

March 2022

Tēnā koutou

Welcome to our March edition of Elaborate. In this edition, we're excited to announce we are planning a hybrid celebration of World Metrology Day 2022 at our Gracefield Innovation Quarter site in Lower Hutt. The theme for World Metrology Day this year is Metrology in the Digital Era.

We also acknowledge the great work done by our Length Standards team in setting up a national centre for coordinate metrology, and we introduce the MSL Moon Buggy!

This will be my last Elaborate as Director of MSL. It has been a privilege to have had the opportunity to lead our national metrology institute. Leaving MSL to take up a new leadership role within Callaghan Innovation is not an easy decision. However, with Dr Annette Koo stepping in as our new Acting Director, MSL remains in very capable hands.

Ngā mihi

Cliff Hastings
Director – MSL



The theme for 2022 is **Metrology in the Digital Era**.

It's been a while since we've been able to welcome large customer groups to Gracefield Innovation Quarter in Lower Hutt. We see this as a wonderful opportunity for you to reconnect, to hear some informative talks, to network with other stakeholders and to tour some of our new and not so new laboratories. As usual, we plan to end the day with the Metrology Society of Australasia (MSA) networking hour.

Now that Covid restrictions have relaxed, we invite you to join us for the whole day or virtually until 3:00 pm. The event is free and spaces will be limited on site, so please register now to confirm your place.

The full programme will be announced here soon, but talks will include: MSL's Blair Hall speaking about digital metrology; Vladimir Bubanja speaking about quantum metrology and the MSA will announce the inaugural winner of the Emerging Metrologist of the Year award.

[Find out more](#)

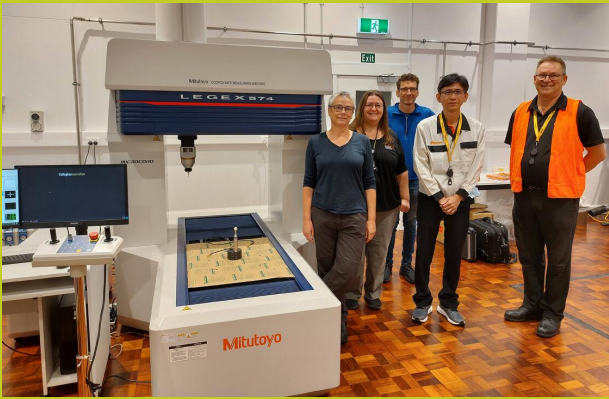
MSL to open a new national facility for coordinate measurement at the end of this year

Includes a machine that's the first-of-its-kind in the Southern Hemisphere

For decades, MSL's length metrology team has supported New Zealand industry and academia. From calibrating artefacts and realising the definition of the metre, to **determining the roundness** of aircraft engine parts and characterising components for **the world's leading telescopes**, our scientists have successfully tackled a broad range of measurement challenges.

And now, after more than three years of effort, and in the midst of a global pandemic, MSL is adding a critical new facility to its offering – a national centre for

coordinate metrology. Housed within a dedicated lab on the Gracefield campus, its two new coordinate measuring machines (CMMs) will cement MSL's position as the New Zealand home of innovative – and traceable – length measurements.



The Mitutoyo Legex 574 at home in the new coordinate measurement facility at the Measurement Standards Laboratory. Celebrating the installation are Eleanor Howick, Lenice Evergreen and Chris Young from MSL's Length team with Mr Hum of Mitutoyo – Singapore and Stephen Browne, the NZ Agent for Mitutoyo.

[READ MORE](#)



MSL's Dr Annette Koo recently hosted a Remote Sensing in NZ Workshop

Presentations can be viewed here

Electrical Standards Instrument move and... Moon Buggy

Moon Buggy was designed and built by a small team of MSL scientists, led by Research Scientist, Hamish Edgar. The complexities of moving larger, extremely sensitive scientific instruments around the Gracefield site without losing traceability is a delicate process, so Moon Buggy was created!

Specs:

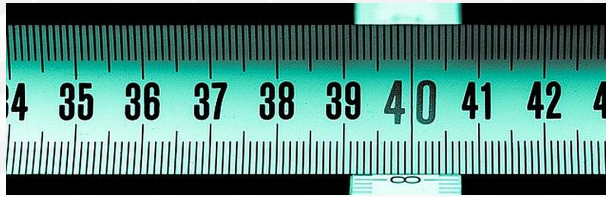
Load Capacity: 200 kg	Tyre Pressure: 4 psi maximum
Frame Construction: Welded Steel	Crab Steering: Yes
Trolley Mass: 120 kg	Maximum Speed: 5 kph
Suspension: Low Pressure Tyres	Tray Size: 1200 mm x 1050 mm
Steering: All Wheels	Payload Isolation: 0.2 g max, in normal use



Nearly there – an inspection stop during the Calculable Capacitor's journey to its new purpose-built laboratory.


From the left is Cheng Yang, Keith Jones, Minyu Zhang, Moon Buggy and Hamish Edgar.

[Find out more](#)



Training Course registrations are now open!

We are quietly confident that we will deliver these courses in August at the Lower Hutt and Auckland locations. Our face-to-face, practical, hands-on courses are extremely valued and provide the best platform to upskill laboratory staff – click below to find out more about our training.

 [Find out more](#)

Conferences to look forward to...

Conference on Precision Electromagnetic Measurements – 12 to 16 December 2022

MSL is excited to co-host the CPEM in Wellington. This is a major event that will attract many world leading experts in the field of Electrical Metrology.

Register your interest and keep up to date [here](#).



Metrology Society of Australasia – Revised Date! Now 20 to 23 February 2023

Keep up to date [here](#).



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Callaghan Innovation, Gracefield Innovation Quarter, 69 Gracefield Road, Lower Hutt, Wellington 5010
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