

BRIEFING NOTE: Director - Business Development Education and Skills

Report Title: Curriculum Development Opportunities in **Advanced Manufacturing & Engineering**.

Report of: Audrey Kingham

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Purpose of report

To review the 2021 Manufacturing curriculum offer and existing campus facilities, to realise curriculum opportunities going forward in support of regional growth priorities and enhance the likelihood of success of those interested in a career in the Manufacturing industry which is Northumberland's greatest source of GVA.

Background

Northumberland is home to a significant manufacturing and engineering infrastructure predominantly in the South East areas of Cramlington, Ashington and Blyth which benefit from exceptional road, air and deep-sea port transportation links.

Emsi labour market analytics study completed August 2020 indicates that '*Manufacturing*' is the third largest industry in terms of employment number in Northumberland (Fig 1.1) accounting for circa 11,500 employed positions (against 133,000 total regional employment of 190,000 working age population), Office for National Statistics census data suggests that this figure is higher however ONS data is less current and the sector impact of Automation Index would be expected to be visible in more current statistics. Also indicated by Emsi is that '*Manufacturing*' is the most significant factor in regional GVA generating in the region of £500m (Fig 1.2). '*Manufacturing*' is also exhibiting job growth however not at the rate of some other sectors (Fig 1.3). In terms of job growth and industry share, it should be noted that several industrial sites are currently in development or available for development in south East Northumberland providing future opportunity to continue sector growth.

Post 16 education in Northumberland does not yet offer an accessible, joined-up progression pathway through Further Education, into apprenticeships, employment, H.E. and undergraduate education (including higher level apprenticeships) in the Manufacturing sector.

Post 16 education must be aligned with the '*Good Work Pledge*' to provide young people and adults with access to '*Good Work*' that provides security, skills, progression opportunities, a decent standard of living, promotes health and well-being and helps to underpin regional growth in Northumberland County.

Figure 1.1: Industry share of jobs (Northumberland), Emsi 2020.

Largest Industries

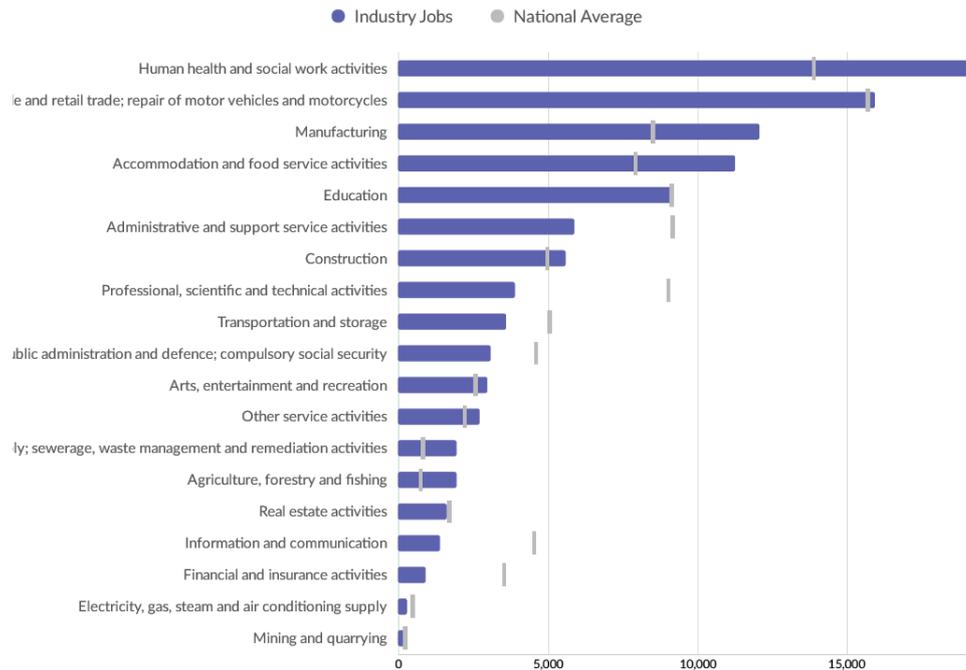


Figure 1.2: Industry share of GVA (Northumberland), Emsi 2020.

Top Industry GVA

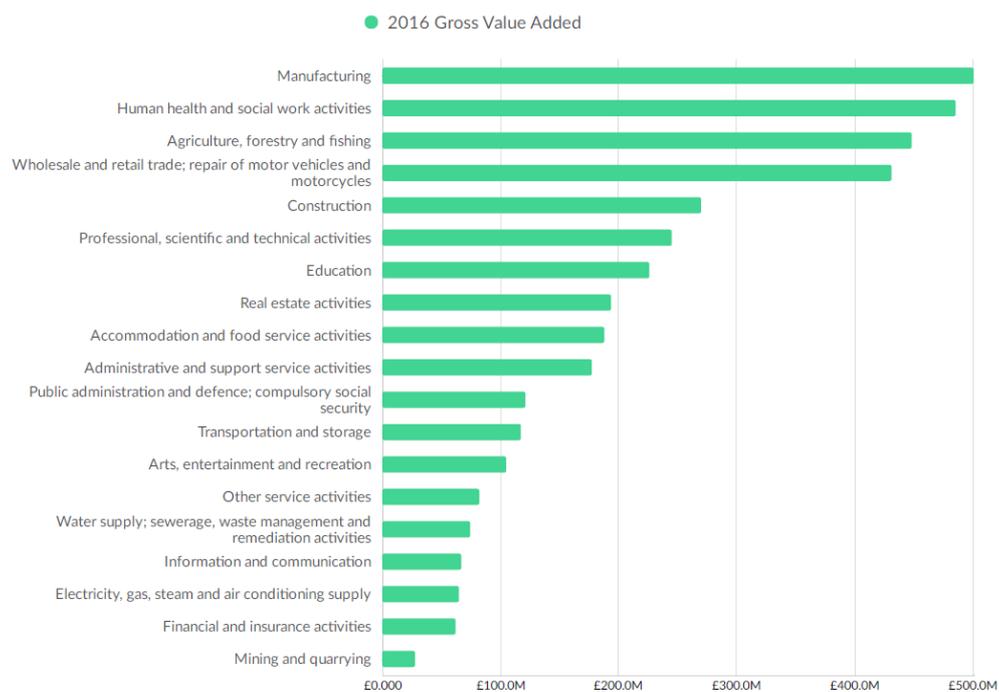
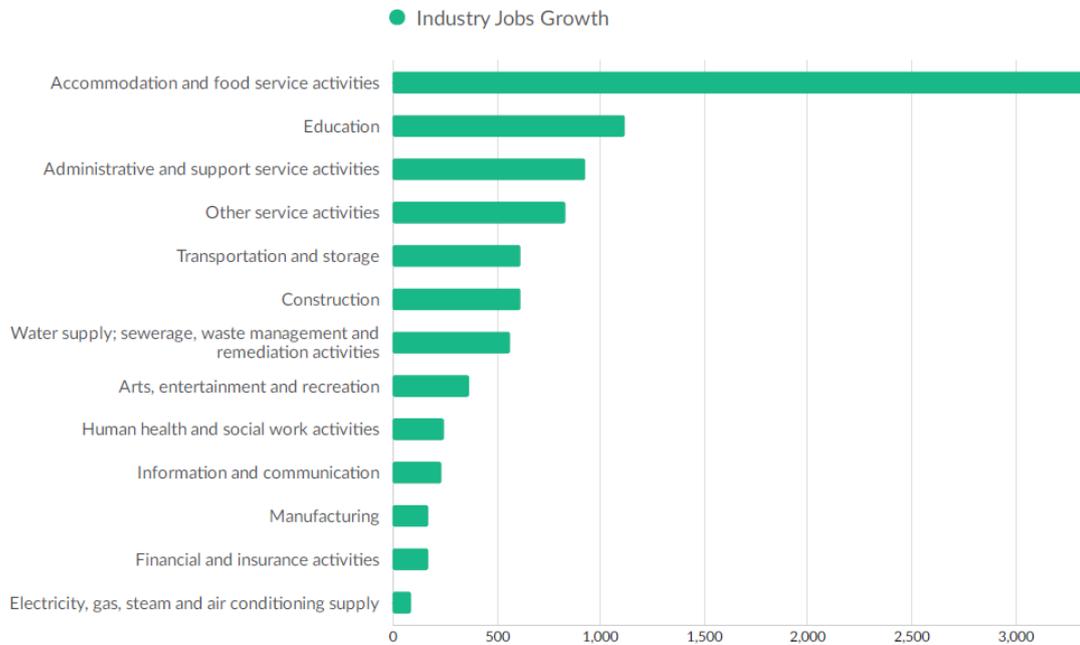


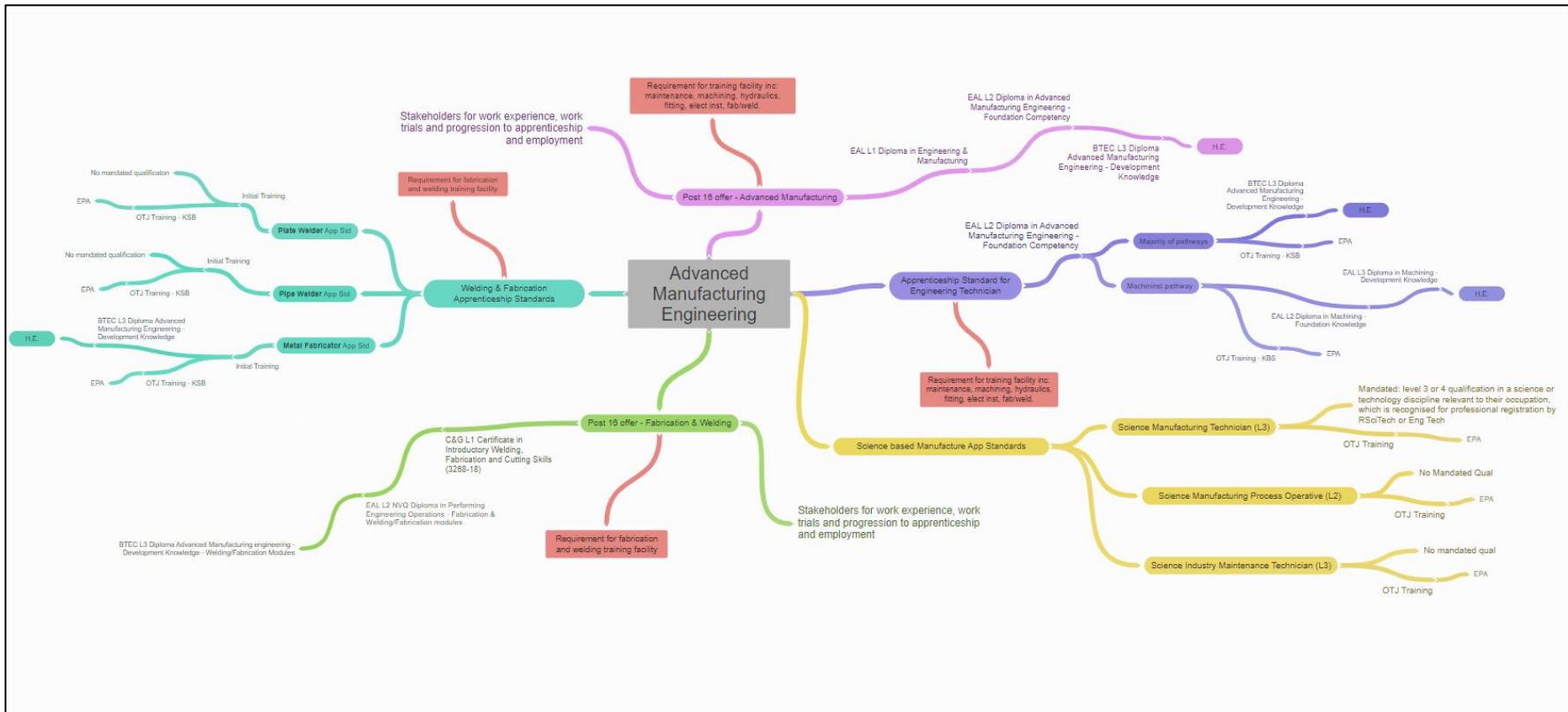
Figure 1.3: Industry share of top growing industries (Northumberland), Emsi 2020.

Top Growing Industries



Emsi top growing industry data indicates that within Northumberland County ‘*Manufacturing*’ is in a period of minor growth, 11th in the growth table. However, this does not factor emerging investment in NEP Ph 1~3 or other incentives such as free port status and port expansion which will have a significant positive impact upon growth in the manufacturing sector.

Figure 1.5: Advanced Manufacturing Engineering curriculum intent mapping, L.S.S. Senior Manager – Educational Development & Collaborative Projects, 2020.



Next steps

- Review of report with Director - Business Development Education and Skills
 - Informal feasibility review with potential stakeholders.
 - Curriculum proposal review with potential stakeholders.
 - Staffing review with Learning & Skills Service.
 - Resources review with Learning & Skills Service.
 - Campus review with Learning & Skills Service.
 - Review of county geography and learner access obstacles.
 - Campus concept review with Property Services.
 - Business planning.
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Key Issues

- Assessment of campus facilities and space utilisation to be able to determine capital investment.
 - Presentation of a capital investment plan and an initial business operating plan.
 - Recruitment of staff with specialist skills against market competitiveness.
 - Securing of partnerships essential to success.
 - Securing of a work placement pool of stakeholders.
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