

Impact of COVID-19 on the UK Composites Supply Chain

23 June 2020

Executive Summary

The survey focuses on the UK composites supply chain and the impact of COVID-19 on this. The results will help the industry to work towards building resilience in the supply chain to mitigate risk against future crisis periods.

13 company responses are included in this report. 46% of the responders are manufacturers and 38% material suppliers.

Our April survey reported that some companies were beginning to see issues with customers delaying payment against orders. The results of the June survey indicate that this issue has worsened, and that the larger companies are causing most of the problems which is significantly impacting on the cashflow of the SMEs within their supply chain.

All companies that responded to the survey have some supply chain monitoring in place. 2/3 monitor immediate suppliers and rely on these organisations to monitor their suppliers; whilst 1/3 monitor the entire supply chain, both suppliers up and down the supply chain.

No significant changes to in-house/external spend as a result of COVID-19 were reported in this survey.

Disruption to businesses was reported across a number of factors. Productivity remained steady or increased for those companies that remained open, although the majority of companies reported a decrease in orders and revenue with subsequent negative impact on cashflow and headcount. Reputation and customer satisfaction remained steady. Material/product purchase and sales prices are generally unaffected.

Some end sectors were badly hit by the crisis, and this is reflected down their supply chains. The aerospace sector shows the most significant negative impact with leisure and motorsport also affected. Rail, space and wind energy all show an increase in demand for composites product/services. Around 50% of companies are looking to diversify into other sectors, some as a direct result of the pandemic.

Industry analysts predict a reshoring effect to help build resilience across supply chains. In the last 2 years, UK composite manufacturers were already starting to increase their UK supply base. This is predicted to continue in a post-COVID-19 world with the main decreases seen in supply from Asia/Pacific region and Europe.

Companies will require support across 4 key areas to enable them to develop more resilient supply chains:

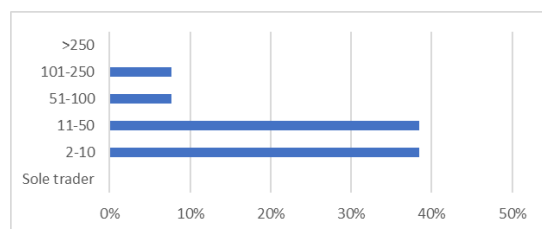
- Technology – a move towards more efficient processes
- Funding to support business expansion – and support to export
- Workforce development
- Collaborative working arrangement with other suppliers

Impact of COVID-19 on the supply chain - Member Survey results

23 June 2020

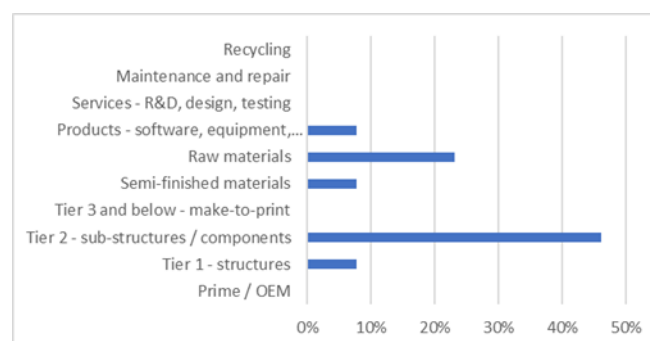
13 responses received to the survey.

Size of company



46% of these companies are manufacturers,
38% materials suppliers

Position in Supply Chain



These companies represent a turnover of around £18m.

Payment terms

There have been concerns raised about larger companies extending payment terms without consulting their suppliers – some of these companies are benefiting from Government schemes to retain staff. The survey results support this concern:

	June 2020	April 2020
We are mostly paid the agreed amount at the correct time	38%	47%
Customers are asking us to extend payment terms	31%	13%
Customers are extending payment terms without consultation	38%	23%
Customers are not paying and we are having to chase payments	38%	10%

The percentage of customers asking for or enforcing extended payment terms has risen since the April survey; similarly, the number of customers not paying. Companies report that the larger customers are generally causing the most problems, and for the SMEs this is causing significant cashflow issues.

This behaviour will continue to have a significant impact on supply chains in the UK as most companies are also trying to manage cashflow through the crisis period.

Supply chain risk

Companies were asked how they monitor their own supply chains. All companies have some supply chain monitoring in place:

We monitor the entire supply chain, both suppliers up and down the supply chain	31%
We monitor immediate suppliers and their immediate suppliers	8%
We monitor immediate suppliers and rely on them to monitor their suppliers	61%
We do not monitor our supply chain, both suppliers up and down the supply chain	0%

Companies with 11-50 staff all reported monitoring their immediate suppliers, but rely on these to monitor their suppliers.

In the 2-10 staff bracket, around 40% of companies monitor the whole supply chain with the other 60% monitoring their immediate suppliers.

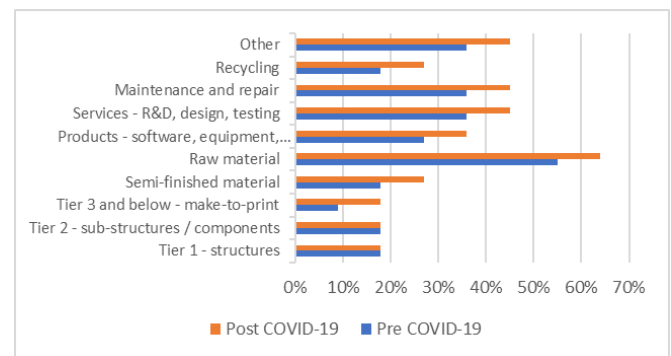
Larger companies monitor the whole supply chain, both suppliers up and down the supply chain.

Spend in-house and externally

It has been suggested that many companies will take some of their external spend in-house as a result of COVID-19 in order to reduce costs, although the data gathered does not support this. It should be noted that larger organisations chose not to provide input to the survey, and this is where the changes in spend are more likely to occur.

The table shows the % of turnover spend outside a business pre and post COVID-19 with the following types of suppliers

Supplier Type	Pre	Post
Tier 1 - structures	18%	18%
Tier 2 - sub-structures components	18%	18%
Tier 3 and below - make-to-print	9%	18%
Semi-finished material	18%	27%
Raw material	55%	64%
Products - software, equipment, education	27%	36%
Services - R&D, design, testing	36%	45%
Maintenance and repair	36%	45%
Recycling	18%	27%
Other	36%	45%



Disruption

The table below shows where disruption was caused within a company. Values are shown as % of responses. There was no pattern of the impact on type and size of company, nor position in the supply chain.

- Significant increase/decrease is >20%
- Increase/decrease is 5-20%
- Remained the same is +/-5%

	Significantly increased	Increased	Remained the same	Decreased	Significantly decreased
Productivity	18	9	27	0	45
Revenue	0	0	18	0	82
Cashflow	0	0	40	0	60
Customer satisfaction	0	20	80	0	0
Orders	0	0	17	25	58
Product release	14	14	29	0	43
Material/product purchase price	0	11	56	33	0
Material/product sales price	0	11	89	0	0

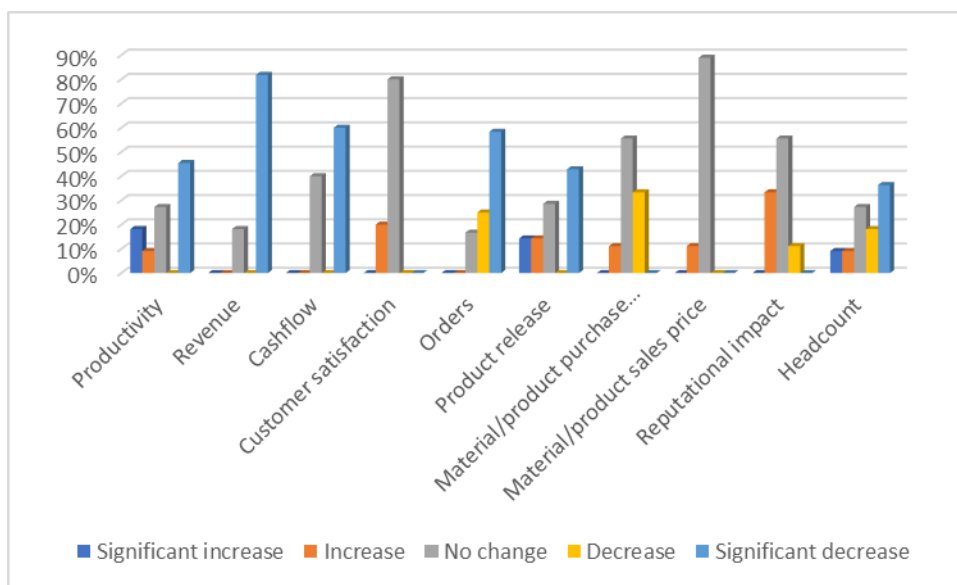
Reputational impact	0	33	56	11	0
Headcount	0	9	27	28	33

Interestingly, 54% of companies saw productivity remain the same or increase, with 18% measuring a significant increase. 45% reported significant decrease in productivity – this was due to being forced to temporarily close production facilities.

Customer satisfaction and reputation remained largely the same, with some reporting a slight increase.

The majority of companies saw a decrease or significant decrease in orders, revenue and this impacted on cashflow for many, and subsequent headcount for the business.

Material/product purchase and sales prices are generally unaffected.



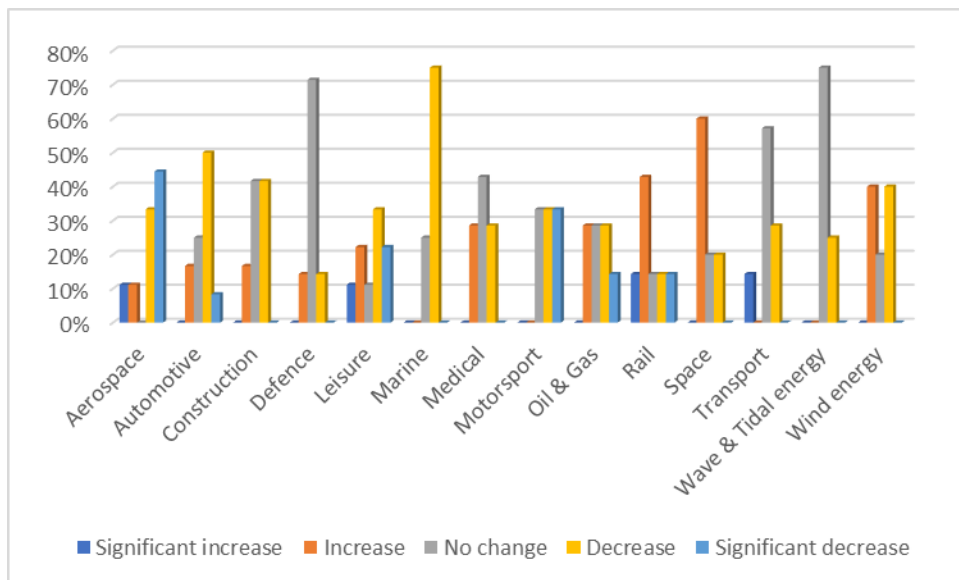
Supply chain demand

Various reports show that some end sectors have been severely impacted by the COVID-19 pandemic, particularly the aerospace and automotive sectors, with several airlines grounded for weeks. This has had a knock-on effect down the supply chain and there have been reports of many companies making significant numbers of staff redundant. In order to try to understand the effect on our members' supply chain, the question was asked as to that impact on their goods/services did they expect on demand within the end sectors they currently supply in to, and as a result, were they considering diversification now, or before the crisis.

The table below shows the impact across the various end sectors. Values are shown as % of responses of companies that supply into that sector.

- Significant increase/decrease is >20%
- Increase/decrease is 5-20%
- Remained the same is +/-5%

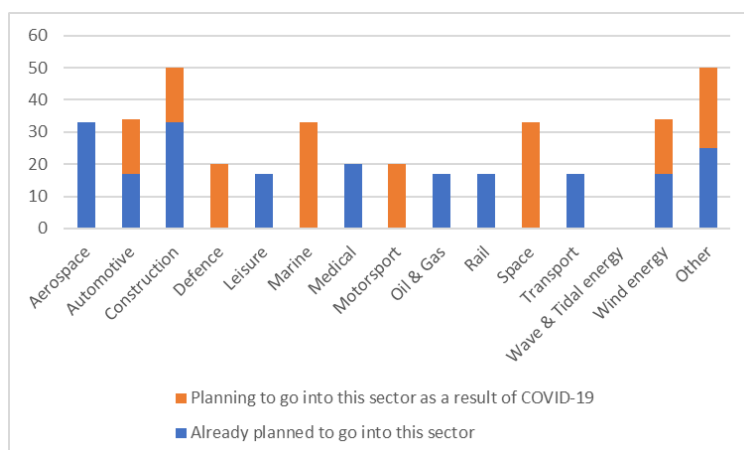
	Significant increase	Increase	No change	Decrease	Significant decrease
Aerospace	11	11	0	33	44
Automotive	0	17	25	50	8
Construction	0	17	42	42	0
Defence	0	14	71	14	0
Leisure	11	22	11	33	22
Marine	0	0	25	75	0
Medical	0	29	43	29	0
Motorsport	0	0	33	33	33
Oil & Gas	0	29	29	29	14
Rail	14	43	14	14	14
Space	0	60	20	20	0
Transport	14	0	57	29	0
Wave & Tidal energy	0	0	75	25	0
Wind energy	0	40	20	40	0
Other	100	0	0	0	0



The results of the survey support the external report findings. The aerospace sector shows the highest decrease in demand for product/services, leisure and motorsport also report significant decrease in demand for product/services. Automotive, construction and marine are also negatively affected, but show decrease in demand in the 5-20% range. Defence, transport (truck, bus and industrial transport), medical and wave/tidal energy show the highest level of no change. Rail, space and wind energy all report an increase (5-20%) in demand for composites product/service.

Around 50% of the companies completing the survey are looking to diversify into other sectors, some as a direct result of the pandemic.

	Already planned	Plan as result of COVID-19
Aerospace	33	0
Automotive	17	17
Construction	33	17
Defence	0	20
Leisure	17	0
Marine	0	33
Medical	20	0
Motorsport	0	20
Oil & Gas	17	0
Rail	17	0
Space	0	33
Transport	17	0
Wave & Tidal energy	0	0
Wind energy	17	17
Other	25	25



Global supply chain shifts

Companies were asked how their supply origin had changed in the **2 years pre-COVID-19**.

The tables show the % of responses.

- Significant increase/decrease is >20%
- Increase/decrease is 5-20%
- Remained the same is +/-5%

	Significant increase	Increase	No change	Decrease	Significant decrease	N/A
UK	15	23	46	0	0	15
Asia/pacific	0	23	31	8	8	31
Europe	8	23	31	15	0	23
US	0	15	23	8	8	46
Rest of World	0	0	38	0	8	54

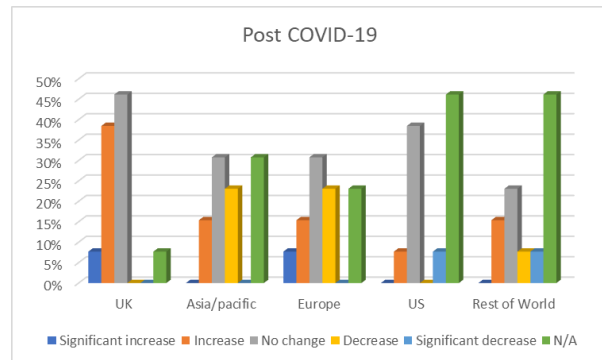
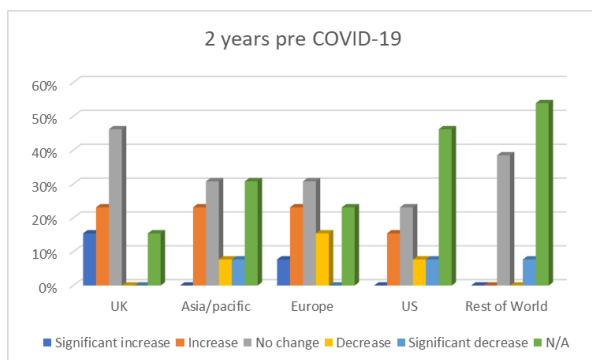
15% of companies had significantly increased their UK supply base pre-COVID-19 these were mostly manufacturers, the same companies reporting a decrease in supply from other parts of the world.

29% of companies had significantly decreased their supply from Asia/Pacific, US and Rest of World.

Interestingly, most companies hadn't significantly changed their supply from Europe since Brexit. Material suppliers in particular held steady supply bases – not surprising given the UK manufactures very little raw material.

Companies were asked how they thought the proportion of their suppliers will change in the next **2 years post-COVID-19**.

	Significant increase	Increase	No change	Decrease	Significant decrease	N/A
UK	8	38	46	0	0	8
Asia/pacific	0	15	31	23	0	31
Europe	8	15	31	23	0	23
US	0	8	38	0	8	46
Rest of World	0	15	23	8	8	46



There is a continued general trend towards an increase in UK suppliers, particularly in the manufacturing community.

Interestingly, material suppliers are predicting a decrease (5-20%) in supply from Asia/Pacific and Europe.

Many companies don't predict a significant change in the origin of their supply as a result of COVID-19.

Support required to rebuild/restructure the supply chain

The majority of companies stated that support would be needed across the 4 key areas in equally high measures. Specific comments are also given:

- Technology
 - Technological innovation
 - Energy efficient manufacturing capability
 - Introduce more automation
 - Increase in RTM production
 - Information on technical changes within the industry
- Funding to support business expansion
 - Funding for new facilities
 - Support to ease cashflow
 - Improve efficiencies and utilise current space and resource as much as possible
 - Updating and adding machinery

- Workforce development
 - Funding for training and support increased team
 - Training and more monitoring and managing performance
- Collaborative working arrangement with other suppliers
 - Already work through close collaboration with other global partners and companies
 - Flexible programmes with IP registers established and licence agreements honoured
 - Closer working relationship with raw material suppliers
 - More collaboration with suppliers and customers
- Other
 - Targeting new customers in East Asia, Middle East and India

Recommendations

Government should take steps to encourage larger organisations at the top of supply chains to pay suppliers promptly. This will support cashflow through their supply chains and ensure their survival.

Composites UK could work with other trade associations to develop supply chain risk procedures for member companies to utilise.

Composites UK and the HVMC (primarily NCC) should offer to work with companies to identify where process efficiencies could be improved.

Composites UK should facilitate technology transfer activities to enable companies to diversify and supply into new end-sectors.

Composites UK can facilitate collaborative working patterns through business introductions and networking opportunities.