

# NMIS

National Manufacturing  
Institute Scotland

# The future of manufacturing

[nmis.scot](https://nmis.scot)





# About NMIS

**The National Manufacturing Institute Scotland is the future of manufacturing at the heart of the Advanced Manufacturing Innovation District Scotland.**

It is where industry, academia and the public sector work together on ground-breaking manufacturing research to transform productivity levels, make companies more competitive and boost the skills of our current and future workforce.

The National Manufacturing Institute Scotland (NMIS) is a group of industry-led manufacturing research and development facilities with a network of Partners across Scotland brought together to boost the manufacturing community.

Together we are focused on revolutionising skills, productivity and innovation to help attract investment and make Scotland and the wider UK a global leader in advanced manufacturing.

## Our ambitions

Growing out of the Scottish Government's manufacturing action plan published in February 2016, NMIS is an integral part of the Making Scotland's Future programme.

Our ambitions are to:

- ▶ Increase productivity by reducing barriers to innovation
- ▶ Grow the economy by galvanising investment and increasing manufacturing competitiveness within Scotland and internationally
- ▶ Catalyse job creation and strengthen supply chain links across the country
- ▶ Provide leadership, build collaborations and enhance capability to influence adaptation and exploit manufacturing opportunities to boost Scotland's transition to a net-zero emissions economy by 2045
- ▶ Inspire and attract talent and equip current and future workforces with the skills they and the manufacturing and engineering community need

We do this by working with manufacturing businesses of all sizes from across Scotland, the wider UK and beyond making it easier for them to access innovative technologies and connecting them with our widespread national and international network of world-leading industry and academic experts and collaborators.

# One Scotland Team

**Collaboration is at the heart of the National Manufacturing Institute Scotland.**

NMIS has been developed by a number of organisations working together. This group is collectively known as the One Scotland Team.

NMIS is operated by the University of Strathclyde and supported by the Scottish Government, Scottish Enterprise, Highlands and Islands Enterprise, High Value Manufacturing Catapult, Skills Development Scotland, South of Scotland Enterprise, Renfrewshire Council and Scottish Funding Council.





# NMIS and industry

## The National Manufacturing Institute Scotland supports manufacturers to develop technologies and processes that fit their needs and ambitions.

Through working with us, you can access industry-leading expertise and resources that help you de-risk innovation, turn ideas into a reality and solve real-world manufacturing and engineering challenges for companies regardless of size, sector or location.

Working with us will give you the opportunity to be at the heart of the manufacturing and engineering community in Scotland; connected to an unrivalled international network of world-leading specialists and potential supply chain partners and collaborators.

Together, this network can help your business thrive.

- ▶ We help existing and future workers develop and enhance the skills they and employers need to compete globally in the manufacturing world
- ▶ We accelerate innovation by enabling manufacturing companies to trial and test new processes, applications and technologies
- ▶ We demonstrate new manufacturing technologies and processes at an earlier stage
- ▶ We encourage supply chain collaboration at the research stage of product development
- ▶ We provide access to modern equipment and expertise to support prototyping, testing, and scale-up to industrial production, thereby helping de-risk investment, especially for smaller businesses
- ▶ We provide a focal point for applied manufacturing research expertise, thereby strengthening Scotland's reputation for R&D and attracting inward investment
- ▶ We act as a beacon to attract investment into the Advanced Manufacturing Innovation District Scotland

## Helping manufacturers now

NMIS can help you now. We can introduce your company to new technologies; we can work with you to solve some of your biggest challenges; we are here to invigorate your business in a way that suits you and matches your aims and objectives.

Here are just some of the ways we can help:

- ▶ Collaborative research and development programmes
- ▶ Bespoke directly-funded research programme
- ▶ Project funding support strategies
- ▶ Membership programme
- ▶ Skills and continuous professional development
- ▶ Online diagnostic services and information provision
- ▶ Events and networking



# We are a community

## The NMIS Group is pan-Scotland.

## We are a group of research and development facilities with an active network of partners and collaborators across the country supporting the manufacturing and engineering community.

### Advanced Forming Research Centre

The foundation from which NMIS has grown, the Advanced Forming Research Centre (AFRC) is the only High Value Manufacturing Catapult centre in Scotland and home to the world's most advanced hot forging platform, FutureForge.

For over a decade the team has been pushing the limits of advanced manufacturing and engineering as a globally-recognised centre of excellence in innovative manufacturing technologies, engineering research and development, and metal forming and forging research.

Through the centre's advanced metallurgy capabilities and numerical and analytical process modelling tools, our team can help you predict the outcomes of differing manufacturing processes, identifying points of failure often before they occur all with the purpose of saving cost and time in the future.

### Digital Factory

With a focus on technologies such as data analytics, artificial intelligence and connectivity, automation, virtual and augmented reality, additive manufacturing, machining, and design engineering, the digital factory team is exploring and developing the next generation of manufacturing technologies to help solve the engineering challenges of the future.

Using our existing facilities as demonstrators and working with companies of all sizes across the supply chain, the team is actively developing a large-scale digital transformation programme for industry with six testbeds at its core.

The testbeds will showcase how companies like yours can use digital technologies to increase productivity, improve sustainability and push forward innovation within the manufacturing and engineering community. When it opens in 2022, our digital factory facility will be world-leading in driving forward leadership, research and innovation and delivering real-world business impact within the digital manufacturing sphere across Scotland, the rest of the UK and beyond.

### Lightweight Manufacturing Centre

The aim of our Lightweight Manufacturing Centre (LMC) is to help you make the next generation of products more sustainable and efficient while transforming your business, through accessing new markets and disrupting existing ones.

Working with manufacturers of various sizes across all sectors, the LMC supports technology and supply chain development around the exploitation and processing of both novel and industrial materials. Working across the technology readiness level scale, the LMC team connects academic research to industry application. Embracing a fully holistic approach, the team will work with you throughout the product development cycle, integrating design and analysis throughout. The LMC provides anything from turnkey concepts to remanufacturing parts to deliver reduced environmental impact and lower costs for raw materials.

By working collaboratively across the supply chain and with our wide network of industry, academic and funding partners the LMC team can help you explore and de-risk innovation.

### Manufacturing Skills Academy

Through our Manufacturing Skills Academy, we are transforming the workforce of today and tomorrow. It is a place where people at any stage in their manufacturing and engineering career can learn.

The development of our Manufacturing Skills Academy is led by a team of respected and experienced professionals and supported by industry specialists who understand what the manufacturing sector and its people need in order to thrive.

When it is built, the Manufacturing Skills Academy will be housed in our flagship building but the transformation has already begun with the launch of continuous professional development courses, our Industry Doctorate Programme and the development of a new apprenticeship programme in digital manufacturing.

### NMIS Network

Collaboration is at the core of all that we do. Through our Network Partners, we bring together Scottish research and innovation, education and training providers each with specific capabilities and areas of expertise, to act as a national framework of services to share knowledge and ideas that can address specific needs for the manufacturing community.

Our Network Partners are typically sector representatives, networking bodies, and public agencies. This collaboration is facilitated by our Network Capability Forum, which is tasked with addressing, promoting and coordinating sustainable manufacturing capability.







# NMIS people

**Our people are at the heart of all that we do. Without them we have kit but no capability, our people are our expertise.**

Our people are what makes NMIS different.

NMIS is a research hub that thinks like a business.

Our people come from industrial backgrounds; they understand targets, budgets and deadlines. They know what it's like to be under pressure and have to deliver. They understand market forces and know what it is like to face good times and bad in an industrial environment. This is why we are passionate about ultimately helping you make your business more competitive, regardless of what it is that's needed.



**National Manufacturing  
Institute Scotland**

Advanced Forming Research Centre  
85 Inchinnan Drive  
Renfrewshire  
PA4 9LJ

+44 (0)141 534 5200  
nmis.scot  
nmis-enquiries@strath.ac.uk  
@NMIS\_group

Operated by:



Supported by:

