

Convention Policy Paper: Advanced Manufacturing and Digital

This paper sets out a series of policy propositions in the field of Advanced Manufacturing and Digital policy, for discussion at the 2023 Convention of the North.

It has been drafted by a group of policy officers from across the North of England, drawing on the expertise of local authorities, combined authorities and partner organisations.

Advanced Manufacturing and Digital: Why the North should act

The North has huge economic potential across the Advanced Manufacturing and Digital sectors. Providing both with the tools and investment to grow is imperative to realising our potential. Both Digital and Advanced Manufacturing can play a crucial role in contributing to wider Northern ambitions to tackle our longstanding productivity problems, secure a net-zero future and become a destination of choice for inward investment over the next decade.

Cross-cutting with these sectors, and others across the economy at large, is the growing need to tackle the digital skills deficit. This is a challenge that is leaving many jobs unfilled and preventing others from fully contributing to the labour market across the North.

Advanced Manufacturing and Digital are both recognised as 'Prime Capabilities' in the Northern Powerhouse Independent Economic Review, with significant concentrations and specialisms across the North. Consequently, they are a natural fit for regional collaboration across the pan-regional supply chains, labour markets and regional investments.

The North was the birthplace of the industrial revolution of the 18th and 19th centuries. By working together and securing funding and commitments to deliver for the Digital and Advanced Manufacturing sectors, and prioritising digital skills, the North has the opportunity to lead the way in the fourth industrial revolution.

Northern Assets

The North is home to unrivalled excellence when it comes to Advanced Manufacturing and Digital capabilities;

- The North is home to **leading institutions across the Advanced Manufacturing ecosystem**, such as the Advanced Manufacturing Research Centre in South Yorkshire (which also hosts the High Value Manufacturing Catapult), the Bragg Centre in Leeds and the Henry Royce Institute in Manchester.
- The North also hosts a **strong supply chain cluster** that contributes to the Advanced Manufacturing ecosystem across the North of England. Many of these businesses are delivering on nationally significant infrastructure missions across the North, from the decommissioning of nuclear legacy sites in Cumbria and offshore wind development in the North East, to the automotive and aerospace clusters in Cheshire and Lancashire.
- The North is home to **over 37,000 Digital economy businesses**, employing a quarter of a million people and turning over £16.3 billion. There are pioneering Digital organisations who call the North home, from Atom, the UK's first app-based bank in County Durham, to the National Cyber Force in Lancashire. The Kalifa [Review of Fintech](#) identified



established clusters of FinTech in Manchester and Leeds, and an emerging cluster in Newcastle and Durham.

- The North is also **home to the International Advanced Manufacturing Park (IAMP)** near Sunderland. Benefitting from Enterprise Zone status, the IAMP will welcome over 7,000 Advanced Manufacturing jobs when fully developed, including tier one automotive suppliers and ambitions for a gigafactory.

Barriers

However, the Advanced Manufacturing and Digital sectors are being held back from achieving their full potential. Both face multiple barriers that stifle their contribution to Northern economic growth. If the North is to generate growth, and make the North an attractive place for business, long-standing barriers will need to be tackled. These include:

- **Dealing with our productivity challenge.** Many SME manufacturers are lagging in taking up digitalisation techniques and processes – making us one of the lowest for economic output in this field among the G20. A failure to rapidly digitalise the sector has stifled our economic growth across the North.
- **Finding solutions to access to finance and investment.** Too few of our entrepreneurs are able to secure access to finance which is holding them back from getting their ventures off the ground. There needs to be a concerted effort to attract more angel investment (private investment in new businesses) and venture capital to the North in high-growth sectors like digital and tech.
- **Solving the digital skills gap.** The North and the wider UK has a deficit in the number of people with adequate digital skills, resulting in a large number of hard-to-fill jobs in sectors that could make a meaningful contribution to economic growth.
- **The coordination of business support.** Too many businesses remain unaware of the offers available across the business support ecosystem or they still find it too difficult to navigate the ecosystem.



Our Policy Propositions

Proposition 1: Accelerated Digital transformation programmes for Advanced Manufacturing

The North continues to face [productivity challenges](#), still being around 15% lower on productivity levels than the UK average. If more of our SME business base were able to boost their output per hour, through the likes of Digital transformation and shifting work practices to industry 4.0 technologies, the North will be able to catch up with the rest of the UK.

The *Made Smarter Adoption* programme has become a proven and popular programme with businesses, with recent pilots across the North witnessing high demand for the likes of leadership and training, capital grants for purchasing industry 4.0 technology and Digital internships which are attracting young talent into the sector.

We propose that the Department for Business, Energy & Industrial Strategy double in real terms the funding allocations announced during the 2021 Spending Review for the *Made Smarter Adoption* programme as part of the subsequent Spending Review. £5 million has been allocated to Yorkshire & the Humber for 2022-2025, followed by £6 million in the North West and £3 million for the North East.

As part of the preparation for funding allocation increases as part of the next Spending Review period, the North will also look to build capacity and knowledge sharing to deliver an increased commitment Digital transformation.

Proposition 2: A Northern plan to tackle the Digital skills gap.

The North is well placed to lead the way on tackling Digital skills with 4 of the 8 national Digital Skills Partnerships operating in Northern LEP areas. These partnerships have built regional capacity to improve Digital skills working collaboratively across sectors resulting in increased awareness of opportunities, better informed businesses and greater impact of funding. An infrastructure exists that can both drive a plan for Digital skills in the North but also shape future policy development regionally and nationally.

Skills in Prime Sectors

Pan-Northern co-ordination on skills policy will be essential to developing the North's Prime Capabilities. These are the four sectors identified by the 2016 Northern Powerhouse Independent Economic Review; Advanced Manufacturing, Life Sciences, Digital and Net Zero. These sectors are distinctive and significant across the North, and crucial to delivering the productivity growth required to close regional inequalities within the UK. Aligning and co-ordinating workforce supply across skill and local labour market geographies in these four sectors should be a priority across all relevant Pan-Northern policy themes.

Digital increasingly encompasses every sector of the economy, and the increasing Digitalisation of processes and ways of work mean that more needs to be done to equip people with the right Digital skills to be able to deliver on the job they're doing. [Research](#) by AND-Digital suggests that 27% of UK workers feel that they lack sufficient Digital skills for their job role. Delivering progress in this field across the North will support the Advanced Manufacturing



and Digital companies which will increasingly come to rely on Digital skills in the face of technological progress.

We propose that:

A Northern commitment is made to increase the diversity of the Digital sector in order to close the Digital skills gap. This should include plans for launching a Northern Digital Skills Campaign, and a concerted effort across schools, colleges along with wider skills providers, universities and employers. This campaign should focus on three areas:

- Firstly, a focus on inspiring the next generation to consider Digital and tech careers, backing existing efforts by schools and employers, in gaining the necessary skills across diverse communities for hard-to-fill roles.
- Secondly, there needs to be a concerted effort to get more businesses across the North upskilling and reskilling their existing labour supply with foundational Digital skills or above, improving industry ability to navigate and collaborate with the Digital skills offer.
- Thirdly, the North will collaborate to raise the profile and perceived importance of Digital skills in manufacturing, highlighting career opportunities and routes into the sector.

This will build on the necessary devolution of skills, controls over post-19 education spending, and co-commissioning of employment programmes to Northern places. It could also include the establishment of a Northern Skills Academy, run in partnership with Northern Universities and Further Education institutions, building on the work of the Net Zero North Skills Alliance.

Proposition 3: Strengthen the Northern tech hub network to drive growth and productivity in the Digital sector

The Digital and tech economy contribution to the UK's GVA is the [fastest growing sector](#) and scaleups represent the best return on investment. It has been estimated by DCMS that the combined value of UK tech founded since the year 2000 is [over £540 billion](#).

Given the potential of the Digital sector over the next decade, particularly in sub-sectors such as fin-tech, med-tech and big-data-analytics, a dedicated Northern tech hub can support a universal effort to attract Digital tech companies to the North and provide them with the right ecosystem to scale-up their companies, creating new jobs and inward investment.

We propose that Northern leaders strengthen the tech network across the North committing to pan-Northern collaboration on investing in and accelerating the North's scaleups, aligning funding resource streams available to Digital businesses, and explore building better relationships between business and R&D through a pan-Northern partnership across the Higher Education system that can work with the Digital sector to connect across industrial sectors and skill sets.

In addition, leaders should commit to strengthening services that will provide start-ups in the Digital and tech sector with intensive business support and advice, working with the



government's new provider of support services to Digital businesses that will replace Tech Nation to ensure support for Digital business includes:

- Providing enterprises with entrepreneurship skills.
- Support in securing finance (from angel investment and venture capital working with those like NorthInvest) to scale-up their companies.
- Support to develop their talent pipeline.

Outcomes

Delivering on these policy propositions can achieve the following outcomes for the North:

- The first and second propositions will contribute to increasing productivity levels across the North by rolling out Digital transformation and filling a labour market shortage on Digital skills. This will support the North in narrowing the gap with the UK average.
- The second proposition will play a key role in reducing skills and labour market shortages in key sectors. A labour market with increased Digital skills can support sectors such as Advanced Manufacturing, tech and public services.
- The third proposition has the opportunity to increase inward investment into the North in one of the fastest growing sectors of the economy, and support the growth and scaling-up of Northern-based businesses. This can support our efforts to be a destination of choice for entrepreneurs and investors.

