

Segment One

Sector: MedTech

Introduction

This report provides a brief summary of research conducted into the current provision of training suited to the Medical Technology sector (MedTech) within the Leeds City Region (LCR). The purpose is to help identify where potential skills gaps exist within the sector. These findings have helped to start the ongoing conversations with local MedTech businesses, stakeholders and training providers to develop new in-demand training through the Let's Talk Real Skills funding. Fully-funded pilot training courses are being developed to help fill these gaps.

Sector Overview

The global MedTech industry is expected to grow at 5.6% per year (2017- 2024) with anticipated sales of \$595bn. In the UK, it employs 115,000 in 3,685 companies, generating £21 billion turnover (including service & supply chains). Over the last 5 years, digital health has seen the fastest growth, at 23%. SMEs with fewer than 250 employees make up 98% of MedTech companies and 82% have less than £5m turnover. The LCR has one of the highest geographical concentrations, hosting over 250 MedTech companies complemented by over 200 digital and technology businesses operating in the health and social care space. It has the highest MedTech export growth in the UK and its products / services include regenerative medical devices, surgical technologies, in vitro testing, pharmaceuticals, digital health innovation and medical robotics.

Executive Summary

The sector has seen heavy investment from public, private and European funding to maximise its impact, attract foreign investment, create more jobs and put the UK firmly on the map for medical advancement. Plans are already well established in the region to create the necessary facilities for research, learning and business incubation, primarily through the LCR's leading universities. As a result, clusters of MedTech businesses have formed, particularly in and around Leeds, York and Huddersfield.

Links between businesses and universities seem to be good, and it is therefore assumed that knowledge of the training on offer is also good. However, from the small sample studied so far, gaps are appearing between what businesses need and what universities are providing – in terms of course choices, relevance and cost. A number of private training providers outside the region appear to be filling some of these gaps, at a cost.

MedTech contains within it a vast array of specialisms, and therefore presents diverse skills needs specific to those specialisms, particularly on the technical side. This presents a challenge in determining generic training needs across the sector; what priority training suits one business will certainly not suit all. To gain a fuller understanding of where skills gaps exist, it is therefore essential to discuss these needs with a broad spectrum of individual businesses with differing specialisms - a feat which is proving challenging in itself at this unique time.

Following discussions with several of the regions key universities and colleges, there is real hope that any identified gaps can be plugged, as there is a willingness to offer whatever training is in demand, and an array of teaching talent with which to do so. This may take the shape of degrees or bespoke training as determined by that demand.

The pace of technological advancement within the sector and its specialisms is presenting challenges of its own. Equipment and processes are quickly becoming outdated, as are skills. Constant investment is needed to keep the sector current and ready for future innovations.

Although it is clear that the business community as a whole is facing unique challenges right now, the MedTech sector in particular has been suffering acutely from the challenges presented by Brexit. A reliance on EU funding for research, collaboration with EU establishments, reliance on free movement of skills across EU borders, the costs and access to EU export markets and a general reluctance of overseas investors to fund UK projects has hit the sector hard. Uncertainty, lack of investment and additional costs are impacting on its ability to invest in skills.

Certain sub-sectors are facing their own critical challenges at this time. Medical device manufacturers and those businesses supporting this niche area are being hit by huge additional costs due to the advent of the EU regulations Medical Devices 2017/745 and In Vitro Diagnostic Medical Devices 2017/746. As one established device manufacturer summarised, this will cost an additional £1-2m per product developed, require more experienced and highly skilled staff who are already in short supply, slow down product development times and be potentially disastrous to many small and medium businesses within this market. Whilst funding and support towards training is appreciated, this sub-sector has much bigger issues to focus on right now, training being a low priority area currently.

Already, there is a concern that many businesses are not investing in enough new entrants. With technology moving at such a fast pace and the majority of businesses within this sector being SME's with limited resources, it appears that there is an over-reliance on attracting experienced staff from competitors. If left unchecked, this could lead to an ever-diminishing pool of talent in the region and steps must be taken to redress this imbalance.

Key Skills Gaps Highlighted*

- Technicians
- Experienced clinical staff
- Experienced regulatory staff
- Time-served engineers, particularly with a knowledge of the sector
- Technically-knowledgeable sales people
- Technicians with PLC (programmable logic control) skills – “the UTC trains these skills but there isn't enough capacity”
- CNC machinists
- Electricians
- Electronics technicians
- Field service engineers
- Electrical engineers (professional grade)

- Medical/life sciences knowledge across all professions. Training to bridge disciplines e.g. an electronics professional would need some medical training to work in the sector
- Dedicated MedTech training “there is no dedicated MedTech training in the public sector”
- People skills (dealing effectively with clients / end users / staff)
- Raising finance skills
- Leadership skills (business planning, selling an idea, growing the business) ‘commercialising a MedTech business’
- Sterilisation processes
- Standards & regulations
- Quality systems (engineering & product development)
- Internal auditor training (for MedTech)
- Packaging & labelling requirements
- Good practice in manufacturing
- Good documentation practice
- Clinical evidencing training
- Warehouse Apprenticeships with training (not assessment only)
- Validation training for production / processes, including basic software validation
- Good reporting skills, relating specifically to writing good technical reports
- Clinical Dental Technology qualification
- Diploma in Dental Technology – provision exists in region but more ‘state of the art’ technologies / facilities / tuition needed
- Degree apprenticeship for MedTech

Other Skills Issues Highlighted*

- Sector is highly fragmented with a lack of business-to-business networking and pre-competitive collaboration.
- Insufficient awareness of the sector at school level – career pathways unclear / unknown
- SME’s unable to afford taking on school-leavers / graduates when expertise needed
- Tendency for graduates to move on quickly from first job
- The sector suffers from a lack of large employers churning out experienced graduates
- A major ‘flagship’ employer needed in the region to attract / retain talent
- Existence of large talent pool in the North, but poor East-West transport links make this less flexible

**Findings have derived from a combination of desk-based research and interviews / correspondence with LCR businesses, stakeholders and training providers*

Next Steps ...

With no clear consensus on training needs for MedTech, we need to hear more voices. Would you like to see any of this kind of training provision in our region? Do you have different ideas? We need local businesses to speak out and decide how this funding is spent. Please get in touch!

Find out more about the MedTech Collaborative Skills Partnership and get in touch through - <https://www.westyorkshirecolleges.co.uk/contracted-projects/lets-talk-real-skills/medtech>