



NWSRG
NATIONAL WINTER SERVICE RESEARCH GROUP

National Winter Service Research Group

Business Plan

2024 - 2028



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Chair's Foreword

I am pleased to present the National Winter Service Research Group's (NWSRG) Business Plan, which details our aims and objectives for the next five years. The NWSRG remains the leading organisation for winter research in the local and national roads sector. We recognise that technological developments and the ambition for carbon reduction in line with climate change challenges, will impact on how highway winter services will be delivered in the future and we will continue to work with all interested parties to research and publish best practice for the whole sector.

Carol Valentine

Carol Valentine

NWSRG Chair

January 2024



Technical Advisory Group Chair and Vice Chair's Foreword

We are proud to be representing the Technical Advisory Group (TAG) in delivering the five-year Business Plan for the NWSRG. The supply chain plays a crucial role within NWSRG in bringing knowledge and expertise of product and service innovations that help to continuously improve the UK winter service community. Working collaboratively with our local and central governmental colleagues we are committed to working as one team to help deliver on the aims and objectives of the whole industry.

A handwritten signature in black ink, appearing to read 'Mark Dutton'.

Mark Dutton (Chair)

A handwritten signature in blue ink, appearing to read 'John Mehaan'.

John Mehaan (Vice Chair)

NWSRG Technical Advisory Group Chair &
Vice Chair

January 2024

Purpose

The purpose of this Business Plan is to provide a clear roadmap for the NWSRG's future, outlining our goals, strategies, membership demographics and financials. The Business Plan is guided by and expands upon our Terms of Reference document which provides the context of where the NWSRG fits in the wider UK Roads Leadership Group, the composition of the NWSRG and associated roles and responsibilities. Additionally, our Constitution sets out the foundational principals and rules that govern the NWSRG, ensuring we operate in line with our objectives and values.

About Us

The NWSRG is a members group dedicated to advancing understanding of best practice for winter service delivery, through disseminating currently available knowledge and supplementing any gaps with new research

Our internal governance is structured into four sub-groups, each with their own roles and responsibilities:

- Executive Group
- Steering Group
- Members Group
- Technical Advisory Group

Following the recommendations set out in the independent report '[The Resilience of England's Transport Systems in Winter](#)', the Steering Group is a Technical Sub-Group of the UK Roads Board and the wider [UK Roads Leadership Group](#). The Steering Group comprises members elected by the NWSRG membership and other invitees from the public sector representing national interests. Thus, the NWSRG provides oversight and liaison for the development of guidance and new knowledge for the UK public roads sector. Further information on the NWSRG group structure is available within this Business Plan, the group's Terms of Reference and the [Constitution](#).

The NWSRG produces and continually updates a suite of [practical guidance](#) and [training resources](#) to aid our members in delivering their winter services. Further details on our practical guidance suite, the training we provide and opportunities for further research can be found within this Business Plan. In the delivery of our services to our members, we abide by the following ethos:

Engage... with all winter practitioners to participate with the NWSRG

Encourage... collaboration by being the national forum for winter service

Explore... research in the winter service sector

Emphasize... the value of improving winter service

Sustainability

The NWSRG shares the UK Government's vision of a greener future, therefore this Business Plan aligns with the [Department for Transport's Decarbonising Transport Plan](#). Throughout this Business Plan the '🌱' symbol demonstrates where we aim to improve and increase sustainable practices for our members over the next five years.

Our suite of practical guidance documents covering delivery of winter services will be an important part of how we will support our members in the development of their maintenance plans and how their services will contribute to authority specific and the UK's carbon reduction goals. Further research and development into the following areas will help our members achieve their sustainability goals:



Footway and cycleway maintenance to encourage year-round active travel, aligned with [Active Travel England's strategic aims](#) 🌱



Green technologies such as alternative fuels for winter service vehicles 🌱



Optimising evidence-based decision making to determine the most effective and efficient winter service treatment options 🌱



Developing guidance for other severe weather and climate change characteristics including flooding, high winds and heatwaves 🌱

Responsibilities

We are responsible for:

- 1:** Taking a broad view of highway winter service and management standards for carriageways, footways and cycle tracks, prioritising and delivering relevant research
- 2:** Undertaking and supporting research in the field of highway winter service to further improve service delivery, prevent the formation of ice and aid the removal of ice and snow from the highway network 🌱
- 3:** Ensuring the needs of winter service practitioners are considered when formulating national policy and codes of practice
- 4:** Publishing practical guidance, keeping abreast of recent developments in legislation, policy, technology, materials and coordinating with other important national and international initiatives 🌱
- 5:** Maintaining, on a national basis, a long-standing research group to further advance the understanding and delivery of effective and sustainable highway winter service 🌱

Objectives

To meet our responsibilities, we have developed the following objectives:

Short Term



Widen membership to include organisations who are delivering on the ground winter service throughout the UK



Establish a Working Group to identify research priorities and required updates to practical guidance [🍃]



Facilitate knowledge share through website blog posts, interviews and case studies whilst identifying opportunities to present and network at national and international industry events [🍃]

Medium Term



Secure funding for research and practical guidance priorities and develop a forward programme [🍃]



Begin priority research projects and practical guidance updates [🍃]



Review and refresh the website with new case studies and member interviews



Provide a peer-to-peer service to help disseminate best practice and provide guidance in the delivery of winter service [🍃]



Increase the level of membership by raising the profile of the NWSRG

Long Term



Deliver the key elements of our research programme and practical guidance updates [🍃]



Maintain the website and disseminate updates and outputs from ongoing and completed research projects and practical guidance updates

A means to track objectives and associated actions, completion dates, owners and success criteria will be developed and reviewed on a regular basis by the Executive Group.

Group Structure

The following Sections detail our group structure and subsequent roles and responsibilities.

Executive Group

The Executive Group comprises a small group of decision makers, the purpose of which is to encourage an agile approach to regular day to day business decisions. Figure 1 identifies the members of the Executive Group.

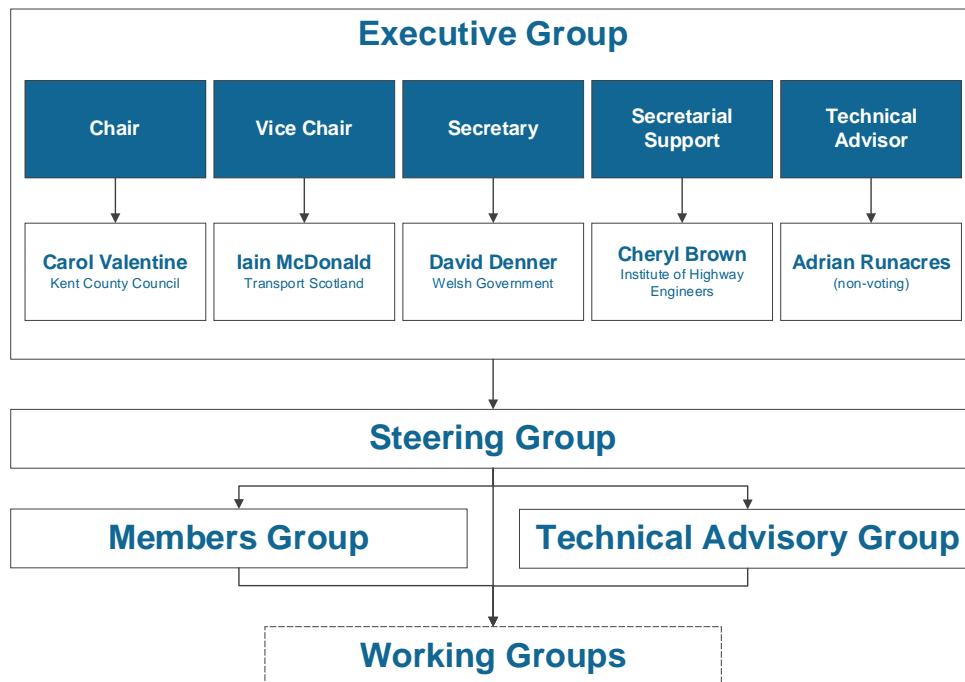


Figure 1: NWSRG Executive Group

Chair

The Chair will be an existing voting member of the Steering Group and will also represent the NWSRG on the UK Roads Board. Members of the Steering Group that have voting rights shall appoint a Chair. The Steering Group may wish to appoint a Vice Chair who should also be an existing voting member of the Steering Group. Appointments and voting shall be undertaken at the appropriate Steering Group Meeting prior to an Annual General Meeting. The Chair will manage and administer the functions of the NWSRG or may delegate functions to the Vice Chair or existing voting members of the Steering Group. Amongst other tasks, as requested by the Steering Group, these may include:

- ✓ Representing the NWSRG on the UK Roads Board
- ✓ Chairing meetings
- ✓ Preparing progress reports
- ✓ Financial management

Vice Chair

The Vice Chair supports the Chair and shares the duties of representation at industry events and manages the website. The Vice Chair can also second the approval of invoices.

Secretary

The Secretary is appointed by the Steering Group and will assist with the general organisation and administration of the group which may include:

- ✓ Managing contracts let by the NWSRG for research and other purposes
- ✓ Maintaining a priority list of research projects
- ✓ Ensuring the NWSRG conforms with the Constitution
- ✓ Liaising with the NWSRG members
- ✓ Managing membership applications
- ✓ Maintaining the Business Plan
- ✓ Financial management including payment of invoices

Secretariat Support

The Secretariat Support role is currently provided by the Institute of Highway Engineers to assist the Secretary with their responsibilities in addition to:

- ✓ Organising and facilitating meetings, seminars and workshops
- ✓ Preparing agendas for meetings in consultation with the Chair
- ✓ Developing meeting minutes (including circulation)
- ✓ Ensuring timely response to enquiries made to the NWSRG
- ✓ Liaising with other organisations engaged to support the NWSRG
- ✓ Website communications and overall management
- ✓ Ensuring the Business Plan, Terms of Reference and Constitution are up to date

Technical Advisor

The Steering Group may procure advice from an independent Technical Advisor to represent and protect the interests of the membership. The Steering Group may draw up a technical brief, job specification and contractual terms and conditions under which the Technical Advisor will be employed. In this case, the Technical Advisor shall be offered an annual contract of engagement, which will be reviewed by the Steering Group at the Annual General Meeting. The choice of Technical Advisor will be based on both technical ability and price which will represent both value and quality to NWSRG members. The Technical Advisor will:

- ✓ Have non-voting membership of the Executive Group
- ✓ Provide technical advice to the Steering Group
- ✓ Assist with coordinating, commissioning and managing Research Consultants
- ✓ Review updates to practical guidance chapters
- ✓ Prepare Working Group scoping briefs and research contracts, when appropriate
- ✓ Review all outputs from Research Consultants and Working Groups
- ✓ Assist in the production and presentation of progress reports
- ✓ Undertake tasks associated with raising awareness of the NWSRG
- ✓ Represent the NWSRG on external technical committees

Steering Group

The Steering Group (Figure 2) comprises a maximum of 12 voting members. The Steering Group may co-opt other non-voting members to the group as it sees fit to assist in discharging certain responsibilities. Steering Group members with voting rights shall hold their position for three years and will then be eligible for re-election/nomination. Local Highway and Road Authority representatives will be elected to the Steering Group by NWSRG members. National Highway Authorities (including Transport for London) shall each nominate a representative to the Steering Group, subject to approval. Details of the election process and candidates are sent to NWSRG members in advance of elections.

The Steering Group will manage and provide the leadership, strategic direction and stewardship of the NWSRG on behalf of the UK Roads Board. Responsibilities include:

- ✓ Overall management of the NWSRG
- ✓ Financial probity
- ✓ Organising and running seminars, workshops etc. when required
- ✓ Production of progress reports and recommendations to the UK Roads Board
- ✓ Review and revision of the Business Plan
- ✓ Authorisation of representatives to attend and present at industry events
- ✓ Manage the charitable status of the NWSRG

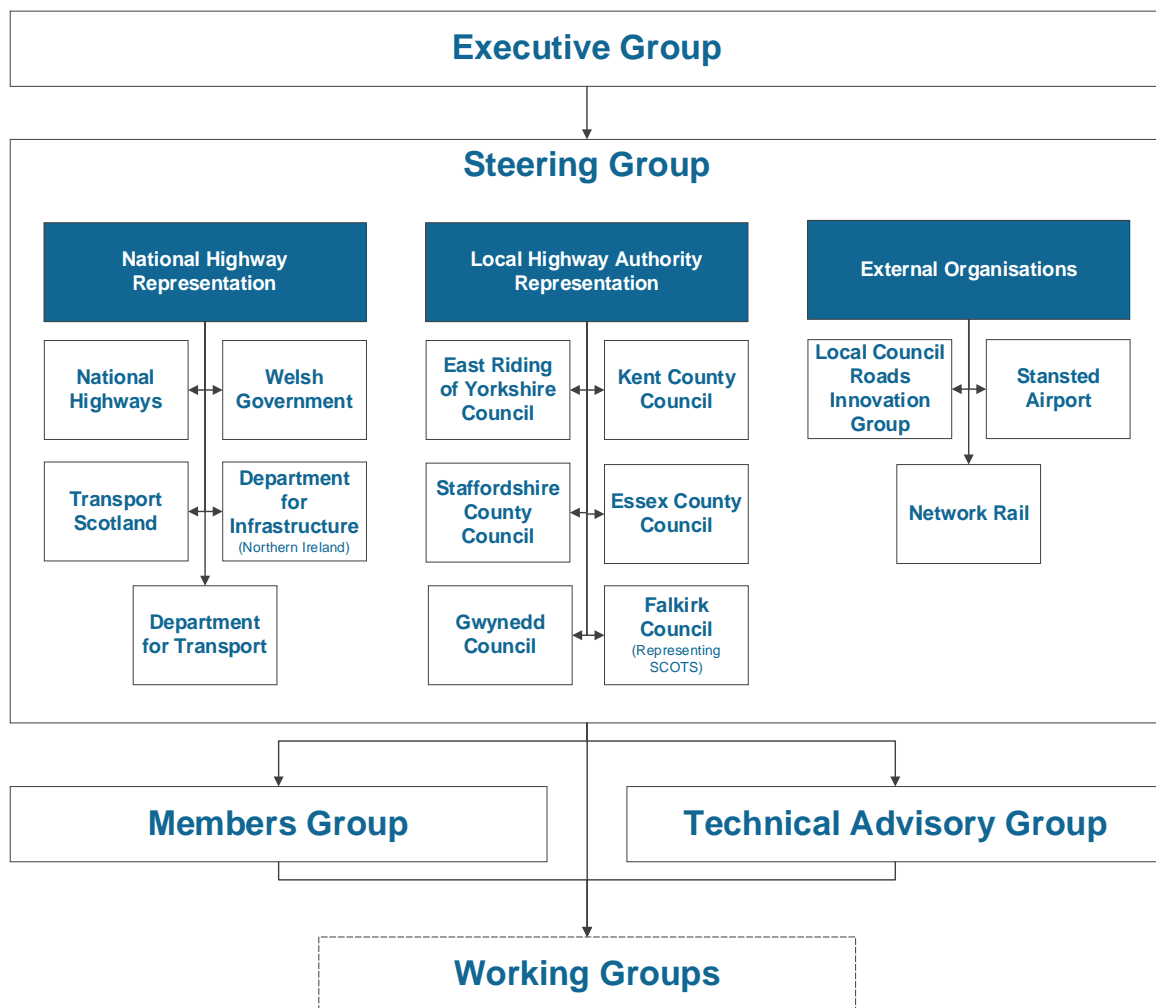


Figure 2: NWSRG Steering Group

In March, the Steering Group will hold an Annual General Meeting. A minimum of three Steering Group meetings (excluding the Annual General Meeting) will be held per annum. Progress reports will be prepared by the Chair or a nominated person on their behalf, to coincide with the Steering Group meetings. These reports will provide an update on research progress and to advise members of future developments and initiatives.

Members Group

The Members Group comprises the majority of the NWSRG Local Highway and Road Authorities (Figure 3).

All UK Highway and Road Authorities are eligible to become members via the [NWSRG website](#). There is no maximum or minimum number of members. Membership entitles:

- ✓ Two delegates to attend NWSRG meetings, although only one delegate has voting rights
- ✓ Two delegates to attend NWSRG seminars and workshops free of charge
- ✓ Access to the NWSRG internet website containing all the latest research findings, reports, meeting minutes and presentation material

A list of the current ordinary members can be found on the [NWSRG website](#).

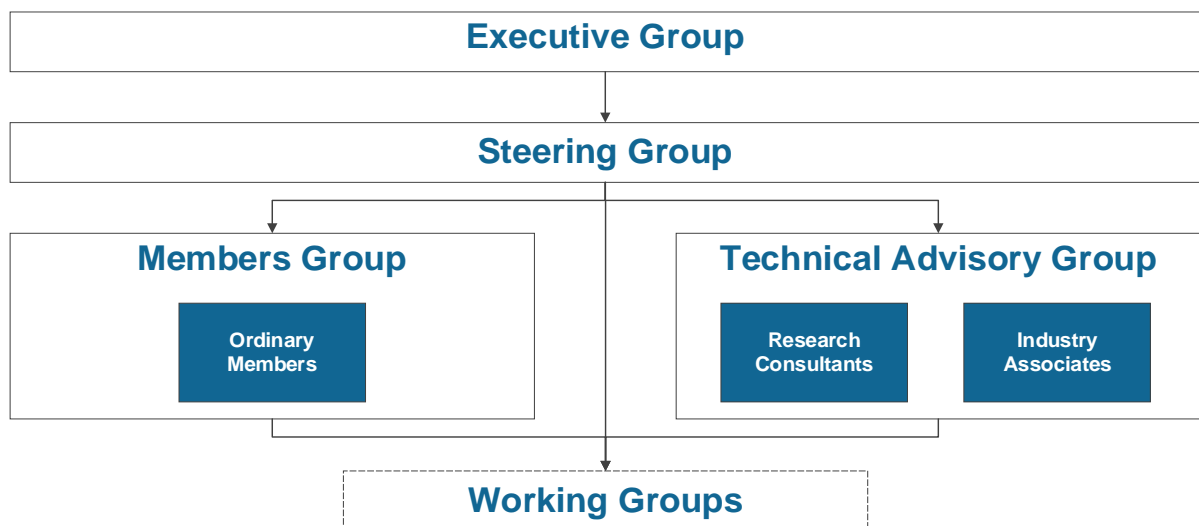


Figure 3: NWSRG Members & Technical Advisory Groups

Technical Advisory Group

The Technical Advisory Group comprises Research Consultants and Industry Associates (Figure 3) including consultants, contractors, manufacturers or suppliers that provide research or any highway winter service equipment manufacturer, material supplier and/or service supplier. Applications to the Technical Advisory Group will be made via the [online application form](#) for consideration by the Technical Advisory Group and the Steering Group.

The Technical Advisory Group will organise their own meetings and workshops to discuss industry best practice and provide feedback to the Steering Group on advancements in the industry and responses to Steering Group queries or request for research proposals.

Members of the Technical Advisory Group will elect a Chair and Vice Chair to manage the group and provide feedback to the Steering Group.

To ensure the total impartiality, independence and objectivity of NWSRG research, members of the Technical Advisory Group are not entitled to provide direct financial support to the NWSRG. A list of the current Research Consultant and Industry Associates can be found on the [NWSRG website](#).

Working Groups

The Steering Group will set up Working Groups to oversee research activities in specific service/topic areas, as required. The Steering Group will provide a scoping brief and appoint a Chair for each Working Group from Steering Group members. The Working Group Chairs will report directly to the Steering Group and provide progress reports at Steering Group meetings. There is no specified maximum number of members for Working Groups, but as a minimum there should be one voting member from the Steering Group. It is envisaged that the size of each group will vary. However, in all cases the number of Working Group members will be limited to ensure efficient and practicable working arrangements and the timely production of research deliverables.

- ✓ The Steering Group will determine Working Group membership, which will typically comprise Ordinary Members, Research Consultants and Industry Associates that have expressed an interest in that research topic. However, Working Group membership will be extended when appropriate to include other NWSRG members and/or individuals or organisations external to the NWSRG that have experience or expertise in relevant fields.

Member Demographics

The current membership composition of the NWSRG, as of October 2023, is as follows:

67% Ordinary Members

33% Industry Associates & Research Consultants

The composition of our membership also includes regional groups such as Scots, County Surveyors Society and ADEPT each of which represents several Local and National Highway Authorities. A complete list of current members is provided on the [NWSRG website](#).

Services

The NWSRG provides a comprehensive suite of practical guidance documents and training resources. As a membership organisation we continue to listen to our members to identify opportunities to update our guidance and training through knowledge transfer and research.

Practical Guidance

Our suite of practical guidance provides a collection of good practice gleaned from industry covering the following topics:

Section 1

Foreword and using the NWSRG Practical Guide for Winter Service

Section 2

Planning for Winter Service Delivery

Section 3

De-icer Types

Section 4

Salt Storage

Section 5

Treatment Methodologies & Technologies

Section 6

Spreader Management

Section 7

Winter Service Decision Making

Section 8

Spread Rates for Precautionary Salting

Section 9

Treatments for Snow & Ice

Section 10

Treatments for Extreme Cold

Section 11

Winter Service on Footways & Cycleways 

Section 12

Weather Forecasting & Road Weather Information Systems

Section 13

Route Selection & Optimisation 

Our guidance builds on the information previously provided in Section B.7 of the Well-Managed Highway Infrastructure: Code of Practice.

A periodic review of the guidance will be conducted to ensure it is kept up to date with Government drivers, changes in legislation or improvements in delivery and practice.

Training

The Winter Services Decision Making Course is the only accredited UK course for Winter Services Decision Makers and Managers. It provides an industry benchmark and the certificate has received endorsement from the Department for Transport. It is run over two sessions, totalling five days, with delegates completing assignments, practical activities and an end of course assessment. Topics covered include:



The Law, Code and Policy



Winter Communications



Record Keeping



Winter Road Meteorology



Winter Service Plant and Delivery



Ice Prediction Systems and Monitoring



Severe Weather and Snow Response



Decision Making

The NWSRG will continually work in conjunction with industry and organisations, such as City and Guilds and LANTRA, to ensure relevant and appropriate training is available.

Research

The NWSRG are reviewing several potential future research areas, including:

1. Residual salt

Multi-year on network trials to definitively determine treatment characteristics in terms of performance, distribution and longevity in all weather conditions and traffic volumes.

2. Treatments for low traffic areas, cycleways and footways

On network trials to determine the most suitable treatment types for low traffic areas, such as car parks and industrial areas, footways and cycleways.

3. Winter service carbon reduction and sustainability

A desk-based study setting a roadmap for our members to reduce their carbon footprint in terms of winter maintenance.

4. Sensor data

On-network and desk-based research to determine the validity and applicability of sensor data in improving forecasts and decision making.

5. Dynamic routing

Desk-based research to determine the feasibility of dynamic routing.

A Working Group will be established to identify and plan for priority research projects.

Communications

The diverse membership of the NWSRG is reached through a range of communication channels. These serve to raise the profile of the NWSRG to wider industry. According to a member survey, the most requested item is online guidance, followed by forums for winter discussions.

Website

The [NWSRG website](#) is the main method of communicating, with 88% of our members saying that they had been to and used the website. As part of our long-term objectives, we plan to increase traffic to our website through revised functionality and features. The scope for these revisions includes but is not limited to:



A more robust document storage and retrieval solution linking practical guidance sections with their supporting research



Improved communication avenues with our members through regular news updates, interactive content and a dedicated members only forum



Compile and regularly update a dedicated page for frequently asked questions



Provide greater exposure for our Industry Associates and the services they provide through targeted advertisement



An email-based notification system providing general updates on guidance or business decisions as and when required



Keep the website updated with regular blog posts, interviews and case studies

Meetings

Currently, we hold the following meetings on an annual or quarterly basis:

- Annual General Meeting
- Steering Group quarterly meetings

The Technical Advisory Group also plan and run their own meetings as and when required.

Whilst our meeting will be predominantly held online, we will continually review the needs of our members and may opt to also hold occasional in person meetings if deemed beneficial.

External Events

The NWSRG has identified the following events to ensure a presence to raise their profile and engage members:

- [Cold Comfort](#) and [Cold Comfort Scotland](#)
- [LCRIG Innovation Festival](#)

- LCRIG Strictly Highways
- APSE Winter Resilience Forums
- Highways UK
- Traffex
- Regional Groups (Midlands Highway Alliance Plus etc.)
- PIARC World Road Association World Winter Service and Road Resilience Congress

Social Media

The NWSRG currently has a limited presence on social media. We see social media platforms as a pivotal way to communicate with our members and therefore we will be investigating the potential to utilise appropriate platforms as part of our communications plan.



Funding

The NWSRG is currently working with the DfT to secure long-term funding to keep membership free for all and progress research and updates to our practical guidance suite. The NWSRG will also work with the devolved administrations, national road operators and the Technical Advisory Group to contribute to funding and/or facilitation of research projects.



National Winter Service Research Group

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