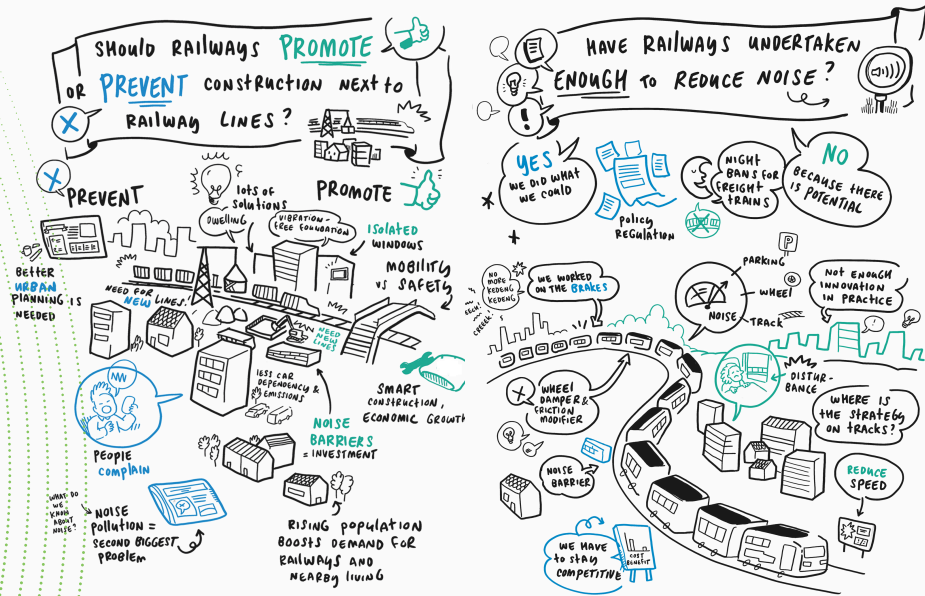


# UIC NOISE & VIBRATION SECTOR

WORKING TOGETHER  
TO BECOME A BETTER  
NEIGHBOUR



## Who are we

A global platform of railway undertakings and infrastructure managers addressing noise and vibration challenges through shared expertise and coordinated action.

## Purpose

We support the sector in becoming a better neighbour by mitigating environmental impacts through technical discussions, harmonised practices, and knowledge sharing.

## Our strategic priorities

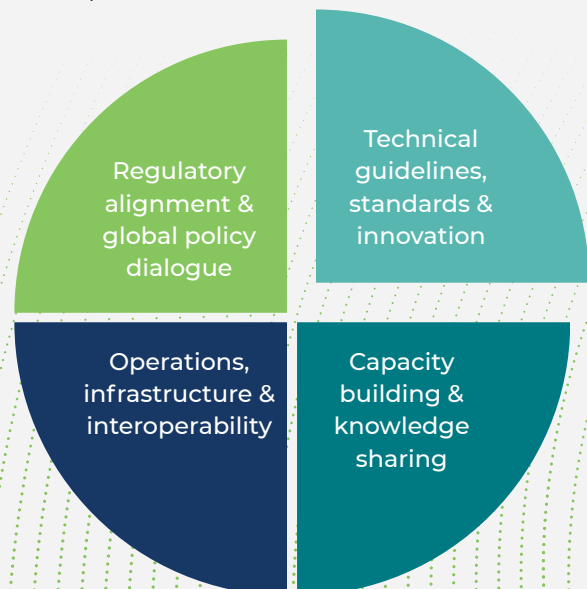
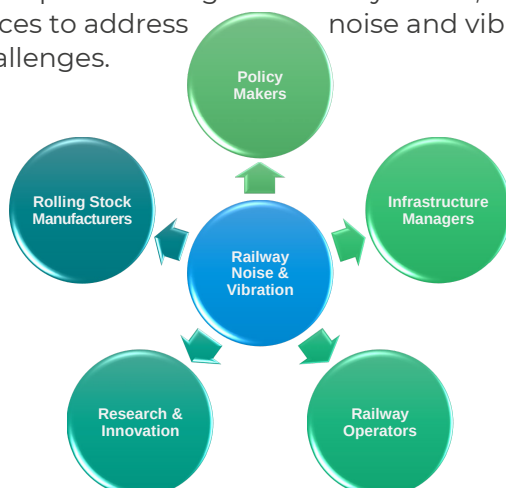
- ✓ Convening global experts to share best practices and drive innovation
- ✓ Expanding global outreach and raising awareness on challenges and solutions
- ✓ Contributing to national strategies to mitigate environmental and community impacts
- ✓ Delivering technical guidance and standardised solutions for global policy and investment decisions
- ✓ Building strategic partnerships to align research and innovation across infrastructure and operations

## Sector activities

**21 UIC members** meet biannually for roundtable discussions on technical and policy updates and to coordinate strategic action in line with emerging and changing needs and interests. We also actively engage the wider community through public events, such as the UIC Railway Noise Days.

## Shaping quieter, more sustainable railways worldwide

We represent the global railway sector, uniting voices to address noise and vibration challenges.



INTERNATIONAL UNION  
OF RAILWAYS

# RECENT COORDINATED ACTIONS FOR A LASTING IMPACT



## Reducing railway noise and vibration - A Systems Approach



- A global platform for collaborative discussions on noise and vibration propagation, mitigation solutions and management practices,
- Establishes working groups to tackle emerging issues (e.g. curve squeal, vehicle noise, and data harmonisation),
- Aligns policy, research, and technical support to deliver harmonised solutions.

## Tackling noise and vibration at the source: **Vehicle**

UIC participates in European level discussions, including informal meetings with EU policy officers, contributing to NOI TSI updates and involvement in an ERA Technical Working Group focusing on limit values for parked trains.

## Tackling noise and vibration at the source: **Track**



Optimises rail pad properties to mitigate noise from pass-bys.



Optimises grinding approaches for acoustic roughness, mitigating noise, and harmonisation of on-board measurements worldwide.



Actively contributes to the “Cost-effective noise mitigation workstream”, representing sector priorities by bridging communication between UIC, its members and external stakeholders.

## Recent publications and knowledge tools

Our deliverables support the sector with state-of-the-art guidance, addressing critical gaps and enabling evidence-based decision-making.

### STANDARDISATION

#### IRS 75718 – Noise on parked trains: Measurement procedures and noise data collection criteria

Defines harmonised noise measurement methods for parked trains and data collection guidelines aligned with ISO3095 and future regulatory frameworks.



#### IRS 75717 – Track noise measurement guidelines

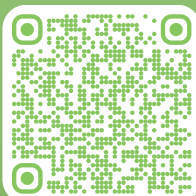
Provides a harmonised methodology to measure and compare noise emissions during train pass-bys.



### TECHNICAL REPORTS

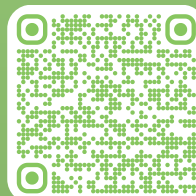
#### Nuisance and health impacts of railway noise

Provides evidence on how railway noise affects annoyance, sleep disturbance, and health to support informed policy and funding decisions.



#### Noise from parked and stationary trains

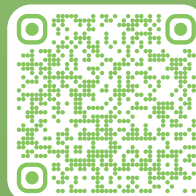
Analyses possible operational & technical solutions including mitigation measures, and research & innovation pathways.



#### UIC railway noise in Europe - State of the art report



#### State of the art report - Railway induced vibration



**Connect, contribute, and collaborate**  
for railway noise mitigation!



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Noise & Vibration website  
[uic.org/sustainability/noise-and-vibration](https://uic.org/sustainability/noise-and-vibration)

