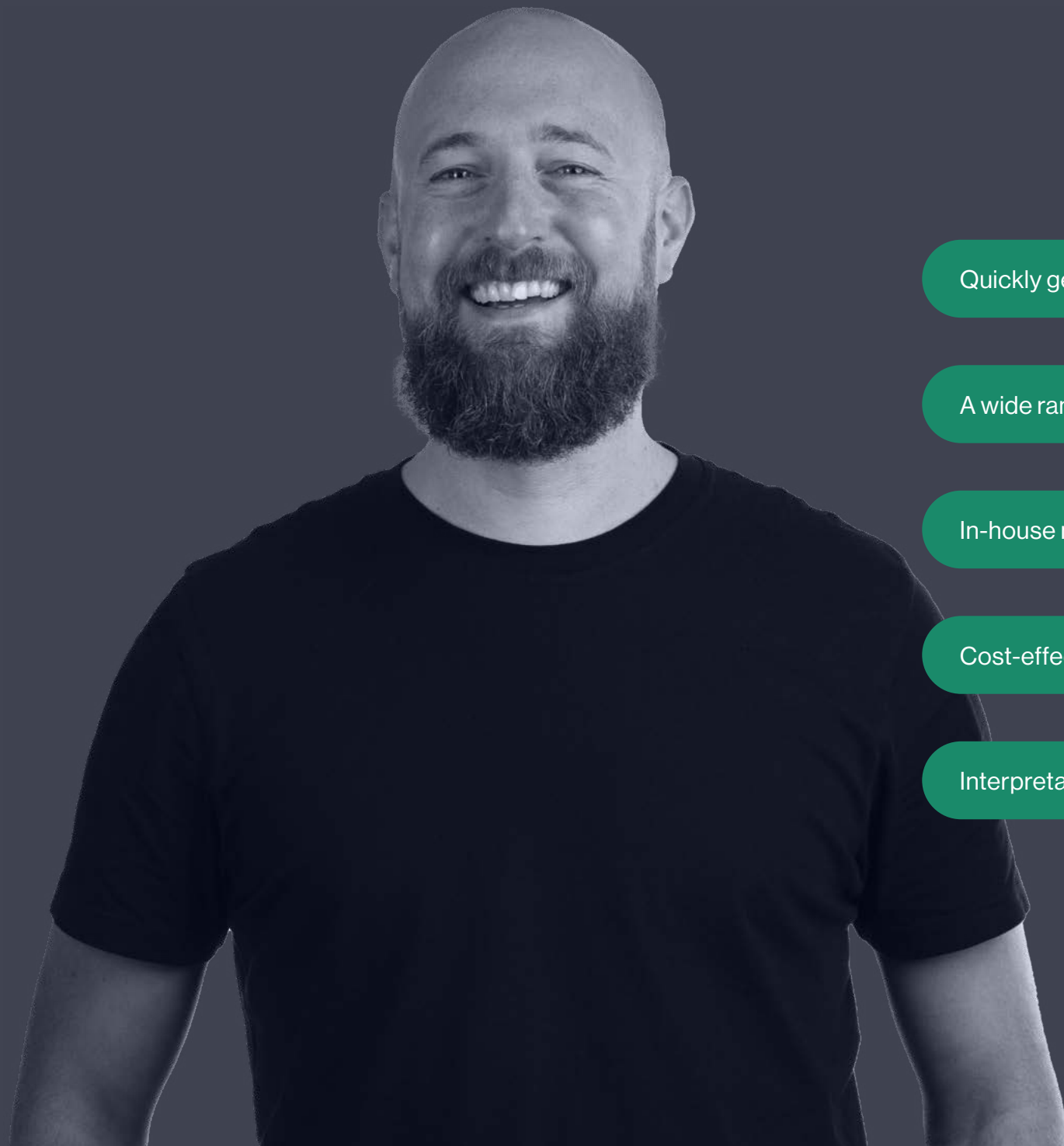


INNOVAL

Let us take the
stress out of your
materials testing.



Quickly get to the root cause of your material problem.

A wide range of in-house techniques.

In-house materials expertise.

Cost-effective holistic solutions.

Interpretation and recommendations, not just data.

You're not alone.

There's a lot riding on the quality of the materials in your manufacturing process.

We understand that your goal is to produce a product that meets high standards for safety, quality and sustainability.

When it comes to testing, you need an efficient and reliable solution that you can trust. A partner who will help you reduce long-term costs, resolve your existing problems and prevent future ones.

Our in-house testing laboratories and state-of-the-art equipment provide you with a holistic materials testing service.

Not only that, but our materials experts will help you interpret your results and plan your next steps so that you can get on with production.

[CLICK TO FIND OUT MORE](#)



A woman with blonde hair, wearing safety glasses and a lab coat, is focused on a task in a laboratory setting. She is wearing white gloves and appears to be handling a small object. The background is slightly blurred, showing laboratory equipment. The entire image has a green tint.

We're entering a new era of testing and analysis.

Innoval has been providing advanced materials testing and characterisation solutions for the global aluminium industry for the past 20 years.

We are now investing in new equipment so that we can continue to provide the latest and most complete range of services.

[Keep reading to see what we've added to our testing portfolio.](#)


Mechanical testing.

Tensile Tester.


We've recently invested in a new Instron 50kN machine to enhance our materials testing capability. It allows us to perform a large range of accredited tests across a wide range of metals with very high accuracy.

It also includes a video extensometer to measure axial and transverse strain. This can help you to understand the mechanical properties of your material; for example, the ultimate tensile strength, yield strength, ductility and modulus values.





This new equipment allows us to perform a range of tensile and compression testing such as thin gauge testing and fracture toughness testing. Our team has many years of experience in the metals industry and can provide consultancy with materials characterisation capability. We can design bespoke testing plans to analyse all the properties of your material.



Surface analysis.

Spectrophotometer.

With our in-house spectrophotometer and integrating sphere, we can perform surface total reflectance measurement (maximum wavelength 380-1050nm) and colourimetry measurement ($L^*a^*b^*$ colour space) of all flat surfaces, including bare metal, conversion coated and painted surfaces.

We use this technique to evaluate the surface cleanliness of flat rolled aluminium surfaces. Such evaluation is critical for controlling the corrosion resistance and the adhesive bonding performance of aluminium sheet and foil products.

Surface analysis.

Surface Profilometer.

Our brand new surface 3D profilometer (white light interferometer) allows us to perform surface topography analysis and roughness measurement on solid materials.

We can obtain all kinds of data, such as contour maps, 3D maps, line profiles at selected positions, and a full set of analytical results, including commonly used profile and area roughness parameters such as Ra and Sa, plus other statistical data.



Packaging quality analysis.

Enamel Rater.

We use an enamel rater to check the lacquer integrity of cans and ends. This is a method commonly used within the packaging industry. It can give a quick indication that there is a defect by passing a voltage through an electrolyte.

Any areas of bare aluminium will give a higher current value. These cans can then be further investigated using techniques such as SEM or optical metallography to determine where the defect is and the cause.



Alloy development.

JMatPro®.

Thermodynamic software is a very useful tool to assist material scientists and engineers in multi-component aluminium alloy and process development.

We can utilise the capabilities of JMatPro® to assist in the optimisation of your current products and processes, and can also support new alloy development and associated process routing.

The software allows for the calculation of:

- Phase equilibria (stable and metastable)
- Thermo-physical and physical properties
- Mechanical properties
- Solidification properties
- Phase transformations

We believe that all products should be good for people and for the planet.

We are a collective of expert consultants who work with partners to develop products and production methods that put sustainability, usability and efficiency first. We build long-term relationships to help organisations design, develop and manufacture better products for end-users and the environment.

Right now, we work predominantly with aluminium because of its many benefits. However, our remit is not limited to aluminium. We are constantly evolving and innovating our approaches based on the best materials and methods that are available, and that may become available in the future.



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