



Scottish Engineering

Quarterly Review

March 2019



Our first report of 2019 opens as we closed last year, with continuing uncertainty for the manner and impact with which the UK will leave the EU. Our members feedback show strong order, output and staffing performance which is welcome, but concern remains that understandable contingency planning is raising inventory across supply chains to offset the impact of a no deal Brexit.

- Brexit timeline critical for clarity
- Order Intake positive for quarter and forecast for both UK and Export
- Optimism returns following last quarter dip, particularly in larger organisations

Groundhog Day



Paul Sheerin
Chief Executive
Scottish Engineering

Welcome to our first Quarterly Report of 2019. We start not as we would wish with an optimistic view forward, but instead trapped in the never-ending Brexit cycle where immediate clarity is desperately needed, but never actually expected. The gift that keeps on giving simply cannot be ignored, for as Brexit blunders on, the timeline to avert a cliff edge withdrawal is scarily close and therefore uncomfortably real.

I attended this week the manufacturing conference of Make UK (renamed from EEF) and Brexit concerns were the returning headline topic throughout the day. Andrew Neil, fresh from his decision to end his weekly politics show and in uncharacteristically entertaining form, took no prisoners in analysing where we were and where we may be going. He commented that a case can be made that it's not unusual to have an incompetent government, and it can equally be argued that there have been plenty cases of ineffective opposition.

He suggested however that, unlike buses, for both to come along at the same time was highly unusual and a key reason for the chaos we are experiencing. In warming to his theme he stated that "Brexit would have been tough enough with competent people who knew what they were doing". After painting this panic inducing picture, he added the now common observation that politics and particularly voter intentions no longer follow the established rules and entertained us with reference to a new billionaire class reminiscent of Donald Sutherland in The Hunger Games.

Against this almost dystopian view of our political landscape his view forward was for me surprising, an expectation that the most likely outcome was a late in the day compromise to get behind a form of the current deal on offer, with a backup possibility to extend from the end of March date still more likely than a no deal exit. This scenario was repeated

through the day by those speakers representing the UK Government, albeit with more emphasis on the qualifying phrase 'we are working as hard as possible to achieve...'. At the time of writing further distraction continues with resignation of MPs from the two main UK political parties, although it has to be acknowledged that these are for a variety of reasons. Nonetheless, it all adds to the noise, and subsequently I have to admit that it's hard for me to see how the current political pantomime will stop in time to let such sense break out. It is however exactly what is needed and therefore we must once again hope for the best, whilst continuing to ready ourselves for all possible eventualities.

Against that background our Quarterly Review figures at first glance look broadly positive, with orders, output and staffing all showing significantly positive both in review and forecast. Concern exists that these figures may be boosted by understandable contingency planning that is raising inventory across supply chains. This view underlines that whatever inventory is being built, we all understand that this will need to be unwound to return working capital to optimum, and that unwinding may feel like a dip even if the real end user demand remains steady.

Regardless of what happens next, the world will keep turning and our Industry will do what it has done through every challenging period since industry began: rise to the challenge, make the most of the strengths and attributes our business communities undoubtedly have, and look to improve

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to increase competitiveness regardless of the obstacles arriving. In that respect its good to see that Capital and Training Investment plans remain positive, with Training Investment the highest as companies look to increase productivity through training.

For Scottish Engineering, a key addition to our training offer this year is our partnership programme with Equate Scotland and SEMTA, and I'm delighted that Talat Yaqoob, Director of Equate Scotland, has explained that programme in detail as our guest back page contributor. Improving our gender balance in Engineering and Manufacturing is compelling not because it's the right thing to do but because it will improve our productivity and sector sustainability. Scottish Engineering see this programme as a key part of enabling that improvement, because in this respect, good intentions are not enough, change will require commitment to training and company culture to achieve this.



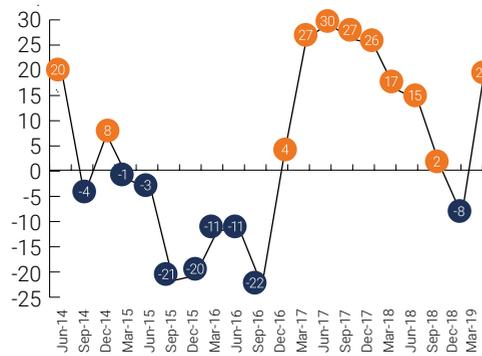
Annual Trends

Order intake has swung into positive territory after dipping last quarter. Similarly output volume has risen to levels not seen for five quarters.

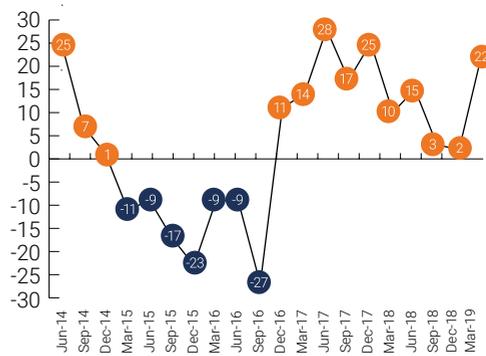
Export levels have also risen after falling last quarter.

Staffing levels have improved to levels not seen since June 2017.

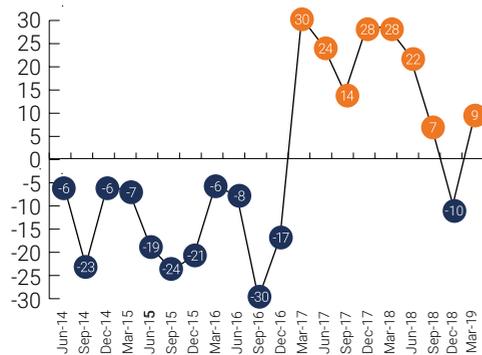
Order intake



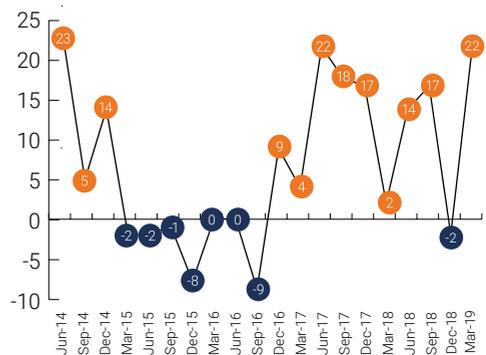
Output volume



Exports



Staffing



UK Orders

34% 41% 25%

	Up	Same	Down
Small companies	38%	37%	25%
Medium companies	32%	47%	21%
Large companies	0%	60%	40%
Machine shops	43%	14%	43%
Mechanical equipment	37%	41%	22%
Metal manufacturing	38%	38%	24%
Non-metal products	67%	0%	33%
Fabricators	15%	54%	31%
Electronics	33%	34%	33%



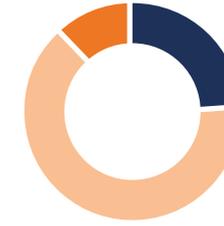
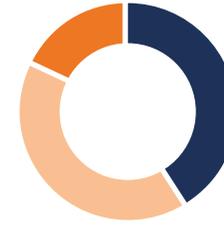
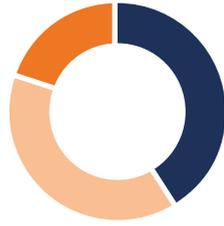
Export Orders

32% 45% 23%

	Up	Same	Down
Small companies	26%	48%	26%
Medium companies	41%	44%	15%
Large companies	25%	25%	50%
Machine shops	40%	20%	40%
Mechanical equipment	35%	46%	19%
Metal manufacturing	17%	33%	50%
Non-metal products	75%	25%	0%
Fabricators	33%	45%	22%
Electronics	0%	40%	60%

UK orders have moved into positive territory, picking up 7% since last quarter. Small and medium companies are positive, whilst large companies have moved from a positive to negative position. Within the sectors mechanical equipment, metal manufacturing and non-metal products are all reporting positive returns. Machine shops and electronics have equal numbers of companies reporting increases and decreases; and fabricators are reporting negative figures.

Overall export orders have moved into positive territory. 41% of medium companies are reporting an increase, whilst small companies show an even balance; and large companies are down. In the sectors, mechanical equipment, metal manufacturing and non-metal products and fabricators are positive; metal manufacturing and electronics are showing a negative return; and machine shops have a similar number of companies reporting increases and decreases.



Optimism

22% 57% 21%

Up Same Down

Small companies	15%	62%	23%
Medium companies	31%	52%	17%
Large companies	40%	40%	20%
Machine shops	14%	43%	43%
Mechanical equipment	31%	62%	7%
Metal manufacturing	12%	50%	38%
Non-metal products	33%	34%	33%
Fabricators	15%	62%	23%
Electronics	20%	60%	20%

In general optimism has improved slightly. Medium companies are reporting a 31% increase and large companies are reporting a 40% increase, however small companies are reporting a decrease. In the various sectors mechanical equipment is positive; non-metal products and electronics are reporting equal numbers of increases and decreases; and machine shops, metal manufacturing and fabricators are reporting decreases in optimism.

Output Volume

41% 39% 20%

Up Same Down

Small companies	40%	34%	26%
Medium companies	41%	49%	10%
Large companies	60%	40%	0%
Machine shops	42%	29%	29%
Mechanical equipment	55%	38%	7%
Metal manufacturing	25%	38%	37%
Non-metal products	66%	17%	17%
Fabricators	24%	38%	38%
Electronics	33%	34%	33%

Throughout the survey, output volume remains positive, with all sizes of company reporting increases. Large companies have seen the largest swing - 60% reported positive figures. Across the sectors, machine shops, mechanical equipment and non-metal products are positive. Metal manufacturing and Fabricators are negative; and electronics have equal numbers of increases and decreases.

Staffing

41% 41% 18%

Up Same Down

Small companies	30%	44%	26%
Medium companies	56%	41%	3%
Large companies	60%	20%	20%
Machine shops	29%	57%	14%
Mechanical equipment	58%	28%	14%
Metal manufacturing	24%	38%	38%
Non-metal products	33%	50%	17%
Fabricators	38%	38%	24%
Electronics	17%	66%	17%

Employees

Across the board, employee numbers have become more positive for all sizes of company. Machine shops, mechanical equipment, non-metal products and fabricators have increased, whilst metal manufacturing companies have reported a decrease.

Overtime

31% 50% 19%

Overtime working in general continues in an increasing direction for all sizes of company.

Investment

24% 64% 12%

Up Same Down

Small companies	22%	60%	18%
Medium companies	28%	69%	3%
Large companies	25%	75%	0%
Machine shops	33%	34%	33%
Mechanical equipment	24%	73%	3%
Metal manufacturing	29%	42%	29%
Non-metal products	33%	50%	17%
Fabricators	8%	84%	8%
Electronics	0%	100%	0%

Investment

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

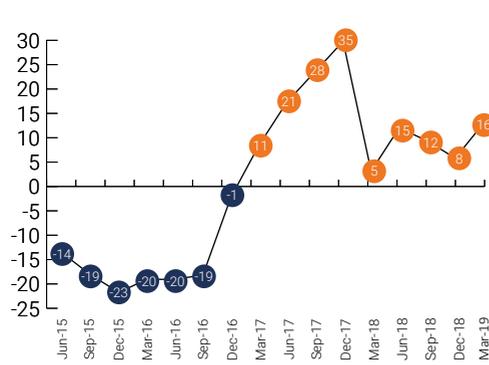
Training investment

35% 57% 8%

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

Capacity utilisation

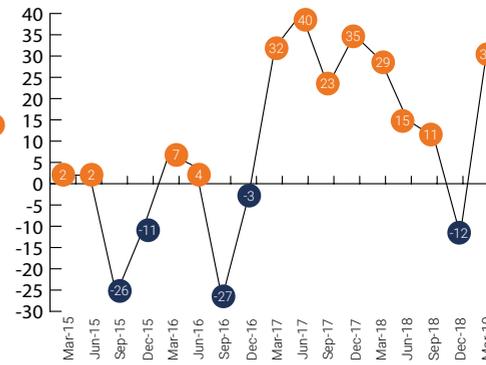
Remains positive for the ninth consecutive quarter, returning to levels last seen in Q2 2018. The increase reflects the increases in order intake and output volume.



Mechanical Equipment

Order intake total

Mechanical equipment order intake has returned to positive levels after a dip last quarter. This trend also matches the significantly positive staffing rate (+58%) shown by mechanical equipment manufacturers.



Forecasts

Forecasts for the next three months appear to be mainly positive. In general, UK orders, export orders and output volume are forecast to pick up. Medium and large companies are forecasting positive figures for most measurements, whilst small companies are expecting a decrease in exports.

metal manufacturers and machine shops are expecting a downturn in UK orders; and metal manufacturers, transport and fabricators are forecasting a downturn in export orders.

Within the sectors electronics and mechanical equipment are forecasting that the next quarter will be the same or better than the previous quarter; whilst

	Up	Same	Down
Orders	41%	37%	22%
UK Orders	36%	46%	18%
Export Orders	33%	42%	25%
Output Volume	40%	45%	15%

Balance of Change %

	Order Intake UK	Orders Export	Prices UK	Prices Export	Output Volume	Employees
Small	8	-5	33	30	17	21
Medium	32	19	38	32	34	18
Large	60	75	20	0	40	20
Metal Manufacturing	-50	-67	0	-17	-13	-13
Transport	0	-100	0	0	0	0
Electronics	17	20	17	0	17	17
Fabricators	23	-33	31	11	15	-8
Machine Shops	-14	0	43	40	-17	29
Mechanical Equipment	26	35	36	38	45	36

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

The response rate was 34% of members. Companies are described as: Small (<100 employees), Medium (100–500) and Large (>500).

New project to support sector with equality



Talat Yaqoob
Director, Equate Scotland

Employers across the engineering sector, no matter how big or small, will be well aware of the continuing efforts to diversify the workforce and bring in a new era of young people, people from different ethnicities and women into engineering. Given that the majority of the jobs of the future are likely to require some science, technology or engineering related qualification or training, it is surprising that we are yet to see a shift in diversity, especially in terms of the number of women in this sector.

According to labour market data, women make up around 16% of the engineering sector, and only 11% of these women have senior technical roles, yet their equal participation is worth billions to the UK's economy. According to Engineering UK we need over 180,000 more engineers by 2022, to meet this target we need more women to pursue this career. But it is not all doom and gloom. In the last five years we have seen the largest increase in the number of women studying civil and renewable engineering, we have seen increased interest from employers who want to pursue equality

and diversity and we have seen a renewed push by Government to make change happen.

Engineering is an exciting pathway with a diverse range of areas to work in, but unfortunately this message is not making its way to enough girls and women. The idea that engineering only happens in a hard hat, that engineering is for men or that engineering is not a creative vocation are dated and inaccurate misconceptions which get in the way of the sector recruiting a diverse workforce. These myths need to be tackled and realistic and accurate accounts of engineering need to become the norm. 2019 is the centenary of the Women's Engineering Society and provides the perfect opportunity to highlight the brilliant women who have been or currently are engineers. It is also the perfect opportunity for employers to showcase that they are committed to gender equality.

To support these ambitions Scottish Engineering, SEMTA and Equate Scotland have teamed up to deliver a "women in engineering" bespoke

project to bolster the equalities related efforts by employers. The project is working with the national expert organisation on gender equality, Equate Scotland, which specialises in supporting employers across STEM through training and consultancy. The project, which launched in January of this year, is providing engineering employers with the skills they need to deliver equalities strategies and actions that are not only practical but will make genuine change. From unconscious bias training, to on the phone expert advice, this programme of work will be a "go to" for employers who want to be leading in this area.

Through this project, it is hoped that the engineering industry will be able to attract more applications from women, showcase their work to a future generation of employees and create inclusive workplaces; where not only women can flourish, but workplaces which are welcoming to all.

The project has already been supported by Jamie Hepburn MSP, Minister for Business, Fair Work and Skills and we are looking for employers who want to take part in our programme of training. Often we hear that employers care about these issues, but they do not know where to start or what activities would be most beneficial to them. This project hopes to demystify

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the area of equality and diversity and support employers to take positive steps forward. First and foremost, this project will create a training and development space to allow industry to reflect on current practices and develop better cultures.

Engaging more women in engineering is not as simple as giving a one-off talk at a local school, instead it is about strategic and sustainable efforts. Through this work, we know we can make a difference, all we need are progressive thinking employers to help lead the way.

Get in touch with us to get involved
info@equatescotland.org.uk



Scottish Engineering is the support body for Engineering and Manufacturing in Scotland. We monitor progress in our industry; we offer immediate advice on industrial relations, employment policies and practices, employment tribunal management and health, safety and environment. We raise the awareness of the sector with MSPs, MPs, MEPs and Scotland's civil servants, and strive to promote the STEM education pipeline for the benefit of all industry.

For a full version of our functions go to scottishengineering.org.uk

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