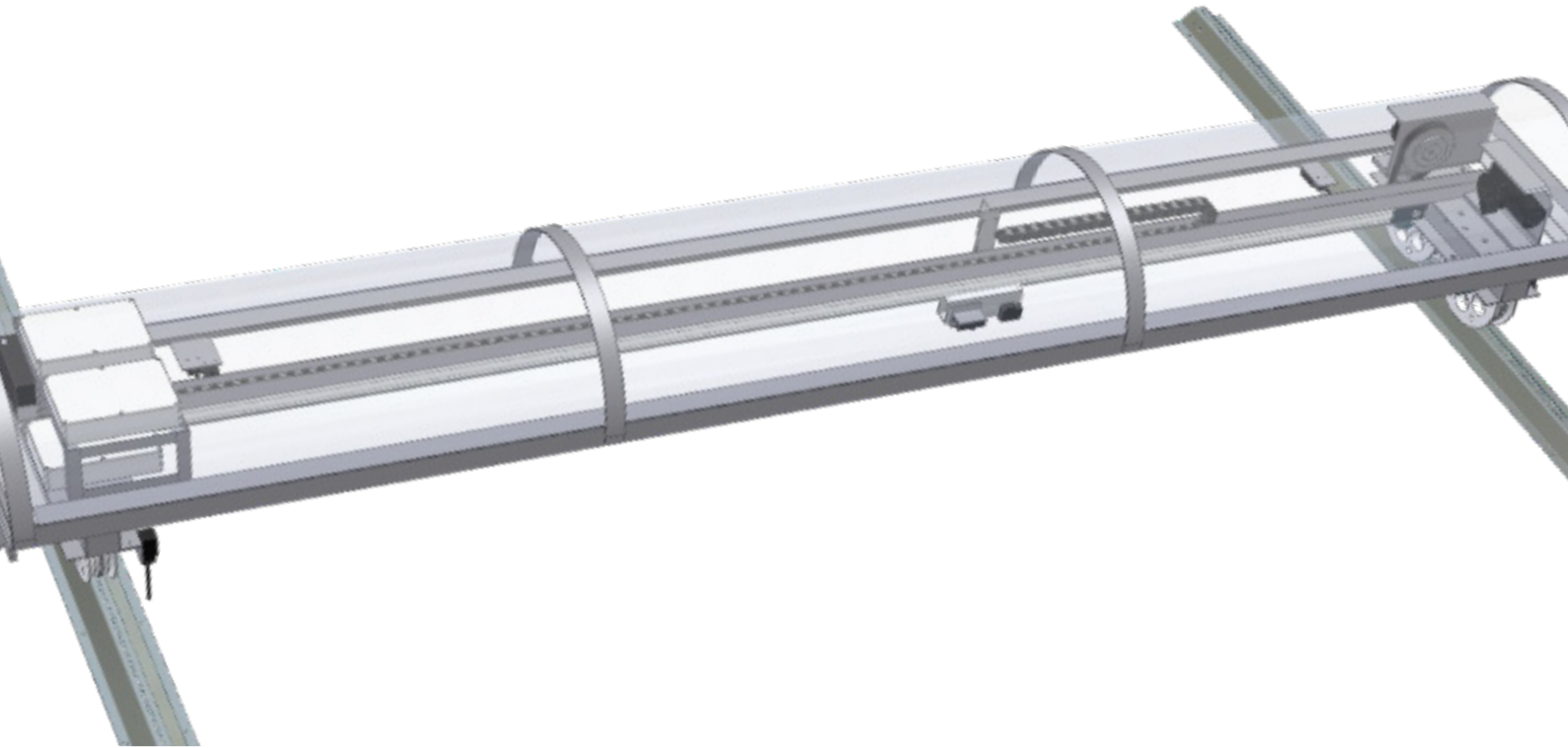


Transverse Road Profiler

Client: ARRB

ideas^o
smart thinking



The ARRB group are world leaders in road testing technology. ideas* were engaged in 2007 to develop an automated 3D road profiler to add to their technology suite.

The AARB group use an Accelerated Loading Facility (ALF) to simulate normal trafficking over the life of a road in a matter of months.

Previously during testing, AARB would manually take measurements of the test area between loading cycles. This process was inaccurate and slow, and as a result ideas* developed the Transverse Profiler to automate this process.

The Transverse Profiler takes both laser and ultrasonic measurements of the test road surface to provide both surface texture and profile measurements.

The fully automated "one touch" system provides a 3D profile for a 2m wide by 15m long test bed. The design includes slotted track & sprocket wheels to ensure the transverse profiler remains square and the position is measured accurately by an encoder.

In combination with the work of ideas* modifying the ALF the Transverse Profiler can accurately and repeatably measure road changes during testing. The Transverse Profiler has been a valuable addition to AARB's technology suite.



The Transverse Profiler installed at AARB underneath the ALF.



The Transverse Profiler during testing at the ideas* workshop.