

A BREAKTHROUGH IN AFFORDABILITY

At SHEPHERD we pride ourselves on delivering **practical and innovative Asset Management solutions that work.**

With over 20 years' experience in local government we understand the importance of accurate road survey data to inform condition-based models, renewal programs and forward budgets.

Our unique RACAS (Road Asset Condition Assessment System) is a powerful and cost-effective road asset survey tool that allows authorities to quickly capture condition data and develop renewal models, works programs and defect logs.

DESIGNED BY ROAD MANAGERS FOR ROAD MANAGERS

We've built RACAS from the ground-up to service an identified industry need, and we continue to innovate RACAS technology in response to our clients.



PRACTICAL | ACCURATE | PORTABLE | AFFORDABLE

Limited Budget? Limited Resources? Limited Time? RACAS is the answer, with user-friendly features and integrated technology that deliver outstanding value for money.

Set-up in minutes and mounted to any vehicle, Mobile RACAS works by capturing high resolution images every 10 metres, precision GPS and roughness data as you drive. Inside the vehicle, the Inspector uses a touchscreen to record points of interest during the survey.

Back at the office, data captured by Mobile RACAS can be viewed on Virtual RACAS (our reviewing tool) for desktop assessment or integrated with existing GIS and Asset Management systems.

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RACAS MIDLINE

Quickly and accurately capture the condition of your sealed road network using the new generation RACAS Midline. Designed specifically for AI (automated defect detection), the RACAS Midline is equipped with a high resolution cinema camera, high precision GPS and high resolution roughness device.

The new camera delivers outstanding clarity even in challenging light conditions. The new professional series GPS device provides sub-metre accuracy and our newly engineered roughness device samples every 1/1000th second which means finer resolution, accuracy and repeatability.

The RACAS Midline is purpose built for the image clarity demands of AI (currently only available for sealed roads). This also results in superior imagery on unsealed road networks.

A major breakthrough with our Midline technology means that all roads can now be surveyed at 100km an hour, resulting in crisp imagery and consistent roughness measurements.

The camera is climate controlled to ensure optimal image quality (i.e. eliminates fogging in cold conditions and over-heating in hot conditions). RACAS Midline is also used on our RACAS eBike for footpath surveys due to image clarity and GPS precision.



RACAS AI

The future of road management is here with SHEPHERD's RACAS AI.

High priority road defects, such as potholes, edge-breaks and failures, are detected and logged within 24 hours of capture using RACAS cloud technology. This allows for the development of quick and accurate works programs. Plus defect data outputs integrate with all road management systems.



RACAS SLIMLINE

The RACAS Slimline is our entry level model and uses streamlined technology.

The rugged RACAS Slimline is purpose built for unsealed roads as it is speed limited to 60km an hour and best image results are captured between 9am and 3pm.



LATEST EFFICIENCY & SAFETY FEATURES

Road Detection - Mobile RACAS Software can be configured to automatically detect the road the Inspector is driving, a **great safety feature that reduces the driver's interaction with the console.**

Join Spatial Data – This significant time saving and efficiency gaining feature enables Council's existing spatial data to be automatically joined to RACAS capture data.

Reflect Backlog – Load your Reflect backlog file into Mobile RACAS to visually display and audibly notify the operator of pre-existing defects as you drive.

Gravel Coverage Tool – Enables the RACAS Inspector to assess gravel coverage as they drive and record the data in real time.

Auto Spilt Tool – Divides the road into pre-defined segments that can be assessed individually once captured for profile, gravel coverage and material type.

RACAS HUB

View your road management data in the online RACAS Hub, available to view from any browser. Built on the Esri ArcGIS platform the RACAS Hub is a user-friendly interface **designed to present complex road management data simply.**

View and analyse data captured at the network and the road level, delve into the condition data using built-in dynamic analytical tools, drive roads virtually or view individual defect photos. Export data using default reports, customise your own reports or export a CSV file for integration with other applications.

Engage key stakeholders with a high level snapshot of your road network with automatically updated road condition statistics.



ONE DATA SET – MULTIPLE APPLICATIONS

Equally suited for sealed and unsealed roads, once a RACAS run has been completed the road survey data can then be used for:

- Defect Logging and Road Condition Assessment
- Accurate Network Analysis and Modelling to inform forward budgets
- Develop Capital Renewal Works Programs
- Develop targeted Maintenance Programs to optimise budget spend
- Pre-disaster evidence of road condition (as required under DRFA)
- Investigate road complaints without leaving the office
- Establish sealed and unsealed service levels with Council based on actual modelled costing
- Update Asset Management Plans and Long-Term Financial Plans
- Benchmarking against industry standard

OPTIONS TO SUIT YOUR BUDGET

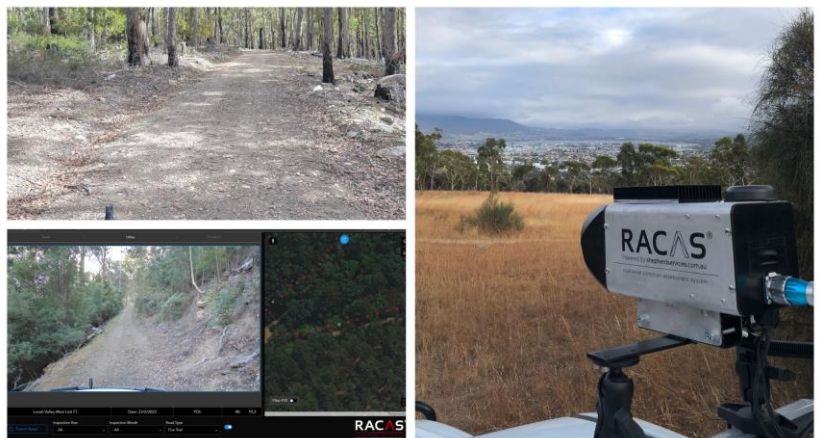
There are several options available to procure the system depending on your budget, available internal resources and road network size.

RACAS can be hired and with one day of training your team will be up and running. RACAS is so user friendly that both technical and non-technical staff can be trained to perform a road survey.

For longer engagements the option to lease RACAS equipment is available.

SHEPHERD also offer a complete RACAS service including road surveying, defect logging and condition assessment through to producing three year works programs and GIS data. This service includes a complimentary license of Virtual RACAS, the RACAS Hub and all the road RACAS imagery data.

Options can be tailored to suit individual requirements.



INTERESTED?

Talk to us today – Your leaders in practical and innovative Road Management Solutions. Watch demonstration videos on our [YouTube Channel](#) or visit our [RACAS website](#) to find out more.

RACAS is proudly distributed in Western Australia by [Greenfield Technical Services](#).

To arrange an onsite or online demonstration call Greenfield Technical Services Principal Josh Kirk on 0498 999 484 or email josh.kirk@greenfieldtech.com.au.