Labour Market Intelligence: Refresh – 2023

The Electrotechnical Skills Partnership

Snapshot report for North West

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1. Introduction

1.1 Background

The Electrotechnical Skills Partnership (TESP) commissioned Pye Tait Consulting, an independent research agency, to refresh labour market intelligence (LMI) that was undertaken in 2018/19 (with some additions in 2020 via a mini-LMI study) to understand the current skills requirements to work within the electrotechnical sector. The main report from 2018/19 provided a detailed overview of the electrotechnical sector, its workforce, skills needs, and the training and development typically undertaken.[1]

The electrotechnical sector continues to be at the forefront of a rapidly-evolving revolution in how we use technology – with increased demand for digital communication, energy conservation, electric vehicle charging, and renewable energy solutions with a particular focus on the electrification of heat (such as heat pumps) in buildings. The underlying driver for most of this development is the Net Zero agenda.

The overarching aim of this research is to update the previous LMI work to ensure accurate and up-to-date intelligence, building upon 2018/19 and 2020 research findings. The findings will provide TESP with renewed/up-to-date data that can be used to inform the development or update of a future labour force strategy.

1.2 Methodology

The study involved three core strands of research:

- desk research,
- a telephone survey of 467 employers, and
- follow-up interviews with 12 employers.

The survey questionnaire was designed to be similar to that used in 2018/19 and 2020 to enable longitudinal comparison.

1.3 About this report

The major output from this study is a UK-level report that outlines trends in the sector over the past few years. It provides a detailed insight into the state of the electrotechnical sector in terms of its workforce size, demography, and skills needs/challenges.

In addition, a series of twelve regional reports (one per English region and per devolved nation) will succinctly present the key findings from the research for TESP's regional managers to take forward in their work. This is the report for the North West.

[1] TESP, 2019, Labour market intelligence research

The findings contained in this report are derived from the telephone survey of employers. Of the 467 total respondents, 46 are based in the North West.

Findings are based on a small sample of businesses in the region, resulting in a larger margin of error than the main report, meaning findings should not be interpreted quantitatively as being necessarily representative of the region. From a qualitative standpoint the results will, however, be valuable indications of the local situation.

Note that charts and tables presented in this report may not sum to 100% due to rounding.

1.4 Respondent profile

Almost two thirds (29, 63%) are micro firms employing fewer than 10 staff, almost a fifth are small firms (eight, 17%) with 10 to 49 staff, just over one in ten (five, 11%) are medium firms employing between 50 and 249 staff, and the remainder (four, 9%) are large firms that employ over 250 people. The average (mean) size of company in terms of staff is 135, while the most common (modal) size is nine staff. These figures include both PAYE direct staff and 'others' such as self-employed. Discounting the latter group, the average (mean) size is 133, and the most common (modal) size is three.

The age spread of workers in the North West is shifted towards the younger end compared to the UK as a whole – see Table 1.

Table 1 Age profile of respondents: UK and North West

Age	UK-wide	North West
16 to 18	6%	10%
19 to 24	14%	18%
25 to 49	50%	46%
50 to 64	26%	23%
65+	4%	3%

Base: 467 (UK) and 46 (North West) respondents. Source: Pye Tait Consulting 2023.

The workforce of surveyed respondents in the region is reported by respondents as being 99% UK citizens, with the remainder being EU (Irish and non-Irish) – a similar profile to the UK as a whole.

Almost four fifths (78%) undertake new fit commercial work and a similar proportion undertake commercial repair and maintenance work. Around two fifths (41%) work in the domestic sector on new fit and one third (33%) work in domestic repair.

From a list of pre-defined activities, surveyed respondents most commonly undertake low voltage maintenance and repair work (83%) or low voltage electrical installation (80%). The next most common activities are emergency lighting systems (44%) and fire detection and alarm systems (37%).

1.5 Sector size

ONS SOC code data indicate there are 19,000 individuals (conf %: 5,500) working in the region in the SOC2020 code 5241: Electricians and electrical fitters.[2] However, it should be noted that ONS has identified an issue in the collection of occupation data affecting the accuracy of some detailed occupations and the data derived from the them, and urge caution in interpreting data. Nevertheless, based on an estimated proportion of those with electrotechnical skills who may operate at different skill levels, the overall total of electrotechnical-skilled workers in the region is 24,500 ± 5,500.

Further detail and considerations for how these figures are derived are outlined in the accompanying UK-wide report.

[2] Annual Population Survey, ONS, Jan to Dec 2022. Conf is presented as the standard error as a percentage of the figure.

2. Recruitment

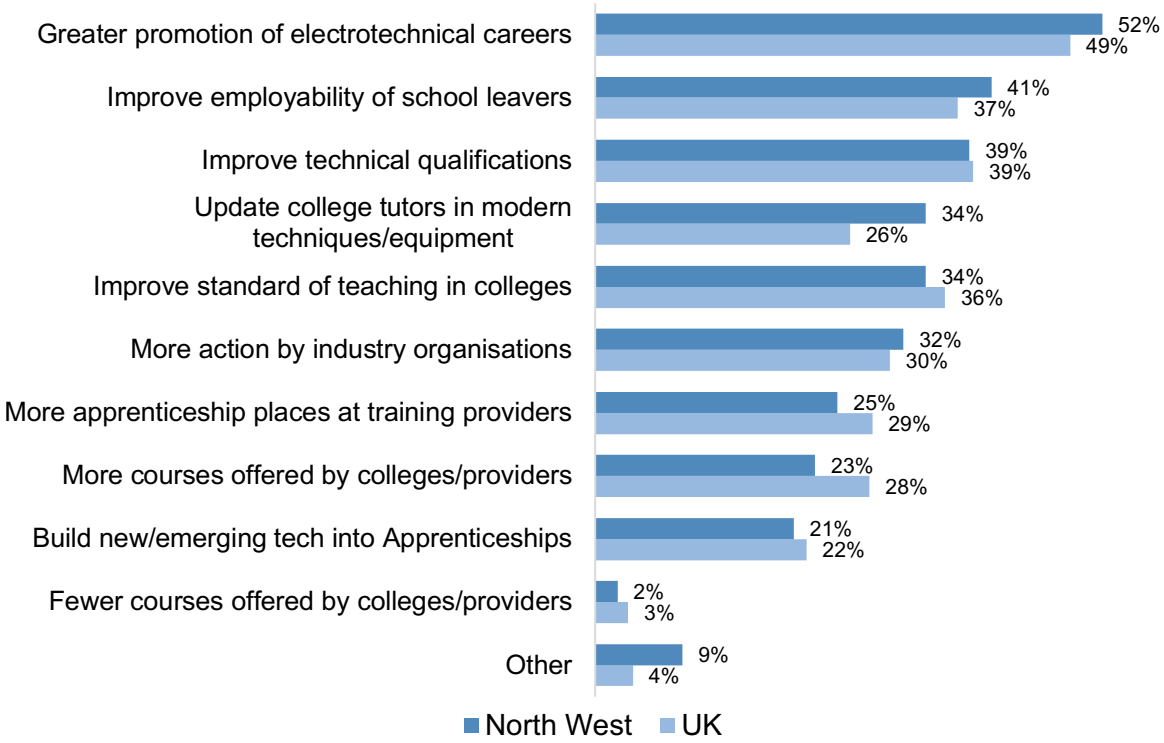
Surveyed employers most commonly report advertising to recruit skilled workers over the past 12 months (654 roles advertised), followed by apprentices/trainees (75) and unskilled workers (11). Of these, employers say four fifths (80%) of apprentice/trainee roles were hard to fill, as were just under half (45%) of unskilled worker roles.

In terms of the employment basis, as compared to pre-COVID-19, just under half of employers (48%) are 'more likely' to recruit using a PAYE directly employed approach and over a third to hire apprentices (36%). Over two in five are less likely to use an employment agency (44%) or to loan labour between companies (45%).

The main perceived actions required to tackle recruitment problems and skills shortages in the region include (see Figure 1):

- greater promotion of electrotechnical careers (mentioned by 52% vs 49% in UK as a whole), and
- improve employability of school leavers (41% vs 37%).

Figure 1 Perceived actions required to tackle recruitment problems – UK vs North West



Base: 441 (UK) and 44 (North West) respondents (multiple responses permitted).
Source: Pye Tait Consulting 2023.

3. Skills needs of the electrotechnical sector

3.1 Electrotechnical qualifications

Respondents in the North West have a similar view of training and qualifications and preparedness of job applicants compared to the UK as a whole – see Table 2.

Table 2 Views on qualifications – agreement levels UK wide and North West

	UK-wide	North West
Job applicants typically have the skills we require of them to do the job well	58%	58%
Currently available qualifications fully reflect the demands of the job today	59%	60%
We are able to find suitable training in our area when we need it	69%	64%

Base variable: 460 to 462 (UK) and 45 (North West) respondents. Source: Pye Tait Consulting 2023.

3.2 Current and future skills needs

Employers were asked to comment on their business's current and future demand for a variety of technical skills. The results for the UK as a whole, and for the North West are presented in Table 3. It should be noted that, for the two sets of 'current demand' columns, three options were available to respondents ('not needed right now', 'needed and we have this skill', and 'needed but we don't' have in the business'), but that the 'not needed right now' responses are omitted for clarity.

A discussion of the findings is presented in the main UK-wide report.

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Table 3 Current and future demand for technical skills – UK vs North West

Skill	Current demand – UK-wide		Current demand – North West		Needed in 3 years – UK-wide	Needed in 3 years – North West
	Needed and have skill	Needed but don't have skill	Needed and have skill	Needed but don't have skill		
Building Automatic Control Systems (BACS) design, installation & maintenance	16%	0.6%	14%	-	20%	18%
Direct electrical heating systems (e.g. storage heaters, UFH) design and installation	23%	0.6%	24%	-	38%	32%
Electric vehicle charging equipment (EVCE) installation	34%	2%	39%	-	39%	31%
Electrical - High Voltage	35%	2%	46%	-	37%	42%
Electrical - Low Voltage	89%	1%	93%	-	88%	91%
Electrical Design	67%	2%	63%	3%	69%	67%
Electrical Energy Storage Systems (EESS) design & installation	31%	2%	26%	-	39%	35%
Emergency lighting, installation & servicing	63%	0.5%	57%	-	64%	58%
Energy efficiency services including lighting and lamp replacement services, power factor correction etc.	45%	0.6%	33%	-	47%	41%
Fire detection and alarm system installation and servicing	51%	0.5%	55%	-	52%	49%
Heat pump installation and design	25%	2%	28%	6%	31%	32%
Installation & maintenance of temporary and stand-by generator sets	28%	1%	25%	-	30%	20%
Installation of technologies associated with Smart-Buildings	20%	3%	25%	6%	36%	27%
Installation, servicing & maintenance of security systems including intruder/controlled access and CCTV	46%	0.8%	54%	3%	44%	50%

Lighting systems installation & maintenance including Highway and Street lighting	47%	0.6%	46%	-	49%	49%
Lightning protection systems design & installation	46%	0.9%	44%	-	50%	46%
Renewable energy systems design & installation	32%	6%	24%	12%	44%	43%

Employers were asked a similar question in relation to their current and future demand for a variety of generic skills. The results for the UK as a whole, and for the North West are presented in Table 4. It should be noted that, for the two sets of 'current demand' columns, three options were available to respondents ('not needed right now', 'needed and we have this skill', and 'needed but we don't' have in the business'), but that the 'not needed right now' responses are omitted for clarity.

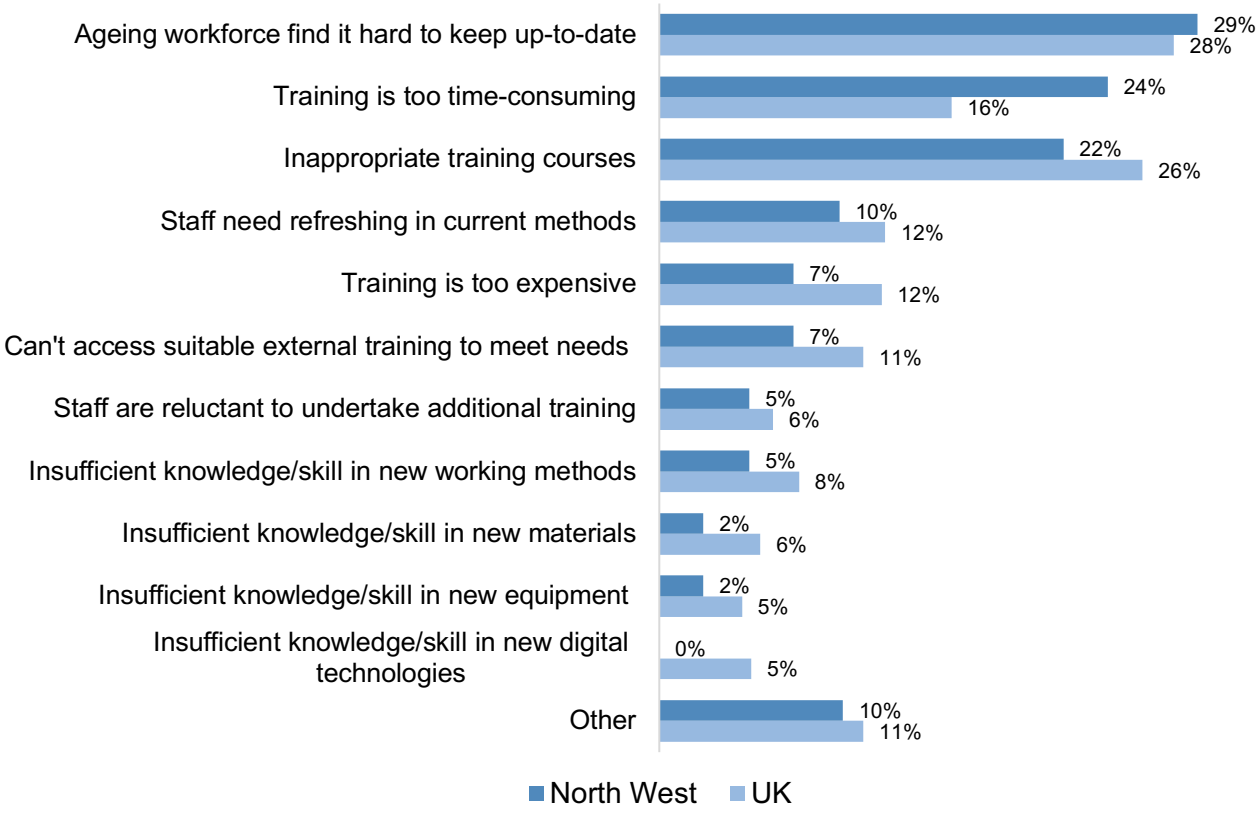
Table 4 Current and future demand for generic skills – UK vs North West

Skill	Current demand – UK-wide		Current demand – North West		Needed in 3 years – UK-wide	Needed in 3 years – North West
	Needed and have skill	Needed but don't have skill	Needed and have skill	Needed but don't have skill		
Management and leadership	97%	0.4%	96%	-	93%	93%
Maths	96%	-	95%	-	93%	92%
Problem solving	97%	0.4%	91%	-	94%	91%
Project and time management	95%	0.7%	89%	2%	93%	91%
Spoken English	97%	-	95%	-	94%	93%
Team working and communication	98%	0.2%	98%	-	94%	96%
Written English	98%	-	95%	-	94%	93%
Client engagement	94%	2%	89%	2%	93%	93%
Digital literacy (e.g. using the cloud / other platforms)	78%	7%	82%	3%	94%	84%

The main perceived reasons for skills deficiencies in the region include (see Figure 2):

- ageing workforce find it hard to keep up-to-date (mentioned by 29% vs 28% in UK as a whole), and
- training is too time-consuming (24% vs 16%).

Figure 2 Perceived reasons for skills deficiencies



Base: 422 (UK) and 41 (North West) respondents (multiple responses permitted).
Source: Pye Tait Consulting 2023.

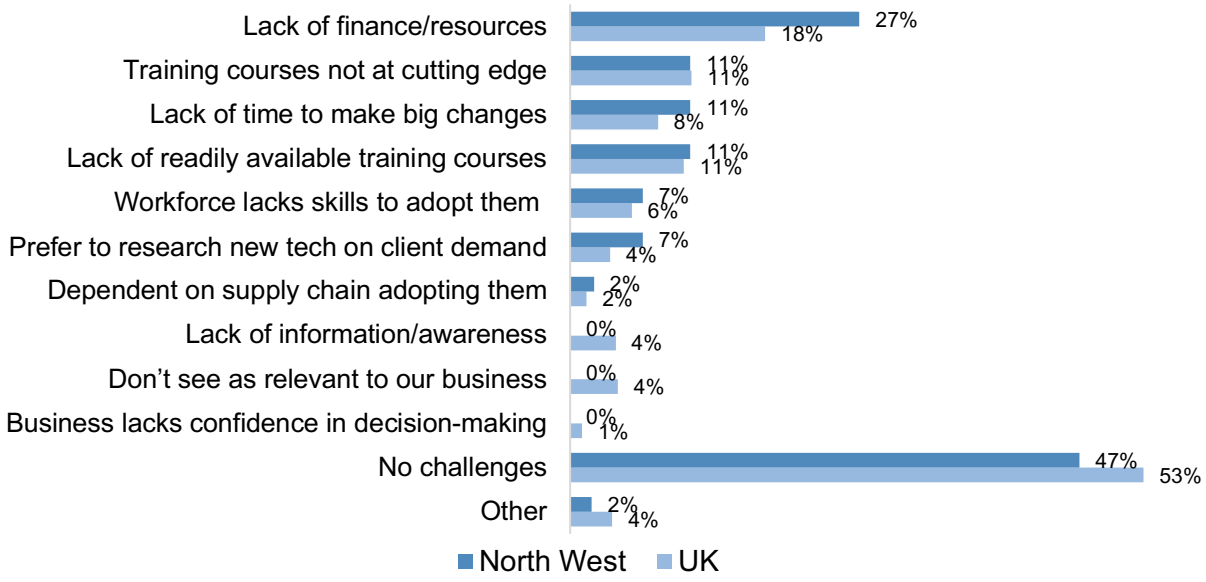
4. Future of the electrotechnical sector

4.1 Take-up of technology

The main perceived issues that organisations in the region face in adopting new technologies and processes include (see Figure 3):

- a lack of finance/resources (mentioned by 27% vs 18% in UK as a whole), and
- training courses not being at the cutting edge (11% vs 11%).

Figure 3 Perceived challenges in adopting new technologies - UK vs North West



Base: 456 (UK) and 45 (North West) respondents (multiple responses permitted).
Source: Pye Tait Consulting 2023.

There appears to be a slightly lower level of concern in the North West compared to the wider UK, but still at a substantial level, that sector-wide take-up of new technology and processes is relatively modest (36% agree or strongly agree, vs 40% in UK) – Table 5.

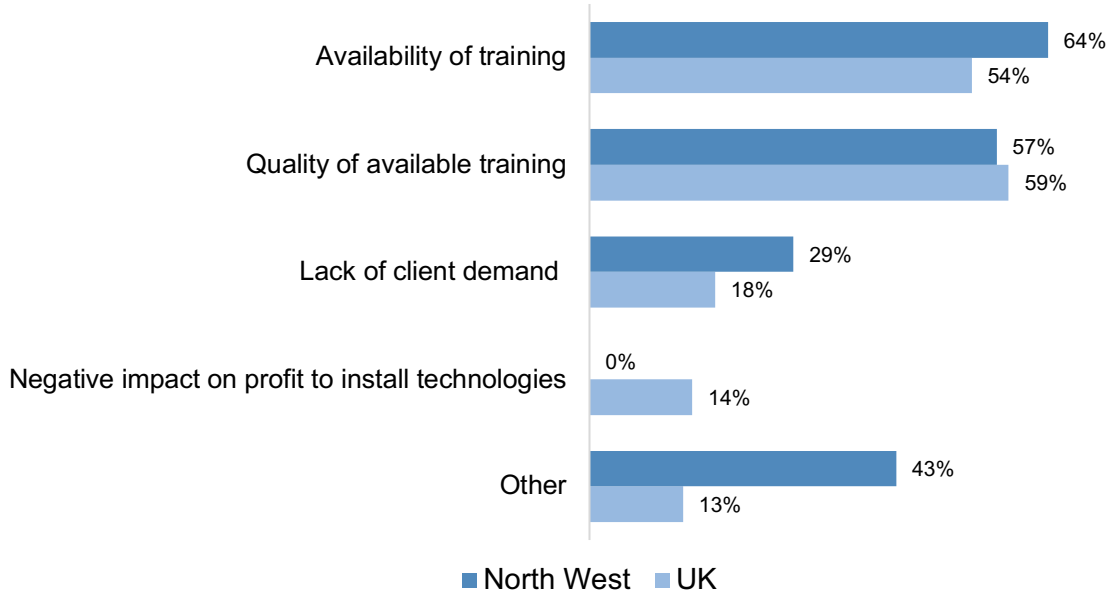
Table 5 Sector-wide take-up of new technology is relatively modest – UK vs North West

	UK-wide	North West
Strongly agree	9%	3%
Agree	31%	33%
Disagree	60%	64%
Strongly disagree	0.5%	-

Base: 399 (UK) and 39 (North West) respondents. Source: Pye Tait Consulting 2023.

Those agreeing or strongly agreeing were asked why they believe take-up has been relatively modest. Reasons generally reflect those of the wider UK, with the most common reason being the availability of training (64%) – Figure 4.

Figure 4 Perceived reasons for modest take-up of technology – UK vs North West



Base: 153 (UK) and 14 (North West) respondents (multiple responses permitted).
Source: Pye Tait Consulting 2023.

4.2 Workforce projection

Companies anticipate that, in five years' time, they will employ a slightly higher average of staff – 137 staff (compared to 135 now). This includes both PAYE direct staff and 'others' such as self-employed. Discounting the latter group, the future average (mean) size is anticipated to be 135 (compared to 133 now), indicating a slight expansion in company size anticipated in the future for the region.

Compared to the UK as a whole, anticipated demand for personnel in the region in the next two to three years is higher for managers and supervisors, project supporting roles, and fire and security system installers, and lower for design engineers and estimators, qualified electricians, and electrical labourers – see Table 6. While most surveyed employers believe demand will remain steady, a greater proportion believe demand will increase than decrease over the coming years for all roles.

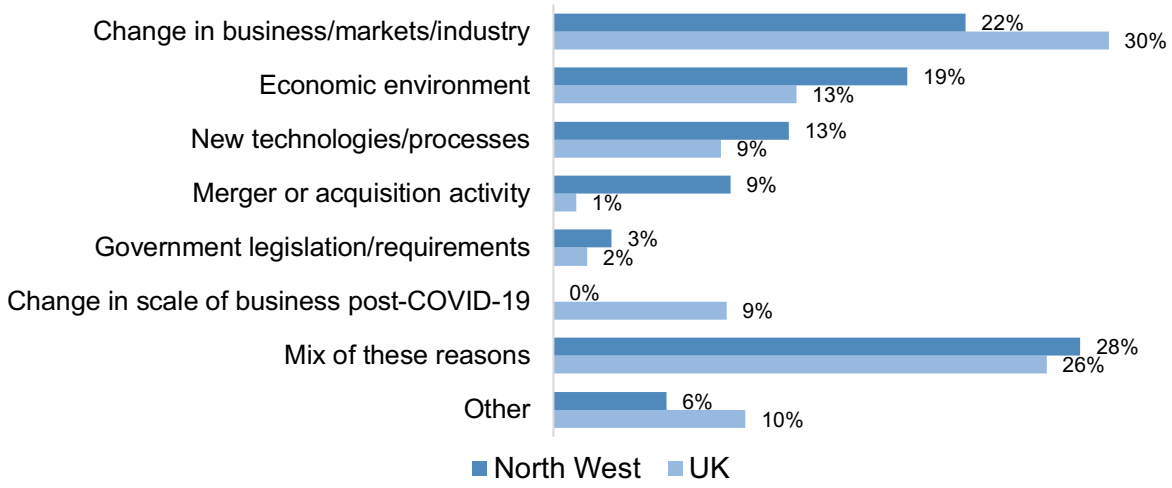
Table 6 Anticipated demand for personnel change – UK vs North West

		Decrease	Remain the same	Increase
Managers and supervisors	UK-wide	4%	88%	8%
	North West	7%	72%	22%
Design engineers and estimators	UK-wide	5%	81%	14%
	North West	5%	84%	12%
Qualified electricians	UK-wide	5%	41%	54%
	North West	7%	47%	47%
Apprentices	UK-wide	6%	45%	49%
	North West	5%	46%	50%
Project supporting roles	UK-wide	5%	82%	13%
	North West	5%	78%	18%
Fire and security system installers	UK-wide	7%	82%	11%
	North West	5%	77%	18%
Electrical labourers	UK-wide	5%	64%	31%
	North West	8%	63%	29%

Base variable: 390 to 452 (UK) and 38 to 46 (North West) respondents. Source: Pye Tait Consulting 2023.

Respondents foreseeing an increase or decrease in demand for any role were asked for the main reason for this change. Responses generally reflect those provided at a UK-wide level, albeit with a smaller proportion indicating that a change in business/market/industry is the main reason (22% vs 30% compared to the UK as a whole) – see Figure 5.

Figure 5 Main reason for change in demand – UK vs North West



Base: 325 (UK) and 32 (North West) respondents. Source: Pye Tait Consulting 2023.

Compared to the UK as a whole, anticipated demand for personnel in the region in the next three years as a direct result of new technologies and processes is higher for directors and managers, and unskilled workers (e.g. labourer), and lower for supervisors, project personnel, and apprentices/trainees – see Table 7.

Table 7 Anticipated demand for job roles as a direct result of new technologies – UK vs North West

		Decrease	Remain the same	Increase
Directors and managers	UK-wide	5%	89%	7%
	North West	4%	80%	16%
Supervisors	UK-wide	5%	83%	12%
	North West	5%	85%	10%
Project personnel	UK-wide	5%	76%	19%
	North West	5%	81%	15%
Skilled e.g. qualified electricians	UK-wide	6%	41%	53%
	North West	9%	38%	53%
Unskilled e.g. labourer	UK-wide	6%	60%	33%
	North West	8%	58%	35%
Apprentices/trainees	UK-wide	8%	44%	47%
	North West	9%	49%	42%

Base variable: 396 to 442 (UK) and 40 to 45 (North West) respondents. Source: Pye Tait Consulting 2023.