**Leveraging the benefits of an integrated compaction testing approach**

Compaction is one of the most important processes in civil engineering projects, including bulk earthwork, foundations, backfilling, and pavements. Ensuring high-quality compaction is crucial for the resilience and longevity of infrastructure.

We want to create uniform quantified compaction and deliver it as efficiently as possible.

To achieve the best compaction outcomes, we combine instrumentation on the compactors and with insitu measurements and real time feedback loops to create an Integrated Compaction Control System.

Further, improvements in roller technology and insitu testing methods now enable us to compact effectively and with confidence to deeper depths. This maybe compacting insitu material (e.g. uncontrolled fill layers which may have otherwise been removed and replaced) or compacting material placed in thicker lifts.

Using case studies from the Pacific region, we’ll explore how several more innovative compaction related testing methods have unlocked opportunities for these productivity and sustainability gains in civil construction. We’ll show how they can be a valuable training aid for roller operators and be used for Quality Assurance purposes by the asset owner.

The outcomes of this integrated approach are increased rates of construction, lower costs, improved quality, reduced risk and a reduced environmental footprint. From an asset perspective, it’s increased resilience and longevity of our infrastructure.