



Part of Danieli Group



# Innoval Technology Aluminium Consultants

How we can help you



# Build long-term partnerships with our aluminium experts

You're an energetic and committed SENIOR MANAGER in a multi-site international company. You're looking for a partner with sound technical knowledge, who can achieve results quickly.

## Your problem

You've got quality and/or productivity issues in one or more of your plants. You need expertise on site, quickly!

## How we can help

We have expertise and practical experience in almost all aluminium products and processes. Within a matter of days we can be at your site analysing the problem and putting together a corrective action plan. We'll help ensure the plan is successfully implemented, and we'll make sure everyone understands the issues and the actions so they can prevent it happening again.

## Your problem

You've heard that your competitors are working on new technologies that could put them in the lead. You're under pressure to move your company forward to the next level.

## How we can help

We can supplement your in-house knowledge with our world-class aluminium expertise. By bringing us on-board, you'll shorten your development time and increase your speed to market. Because we're not a permanent part of your team, costs are kept down.

## Your problem

You're looking for a straight-talking technical partner who you can trust with your highly confidential developments, and who you can rely on to find creative solutions to problems.

## How we can help

The success of our business relies on delivering value to our clients. We'll talk to you to really understand what you need us to do, and then we'll do it. We always operate under a Non-Disclosure Agreement so you don't need to worry about confidentiality and, if we do developmental work with you, you'll own the Intellectual Property.

# Solve your production problems

You're a TECHNICAL MANAGER with quality and productivity targets to meet. You're looking for industry experts to supplement your technical team to implement change and bring about measureable improvement.

## Your problem

You need to see an improvement in quality and productivity but there is always a fire to fight.

## How we can help

If you have a particular problem with your product or process, we'll be able to deliver the solution quickly because we've probably seen the problem before.

Together with your team, we'll analyse the problem and put together a corrective action plan making sure everyone involved understands the issues. Your team will then be free to work on improvements.

## Your problem

You suspect that some of your process problems have become a 'way of life'. You need a fresh pair of eyes to identify where the opportunities are.

## How we can help

Our experts have worked in all kinds of plants around the world, so the chances are we'll be very familiar with your particular process. First of all we'll carry out an audit and benchmark your process against operations with similar equipment and against world-class standards. Then we'll identify opportunities to improve productivity, yield and product quality and we'll work with your team to implement them.

## Your problem

Your shop floor team has limited technical knowledge which is reducing the potential for problem solving and improvement.

## How we can help

We've developed a suite of training courses specifically for the aluminium industry. Our product-specific courses would really help your team to understand material behaviour during fabrication. Furthermore, they'll learn about how your product is used by your customers and what features are important to them.



# Prepare a Downstream business case

You're involved in the decision making regarding an ALUMINIUM INVESTMENT, but you're unfamiliar with the industry and the technology. You're looking for a technical team with world-class expertise to give you confidence that the decisions you make are the right ones.

## Your problem

You don't have any experience of the aluminium industry.

## How we can help

We have an abundance of product and process expertise, so we can advise you on anything to do with the aluminium industry. Most of our consultants have been supporting the industry for over 20 years, and many have held Senior Management positions in global aluminium companies. Furthermore, because of the work we do, we have a unique, industry-wide perspective.

## Your problem

You're preparing a downstream business case, but you don't have enough technical expertise.

## How we can help

If your project requires you to do some or all of the following: conduct technical due diligence, write a pre-feasibility study, design a new plant, or decide which equipment to buy or upgrade, we can help you.

We launched our Support for Strategic Investment services, which include all of the above, in 2009 and we've been helping investors make the right decisions ever since.

## Your problem

You need an accurate estimation of how much your investment is going to cost to build and then operate.

## How we can help

We have financial models to do just this, and they've been developed to incorporate our experience of the global aluminium industry. We're able to calculate all the key financial indicators, together with sensitivity analyses, for any scenario you want to consider.

# Detailed investigation and testing

You're under pressure to solve MATERIAL PROBLEMS but you don't have the technical knowledge or the specialist equipment to do so. You need an aluminium expert who can turn your samples around quickly, and who can provide test results and give advice.

## Your problem

Your process has produced a non-conforming product and you're not sure why.

## How we can help

Our extensive in-house characterisation and analysis capabilities will help you get to the root cause of the problem. We will use our product expertise and knowledge of end-use applications to interpret your test results and provide you with sound, impartial recommendations.

## Your problem

A customer has reported a failure with one of your products and they've stopped their line. You need to react quickly.

## How we can help

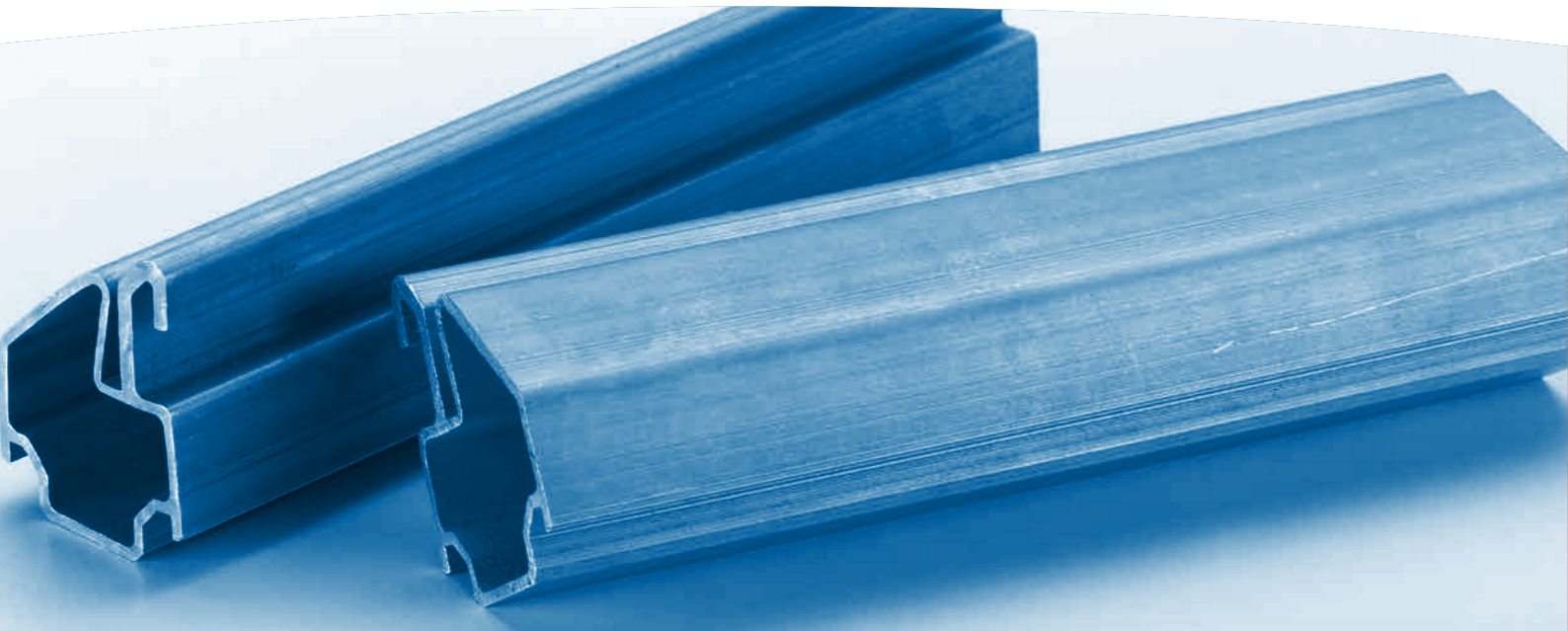
Sometimes we find that it's the processing conditions, rather than the material, that causes a failure. Our analytical facilities, together with our knowledge of end-user processing, can independently assess this for you and your customer. A speedy response is critical, so we will deliver our findings as quickly as possible.

## Your problem

Products fabricated from one particular raw material supplier are showing higher than normal failure rates.

## How we can help

Using our extensive in-house facilities, we can characterise your raw materials. This 'fingerprinting' of your suppliers' products allows you to detect subtle changes made during their manufacturing process and react accordingly.





# Aluminium industry expertise

You're an OPERATIONS MANAGER in charge of an aluminium plant. You're looking to supplement your team with acknowledged industry experts who you can trust to deliver results that really make a difference to the bottom line.

## Your problem

You know you could be getting more from your equipment, but you lack the product and process expertise to realise it.

## How we can help

We have aluminium industry expertise and practical experience. First of all we'll audit your process and benchmark it against operations with similar equipment and against world-class standards. Then we'll identify opportunities to improve productivity, yield and product quality.

If it's appropriate, we'll use one of our process models. These help us to investigate a much wider range of process parameters than is possible in normal production.

## Your problem

You're excluded from certain markets because your product quality isn't at the right level.

## How we can help

Our engineers have experience of working throughout the world, so we know better than most what constitutes 'world-class'. Many of our process experts are also metallurgists who have worked in the aluminium industry for many years and have a wealth of product knowledge. With our expertise, we can help you to qualify for and enter your chosen market quickly.

## Your problem

You want to diversify, but you lack the industry expertise to know what to make and how to make it.

## How we can help

Following a market study, we can help you define the best products to manufacture using your existing assets. We can advise on product specifications, processing conditions and quality controls. We'll even be able to train your people so everyone's familiar with the new products.

If you need to upgrade, we can specify the equipment you'll need to produce your products to world-class standards.

# Aluminium training courses

Whether you're responsible for TRAINING within your organisation, or you're an individual looking to expand your aluminium knowledge, our training courses will help you reach your goal.

## Your problem

Your operations will not improve unless you can increase the product and process knowledge of your staff.

## How we can help

Our experts, who have a huge amount of product and process experience, write and deliver all our training courses. They're very familiar with the day-to-day issues of an aluminium plant and they've created the courses to help you understand the most common problems. Your operators and engineers will gain the in-depth knowledge they need to really make a difference.

## Your problem

You're about to begin manufacturing a new product so you want the production team to understand the basics in order to ensure a trouble-free start.

## How we can help

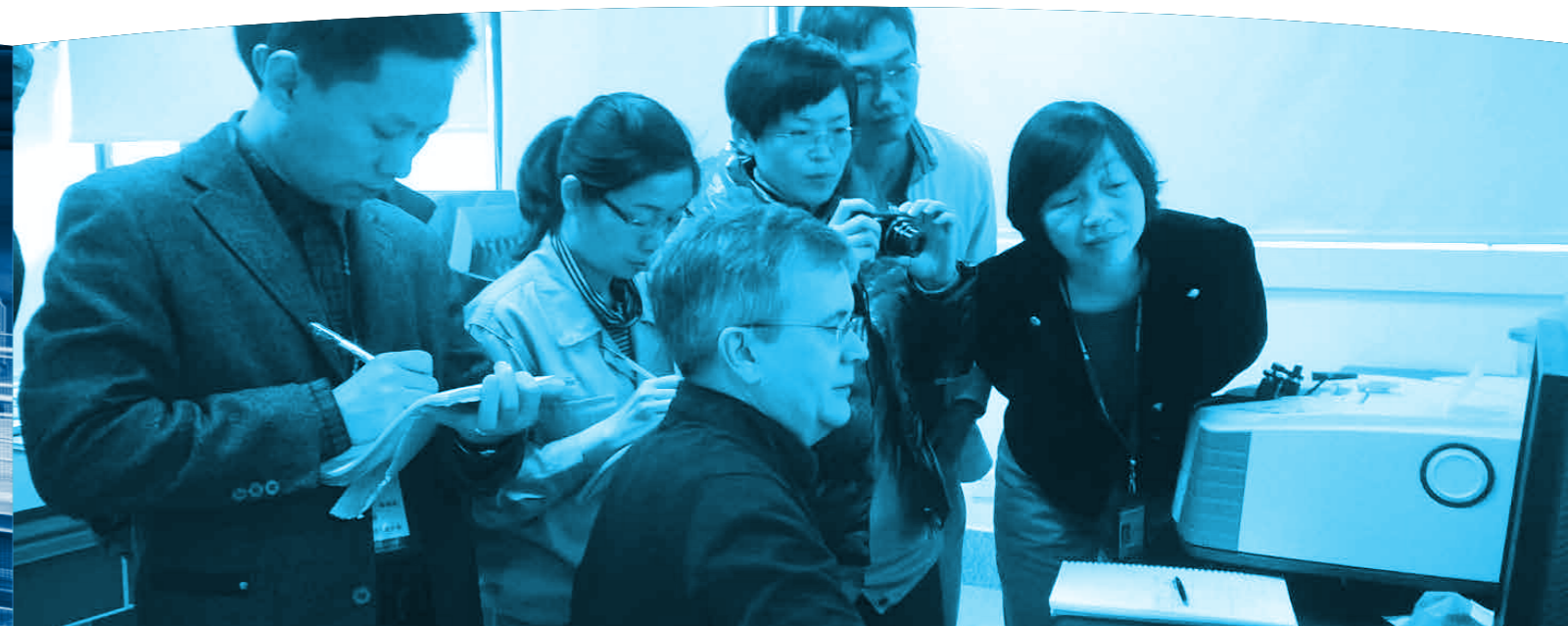
Product-specific courses, such as for beverage cans or automotive sheet, will help your team to really understand material behaviour during fabrication. Furthermore, they'll learn about which features are important to your customer and how the product behaves in service. Metallurgy, surface treatment, corrosion and lubrication are just some of the topics covered in our product courses.

## Your problem

One of your technical experts has recently left and you need to train their replacement quickly.

## How we can help

Most of our consultants have been supporting the industry for over 20 years, and many have held Senior Management positions in global aluminium companies. They have an abundance of product and process expertise which they're more than happy to pass on.





It's been a huge advantage for us to work with Innoval's consultants. We've really benefitted from their knowledge and experience of both the rolling process and rolled products. They have the knowledge of both the automation of the mill and the relationship between the hot and cold rolling processes with the final product requirements. With their help, our commissioning process has been quick and relatively trouble-free.

**Somsak Uthaiwattanatorn**, Project Management Manager  
at Nikkei Siam Aluminium Limited

I was very impressed by the amount of material covered in such a short period of time. Not only did they train 40 people, the Innoval consultants also managed to solve, or start us on the path to solving, six of our biggest issues.

**Prasan Yai-on**, Purchasing Manager  
at Aluminium Chue Chin Hua Co., Ltd

The team at Innoval has years of experience working in world-class rolling operations throughout the world. Their input was vital to this study to ensure we had a realistic financial model to base our decisions on.

**Jeremy Nottingham**,  
Senior Adviser, Mubadala

Innoval's services have been of great value to DENSO Marston, especially their in-depth and extensive knowledge of aluminium, its alloys and processing. This has been valuable with the more unusual problems and investigations that come along from time to time where brainstorming, a fresh mind and additional, more sophisticated testing has been required.

**Nick Brown**, Materials Development  
Manager, DENSO Marston Ltd

Between them, Innoval's consultants have a huge amount of experience both in foil production and end-use requirements. Because they've worked with our customer they really understand our product and we were able to use this knowledge to further improve our process and train our people.

**Grace Jiang**, Senior Manager, Continuous Improvement  
Dept., Xiashun Aluminium Foil Co., Ltd.

Innoval Technology Limited,  
Beaumont Close, Banbury, Oxfordshire,  
OX16 1TQ, United Kingdom

Tel: +44 (0) 1295 702800

Email: [enquiries@innovaltec.com](mailto:enquiries@innovaltec.com)

[www.innovaltec.com](http://www.innovaltec.com)