PAS2161 Road condition monitoring (RCM) data – Specification

DfT has worked through BSi, TRL and a steering group of industry representatives to develop the PAS2161 Road condition monitoring (RCM) data – Specification which was published in October 2024. Road condition monitoring (RCM) data can be used by road authorities to understand and manage the condition of their networks. It can be used to report the overall condition of road networks through the application of indicators and network-wide statistics. The focus of the PAS is to specify the processing and validation of road condition data, data quality checks and the formatting of the data for national reporting.

PAS2161 introduces a standardised way of capturing, categorising, classifying and reporting on RCM data as part of the national reporting on road conditions, this currently excludes unclassified roads but this is being reviewed by DfT.

PAS2161 specifies:

- the requirements for condition categories for reporting of road condition
- the types of technology that can be used for reporting road condition categories
- the requirements for processing, validating and fitting road condition category data
- the network coverage requirements for national reporting of road condition categories
- the frequency requirements for national reporting of road condition categories
- the format for road condition category data which is to be used for national reporting and
- the requirements for demonstrating the capability of the RCM technologies for national reporting of road condition categories

RCM data collection and processing should provide condition categories at 10m sub-sections based on the minimum level of treatment necessary if the sub-section is restored to a condition representative of that sub-section when not requiring maintenance.

The following table provides details of the condition categories:

Road condition category	Description	Treatment required
1	No deterioration	Pavement is not considered for maintenance
2	Minor (and/or aesthetic) deterioration	Light maintenance (e.g. minor patching)
3	Moderate deterioration	Localised intervention or mid-life preventative maintenance (e.g. surface dressing, patching, crack sealing, patching of anti-skid surface)
4	Moderate to severe deterioration	Preventative maintenance, perhaps full carriageway (e.g. resurfacing, with thin overlay/surface dressing, multiple patching, edge haunching, renewal of anti-skid surface)

5	Severe deterioration	Substantial maintenance is required which is likely to include full carriageway resurfacing or reconstruction

Section 9 is entitled "Ensuring consistency of RCM data" whilst Annex C provides information to RCM providers on demonstrating the capability to measure condition categories. It is understood that further work is being undertaken on the approval process and this should be finalised in early 2025, possibly as late as summer 2025. It is anticipated that the requirement to report against PAS2161 will commence in 2026 rather than 2025 as originally planned.

Overall PAS2161:

- Will provide the requirements for national reporting of RCM to the DfT
- Opens the market to any technology that can satisfy the validation requirements
- Is based on maintenance treatments in categories 1 to 5
- As yet consensus and consistency are not determined

Local Authority points to ponder

1. Will my road condition service provider meet the required approvals?
2. Does my Authority undertake maintenance treatments categorised as above?
3. Road condition is now based on benchmark data collection carried out by suitably competent highway engineers.
4. Does the data provided allow the Authority to fulfil the requirements of its asset management process?