

Quarterly Review

June 2019

- › 48% of Companies plan for increased apprentices in the next three to five years
- › Order intake overall positive for last three and next three months
- › A tough quarter for metal manufacturing showing falling order rate and the lowest optimism of all sectors

As we approach the middle of 2019 our focus this quarter has been on industry's preparedness for future skills through the provision of work-based learning programmes. Overall that view is positive, and generally the same can be said for orders, output and staffing, and even optimism keeps its head above water despite continuing uncertainty.

Encouraging Forward Thinking For Skills



Award winner Derek Pierce of J&D Pierce (Contracts) with Keynote speaker Lindsay McQuade, CEO, Scottish Power Renewables, and Paul Sheerin, CEO, Scottish Engineering

Spring in Scotland is now well under way, and it's a significant time for us at Scottish Engineering as we celebrated our annual award winners just a few short weeks ago.

If spring is our best chance in the year for optimism, then our award winners did not disappoint, and we saw the range of excellence running from laser photonics through large scale high value metal manufacturing to mass volume drinks production. A tremendous range and diversity of engineering, with fantastic examples of strategic focus on improvement, investment and skills growth. Congratulations to all our award recipients, with a special mention for our overall winner, J&D Pierce (Contracts), whose mix of astonishing growth in business, infrastructure and skills captured the attention of our judging panel.

Given that skills remain the number one conversation we have with industry, it's not surprising that all of our award winners stood out for

their commitment and approach to training and skills, with engagement in local education long before the hiring process begins. We have remarked before that our future supply of talent faces several challenges:

- › A currently historically low unemployment rate
- › An aging workforce with low training rates in the age group following
- › Competition for STEM candidates from other sectors and industry
- › A projection of decreasing net migration, exacerbated by Brexit impacts

This quarter we asked members to share their plans for apprenticeship places in the next twelve months and mid-term timeframe, and encouragingly all areas show a planned increase. A healthy 47% of respondents plan an overall increase across all three streams of apprenticeships over the next three to five years, a level that underlines how seriously companies are taking

the need to secure future skills. In the shorter term, perhaps unsurprisingly, the Modern Apprentice programme shows the most planned growth in the next twelve months, with over 43% of companies indicating plans for increased intake. The newer apprenticeship programmes for Foundation and Graduate streams showed lower increases of 16% and 21% respectively, and from that I think we can conclude that whilst the increase is welcome, we still have work to do to convince industry of the value of these work-based learning initiatives.

If we were giving ourselves a report card, let's be generous and say we give ourselves a 'B', what next to drive this in right direction?

Well, if we start with supply of candidates, a continued theme in almost every forum and voiced by industry leaders is the need to concentrate our STEM resource in fewer and more effective projects – a 'less is more' approach. This will require compromise and some of us will have to stop what we currently do to join other programmes, but if we want a different outcome, choices like these will need to be made.

Looking beyond that, our survey asked employers what factors restricted their plans to increase the numbers of training places, and the most common

answer highlighted a lack of training resource and time within smaller organisations to do justice to the training of more young people. With no magic wands that's not easy to fix, but it is something we can look at with the agencies who support industry in Scotland to seek a solution.

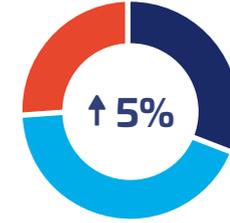
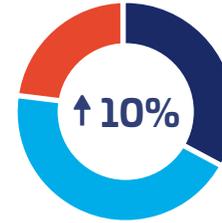
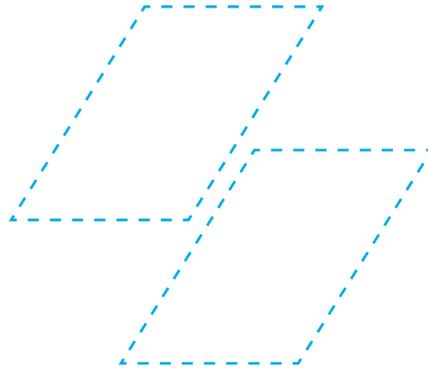
And finally, we need to press the UK government to look again at the content of their Immigration policy proposal to take into account the differing needs of Scotland within the UK. The last thing that our manufacturing industry need is wider pressure across labour supply as a whole, whether that be for skilled engineering and technician roles, or just as importantly the operator group where we enjoy significant levels of EU nationals in our workplaces.

For our back page view this quarter, I am pleased to note we have a contribution from a friend of Scottish Engineering, Paul Nelson, who fulfilled our role as Employer Auditor whilst working at member company Allied Vehicles. Paul is now helping Scottish Autism, an organisation that reminds us of the value that employees on the Autism spectrum bring to all aspects of working life, in some cases particularly for engineering and manufacturing. ⚡

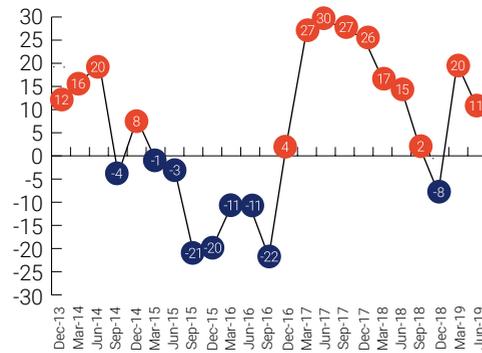
Annual Trends

Order intake has dipped after a more positive increase last quarter; however, output volume has continued to increase and to rates not seen since June 2017.

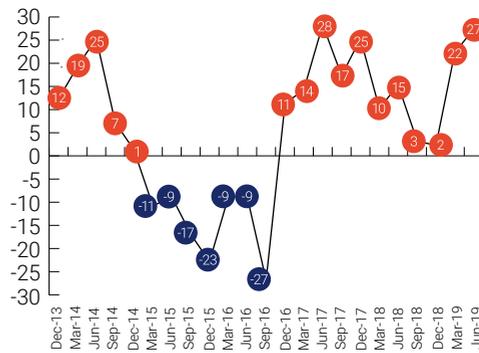
Export levels remain positive but have slowed since last quarter. Staffing levels still show a positive intention, albeit at a lower level than prior quarter.



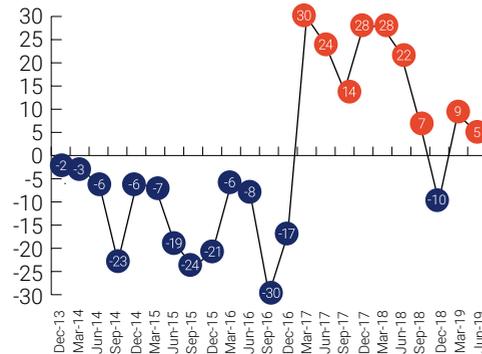
Order intake



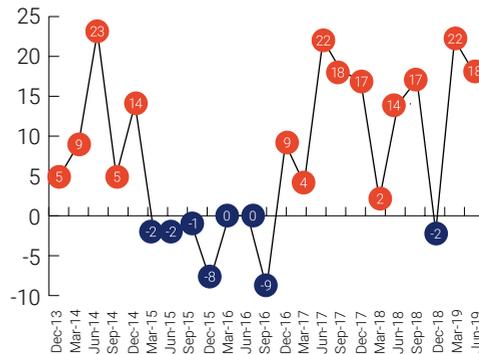
Output volume



Exports



Staffing



UK Orders

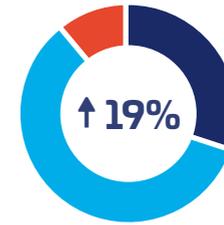
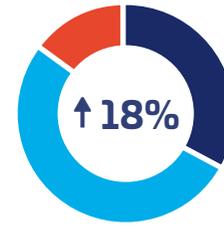
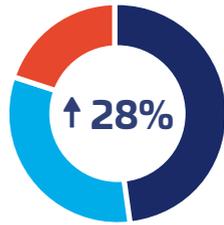
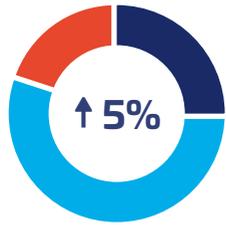
	10%	33%	44%	23%
	Net	Up	Same	Down
Small companies	4%	35%	34%	31%
Medium companies	22%	32%	58%	10%
Large companies	20%	20%	80%	0%
Machine shops	13%	50%	13%	37%
Mechanical equipment	16%	32%	52%	16%
Metal manufacturing	-37%	13%	37%	50%
Non-metal products	25%	50%	25%	25%
Fabricators	32%	46%	38%	14%
Electronics	-17%	0%	83%	17%

Export Orders

	5%	31%	43%	26%
	Net	Up	Same	Down
Small companies	3%	32%	39%	29%
Medium companies	7%	31%	45%	24%
Large companies	25%	25%	75%	0%
Machine shops	0%	25%	50%	25%
Mechanical equipment	1%	28%	45%	27%
Metal manufacturing	0%	43%	14%	43%
Non-metal products	17%	50%	17%	33%
Fabricators	15%	29%	57%	14%
Electronics	20%	40%	40%	20%

UK orders remain positive, with the balance of change at 10% (1% higher than last quarter). All sizes of company are positive. Within the sectors machine shops, mechanical equipment, non-metal products and fabricators are all reporting positive returns. Metal manufacturing and electronics have equal numbers of companies reporting increases and decreases; and fabricators are reporting negative figures.

Export orders are positive within all sizes of company – 25% of large companies, 31% of medium companies and 32% of small companies are reporting an increase. In the sectors, mechanical equipment, non-metal products, fabricators and electronics are positive; and machine shops and metal manufacturing have a similar number of companies reporting increases and decreases.



Optimism

	5%	25%	55%	20%
	Net	Up	Same	Down
Small companies	0%	26%	48%	26%
Medium companies	10%	23%	64%	13%
Large companies	20%	20%	80%	0%
Machine shops	37%	50%	37%	13%
Mechanical equipment	15%	31%	53%	16%
Metal manufacturing	-50%	0%	50%	50%
Non-metal products	0%	25%	50%	25%
Fabricators	-23%	0%	77%	23%
Electronics	-16%	17%	50%	33%

In general optimism has improved slightly. 23% of medium companies are reporting an increase and 20% of large companies are reporting an increase; 26% of small companies are reporting an increase, but the same percentage are also reporting a decrease. In the various sectors machine shops and mechanical equipment are positive; non-metal products are reporting equal numbers of increases and decreases; and machines shops, metal manufacturing, fabricators and electronics are reporting decreases in optimism.

Output volume

	28%	48%	32%	20%
	Net	Up	Same	Down
Small companies	27%	48%	31%	21%
Medium companies	31%	50%	31%	19%
Large companies	0%	20%	60%	20%
Machine shops	37%	50%	37%	13%
Mechanical equipment	15%	39%	37%	24%
Metal manufacturing	25%	50%	25%	25%
Non-metal products	39%	63%	13%	24%
Fabricators	39%	54%	31%	15%
Electronics	16%	33%	50%	17%

Throughout the survey, output volume remains mainly positive, with small and medium companies reporting increases, and large companies reporting equal numbers of increases and decreases. All sectors are positive, with the largest balance of change seen in machine shops, non-metal products and fabricators.

Staffing

	18%	33%	52%	15%
	Net	Up	Same	Down
Small companies	19%	33%	53%	14%
Medium companies	21%	34%	53%	13%
Large companies	-20%	20%	40%	40%
Machine shops	50%	63%	24%	13%
Mechanical equipment	15%	27%	61%	12%
Metal manufacturing	-12%	13%	62%	25%
Non-metal products	38%	50%	38%	12%
Fabricators	31%	31%	69%	0%
Electronics	0%	17%	66%	17%

Overtime

	6%	30%	46%	24%
	Net	Up	Same	Down
Small companies	-9%	24%	43%	33%
Medium companies	22%	35%	52%	13%
Large companies	60%	60%	40%	0%

Employees

Employee numbers have become more positive for small and medium companies, but they are down for large companies. Machine shops, mechanical equipment, non-metal products and fabricators have increased; metal manufacturing companies have reported a decrease, and electronics have reported equal numbers of increases and decreases.

Overtime

Overtime working continues in an increasing direction for medium and large companies, whilst small companies have fallen to a negative position.

Investment

	19%	30%	59%	11%
	Net	Up	Same	Down
Small companies	16%	31%	54%	15%
Medium companies	20%	26%	68%	6%
Large companies	50%	50%	50%	0%
Machine shops	13%	50%	37%	25%
Mechanical equipment	22%	32%	58%	10%
Metal manufacturing	-24%	13%	50%	37%
Non-metal products	38%	50%	38%	12%
Fabricators	-8%	25%	58%	17%
Electronics	20%	20%	80%	0%

Training

	34%	39%	56%	5%
	Net	Up	Same	Down
Small companies	33%	40%	53%	7%
Medium companies	35%	38%	59%	3%
Large companies	40%	40%	60%	0%

Investment

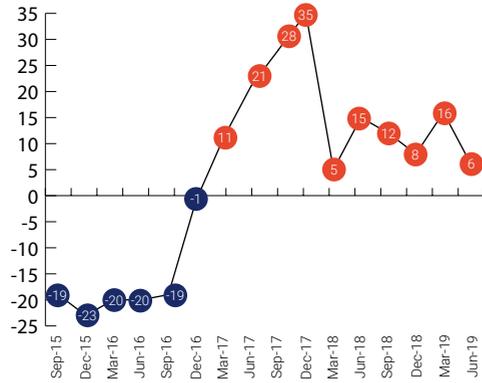
Capital investment plans have maintained similar positive levels to last quarter – all sizes of companies are positive. Within the sectors machine shops, mechanical equipment, non-metal products and electronics are positive; and metal manufacturing and fabricators are negative.

Training investment

Training investment plans are at a similar level to last quarter. All sizes of company are reporting positive figures.

Capacity utilisation

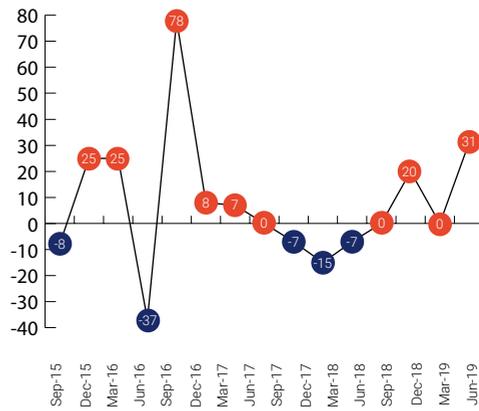
Remains positive, albeit at a lower level, for the tenth consecutive quarter.



Fabricators

Order intake total

Fabricators order intake has returned to positive levels after an even balance last quarter. This trend also matches the significantly positive staffing rate (+31%) shown by fabricators.



Forecasts

Forecasts for the next three months are less positive than last quarter. In general, export orders and output volume are forecast to pick up slightly, but UK orders are forecast to dip. Small companies are forecasting a dip in both UK and export orders, whilst medium companies are expecting a decrease in output volume, and large companies are forecasting a dip in prices and staffing.

Mechanical equipment is the only sector forecasting that the next quarter will be better than the previous. Metal manufacturing is expecting a decrease in exports; non-metal products are expecting

a decrease in orders and output; electronics are expecting a decrease in orders and employees; fabricators are forecasting decreases in orders, export prices and output, but they expect UK prices to remain the same and employees to increase; and machine shops are expecting to be squeezed in the export market, but anticipate an increase in UK orders and prices, output volume and employee numbers.

	Net	Up	Same	Down
Orders	4%	31%	42%	27%
UK Orders	-4%	25%	46%	29%
Export Orders	2%	26%	50%	24%
Output Volume	1%	27%	47%	26%

Balance of Change %

	Order Intake UK	Orders Export	Prices UK	Prices Export	Output Volume	Employees
Small	-11	-7	15	0	3	19
Medium	6	7	6	10	-6	22
Large	20	50	-20	-25	20	-20
Metal Manufacturing	13	-57	25	0	13	0
Transport	-50	-17	13	0	-25	0
Electronics	-17	-20	0	0	0	-17
Fabricators	-31	-43	0	-14	-31	15
Machine Shops	13	-25	38	-25	25	50
Mechanical Equipment	19	31	13	17	18	21

The data in this Review were acquired by a survey of Scottish Engineering's members and certain other manufacturing companies. The response rate was 36% of members.

Companies are described as:
Small (<100 employees)
Medium (100-500)
and Large (>500)

Wider Inclusion Can Add Valued Employees

Paul Nelson

Non-Executive Director, Scottish Autism



Securing satisfying employment, where you feel valued, can be challenging for anyone but for some autistic people, it can be seen as even more of a challenge. It wasn't until I joined Scottish Autism that I realised how many autistic people there are in Scotland. I have also learned about the struggle many families face as they navigate education, society and importantly work.

Autism is a lifelong developmental condition which affects the way a person communicates, interacts and processes information. The autism spectrum refers to the range of ways the condition can present in an individual which can vary greatly from person to person and throughout their life. While some people will have more subtle difficulties, others will have more complex needs requiring intensive support.

No two autistic people are the same and we recognise that each person has a unique set of needs. We create support plans that are based on an individual's own strengths, motivations

and on achieving outcomes that are meaningful to them. This is the case whether in school, further education or the work setting.

At Scottish Autism we recognise this and have developed a range of innovative services and support, all designed around the wellbeing of autistic people.

Some of the skills that are well suited to a career in the STEM professions such as good maths, problem solving, attention to detail, persistence and excellent analytical skills are some of the skills that many autistic people can have particular strengths in. Although, since engaging more with autistic people, I have learned the importance of challenging stereotypes, and I have been privileged to meet autistic individuals who have potential in other areas of the workforce such as the arts, retail and horticulture, to name a few.

However, it is common for autistic people to experience barriers to accessing employment because of differences in social communication

and thought processing style. With the right support in place, employers could really benefit from the unique talents and skills autistic individuals can bring to their workforce. By adopting a more inclusive recruitment approach and improving understanding of autism amongst employers, autistic employees have a better opportunity to excel in a field where their skills are realised and valued as feeling valued is fundamental to everyone's wellbeing.

Employers can make some simple but helpful adjustments to create a more autism accessible workplace from the initial recruitment and selection process to the actual work environment itself. These can include making sure the application form and guidance are clear and that you encourage the applicant to inform you that they are autistic, so suitable adjustments can be made on appointment.

Some small adjustments can also create a more autism accessible environment including a quiet room or space, desk adjustment, adjusted lighting, noise cancelling headphones, amended working hours or flexible working and a supportive manager/mentor. Also, think of outside the office and help to support an autistic person with reduced travel or helping them to create a work and travel routine.

At New Struan, Scottish Autism's Day and Residential School for autistic pupils aged 5 to 19, we recognise

the importance of instilling the belief that employment is a realistic and obtainable aim for our young people. We offer work placements within our own charity services; could you do likewise? We are planning to work with Primary Engineering and STEM to provide our pupils with an insight into the opportunities engineering might offer as a career but more importantly, what our pupils' skills might offer the world of engineering.

If you are looking to better support autistic individuals into work, Scottish Autism can provide tailored training and consultancy opportunities. We also offer corporate partnership opportunities which can bring great benefits to your organisation and help to raise awareness and understanding of autism amongst your staff. We offer free staff training to Charity of the Year partners as well as help to implement changes in your organisation to support autistic people.

We develop a tailored partnership to meet your corporate social responsibility objectives, maximise staff engagement and inspire your customers. There are also lots of fun ways to get involved and raise funds to help Scottish Autism to continue to deliver much needed services and support across Scotland.

If you want to find out more about the work or Scottish Autism, please visit www.scottishautism.org, email autism@scottishautism.org or telephone **01259 720044**.

Through Scottish Engineering, our members are connected to the world class industry expertise they need to thrive, at home and globally.

We facilitate connections and knowledge transfer across sectors, champion STEM education, represent Scottish industry's interests at every level of government, and deliver industry leading employment law representation, HR and health and safety support that allow members to focus on what they do best – delivering world class products and services.

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