate action
- Funded by the Department of Environment, Climate & Communications (DECC)





CARO Governance



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CARO Projects

- ❑ Climate Action Training
- ❑ Risk & Vulnerability Methodology
- ❑ Guidance on Coastal Erosion Issues
- ❑ Tenants Handbook
- ❑ Economic Opportunities
- ❑ Climate Action Plans



Adaptation and Mitigation

Adaptation		Mitigation
Actions to cope with the impacts of climate change		Actions to reduce emissions that cause climate change

If adaptation is pouring water out to stay afloat in the moment.....



.....sealing the leak to halt more water coming in is mitigation.

Examples of Adaptation

- Flood Defense Barriers
- Road repair & maintenance
- Solar Radiation
- Increased frequency & higher intensity rainfall.
- Coastal Flooding & Storm surge
- Groundwater Flooding

Examples of Mitigation





- Expand Walking, Cycling and Public Transport
- Enabling modal shift
- Asset Management
- Green Procurement
- Decarbonise public transport fleet



Development of Guidance for Local Authorities on Climate Adaptation of Regional & Local Roads

Background

- National Adaptation Framework (NAF) 2018
- LA's – 31 Climate Adaptation Strategies
- Future proofing road assets
- ASBS CARO review
- Guidance for Climate Adaptation of Regional & Local Roads project
- Action 484 of CAP 2021.
- Funded by the Department of Transport

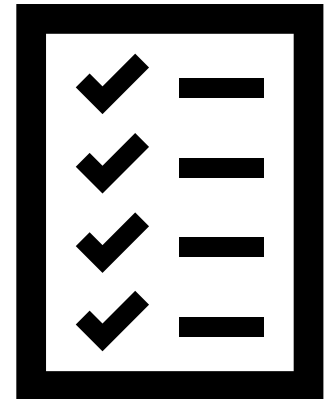
	Infrastructure
Heat waves 	Damage to pavement integrity
Sea level rise 	Flooding, closure of coastal roads, damage to/ erosion of infrastructure
Higher Intensity and more frequent rainfall 	Flooding, closure of roadways, damage to/ erosion of infrastructure, landslides
Higher intensity and more frequent wind storms 	Damage to infrastructure, debris on roads, disruption of utilities



Project Execution Methodologies

All Phases

- ❑ Project Oversight
- ❑ Project Team (CARO Personnel & PWG)
- ❑ Scoping & Delivery Phase
- ❑ Engagement with LA personnel
- ❑ Engagement with external stakeholders
- ❑ Literature Review
- ❑ Examine National/EU policy





Project Objectives

1. Inform Local Authority Roads personnel of the importance of appropriate planning for climate change and implementation of climate adaptation strategies,
2. Develop a range of design, maintenance and rehabilitation strategies and approaches to adapt the Regional and Local Road Network for climate events and reduce the risk of damage and loss of function





Project Overview

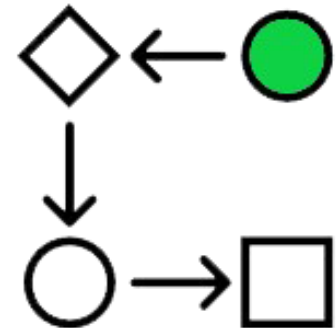
The structure of the **Guidance for Local Authorities on Climate Adaptation of Regional & Local Roads** project is as follows:

Phase	Phase Description	Phase Status
Phase 1	<ul style="list-style-type: none">Project ScopingPrioritisation Methodology for Climate Adaptation Interventions	Completed January 2021
Phase 2	<ul style="list-style-type: none">Delivery of CA GuidanceRefinement of the Prioritisation Methodology for Climate Adaptation Interventions	On-going Q4 2022
Phase 3	<ul style="list-style-type: none">Carbon Management - Project Scoping	On-going Q3 2022
Phase 4	<ul style="list-style-type: none">Carbon Management - Delivery of Guidance	Pending Phase 3 Outcome



Phase 1 – Scoping Project (status: complete)

- Foundations of the Climate Adaptation project
 - ❑ Project governance & Project Team
 - ❑ Research & LA sector engagement
- Final report in January 2021
- Recommendations



1. Climate Adaptation Guidance Document for Roads (ASBS CARO)

Drainage	Road Making Materials
Structures	Geotechnical Issues
Sustainability & Carbon Management	Organisational Resilience

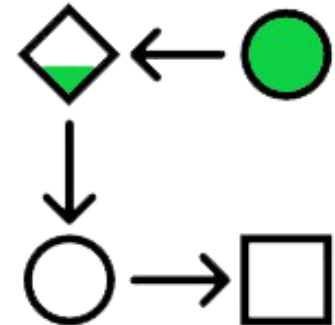
2. Enhancement of MapRoad PMS (RMO)

- Parallel Project: Prioritisation methodology for CA interventions



Phase 2 – Delivery of Guidance (status: ongoing)

- Project Governance & Project Team
- Project Brief - useful and concise guidance
 - ❑ Existing standards
 - ❑ Information/Knowledge Gaps
 - ❑ Best Practice
 - ❑ Recommendations & Guidance
- ‘Drainage’ removed from the scope – existing project
- ‘Carbon Management’ removed from the scope – Phase 3
- Appointment of Engineering Services Consultant
- Delivery of Guidance (Q4 2022)





Phase 3/Phase 4: Origins

Project Progress

Phase 1
Scoping

Phase 2 – Delivery of Guidance

- PWG: Scale & Complexity

- Climate Action + Carbon Management (Amendment) Act, July 2021
- EPA Green Public Procurement Guidance, Sept 2021

Phase 3 Scoping

Phase 4
Delivery of Guidance

- Phase 1 - Carbon Management

'Carbon Management & Green Public Procurement'



Phase 3/Phase 4 Output

1. Guidance for the LA Sector

- ❑ Assessment & Feasibility
- ❑ Contract Procurement,
- ❑ Contract Administration,
- ❑ Construction Practice,
- ❑ Carbon Management

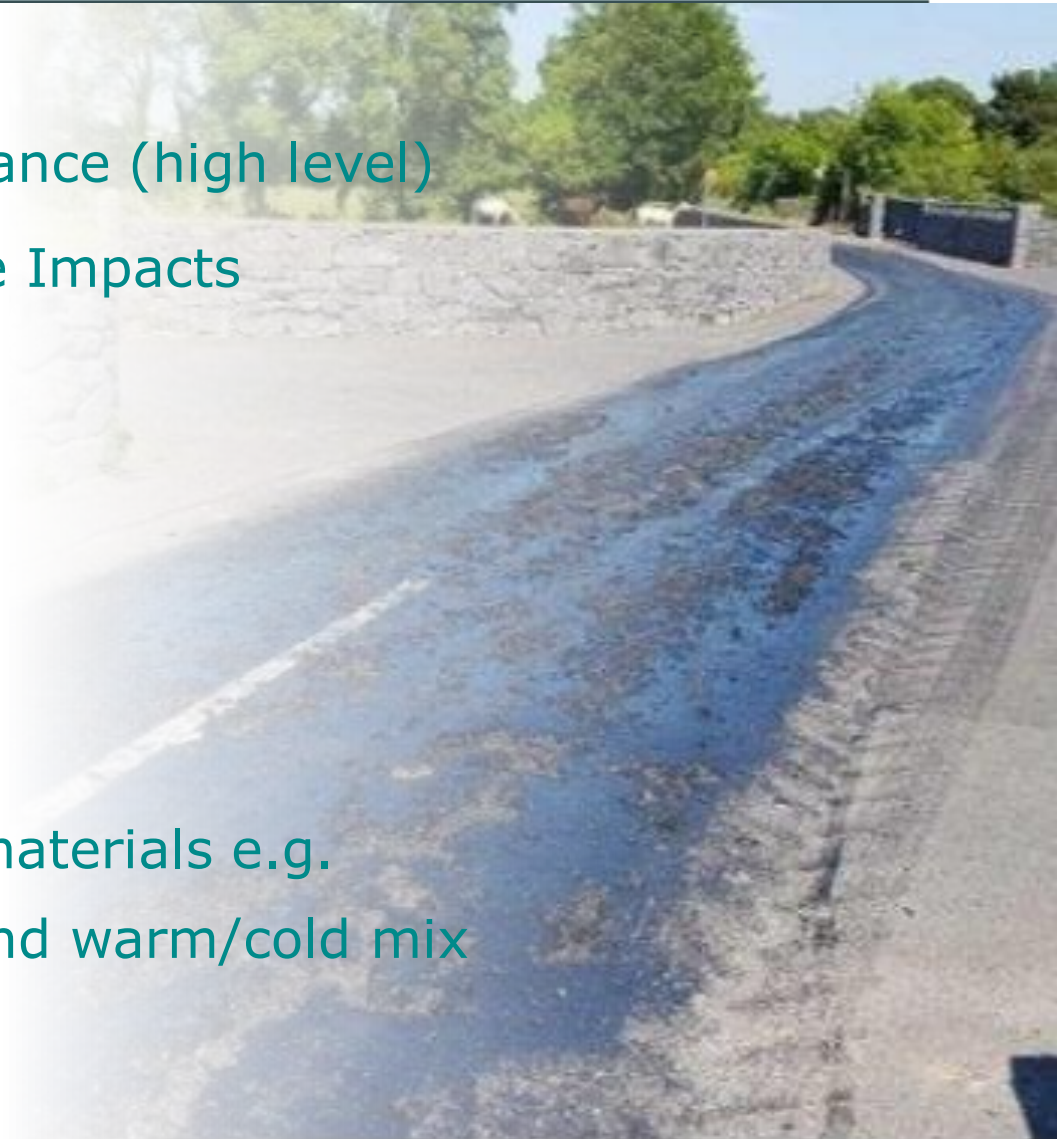
2. Carbon reduction, assessment and calculation tool e.g., TII Carbon Tool





Delivery of Guidance

- Issues considered for guidance (high level)
 - ❑ Predicted Climate Change Impacts
 - ❑ Common Failure Types
 - ❑ Asset Management
 - ❑ Circular Economy
 - ❑ Embodied Carbon
 - ❑ Potential for alternative materials e.g. reuse of road planings, and warm/cold mix asphalts





Project Status

- Phase 2:
Drafting of CA Guidance ongoing
Prioritization Methodology refined
- Phase 3:
LA Survey on CM and GPP issued to the sector
for response
- Linked Projects:
Pilot Project: Greening of Roads Procurement
Drainage Inventory & Asset Rating App WG





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Climate Adaptation & Network Resilience

Go raibh míle maith agaibh go léir

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