

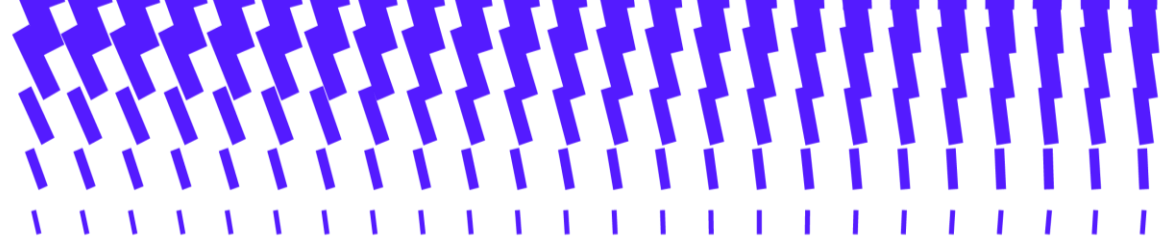
The 2026 PAS 2161 Demonstration Trial

MHA+ Highways Asset Management SIG

5th October 2026

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Coverage



- Complying with PAS 2161 in 2026/27
- The 2026 PAS 2161 demonstration trial for technology application in 2027/28 and 2028/29
- Trials and tribulations

Complying with PAS 2161 in 2026/27

The 5 PAS 2161 categories

	Category	Example deterioration	Action to restore to a level of condition not requiring treatment
1	No deterioration.	Pavement appears in good condition and provides a smooth-running surface.	Pavement not considered for maintenance.
2	Minor (and/or aesthetic) deterioration.	Aesthetic and/or minor deterioration, associated with very early signs of ageing. Pavement presents superficial defects. Occasional/minor ride quality issues.	‘Light touch’ maintenance. (e.g. minor patching).
3	Moderate deterioration.	Pavement is showing notable signs of ageing. Non-structural defects visible Evidence of minor potholes or development of potholes. Ride quality is deteriorating.	Localised intervention or mid-life preventative maintenance. (e.g. surface dressing, patching, crack sealing, patching of anti-skid surface).
4	Moderate to severe deterioration.	Pavement is substantially aged. Defects across a significant extent of the surface. Evidence of failed maintenance/ patches. Indications of structural failure/onset of structural failure. Major potholes, Ride quality is compromised.	Preventative, perhaps full carriageway maintenance. (e.g. resurfacing, with thin overlay/surface dressing, multiple patching, edge haunching, renewal of anti-skid surface).
5	Severe deterioration.	Extensive deterioration/defects. Structural failure. Serviceability may soon be compromised or is no longer serviceable. Very poor ride quality.	Significant maintenance is required, which is likely to include full carriageway resurfacing or reconstruction.

The 2026/27 options

Tested	
Technology Type	Number of Technologies
A: Application-based mobile technologies	3
E: Engineers' inspections	1
M: Dedicated mobile technologies	10
O: Other technologies	0
S: Dedicated data collection vehicles	10
V: Vehicle telematics	1
TOTAL	25



Approved		
Provider	Technology	Technology Type*
AISIN	Michilog	M
Gaist	Gaist Carriageway Condition	S
Metricell	Inference Model X Human Agent	A
Metricell	Inference Model X AI Agent	M
Route Reports	RouteReports RCM	M
Vaisala	RoadAI	M
WDM	PASWFE	M
XAIS-PTS	MFV AI (SCANNER accredited technology with AI)	S
XAIS-PTS	AEI (Annual Engineer's Inspection)	E

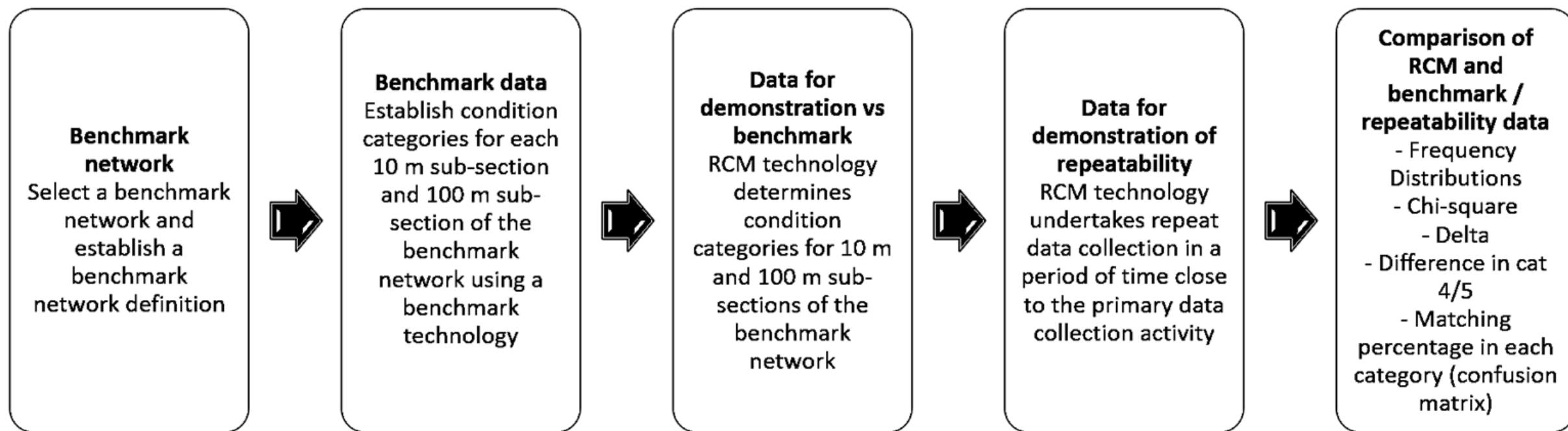
The 2026 PAS 2161 demonstration trial for technology application in 2027/28 and 2028/29

The PAS2161 process stages

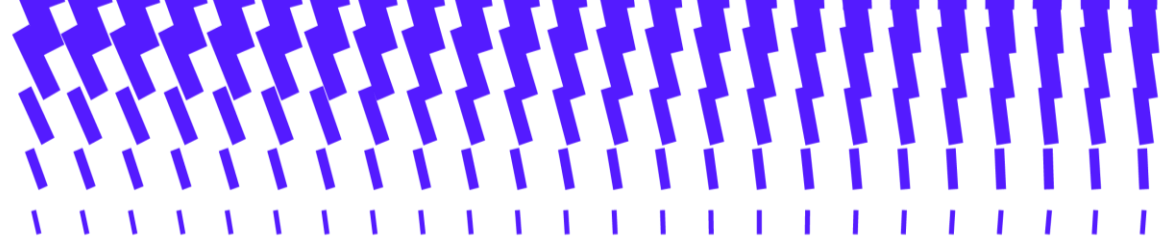
Each RCM technology is to be assessed and shall be classified as either:

- **demonstrated:** the capability to measure condition categories has been demonstrated
- **not demonstrated:** the capability to measure condition categories has not been demonstrated.

Demonstration is achieved through comparison of the categories reported by the RCM technology with benchmark data and repeat RCM data



Demonstration trial locations



20 LHAs interested in 'hosting' survey work were asked to provide maintenance schedules covering the trial period, along with condition data for their road networks. Additional criteria accounted for by TRL were:

- diversity of road classification, types and defects
- typical weather and practical challenges for surveying/local terrain characteristics
- balance between rural and urban areas

The 3 locations chosen were **Nottinghamshire, Lincolnshire** and **Cheshire West & Chester**

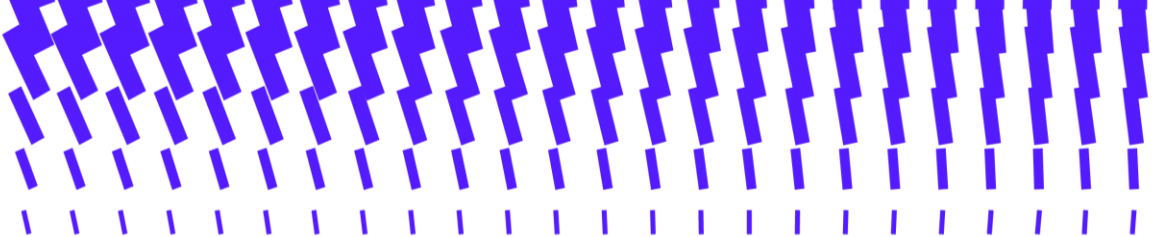
For each area, two routes were identified:

- a main route (approx. 100km) to be surveyed once by LHA engineers to create a benchmark and by the technology providers to test their technology against, and
- a twice repeated survey route (approx. 25km of the main route subset) to test technology repeatability.

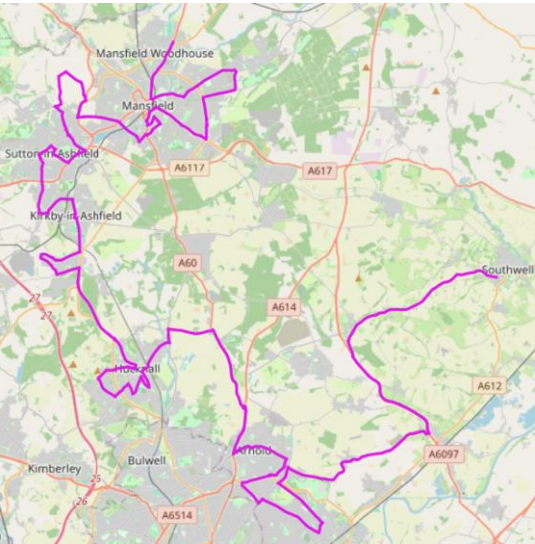
Trials and tribulations

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Dates and routes



Location	Start of data collection window	End of data collection window	Benchmark data collection
Nottinghamshire	Monday 24 th August 2026	Sunday 20 th September 2026	25 th to 27 th August
Lincolnshire	Monday 31 st August 2026	Sunday 28 th September 2026	8 th to 10 th September
Cheshire West & Chester	Monday 31 st August 2026	Sunday 28 th September 2026	15 th to 17 th September



Length (m)	Lincs	CW&C	Notts	Overall route length	Overall route
A	25,447	30,735	26,573	82,755	26.5%
B	44,327	29,033	24,026	97,386	31.2%
C	28,450	31,141	22,598	82,189	26.3%
U	15,953	8,810	25,257	50,020	16.0%
Total	114,177	99,719	98,454	312,350	100%

Issues with routes

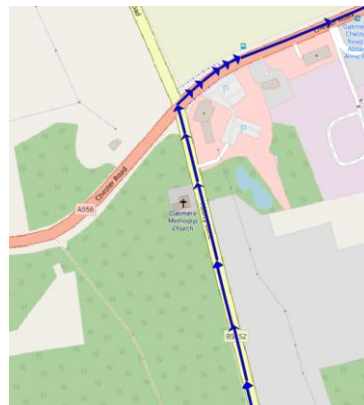
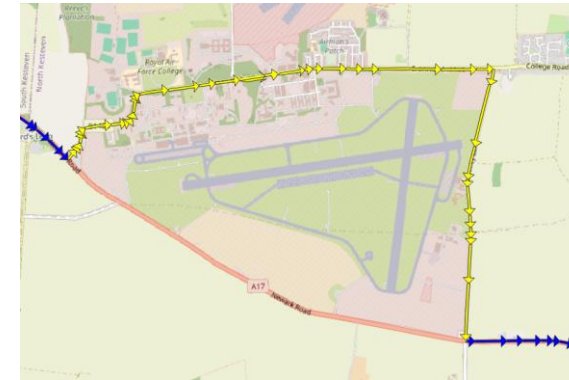


Nottinghamshire - complete

- Day 3, some rain impacting assessment. Engineers still reported good coverage for the network
- One section (550m) removed due to navigation issues
- One further section (~500m) to be removed due to surface dressing applied between 4th & 11th September

Lincolnshire - complete

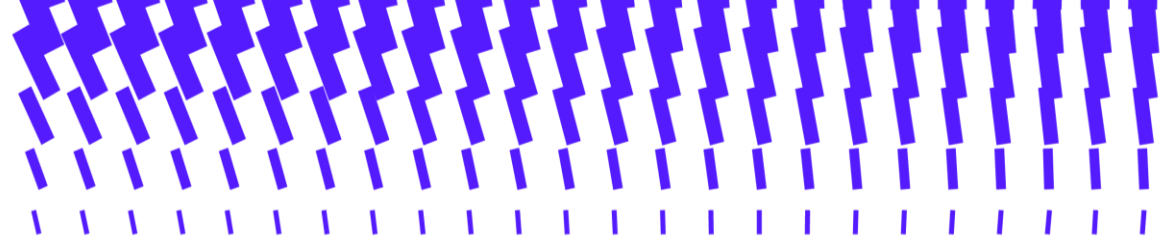
- ~5.5km road closed through RAF Cranwell
- Closure due to a NATO military exercise, but apparently not communicated to LCC or published online



Cheshire W & Chester - complete

- Two small junction closures within Chester < 100m

Making progress



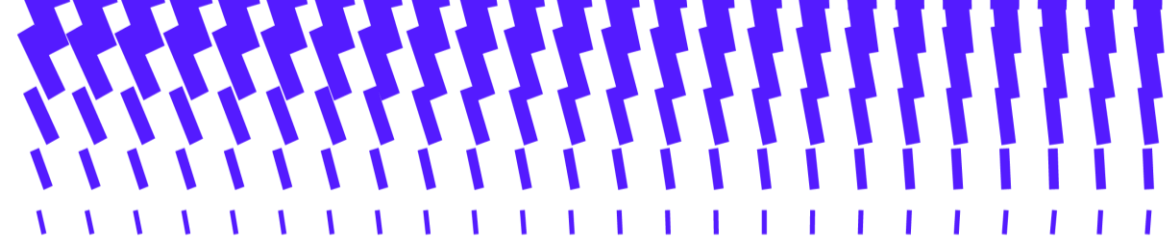
One engineer had very high standards, reporting a lot more conditions 4 & 5 than others. The engineer benchmarking process picks this up and provides a mechanism for dealing with 'outliers'. This is where having a lot of benchmark engineers helps

Getting volunteer engineers this year has been a real challenge – this suggests that defining the engineers' benchmark may need to change for future trials

Irrespectively, we've seen a lot more conditions 4 & 5 recorded on the trial networks

25 RCM technologies were tested in 2025 – there are **33** undergoing trials this year.

It's not finished yet



Demonstration Trial Activity	Date
TRL provide benchmark data for calibration	9 th October 2026
RCM technology providers submit calibrated data for assessment	13 th November 2026
RCM technology providers advised whether their technology is considered as ‘demonstrated’ or ‘not demonstrated’	18 th December 2026
TRL publishes its report for DfT approval	By end of February 2027

Thanks for listening

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