

The land-based engineering industry primarily includes the manufacture, dealership, hire and maintenance of agricultural machinery (including tractors, harvest, cultivation and crop protection machinery), groundcare machinery (including garden, sports turf and local grounds maintenance machinery – sometimes called 'outdoor power equipment'), forestry machinery (including chainsaws, chippers, etc.), fixed machinery (including grain/crop processing and milking equipment) and construction machinery (there is some cross-over between agricultural and construction machinery such as forklift trucks, mini diggers etc.).

Overview

Data specific to the industry (based on Standard Industrial Classification codes, SIC codes) has been sourced from the Office of National Statistics. Data herein has been sourced for 'wholesale of agricultural machinery, equipment and supplies' (SIC 46.61/0) and 'renting and leasing of agricultural machinery and equipment' (SIC 77.31/0). Data relating to the manufacturing aspects within the industry is also available, (SIC 28.30) however, this SIC code is contracted to another Sector Skills Council and therefore has not been included within this factsheet.

Business figures:

- Official statistics estimate that there are 2,260 businesses that fall within the land-based engineering sector¹.

Businesses by size:

- Businesses that fall within the land-based engineering SIC codes have, on average, a slightly larger business size when compared to all sectors within the UK; 77% of businesses have fewer than ten employees, compared with 83% across all businesses in the UK¹.

	Land-based engineering UK	All sectors UK
0-4 employees	59%	68%
5-9 employees	18%	15%
10-19 employees	15%	8%
20-49 employees	8%	6%
50-99 employees	1%	2%
100+ employees	0%	1%

Employment figures:

- Official statistics estimate that there are 10,400 people employed within land-based engineering².



Size and scope*

Nation/Region	Businesses ^{1, 3}		Employment ^{2, 3}	
	Count	%	Count	%
UK	2,260	100%	10,400	100%
Northern Ireland	220	10%	600	6%
Scotland	240	11%	400	4%
Wales	140	6%	900	9%
England	1,660	74%	8,500	82%
East of England	260	12%	1,100	10%
East Midlands	220	10%	950	9%
London	80	3%	0	0%
North East	60	2%	150	1%
North West	160	7%	1,350	13%
South East	220	10%	1,100	11%
South West	280	13%	1,950	19%
West Midlands	200	9%	900	9%
Yorkshire and the Humber	180	8%	1,050	10%

* Business and employment figures will underestimate the true size of the industry as they exclude the manufacturing aspect of the industry which is covered under the SIC code 28.30.

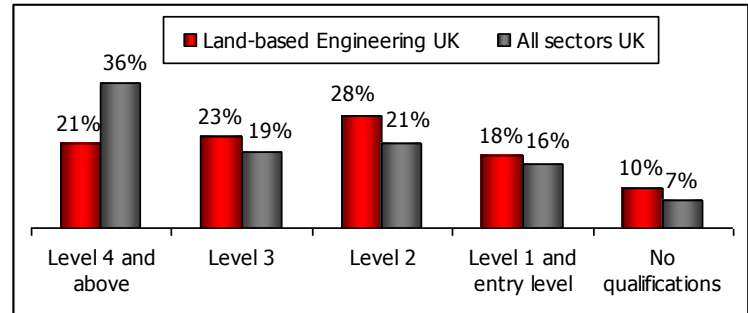
Workforce demographics

Gender ²			
Male	77%	Female	23%
Age band ²			
16-24	5%	45-54	22%
25-34	20%	55-64	17%
35-44	36%	65+	0%
Employment ²			
Full-time	83%	Part-time	17%
Ethnicity ²			
White	95%	Non-white	5%
Occupations ²			
Managers and senior officials (e.g. finance, workshop , sales and stores managers and directors)	37%		
Professional occupations (e.g. engineering consultant)	1%		
Associate professional and technical occupations (e.g. IT systems and software consultants)	8%		
Administrative, clerical and secretarial occupations (e.g. warranty administrator)	18%		
Skilled trade occupations (e.g. technician, mechanic, engineer)	12%		
Personal service occupations	0%		
Sales and customer service occupations (e.g. service technician)	7%		
Transport and machine operatives (e.g. lorry driver)	12%		
Elementary occupations	6%		



Qualification levels⁷

The land-based engineering workforce is highly skilled but is often developed through non-accredited training methods, rather than full-accredited qualifications and is frequently not officially recognised².



Official statistics show 21% of the workforce are qualified to Level 4 and above (compared to 36% across all sectors in the UK) and 10% have no qualifications (compared to 7% across all sectors in the UK).

Learning supply

- Around 350 apprentices undertook a framework in land-based engineering in 2007-08 in the UK⁴
- An estimated 2,950 learners enrolled on qualifications or courses delivered by FE colleges/work-based learning in land-based engineering in the UK in 2008-09⁵; popular qualifications included the NVQ in Land-based Operations and the BTEC National Diploma in Land-based Technology
- The industry had just 15 learners undertaking related qualifications at Higher Education Institutions in the UK in 2008-09⁶.

Employment projections 2010-20⁸

- In the next ten years (2010 to 2020) the sector will need a minimum of 4,000 more people⁷
- Over the period 2010–20, the following amount of people will be needed:
 - 1,000 people at Level 4 (graduate) and above
 - 1,000 people at Level 3 (A Level)
 - 1,000 people at Level 2 (GCSE A-C)
 - 1,000 people at Level 1 (GCSE D-G)

Incidence of skills shortage vacancies

- Over one fifth (21%) of employers within the land-based engineering industry had a vacancy at the time they were surveyed. This is compared with 7% for the land-based and environmental sector as a whole in England
- The most common reason for hard-to-fill vacancies was 'a low number of applicants with the required attitude, motivation or personality'. This was closely followed by a skills shortage reason, specifically, a 'low number of applicants with the required skills'
- The most commonly cited skills lacking in applicants were technical and practical (job-specific skills), team working and written communication skills.

	Land-based engineering industry	Lantra sector
% with a vacancy	21%	7%
% with a hard-to-fill vacancy (HtFV)	13%	3%
% with a skills shortage vacancy (SSV)	13%	2%
HtFVs as a % of vacancies	70%	43%
SSVs as a % of vacancies	70%	32%

Incidence of skill gaps

- One fifth of land-based engineering businesses reported a skills gap (i.e. the extent to which employers perceive current employees to be less than fully proficient for their current job) compared to 15% in England
- Employers cited a broad range of skills that need improving among their staff. The most cited skills needs are technical and practical (job-specific skills), oral and written communication, customer handling, problem solving and management skills.

	Land-based engineering industry	Lantra sector
% of establishments	20%	15%
Number of employees	1,333	26,500
Skill gaps as % of employment	7%	6%

Economic conditions

- The recession is reducing the amount of disposable income, which is having a direct effect on business turnover, some reporting up to 25% reduction in activity
- Impact of oil price fluctuations and exchange rates.

Impact on skills

- To remain profitable and sustainable, businesses require business management, marketing and innovation skills.

Technology change and knowledge transfer

- Exploring new markets such as robotics/mechatronics (connection between systems) is essential to ensure future business competitiveness and sustainability
- Increasing reliance on computers for diagnostic/parts reference applications and the internet to promote, secure and retain customers
- Customers are increasingly using high technology communications and Internet services to purchase order and retail products. Many independent dealers/businesses are not making full use of IT and web-based solutions.

Impact on skills

- ICT
- Web-based solutions
- Higher level technical skills
- Marketing.



Health and safety

- Legislative requirements
- Safer working environment
- Reduction in occupational hazards to minimise ill health
- Micro-businesses can struggle to manage and enforce health and safety policies and practices given the volume of information.

Impact on skills

- Awareness raising, knowledge of requirements and how to comply
- Improved learning provision in terms of Continual Professional Development
- Recognition of health and safety competence.

Labour supply and competition

- Requirement for industry to recruit and retain large numbers of young people and/or career changers into the industry and support existing ageng workforce
- Providing opportunities for career progression and development
- Working with internal staff and customers as well as external clients is important, therefore managing and developing effective working relationships has a huge impact on potential future, sustainable business activity.

Impact on skills

- Effective marketing of careers
- Better careers advice and guidance for all
- Proper recognition of competence for all
- Integrated frameworks to support lifelong learning
- To remain competitive, businesses need to be able to recruit staff with high levels of technical and industry skills including customer care, engineering/retail and communication skills
- CPD to enhance specific technical skills to ensure a flexible, high level multi-skilled workforce
- As a customer facing industry it is essential that all staff have an acceptable level of literacy and numeracy and excellent customer service and communication
- Entrepreneurial education.

Climate change

- Increasing consumer and regulatory pressures will also require the modern engineering (dealership) business to be aware of sustainability which will necessitate an understanding of issues as wide ranging as carbon accounting, management of natural resources and environmental management
- Need to adapt to changing climate in the longer term.

Impact on skills

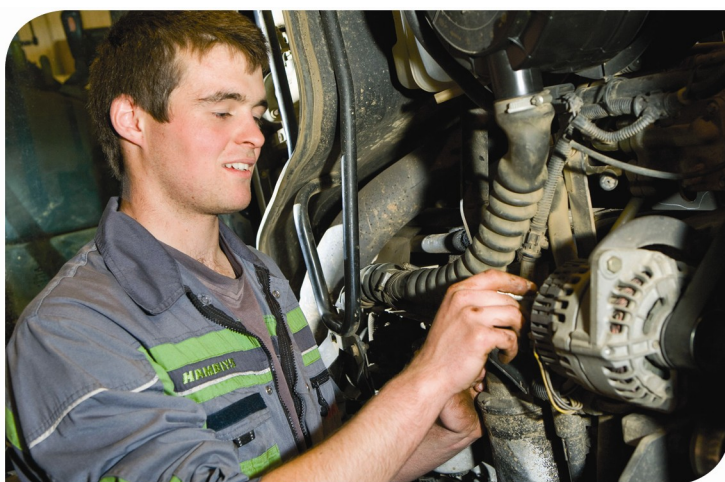
- Adoption of methods to mitigate climate change
- Respond to specific skills/re-skilling issues.

Sources and information

- 1 Inter-Departmental Business Register (IDBR) 2010
- 2 Labour Force Survey (LFS) 2009-10
- 3 Figures and percentages may not add up due to rounding. Percentages are calculated from actual figures
- 4 Data Service (England), DCELLS (Wales), Skills Development Scotland/Scottish Funding Council (SDS/SFC), DARD/DEL (Northern Ireland)
- 5 Data Service (England), DCELLS (Wales), Skills Development Scotland/Scottish Funding Council (SDS/SFC), DARD/DEL (Northern Ireland)
- 6 Higher Education Statistics Agency (HESA)
- 7 Lantra Model for Employment Forecasting (LMEF) 2010. Figures represent estimates of minimum job openings to satisfy replacement and expansionary demand. This may be higher or lower depending on future conditions
- 8 National Employer Skills Survey 2009.

Lantra website

For further information regarding this factsheet, Lantra and the sector, please visit: www.lantra.co.uk



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