



MADE NE: A CRUCIAL INITIATIVE FOR THE FUTURE OF NORTH EAST ADVANCED MANUFACTURING

MADE NE (Manufacturing, Automation, Digitalisation, Electrification North East) is a landmark investment, ensuring the region has the skilled workforce and innovative capabilities to thrive in the rapidly evolving electric vehicle market.

A collaborative effort involving key players such as Nissan, AESC, Vantec Europe, Education Partnership North East, New College Durham, Newcastle University and the NEAA, MADE NE will create world-leading training facilities over two sites within the International Advanced Manufacturing Strategic Site (IAMSS) in Sunderland – part of the North East investment zone supported by Sunderland City Council and the North East Combined Authority.

The NEAA caught up with Craig Jennings, newly appointed CEO of MADE NE to hear more about how these plans are shaping.

Tell us about the objectives of MADE NE and its overall goal?

MADE NE has three main objectives to support the needs of the Electric Vehicle (EV) and Battery sector:

- Industry Skills and Innovation
- Clear educational pathways
- Opportunity for all

These objectives are designed to deliver the right people, with the right skills, at the right time for the sector to prosper and grow in the transition towards electrification.

MADE NE will establish two centres that will be open-access and designed to bring industry-scale equipment and expertise to a safe and secure learning environment. Accessible to Industry, Education and Technology providers, the centres will combine the relevant strengths of each to deliver training and innovation in parallel – ensuring the best possible outcomes for learners and industry.

To ensure a sustainable and diverse pipeline of talent, we need engagement and support at all ages, education levels and socioeconomic backgrounds. As such, MADE NE plans to engage with the local communities to ensure opportunities for all. This starts with STEM engagement at primary school (supported by the Nissan Skills Foundation) and goes all the way through to industry-supported Continuing Professional Development.

MADE NE is an Industry-led consortium (Nissan, AESC & Vantec) supported by Employee representative body (NEAA), Further Education Colleges (Education Partnership North East & New College Durham), Higher Education (Newcastle University) and Catapult (OREC). It is uniquely placed to meet the skills and industrial innovation challenges posed by electrification of the sector.

Ultimately, by providing unique and valued services to the sector, MADE NE aims to be self-sustaining within five years. It will generate revenue by hosting the delivery of STEM engagement and apprenticeships through to adult skills, by providing flexible space to businesses and innovation projects aligned with the goals

of the centres and by making Nissan's own training commercially available so that others can benefit.

What are the specific skills that MADE NE will focus on developing?

The skills required for modern advanced manufacturing are broad but can be summarised as **M**anufacturing, **A**utomation, **D**igitalisation and **E**lectrification!

Underpinning these themes are seven main pillars of activity:

Electrification: covering all manufacturing aspects of Batteries, Power Electronics, Motors and Drives

Industrial Digitalisation: applying digital technologies and data analytics to the industrial environment

Connected Supply Chain: Integrating supply chain data to drive efficiencies

Advanced Manufacturing: All aspects of operations from hand skills to Statistical Process Control

Autonomous Logistics: Leveraging the region's leading autonomous logistics projects (V-CAL) to deliver the skills and innovation for fully autonomous on-road logistics (an ambition of NICCAL by 2030 – the National Innovation Centre for Connected Autonomous Logistics)

Leadership: Developing future leaders (new and existing) able to operate in an ever-changing and increasingly digital environment

Cross Sectoral: Ensuring synergies between sectors are identified and leveraged (particularly between NE key sectors such as automotive and wind energy)

Uniquely MADE NE's Centre aims to bring together the industrial assets, training capability and innovation frameworks to accelerate adoption and growth through targeted support.

Crucially, the overlay of the digital and physical manufacturing technologies in one space allows skills and innovation to be applied across a range of industrially relevant manufacturing equipment. This not only allows for the enrichment of skills and training, it also provides an innovation space where industry can experience new manufacturing technologies and trial applications before committing to invest for their own purposes.

An early example is the use of point cloud mapping to digitally scan the MADE NE facility. This map is being used with contractors to manage the fit out, take measurements without site visits, plan future layouts and infrastructure whilst also providing a valuable tool for customer engagement.

How will MADE NE ensure that the training it provides is relevant to the needs of the advanced manufacturing sector?

MADE NE is fundamentally an industry-led organisation, with each pillar lead by industry experts. This ensures that MADE NE will respond directly to the current and future skills and innovation challenges of the EV and battery sector.

Alongside the direction provided by industry members of the Advisory Board, MADE NE will generate its revenue by providing skills and innovation support to the sector, meaning strong engagement and alignment is essential to achieve a self-sustaining business.

The combined strength of the NEAA network and industry feedback through the Local Skills Improvement Plan (LSIP) have set the direction for MADE NE. But, going forward, it is important that MADE NE continues to engage with wider industry through networking events, conferences, and customer feedback. This is critical during this development phase – where your feedback

can help to ensure alignment with your needs to ensure the centre's success. In order for MADE NE to be successful and self-sustaining, industry will need to be hands-on, ensuring that the facilities and training content is industry-realistic and meeting the needs of our customers.

Crucially, the NEAA will play a major role in providing the voice of its members and supporting MADE NE to ensure its industry relevance, whilst utilising its convening power to leverage the vast experience of NE in the battery and EV sector. This will allow the NEAA and MADE NE to provide guest-lectures, workshops and open forums to share the experiences, challenges and best practice across the network.

It is also worth noting that MADE NE will operate an indirect model of delivery for formally recognised qualifications. This means that MADE NE will support education providers, such as EPNE, NCD and NCL University to tailor its training to the needs of industry – whilst using the significant experience and networks of the education providers to ensure compliance and safeguarding.

This model delivers the best of both worlds with industry and education operating hand in hand, in an industry-relevant environment.

How do you envision digital technologies impacting the future of the EV industry?

Digital innovation and adoption will be a critical differentiator between those manufacturers that thrive and those that wither over the next 5-10 years. The technological advancements of both vehicles and the manufacturing processes, require many new digital systems – and of course people with the right skills to deliver and exploit them.

Data sits at the heart of the EV industry's digital acceleration, whether from the manufacturing process, the supply chain or the actual use of the vehicles by the customer. Analytics and the use of AI with these huge data sets can bring extensive benefits. These include cost reduction in manufacturing, quality improvements, removal of Non Value-Added work, assisting with CO2 reduction throughout the supply chain, and many more.

Having the right skills and awareness of this constantly evolving technological landscape is imperative for North East manufacturing, and MADE NE aims to support the region on this journey.

MADE NE has already begun the journey towards knowledge sharing and best practice adoption through roundtables and showcasing what is possible.

What is the biggest challenge facing the automotive sector today?

The transition to electrification is a challenge for the whole automotive sector. This once in a generational change of technology impacts all aspects of the value chain, from the introduction of new technologies to the vehicle manufacturing environment (such as batteries, power electronic and electric motors) right the way through to customer perception and charging infrastructure.

The shift to EV has been challenging, with multiple external factors impacting the adoption speeds, global competitiveness and the Total Industry Volume in major markets. However, the transition to EV technologies in the UK and Europe is a question of when – not if. MADE NE aims to deliver the right people with the right skills at the right time.

To put that into context, the North East EV and battery sector is forecast to produce more EVs in the next few years than it has in the



previous decade. This requires skills to scale up in new manufacturing technologies, as well as catering for the new technologies enabled by EVs (such as Autonomous Vehicles and Vehicle to Grid).

Excitingly, the North-East is uniquely placed to lead on this – having over a decade of EV and battery manufacturing experience. The skills and capability exist in our region – the challenge is to scale that experience to a wider network and to deepen and strengthen the supply chain in these areas. MADE NE seeks to provide the skills and innovation required to support this transition and cement the North-East as the leader in Battery and EV manufacturing.

When should we expect to see MADE NE in full operation?

MADE NE will build in phases but activity is already underway. The first centre is already open and delivering initial skills training and apprenticeships in conjunction with EPNE.

Additionally, MADE NE is now in the process of establishing the legal agreements required to offer Nissan's internal training to the wider network, with course content and pricing intended to be shared this summer.

The second centre is a new-build unit that is in the process of being converted to be a flexible industrial space designed to bring industry level equipment alongside teaching facilities. This space is intended to house a production representative manufacturing line, supporting logistics and material handling and a digital overlay. This facility is currently under development with project partners whilst also seeking support from technology providers and the wider network.

The target is to have both centres operational within FY25 and continue to build the assets over the life of the project to achieve state-of-the-art facilities that are open access for all to use on a commercial basis.

These capabilities within the region will not only provide the foundation for meeting the skills requirements of the sector, but also allow for the delivery of targeted industrial innovation.

How will the success of MADE NE be measured?

Over the next five years, MADE NE aims to:

- Deliver two new training facilities.
- Offer 60 new or improved training courses.
- Award over 600 Level 2 or 3 industry-enhanced qualifications.
- Provide more than 100 non-financial business support interventions, such as helping with grant-funded innovation projects.

Success means making MADE NE invaluable in delivering on the skills and innovation needs of the sector, creating value and generating revenue to enable the creation of an independent and self-funding organisation within five years.

What are the next steps for MADE NE?

Later this year, once we have fully established the centre's physical and training assets, we look to hold a series of showcase events targeted at industry and academia to demonstrate the capabilities and opportunities to work with MADE NE on training and innovation projects.

This will run alongside the work done to identify the skills and innovation challenges and delivery roadmaps. We also need to spread the word about what MADE NE can do, establish the website and begin delivery of commercial training across the network. In addition, with the recruitment of the strategic skills partnership lead, we will develop curriculums plans, pilot and evaluate activity and engage with providers to ensure MADE NE is embedded in their planning for the 2026 academic year at scale.

Although there is a huge amount still to do, the MADE NE consortium and the NE sector as a whole has great strengths in delivering a collaborative approach to the needs of the sector, and we are confident that with this ongoing support we can make MADE NE as success for all.

How can MADE NE support the NEAA and other cluster members?

MADE NE is fundamentally designed to support the EV and battery sectors skills and innovation needs. Each of the pillars of activity target key needs identified during the scoping phase with input from the NEAA members and in some cases building upon the foundation work completed by the NEAA.

MADE NE is bringing forward training packages developed by major employers and making them available to the wider network. This will make the provision of world class training available to all, bringing together demand from multiple organisations to create viable cohorts that would otherwise not exist. In addition, the delivery of training to mixed cohorts is expected to enhance the experience by offering diverse experiences from across the businesses whilst also forging relationships within the network.

It is critical however, that we avoid duplication of effort, so where existing capabilities exist, we will not look to bring these into the centre, but to leverage that work for the benefit of all. This could be existing college or university provision, or training from within the network – the aim is to fill the gaps, not push people out of the market.

Additionally, the intention is that MADE NE can help organisations like NEAA members, Universities and Catapults to build consortia to define, apply for funding and tackle their industrial innovation challenges. Ultimately, we need the support of the NEAA and its members to shape MADE NE and its delivery to be of benefit to the network. MADE NE is a regional asset for the benefit of all.

For further details on MADE NE, follow LinkedIn:

<https://www.linkedin.com/company/made-ne/>