



SECTOR: TRANSPORT EQUIPMENT MANUFACTURING

SKILLS ACTION PLAN

JUNE 2014



Derby
Derbyshire
Nottingham
Nottinghamshire

THE UK'S MOST
INSPIRATIONAL
POSTCODE

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PRIORITY 1

PRIORITY 1: DEVELOP SECTOR GROWTH AGREEMENTS TO MAKE EXPLICIT OWNERSHIP AND SHARED RESPONSIBILITIES FOR INVESTMENT, ICT, LABOUR MARKET INTELLIGENCE AND IMPACT MEASURES

Expected employment figures for the forthcoming 3 year

MACRO LEVEL

The sector is estimated to employ a little over 145,000 employees across the UK from just under 3,000 employers.

The UK aerospace sector is currently number one in Europe in terms of market share and second only to the U.S. The global automotive industry is also forecast to grow significantly in the next few years. Emerging applications among new technologies present significant commercial opportunities for UK aerospace and automotive firms.

A characteristic of the industry is its large-scale need for a broad range of high-value skills and disciplines, including engineering, science, project management, production, service, training and finance. Current skills issues are having an impact on growth within the sector, with above average levels of hard-to-fill vacancies, difficulty retaining staff and employees with technical skills gaps.

Recent research undertaken by SEMTA, explores the role of emerging technologies in driving high level skills in the aerospace and automotive industries. Key findings relating to the skills needed for the future of the sector include:

- Increased demand for research and development roles, for example test and design engineers, as a result of growing use of composite technologies
- A need to incorporate additive manufacturing techniques into courses and apprenticeship frameworks for design engineers, particularly for the aerospace sector
- An employer-identified shortage of skilled workers in Plastic Electronics technologies which must be tackled with the development of bespoke training packages.

Additive Manufacturing (3D Printing) is of major strategic importance within the aerospace sector, with the UK perceived as very good at R&D but less effective than some other countries in translating this technology into production. The aerospace sector is adopting Additive Manufacturing technology at a rapid rate and is expected to be a major driver in the commercialisation of Additive Manufacturing processes over the next five years.

Within the UK automotive sector, the focus is on the manufacture of 'live parts' for high-end motorsport prototypes or tooling. For high volume car manufacturing, cost reduction is a key driver, so the price of Additive Manufacturing components is currently inhibiting wider adoption. Additive Manufacturing alongside improvements in technologies such as rapid CNC machining are starting to play a major role in the shift from rapid prototyping to rapid manufacturing, with major automotive OEMs all showing interest in this area. Commercialised Plastic Electronics applications within the automotive sector are expected to occur by 2020.

Growth in employment in relation to all three technologies implies a changing shape in demand for skills. However, with respect to all three technologies skill shortages pose significant threats to future UK employment growth if not tackled. Wide ranging recruitment difficulties are already reported in relation to recruitment of both Composites and Additive Manufacturing staff. In the case of Plastic Electronics companies, a number of companies are only able to source the skills required by relying heavily on recruitment of non UK graduates.

Training provision within the UK remains largely fragmented in relation to all three technologies. Large composites companies have been developing their own training programmes as they have the resources to underpin the development of this provision and the influence to drive change within local training providers. For SMEs this is not possible and this may constrain growth in the supply chain.

PRIORITY 1

MICRO LEVEL

The State of the D2N2 Economy Report compiled by Ekosgen in 2013 surmises the Transport Equipment Manufacturing sector as being synonymous with the D2N2 area. Latest data reports that the sector employs just over 18,000 people and contributes 2.1% of the total D2N2 economy. The area employs almost 13% of all people employed in the sector in the UK. The importance of the sector is illustrated by the fact that from an employment level view point the sector is over represented in the D2N2 economy when compared with levels across England (positive by 2.3%). The sector is also 40% more productive in the D2N2 area than elsewhere in the UK.

The sector is crucially important in the areas of Derby and South Derbyshire due to the presence of a number of large and globally significant employers such as Toyota, Rolls Royce and Bombardier in these areas, with their significant supply chains being spread around a larger geographical area.

Despite this, up to 2008 employment levels across the sector had remained relatively stable. The impact of the economic downturn however, has seen the sector shed jobs, between 2008-11 almost 4,000 jobs (18%) were lost, the majority of which is attributed to the decline in motor vehicle manufacturing and the impact on the supply chain servicing this sector.

Despite the recent downturn the sector remains important at a national level both economically and politically, and despite increasing global competition, is likely to remain an important driver of the D2N2 economy going forward.

EXPECTED EMPLOYMENT FIGURES

Most employment trend data would point to a large regrowth in employment figures being unlikely in the short-term. The recent upturn in the automotive sector will likely result in some job growth but this is likely to be relatively modest as businesses try to keep costs low to maintain efficiency margins. The recent success of Bombardier in securing the Crossrail contract is likely to secure existing jobs rather than create new jobs within the D2N2 area.

Employment opportunities within the sector is likely to be a result of replacing retiring employees as many current employees approach retirement age.

Does this include new job roles?

As with most modern engineering and manufacturing, in addition to the development of the vehicles themselves, there will be developments in the design and manufacturing processes to make material and energy use more efficient, minimise waste and reduce the time taken to get a new product from the idea stage to manufacture and sales.

This is an area of rapidly evolving technological change and a move to new markets and increased focus on innovation will increase the demand for new higher-level technical skills, innovation in product design, the capacity to apply existing skills and the strategic management skills required to identify and capture these new markets. This will mean that job roles will inevitably change in order to keep abreast of these changes to enable employers to remain competitive within the marketplace.

What new skills would be required?

New skill requirements within the sector revolve around:

- Additive Manufacturing or 3D printing;
- Composites Technology;
- Plastic Electronic Technologies;
- Research and Development roles.

Are all of strategic importance to future growth of the advanced manufacturing sector and for up-skilling and re-skilling mid-career employees. For young people in particular those around school leaving age, general employability and transferable skills are seen as lacking. These include such things as team working, an ability to follow diagrams and instructions, basic mathematical understanding and practical skills, problem solving and a positive attitude to work are all relevant to those wishing to enter the sector.

Is there estimated to be a decrease in existing job roles?

Occupational roles crucial for the future across the sector include:

- Design engineers
- Electronic engineers
- Production engineers
- Technicians – equipment, process and product
- Maintenance
- Toolmaking
- Prototyping.

Whilst these existing job roles will remain broadly similar they will need to evolve in line with the knowledge and skills required to work with and adopt new and emerging technologies highlighted above.

What skills would be required for existing staff to retrain?

New skill requirements within the sector revolve around:

- Additive Manufacturing or 3D printing;
- Composites Technology;
- Plastic Electronic Technologies;
- Research and Development roles.

PRIORITY 1

Provide an estimate of job type and numbers for the next 1-2 years.

JOB TYPE

CURRENT/NEW

NO OF JOBS

Evaluate the effectiveness, assess, sharing of LMI for stakeholders.

LMI availability is extremely poor, particularly relating to the specific Transport Equipment Manufacturing Sector within the D2N2 area. With the removal of RDAs, Skills Observatories and, XXXXXXXXXXXXXXX there is little freely available LMI.

There is a good amount of information available pertaining to the whole Engineering and Manufacturing sector and future skills needs, however this is not specific enough to allow for informed local decision making.

The group recommends the availability of information through D2N2 or the reintroduction of the Skills Observatory. Alternatively, information could be commissioned with relevant local agencies.

Evaluate the effectiveness, access, communication, suitability of existing provision. Include narrative around current issues, barriers and general aims, for this priority.

Objective	Activities	Measure	Milestones/ Targets	Resources	Owner	Timeframe
Skills Action Plan	Develop Skills Action Plan as a 'live' document.	Plan adopted by D2N2	Plan	Task Group	TBC	April 2014
	Ensure Action Plan is monitored and updated regularly through the TEM Sector Task Group.	Quarterly Review	Meeting records	Task Group	TBC	Ongoing
Technical and Innovation Linking to existing support mechanisms and programmes.	Communicate specialist sector courses delivered by universities and colleges to industry.	Increased employment/ GVA	Mapping document	Task Group/ Forum	TBC	Mar 2015
Labour Market Intelligence Improving the detail of LMI available to businesses locally.	Agree and define with D2N2 (dependent on availability of Skills Observatory)	Detailed LMI for analysis and measurements of improvement	LMI Published quarterly	Observatory	TBC	Jun 2015
	TEM Focus Group for qualitative and local feedback.	Businesses engaged/year	40 each year	Focus Group	TBC	Sep 2014
Investment Decisions and Impact Measurement Ensure funds are deployed to meet sector needs and D2N2 priorities.	Provide high quality support to SMEs to increase contribution to the D2N2 economy.	SMEs supported each year	50 pa	Task Group/ Forum	TBC	Dec 2015
	Assist D2N2 to define measurements that reflect the needs of the industry.	Increased SME productivity	Increase by 2% pa	Task Group	TBC	Apr 2017

PRIORITY 2

PRIORITY 2: IMPROVE BUSINESS LEADERSHIP, MANAGEMENT SKILLS AND TRAINING NEEDS ANALYSIS TO HELP INCREASE PRODUCTIVITY AND PERFORMANCE

Evaluate the effectiveness, access, communication, suitability of existing provision. Include narrative around current issues, barriers and general aims, for this priority.

Objective	Activities	Measure	Milestones/ Targets	Resources	Owner	Timeframe
Group Training Association Create a mechanism that groups employers with similar needs to improve leadership and management capabilities to drive productivity and performance.	Support the development of a Group Training Association for the sector.	GTA Identified	GTA			
		Number of SMEs engaged	75 each year			
	Develop a programme that focuses upon coaching and mentoring interventions with SME owner/managers to encourage them to recognise and invest in the skills development of their employees as well as product and technological solutions.	Development of Programme	Programme developed			
		Number of SMEs mentored	20 each year			
		Number of training/ skills plans developed	20 each year			
		Amount of employer investment	Equal to public funding investment			
Strategic Capabilities Improve businesses' strategic capabilities, including long term planning as well as better leadership and organisational management.	Establish a TEM Business network to encourage greater collaboration between small businesses through pooling resources and networking and, more broadly, to provide opportunities for small businesses to share skills, knowledge and experience individually or collectively.	Network established	Network functioning			
		Number of SMEs attending	80 attending			
		Number of business case studies developed	10 case studies			

PRIORITY 3

PRIORITY 3: PROMOTE AND DEVELOP APPRENTICESHIPS AND TRAINEESHIPS TO ACHIEVE HIGHER LEVEL SKILLS AND IMPROVE SOCIAL MOBILITY

What are the skills, aptitude, personality traits, sector training, qualifications for a:	16-18 year old	19+	
... who has just enrolled on to a Traineeship to be able to undertake a work placement/ experience in a large, SME and micro organisation?	<p>The foundation that the CBI calls a 'Positive Attitude' to work.</p> <p>Need for responsibility/ownership skills and good work ethic (common sense and enthusiasm).</p> <p>Basic awareness of health and safety in the workplace.</p> <p>Elementary knowledge of the TEM sector.</p> <p>English/Maths</p> <p>Transferable skills</p>	<p>A 'Positive Attitude' towards work</p> <p>Previous work experience preferred/good work ethic (common sense and enthusiasm).</p> <p>Basic awareness of health and safety in the workplace.</p> <p>Elementary knowledge of the TEM sector and associated career opportunities.</p> <p>English/Maths</p> <p>Transferable skills</p>	
... who has successfully completed a Traineeship to be employed in a large, SME and micro organisation?	<p>Good sector knowledge, strong work ethic and enthusiasm to follow a specific career path in the industry.</p> <p>Specific knowledge of job role and skills required (e.g. R&D /machine operative/ production engineer), with recognised qualification.</p> <p>Good understanding of career path and associated skills and qualifications.</p> <p>Contributes to new ideas and innovations that improve business processes.</p>	<p>Good sector knowledge, strong work ethic and enthusiasm to follow a specific career path in the industry.</p> <p>Specific knowledge of job role and skills required (e.g. R&D /machine operative/ production engineer), with recognised qualification.</p> <p>Good understanding of career path and associated skills and qualifications.</p> <p>Contributes to new ideas and innovations that improve business processes.</p>	
What would a 'career ladder' look like for a Level 4 young person leaving school – show timeline, progression.	<p>Large Organisation</p> <p>TBC This should be a development aim.</p>	<p>SME Organisation</p> <p>TBC This should be a development aim.</p>	<p>Micro Organisation</p> <p>TBC This should be a development aim.</p>
How effective is the current Apprenticeship model? What changes (if any are required) – include delivery model, framework, content, and outcome.	<p>Large Organisation</p> <p>Generally good understanding of the importance of training and associated apprenticeships. Consequently, good links with larger employers, as they are easier to engage with and the capacity to engage. Locally some good examples of OEM Apprenticeship programmes exist, although some experience shortfalls in recruitment.</p>	<p>SME Organisation</p> <p>SMEs are more challenging to engage with – time and pressures and partial understanding of the benefits of training/apprenticeships.</p> <p>Better SME engagement mechanisms required (e.g. via best practise groups, mentoring, increase in social media and communications and peer to peer networking).</p>	<p>Micro Organisation</p> <p>These organisations are the most challenging to engage with due to their embryonic stage but most in need of new skills and apprenticeships. Costs are a significant barrier.</p> <p>New and innovative ways are needed to engage with Micros to ensure sustainability. Additional funds to induce take up of apprenticeships.</p>

PRIORITY 3

How effective is the Engagement strategy with:	Large Organisation	SME Organisation	Micro Organisation
... of the Traineeship offer.	This provision is currently being developed and communicated to the large and small business alike with specific targeting upon the larger organisations within the sector. However, this provision needs to be widened to encompass all the Transport Equipment Manufacturing sector. There may be benefits in positively promoting to niche groups such as females.		
... of the Apprenticeship offer.	Apprenticeships are readily available for the Transport Equipment Manufacturing sector, including Level 2 and Level 3 Frameworks that are supported financially in-line with the Skills Funding Agency's rules. However, these need to ensure that the content maintains pace with the introduction of new technologies to ensure that new entrants are suitably equipped with the skills required by the industry.		
... other funded training.	<p>Currently there is a £7m ESF Skills Support for the Workforce project which allows 19+ employees to access units of training at levels 2 and 3 to support employers who employ less than 250. Also, Pre-Employment Funding is available to support the unemployed to successfully compete for job vacancies. These programmes can be customised to meet the employers requirements.</p> <p>They tend to be all supply side driven rather than demand led and therefore suffer from an inability to engage with all effectively.</p>		

Evaluate the effectiveness, access, communication, suitability of existing provision. Include narrative around current issues, barriers and general aims, for this priority.

Comments:

There are many leaders of great British manufacturing companies who began as an apprentice and built their careers via the vocational route. This is one of the great strengths of the profession. Indeed the UK vocational sector has been responding to increased demand for apprentices which has seen the number of starts for engineering frameworks almost double in the 10-years to 2012. However, few women are taking engineering apprenticeships. In the 2011/12 academic year in England, only 400 women started the engineering framework apprenticeship, compared to 12,880 men. And the gender gap found in apprenticeships is also found in other types of vocational qualifications in engineering.

Employers are of the view that, given the rapid changes in technology, our vocational institutions are not sufficiently equipped to prepare young people for future production techniques. Greater specialisation, with the potential for elite provision, could help address deficiencies in high-level technical skills and help to raise the status of vocational education as a pathway to a worthwhile career. Government has already made a strong start by fostering the creation of University Technical Colleges (UTCs) to provide high-quality education for 14-19 year olds with a clear focus on employment. Employer engagement lies at the heart of the model, ensuring that students develop the key practical and technical skills that employers need. UTC students also study a core academic curriculum that prepares them to undertake a higher level apprenticeship and/or university degree. Engineering is a key focus for the UTCs: There are two UTC due to open within the D2N2 area, one will have an engineering focus whilst the other will have a complimentary STEM focus, there is a further UTC on the D2N2 border that also has an engineering focus. There is perhaps room for additional specialist schools and academies, particularly in the northern regions of the area and an additional need for a complimentary employer training facility for those already in the workforce.

PRIORITY 3

Objective	Activities	Measure	Milestones/ Targets	Resources	Owner	Timeframe
Traineeships Develop pathways into TEM Apprenticeship careers.	Improve working between college and employers' to create Traineeship opportunities.	Number of Traineeship's created	250			
	Support for employers to create linkage to the world of work for young people (funds, travel expenses etc.).	Fund available and accessed by employers	200 employers supported			
Developing Courses by Employers for Employers Develop a solution that recognises and captures informal training and skills development within the TEM sector, Map this to national standards so that training and skills development is recognised by other sectors and employers and where possible programmes link into a formalised TEM Career Pathway.	Assist employers to map in-house training to national standards.	Number of in house training schemes mapped to national standards	10 schemes mapped			
	Utilise in-house existing training programmes to expand the range of courses provided to ensure training meets employers' long terms strategic needs.	Number of in-house training schemes mapped to national standards	10 schemes mapped			
	Facilitate focus groups (e.g. Additive Manufacturing) to enable best-practice sharing and feedback to D2N2.	Number of focus groups established	3 focus groups			
	Availability of a flexible, local funding solution to support relevant 'bite-sized' qualifications for emerging skill development areas as determined by TEM sector employers.	Fund available Number of qualifications developed	20 quals developed			
	Network of specialist to help employers develop courses and map to national standards	Number of specialists Number of courses developed	2 specialists 20 courses /schemes			
	Availability of appropriate incentives to encourage employers to train their employees.	Number of employers accessing fund Number of employees trained	200 employers each year 200 employees trained each year			
Career Pathways Support initial career paths for young people, enabling smooth transition (directly or indirectly) from school/ college to higher and further education and ultimately to sector employment.	Facilitate courses for 14-19 on responsibility and work ethics from local schools and colleges promoted to both the local employer's and 14-19 year olds.	Number of promotional opportunities	100 opportunities			
	Increase linkages between schools and college courses and employers' projects (sector specific and generic) for young people.	Number of projects created	30 projects			
	Support for employees taking up FE or HE courses during employment (funds, travel expenses etc).	Number courses taken up by existing staff	200 course attendances			

PRIORITY 4

PRIORITY 4: FOSTER ENTERPRISE AND THE CHARACTERISTICS OF ENTREPRENEURIAL BEHAVIOUR, CAREER ADAPTABILITY AND RESILIENCE

Evaluate the effectiveness, access, communication, suitability of existing provision. Include narrative around current issues, barriers and general aims, for this priority.

Objective	Activities	Measure	Milestones/ Targets	Resources	Owner	Timeframe
Support an Entrepreneurial Culture Reduce barriers to entrepreneurship and boost levels of business formation and survival rates in both rural and urban areas.	Develop provision to provide the key skills for entrepreneurs and/ or socially excluded people to start and develop successful TEM businesses Courses should be timely and accessible ("bite-size"), with emphasis on product development and commercialisation. Attract entrepreneurial talent from schools and universities as well as from socially excluded groups.	Number of start-ups created	15			
		Number of socially excluded people attending	50			
		Jobs created	10			
		Number of school leavers or university graduates	15			
		Number of businesses seeking grant funding	20			
Helping Businesses to Grow Support for Early Stage businesses to help them grow and reduce failure rates of young business.	Bespoke support available and access to the right expertise in the right environment to ensure business growth.	Number of businesses supported	20			

PRIORITY 5

PRIORITY 5: RAISE THE VISIBILITY OF AND ACCESS TO CAREER INSIGHTS AND SPECIALIST CAREERS SUPPORT FOR YOUNG PEOPLE AND ADULTS TO RAISE ASPIRATIONS, PARTICIPATION, RETENTION AND ACHIEVEMENT IN LEARNING AND WORK

Evaluate the effectiveness, access, communication, suitability of existing provision. Include narrative around current issues, barriers and general aims, for this priority.

Comments:

According to the Prof John Perkins recent Review of Engineering Skills there is enough evidence to support a need to substantially increase the supply of engineers, at both professional and technician level in the UK. He suggests that action: is needed that includes “priming” the pipeline by inspiring young people about engineering and giving them a strong academic foundation in school, to actions to tackle “leakage” and capacity and quality issues throughout the pipeline. Actions to enhance the responsiveness of the system to employer needs, encouraging collaboration and engagement with educational institutions and boosting employer ownership of skills are also needed.

Diversity is a pressing problem and has been a consistently recurring theme over recent years. The lack of diversity remains an acute issue for engineering in the UK. There are a number of different groups that are under-represented in the talent pipeline. However, the lack of diversity is seen most starkly in the gender gap. The UK has the lowest proportion of female engineers in the European Union, less than one in ten engineering professionals is a woman. This is a crucial issue: engineering is failing to draw on the whole of the talent pool.

Investigations into the causes of the UK’s poor performance have highlighted girls subject choices at 16 and perceptions of engineering as a career, which is sometimes reinforced by gender stereotypes in the careers advice received by students.

Objective	Activities	Measure	Milestones/ Targets	Resources	Owner	Timeframe
Career Pathway’s Create a Transport Equipment Manufacturing specific local programme focused upon the 14-19 age group to encourage TEM careers and pathways. The overall aim of such a programme would be the development of the skills, knowledge and attributes required by the sector in order to fuel future economic growth.	Facilitate courses for 14-19’s on responsibility and work ethics from local schools/colleges promoted to both the local employer’s and 14-19yrs.	Number of linkages between education and employment created	100 new linkages each year			
	Improve working between college and employers’ projects for young people.	Number of work experience placements created	250 placements created each year			
	Support for employers to create linkage to the world of work for young people (funds, travel expenses etc.).	Fund available and accessed by employers	150 employers			
	Develop a female specific campaign to promote and encourage girls to consider careers in the sector.	Female specific campaign	1,000 young girls			
Tomorrow’s Engineers Encourage business’ to join the programme in order to give consistent messages about job roles and entry into the industry.	Raise the profile of the TEM sector through better industry careers advice to both career advisors and young people (esp. 17-19 year olds). Improve the visibility of opportunities, career paths, pay, working conditions and job security.	Tomorrow’s Engineers membership	100 businesses joining			
		Key messages to number of young people (directly or indirectly)	2,000 young people			
	Facilitate project work for 14-19 year olds in conjunction with TEM businesses.	Key messages to number of career advisors	100 careers advisors			
	Support the Stimulating Physics Network (SPN) to reach more schools and widen participation in physics by groups that are under-represented: girls and those living in disadvantaged areas.	Number of Businesses supporting projects	100 businesses			
	Number of young people supported	100 young people				

PRIORITY 6

PRIORITY 6: PROMOTE GRADUATE RECRUITMENT AND FACILITATE GRADUATE RETENTION IN THE REGION

Evaluate the effectiveness, access, communication, suitability of existing provision. Include narrative around current issues, barriers and general aims, for this priority.

Comments:

Higher education remains a highly esteemed pathway into engineering. Over the last seven years, the number of acceptances into engineering degrees has increased by over 20% to 25,300 in 2012. However, there are signs of weaknesses in specific engineering disciplines, for example, electrical and electronic engineering, and manufacturing and production engineering, where there are falling applications and acceptances.

There is significant leakage at the juncture between HE and employment: three years after graduation just under 70% of male engineering and technology graduates are working for employers in those fields. This in itself is a cause for concern – more worryingly still, is that only half of their female counterparts take up employment in engineering and technology further widening the gender gap.

Objective	Activities	Measure	Milestones/ Targets	Resources	Owner	Timeframe
Graduate Retention and Skills Development Increase graduate knowledge and awareness of TEM careers and ensure 'technical skills' and employability skills are what employers need. Improve Graduate retention rates within the D2N2 area.	Develop work placements for undergraduates in local TEM businesses as an integral part of the degree programme.	Number of placements	50			
	Develop a local TEM graduate recruitment fair to promote awareness and recruit and retain talented graduates.	Jobs created (ex-graduate)	10			
		Jobs created (ex-Masters)	5			
	Work with businesses to improve recruitment process and job advertisement to improve the uptake of talented graduates..	SMEs assisted	50			
		Jobs created	10			
	Developing 'fast track' career opportunities for talented graduates (esp. engineering related).	SMEs assisted	20 pa			
	Jobs Created	20 pa				
Developing undergraduate student projects in the industry (range of subjects).	SMEs providing projects	30				
	Jobs Created	10				

PRIORITY 6

PROVIDE THE TOP 10 'ASKS/NEEDS' OF WHICH D2N2 LEP SHOULD CONSIDER AS PART OF THE SPECIFICATIONS FOR FUTURE ESF SKILLS AND EMPLOYMENT. (THIS COULD INCLUDE: QUALIFICATIONS, SECTOR TRAINING, NON-ACCREDITED TRAINING, ACCESS TO HIGHER SKILLS, TEACHER TRAINING, INITIATIVES, INCENTIVES – LEARNER/EMPLOYER BASED/ACCESS TO TRAVEL, BUSINESS ENGAGEMENT BY PROVIDERS, ETC)

Funded activity needs to focused upon two main areas of support:

- Young people and opening up greater access to TEM career pathways, promoting careers in the sector as an attractive and rewarding career choice through careers introductions, Traineeships and Apprenticeships
- A range of options to up-skill and re-skill those already in the industry (mid-careerers), to rectify existing skills gaps and to provide generic training support to help increase organisational efficiencies and to provide specialist technical training to equip employees with the skills to be able to take advantage of the latest technological advancements.

Create a mechanism that groups employers with similar needs to reduce training costs. This could include:

- Support of a Group Training Organisation type structure for the TEM sector
- An incentive payment to reduce the additional costs these employers face when trying to access training for their employees
- A dedicated TEM Business network to encourage greater collaboration between small businesses through pooling resources and networking and, more broadly, to provide opportunities for small businesses to share skills, knowledge and experience.

Create a specific local programme focused upon the 14-19 age group to encourage TEM careers and pathways linked to national initiatives such as Tomorrow's Engineers; Stimulating Physics Network; STEMNET etc. The overall aim of such a programme would be the development of the skills, knowledge and attributes required by the sector in order to fuel future economic growth.

Challenge the myth that engineering is still an 'oily rag' industry and create a programme that truly presents a modern day representation of the Engineering and Manufacturing industry.

Develop a solution that recognises and captures informal training and skills development within the TEM sector, this should be heavily contextualised to both the sector and the individual SMEs needs to avoid the feel that the provision is either too generic or insufficiently connected to their actual needs. It is important, however, to ensure that any informal programmes develop transferable skills so that any training and skills development is recognised by other sectors and employers and where possible programmes link into a formalised TEM Career Pathway.

Creation of flexible, relevant, reactive local funding solutions that are able to support relevant 'bite-sized' qualifications for emerging skill development areas as determined by employers. Ensure appropriate incentives are available to encourage employers to train their employees.

EMPLOYER/SECTOR GROUPS OR MEMBERSHIPS WHICH COULD ADD VALUE/LINK TO THE CONSULTATIVE FORUMS

SEMTA
Employer First
Transport iNET

PRIORITY 6

LIST ORGANISATIONS/NAMED INDIVIDUALS WHO HAVE CONTRIBUTED TO THE SKILLS AND EMPLOYMENT SECTOR ACTION PLAN

Organisation	Name
Employer First	Hamish Elliott
Transport iNet	John Frodsham/Brian Holdsworth
SEMTA	Malcolm Healey
Institute for Aerospace Technology (UoN)	
The Hardstaff Group	Trevor Fletcher
AutoChair	David Walker
FAR UK	Kevin Lindsay
Neville Precision Engineering	Edward Neville
The Seat Design Company	Tim Walker
Midlands Aerospace Alliance	Peter Knight
Lindhurst Engineering	Martin Rigley
Swiftool Precision Engineering	Stuart Handley
SET GB Ltd	Neil Cooney
Cenex	Robert Evans

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