

GROWING THE AUTOMOTIVE SUPPLY CHAIN ASSESSING THE UPSTREAM SOURCING POTENTIAL

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FOREWORD

The Automotive industry has been at the forefront of the UK economy's recovery in recent years. In 2013 we built over 1.6 million vehicles and 2.5 million engines, exporting over 80% of our production. UK is the second largest producer of premium cars in the world after Germany, with over 40 companies making vehicles here, at some of the most productive car plants in the world. Output is rising, productivity is rising, employment is rising, and there is a realistic expectation that by 2017 we will be producing 2 million vehicles each year.

This presents a renewed opportunity for automotive suppliers to invest in the UK, to offer local sourcing of the high value components that the UK's world-class vehicle makers require. With this report we now have good visibility of the nature and value of the opportunity throughout the supply chain, together with deliverable actions to turn this opportunity into reality.

Working together through the Automotive Council, government and industry previously identified a £3 billion opportunity to increase UK Tier-1 supply chain value, as set out in the report 'Growing the Automotive Supply Chain – The Road Forward 2012 update'. The Council is now working to capture the investments needed to re-shore this opportunity back to UK, especially through the work of the Automotive Investment Organisation.

However, our work was not done as these global Tier-1 suppliers need a world-class manufacturing infrastructure to support their operations here. We already have many of the ingredients in place, but more is needed. Investors need confidence that the UK opportunity offers a critical mass to make their investment worthwhile, and this new report sets out that opportunity. Through a comprehensive survey of the global suppliers already here, and a range of supporting businesses, we have identified that a realistic opportunity exists to increase local sourcing to the UK Tier-1 community by at least £2 billion each year, a sum which is of course additional to the £3 billion Tier-1 opportunity already identified.

Winning this £2 billion opportunity will take renewed efforts on the part of the Automotive Council, but we believe the seven actions recommended in this report focus on the key issues, and can deliver a significant increase in the proportion of the materials and parts purchased locally by the UK Tier-1 community, bringing jobs and growth back to the UK economy.

For more information on the work of the Council, the opportunities presented by the UK automotive industry, and the various offers of support and advice that we offer, you are invited to visit our website at www.automotivecouncil.co.uk.

I would like to thank all the businesses who gave their time to complete the surveys, and to all those Council members and others who have contributed to this work, without whom this report would not have been possible.

A handwritten signature in black ink, appearing to read 'Dave Allen', with a long horizontal stroke extending to the right.

Dave Allen
Chair, Automotive Council Supply Chain Group



EXECUTIVE SUMMARY

This report forms part of the wider initiatives of the Automotive Council UKⁱ to increase the competitiveness of the UK automotive industry. One of the focal issues the Automotive Council seeks to assess and improve is the competitiveness of the UK automotive supply chain. This report builds on the earlier research by evaluating the potential for increased UK-based sourcing in the **upstream** supply chain, that is, the purchasing patterns of Tier-1, Tier-2 and Tier-3 suppliersⁱⁱ.

Key findings that emerge from this research include:

- The pattern of sourcing in the supply chain largely mirrors the earlier findings at the vehicle manufacturers (subsequently referred to as 'original equipment manufacturers' or OEMs). A consistent picture emerges that now provides a comprehensive overview of the entire UK automotive supply chain – from vehicle assembly all the way through to the raw material end of the supply chain.
- The UK automotive parts trade deficit is driven mainly by vehicle manufacturer purchasing, along with a significant contribution from Tier-1 purchasing. For both OEM and Tier-1 purchasing, the majority of imported goods are sourced from countries that are not regarded as 'low cost', such as Germany, France and Japan.
- Upstream UK suppliers are capturing about one third of demand at Tier-1 level. These figures are consistent with the sourcing content measured at OEM level in the 2012 report.
- At every level in the automotive sector there is a willingness to purchase more from UK, subject to the availability of a competitive source of supply. The main reasons for not purchasing more from the UK are a lack of suitable suppliers in the UK, or a lack of suppliers with the necessary capacity and/or technical capability.
- More than half (58%) of the value of components and materials imported by UK Tier-1 companies is accounted for by electronics, machined metal components, forgings, steel and plastic granulate/resin. The single largest imported commodity by value is electronic systems, where current UK sourcing is very limited.
- Many in the UK supply chain feel confident about the near term future with over 80% of survey respondents expecting growth in their business.
- The UK automotive industry is achieving high productivity levels in comparison to its European peers, and we see no fundamental economic reason why the UK could not achieve similar levels of local content sourcing.
- A realistic long term re-shoring potential (raising the proportion of goods sourced by UK Tier-1 companies to match the 60% local content typical at countries of similar standing) is estimated at **£2 billion annually**. This is in addition to the **£3 billion** opportunity to increase UK Tier-1 content in UK-made vehicles addressed in previous Automotive Council reports.

- One key market failure is the information gap, with buyers insufficiently aware of suitable suppliers, while suppliers are insufficiently aware of potential demand for their products.
- Access to finance remains a challenge below Tier-1, with more work needed to help finance providers have a full understanding of the investment potential of the sector, whilst also helping suppliers develop a full understanding of the requirements of the finance providers.
- The UK supply chain, particularly the upstream sector, comprises a large number of small companies. More support should be given to help those with the right potential to grow so as to be more credible in the market – by comparison with their larger, better financed, overseas competitors.
- Few companies export outside of the UK at SME level, indicating that there may be a significant opportunity for capable suppliers.

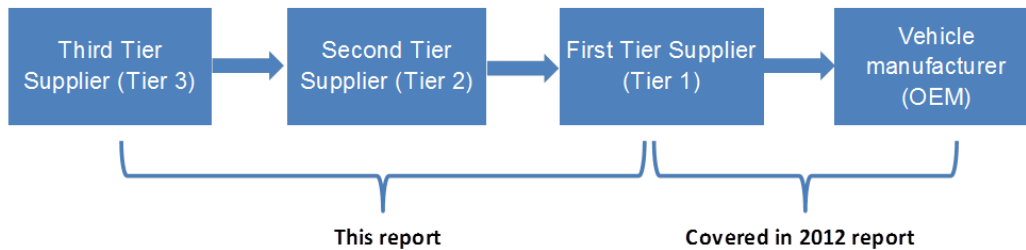
Based on the above findings, we propose the following recommendations:

1. The high value import commodities should be investigated to determine the feasibility for increasing UK sourcing.
2. Specific support should be given to SME supply chain companies to grow their long term competitiveness in line with the six themes identified in the Automotive Industrial Strategyⁱⁱⁱ.
3. Identify successful suppliers with the potential capability to be competitive and help them to grow through export support mechanisms.
4. Further develop the process of matching buyer and seller through targeted 'Meet the Buyer' events focused at a cross-sector commodity level.
5. Encourage more entrants to automotive from other sectors through cross-sector engagement, particularly for premium and high-technology product manufacturers within the aerospace, marine and motorsport sectors.
6. Develop a network of SME supplier best practice clubs using an industry standard framework for benchmarking and non-competitive collaboration.
7. Continue to work with the Finance community to develop a common understanding of the needs of SMEs and look to develop targeted solutions, such as funding for tooling.

1 INTRODUCTION

An Automotive Council report in 2012 identified a £3 billion per annum opportunity to 're-shore' Tier-1 supply chain contracts to UK^{iv}. The Automotive Investment Organisation (AIO) was set up in 2013 to spearhead inward investment, and so far has achieved £457 million worth of investment since creation. As part of UKTI and led by Joe Greenwell, the organisation has already secured funding for 80 projects, creating and safeguarding more than 5,600 jobs in its first year. Also, SMMT has held eight successful 'Meet the Buyer' events since 2010, bringing together a total of 47 buying organisations including 14 OEMs and 450 suppliers – facilitating nearly 2,000 one-to-one meetings.

These events generated much interest from smaller UK companies in the upstream supply chains, highlighting an appetite to grow their business with the Tier-1 companies. In order to satisfy this need, 'Meet the Buyer' has increasingly focussed on bringing Tier-1 buyers and upstream sellers together, but it became clear that a better understanding was needed of the potential to increase the proportion of UK purchasing by the Tier-1 supply chain companies.



2 AUTOMOTIVE SUPPLY CHAIN LANDSCAPE

The automotive supply chain in the UK is made up of a wide range of companies, from small specialists to large multinationals. The Office of National Statistics (ONS) Annual Business Survey (ABS, SIC29.3) indicates that in 2012 there were 1,223 enterprises that regarded the manufacture of Automotive Parts as their primary activity, employing 50,000 people.

This is only part of the picture. Many companies making parts for automotive customers categorise their business in terms of the materials they work with (metals, plastics etc.), and many of these will be upstream suppliers selling to Tier-1s rather than direct to vehicle manufacturers.

In addition there are also many providers of essential services (such as in-plant logistics) that are not even classified as 'manufacturing' enterprises. As businesses have contracted such activities out, so jobs have moved from 'manufacturing' to 'services',

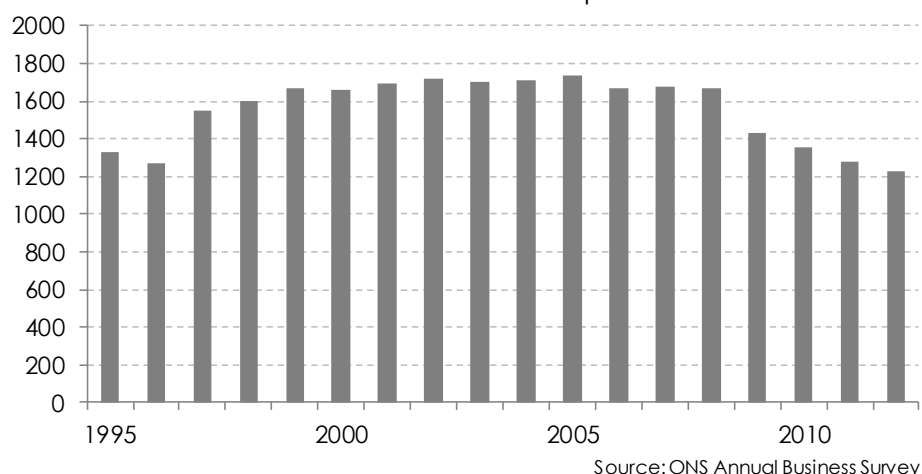
which is part of the reason why the proportion of the economy accounted for by 'Manufacturing' has declined in recent years.

To give an indication of the likely true scale of the supply chain, the SMMT 'Supplier Finder' database has over 8,000 registered company sites/locations⁵, though many of the smaller companies sell products to a variety of customers, and do not just make parts for the automotive sector. Indeed, one objective of these surveys was to gain a better understanding of how dependent companies are on automotive contracts, and perhaps unsurprisingly, the responses were very diverse, all the way from total automotive dependency to just a few percentage points of business in automotive, with the majority of customers elsewhere, all the way from consumer goods to construction products to aerospace.

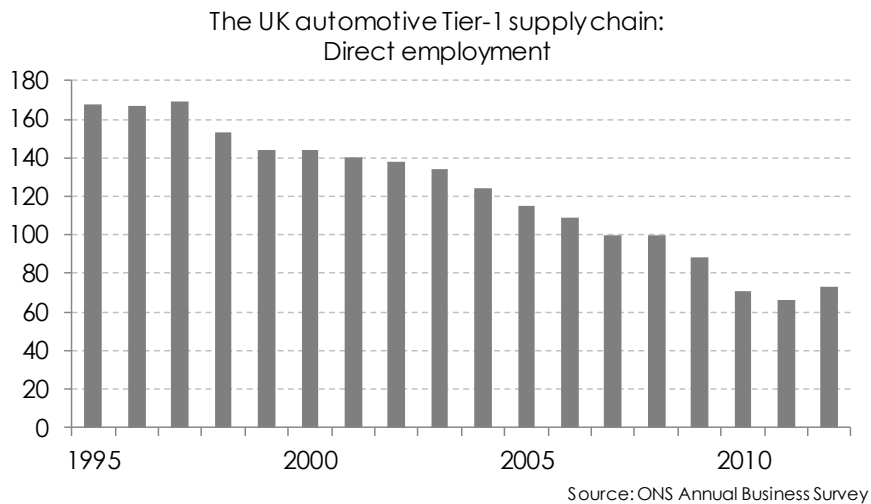
Another data source offering an insight into the supply chain is the HMRC database of VAT-registered companies. As with ABS, this can be used to track the number of businesses over time, but also gives a helpful breakdown of employment by size. From this data source it becomes apparent that in 2012, just 115 automotive supply chain enterprises employed more than 100 people, with 905 business employing less than 20 people.

In recent years, the total number of active automotive supply chain businesses has declined. From 1995 to 2005 there was a steady increase, peaking at 1,734 in 2005, remaining fairly constant through to 2008, but in 2009, there was a net reduction of 244 companies (more than 15% of the total), and by 2012 the count was down to 1,223 active companies.

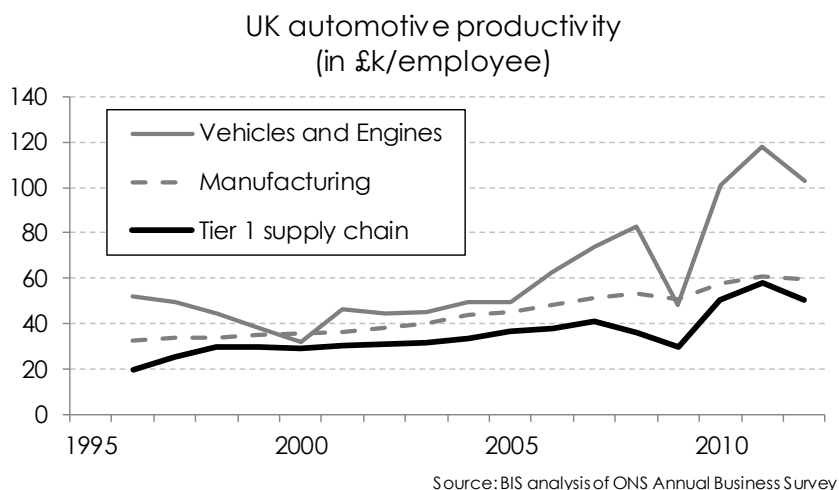
The UK automotive Tier-1 supply chain:
Number of active companies



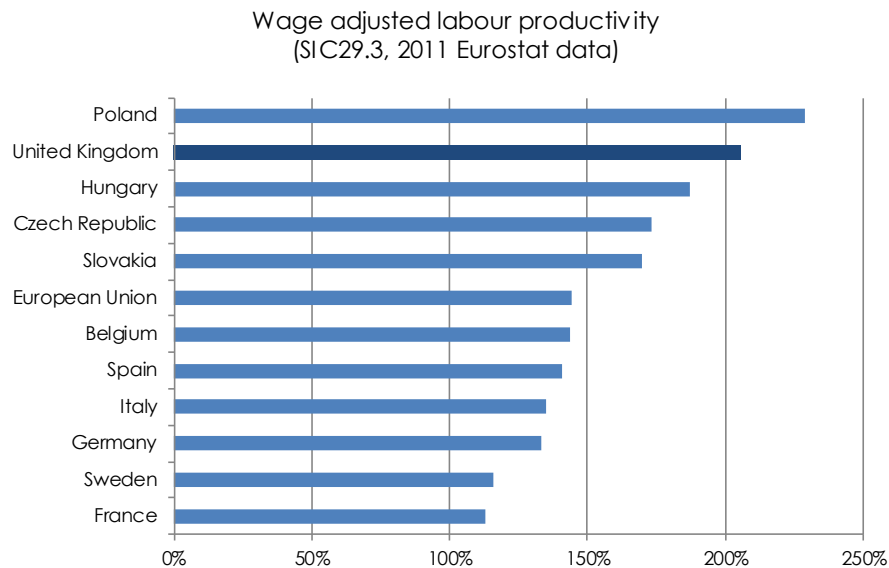
The employment picture is somewhat similar, albeit influenced by considerable productivity growth across the period charted. Between 2008 and 2011, Tier-1 supply chain employment has fallen by more than a third, to 47,000, though output growth in 2012 necessitated a degree of recruitment as demand from the vehicle makers picked up.



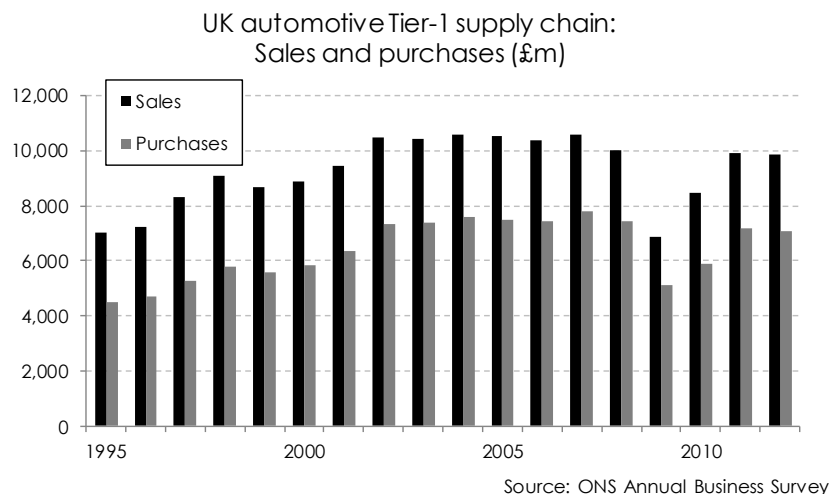
In part, productivity growth has been responsible for the fall in employment in the supply chain, with a 74% growth in output per worker in the 10 years to 2012. Overall the level of productivity in the automotive parts sector lies a little below the overall UK average, but that average is strongly influenced by the very high productivity achieved by the vehicle makers, and also the aerospace sector.



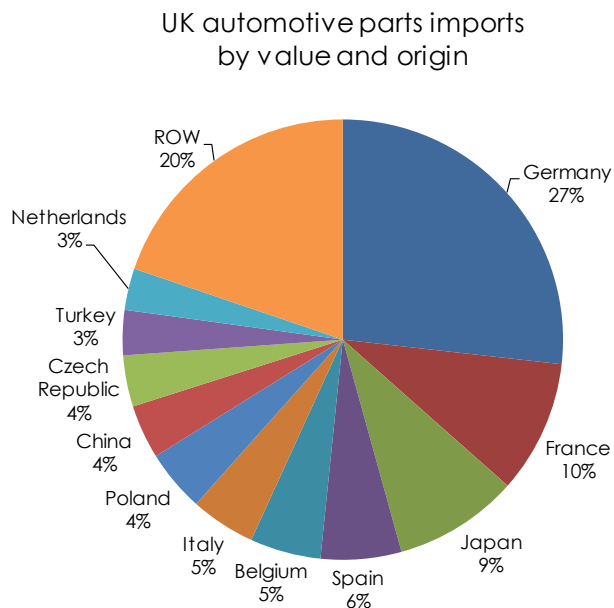
According to Eurostat data, the UK's automotive components sector is one of the stronger performers in Europe in terms of Gross Value Added per employee, marginally ahead of Germany and 50% stronger than the European average^{vi}. When adjusted for wages, of the major automotive producers in Europe, the UK is second only to Poland, indicating the UK's underlying ability to be a cost effective source of supply in Europe.



From various data sources it is possible to build a picture of sales volumes and international trade. With regard to turnover, the impact of the downturn is clear to see, with UK Tier-1 sales falling from nearly £12 billion in 2007 to less than £7.5 billion in 2009. Many companies were unable to withstand this shock, while others were closed as overseas parents consolidated activities elsewhere, closing UK facilities. Similarly, purchasing fell sharply, impacting upstream suppliers where again, capacity was lost as businesses were unable to withstand the financial shock of such a sharp fall in business volumes and cash-flow.



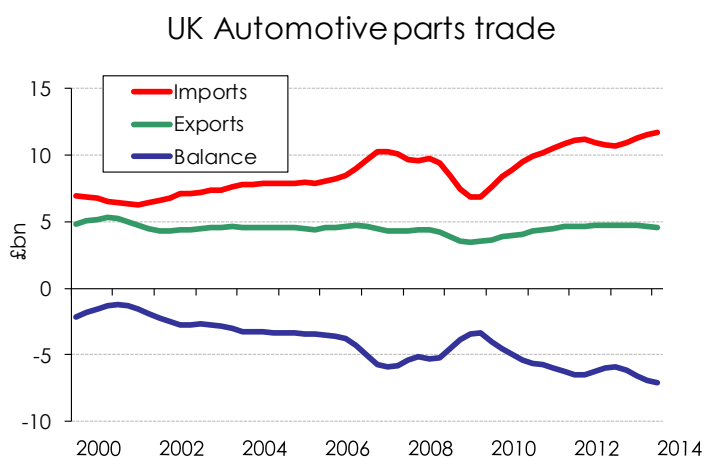
For more than a decade, the volume of parts imports has been rising, albeit with a fall through the downturn. By the first quarter of 2014, ONS 'Trade in Goods' data indicated that automotive parts imports had reached £11.6 billion on an annualised basis, with 94% coming in from European Union countries many of which would not be regarded as 'low cost.', as illustrated by the chart on the right^{vii}.



Therefore it can be reasonably deduced that the UK has a significant re-shoring opportunity, given the cost-competitiveness of UK automotive manufacturing relative to nations from whom we source the majority of our automotive imports originate.

The trade deficit is moderated by a steady flow of exports totalling around £4.5 billion annually, confirming that the UK already has some globally competitive suppliers. In the surveys it was found that many suppliers are doing good business with carmakers in Germany, France Spain and beyond, correlating with official trade statistics. However, the net result is a parts deficit that now exceeds £7 billion annually, primarily driven by OEM purchasing. As will be seen, UK Tier-1 companies are importing a large proportion of their inputs, including metal, plastic, glass and other products that are categorised elsewhere in the trade statistics.

In conclusion for this section of the report, it is clear that the high level of imported automotive parts has a strong negative influence on UK's manufacturing trade balance, but this in turn illustrates the huge growth potential for the UK parts sector if supply can be re-shored into UK. What follows attempts to give more granularity to this opportunity.



3 ASSESSING THE POTENTIAL DEMAND OF TIER-1 SUPPLIERS



OBJECTIVES OF THE SURVEY

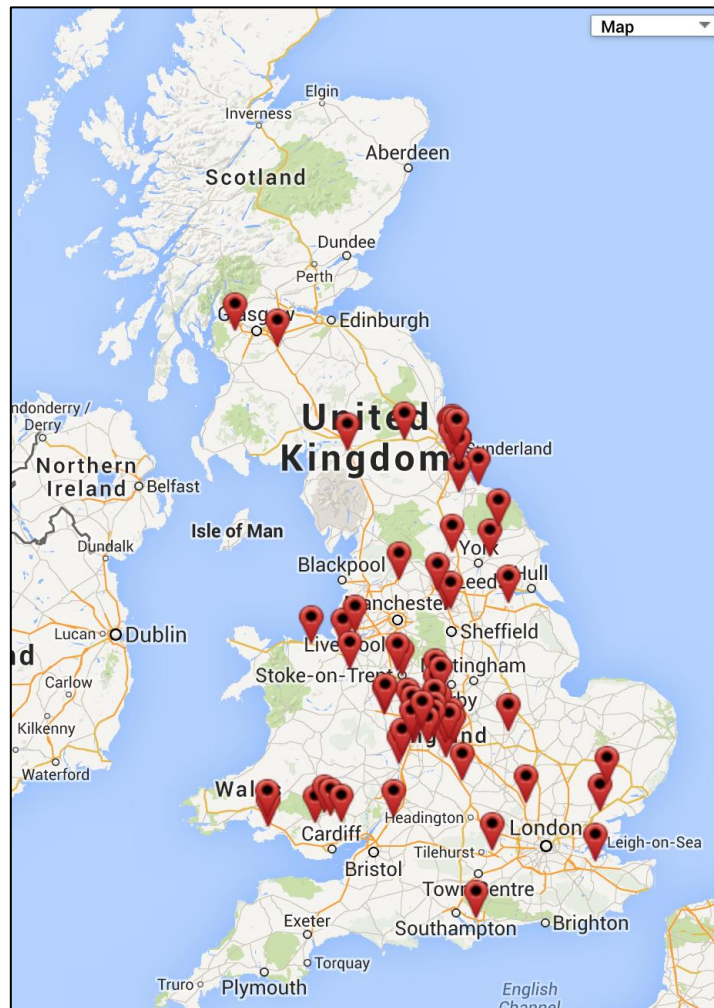
The main objective of this part of the analysis is to assess the sourcing potential between Tier-1 and their upstream suppliers, in other words, what potential demand from the main UK-based Tier-1 suppliers could be met from UK-based Tier-2 suppliers. To this effect a survey was designed that:

- maps the Tier-1 landscape and identifies what capabilities it offers,
- assesses the current and potential purchasing patterns made by major Tier-1 suppliers in the UK, and
- seeks to identify business development opportunities.

METHODOLOGY

This section of the report is based on an online survey of major UK-based Tier-1 suppliers. A sample of 70 suppliers was selected based on their global turnover. In total, 49 of the 70 firms responded, representing a 70% response rate.

A pilot survey with two Tier-1 suppliers and one OEM purchasing manager was conducted to validate the constructs. The survey was conducted via online questionnaire. In total, 49 responses were recorded. Of these responses, 26 of the 'Global Top 100 Automotive Suppliers'^{viii} are represented, including six of the top 10 global automotive suppliers. In total, the surveyed firms operate 77 manufacturing sites, with 33% having multiple UK sites. They employ an average of 288 people in their UK manufacturing operations, with the smallest having 28 employees while the largest has 1,000 employees. In total, the results represent 20,184 workers in Tier-1 manufacturing. This number represents approximately 40% of the ONS-listed automotive supply chain employment. The location of the sites surveyed is shown on the map below.



SURVEY RESULTS

The businesses surveyed mostly made parts for a variety of uses in customers' products, with the table below showing that of the 44 respondents who defined the category of products made, 41 included powertrain components in their portfolio, followed by chassis, interior and exterior parts. Only four respondents supplied electrical or electronic products.

Component Category	No.*	%
Powertrain	41	30%
Chassis	28	20%
Interior	27	20%
Exterior	23	17%
Electronics	3	2%
Electrical	1	1%
Other	15	11%
Total number of products	138	100%

* Based on 44 responses

Likewise, most respondents had a range of process capabilities, with most including mechanical assembly and plastics fabrication in their portfolio, with few able to perform casting, joining or electrical assembly.

Manufacturing Process	No.*	%
Mechanical assembly	39	28%
Fabrication of plastics	38	28%
Machining	18	13%
Metal forming	12	9%
Casting	4	3%
Joining	3	2%
Electrical assembly	3	2%
Fabric. of composites	2	1%
Surface treatment	2	1%
Other	16	12%
Total	137	100%

* Based on 43 responses

Automotive sales and export from the UK

The average UK automotive turnover of survey respondents is £170m p.a., 91% of which is automotive, and with 27% of UK automotive turnover exported.

The number of primary customers supplied by UK Tier-1 companies varies greatly by firm. The average number of UK customers is 5.9, while the average number of export customers is 6.5, and there were instances where virtually all of a respondent's business was exported.

	Mean	Min	Max	Total
Global turnover (£m)	4,195	5	31,000	-
UK turnover (in £m)	170	0	1,109	7,823
UK automotive turnover (£m)	142	0	800	6,370
Proportion of UK turnover that is automotive	91%	2%	100%	-
Automotive turnover exported (£m)	36	0	274	1,524
Proportion of UK automotive turnover exported	27%	0	99%	-
No. of UK automotive customers	5.9	0	20	44
No. of export automotive customers	6.5	0	40	43

The range of customers listed by respondents was very diverse, with the table below listing all the customers who were mentioned by at least two respondents. In total, 43

customers were mentioned, with Jaguar Land Rover the most frequent, followed by the other major UK car and engine makers. The customer list indicates a diverse range, demonstrating that even the largest Tier-1 companies can also be conducting Tier-2 business as well as selling to the vehicle makers. Indeed, there are instances where companies included in this survey are supplying other companies in the survey responses.

Customer	Number of references	Mean Share of turnover	Minimum share of turnover	Maximum share of turnover
Jaguar Land Rover	28	38%	1%	90%
Nissan	19	27%	3%	95%
BMW	16	15%	2%	99%
Toyota	16	32%	4%	100%
Honda	13	23%	2%	95%
Ford	11	25%	8%	70%
GM	6	13%	4%	28%
VAG	5	22%	1%	65%
Aston Martin	4	14%	2%	35%
Bentley	3	4%	1%	6%
Renault	3	6%	2%	12%
Volvo	3	17%	8%	27%
DAF	2	10%	7%	12%
Daimler	2	7%	2%	12%
Hyundai	2	3%	3%	3%
Perkins	2	10%	4%	15%

Of 45 respondents expressing a view, 38 are anticipating increasing volumes, with six expecting no change and only one expecting a decrease in its UK automotive business.

Purchasing spend

Overall, the survey respondents noted total annual purchases of £3,047 million. According to the ONS Annual Business Survey (ABS), total purchases by SIC29.3 companies (which will be dominated by the Tier-1 community) amounted to £6,935 million in 2012.

Extrapolating the measured purchasing of £3,047 million to the hypothetical population of Tier-1 suppliers, based on the ONS classification, this would suggest that we have captured approximately 40% of total Tier-1 spending in the survey, indicating that respondents are a representative sample of the UK Tier-1 population. On this basis, one

can extrapolate the opportunity identified within the population of respondents by a factor of 2.5, to give an estimate of the total growth opportunity.

Tier-1s spend on average £85m p.a., of which 34% is spent in the UK. On average, respondents have 146 suppliers, with one respondent having 600 suppliers.

On average, 27% of purchasing spend is sourced from within respondents' own group, and it would be reasonable to assume that this is unlikely to be open to bidding from UK upstream suppliers.

	Mean	Min	Max	Sum
Annual purchasing for UK operations (£m)	85	0	534	3,047
Purchasing for UK operations sourced from the UK (£m)	22	0	191	809
Proportion of purchasing for UK operations currently UK-sourced	34%	0%	100%	-
Proportion of purchasing for UK operations currently sourced from plants within own organisation	27%	0%	100%	-

Estimating the sourcing gap

Based on the survey results it is possible to extrapolate the 'sourcing gap', or in other words, what *additional* components and materials *could* be sourced from the UK – assuming a competitive offer from a UK source were available.

The survey of Tier-1 suppliers identified £3 billion-worth of purchases, of which only 34% is currently sourced from the UK. With ONS ABS data identifying around £7.5 billion of purchasing by SIC29.3 registered companies it is considered that the survey captured about 40% of the total Tier-1 population in the UK. This suggests that in total an estimated £2.5 billion is spent by Tier-1 suppliers in the UK.

While it is not realistic to assume that the UK sourcing could be increased to 100%, it is reasonable to assume that UK could achieve similar levels of domestic content to European competitors, such as France, Germany, Italy or Spain that typically achieve a local sourcing content of about 60%. This leads us to conclude that there remains a realistic **£2 billion sourcing gap** that could be filled if competitive UK sources were available.

Key commodities sourced by Tier-1 suppliers

Of the total imported purchasing reported by respondents, about half, by value, was broken down by commodity, from which it can be assumed that to a first approximation, the values of each commodity returned by the respondents is half the value of the total that would have been found had all respondents offered a breakdown. In turn, this can be multiplied by 2.5 to gain an approximation of the value for the entire UK Tier-1 community.

The top commodities in value terms that are purchased by Tier-1 suppliers are headed up by steel and electronics, with the table below setting out the top 20 commodities in terms of total procurement value. The proportions purchased from UK suppliers vary widely, as can be seen below. In practice, the reshoring opportunity is not necessarily reflected by the commodities where the value of imports is highest. The next table sets out the top 20 imports by value. Some commodities, particularly in the electronics arena and polymeric materials, are manufactured in global clusters situated outside of the UK and are therefore not likely to represent a significant reshoring opportunity.







Commodity	Total	sourced in the UK	UK spend by	Imported by	Imported by
	purchasing by respondents (£m)		respondents (£m)	respondents (£m)	UK Tier-1 community (£m)
Electronics	170	5%	8.5	161.5	807.5
Machined metallic comp.	135	13%	17.6	117.5	587.5
Steel	205.4	58%	118.9	86.4	432
Plastic granulate	75.5	10%	7.3	68.2	341
Forgings	63.6	10%	6.5	57.1	285.5
Resin	55.5	9%	5.3	50.3	251.5
Motor/gearbox	50			50	250
Aluminium forgings	40			40	200
Hypoid gears	40			40	200
Aluminium castings	40	3%	1	39	195
Stampings	42.5	19%	8	34.5	172.5
Components	40	15%	6	34	170
Aluminium	21.2	4%	0.8	20.4	102
Chemicals	21.5	6%	1.3	20.3	101.5
Metal assemblies	20			20	100
Polymer	25	25%	6.3	18.8	94
Plastic components	80.2	77%	61.6	18.6	93
Synthetic rubber	22	20%	4.4	17.6	88
Foam/felt/yarn	35	50%	17.5	17.5	87.5
Textiles	17			17	85

More than half (58%) of the value of imported components and materials are electronics, machined metal components, forgings, steel and plastic granulate/resin.

While electronics appears to provide the largest opportunity for reshoring business back to the UK, it should be considered that the value density of such components is very high, making the logistics and supply chain cost a smaller fraction of the total unit cost, reducing the incentive to reshore.

Outlook on UK sourcing

The anticipated development of UK-sourced purchasing volume over the next 5 years is set out in the chart below, indicating that eight respondents are anticipating a significant increase in UK sourcing, with another 13 anticipating at least some growth in UK sourcing, and only six expecting a decrease.

Increase by >10%		8	19%
Increase by 5-10%		10	24%
Increase by up to 5%		3	7%
No change		15	36%
Decrease by up to 5%		3	7%
Decrease by 5-10%		0	0%
Decrease by >10%		3	7%
Total		42	100%

Perceived greatest constraints for increasing purchasing spend from UK sources

The most common recurring theme is **availability of suitably qualified suppliers**, recorded by 21 respondents as their reason for importing supplies. The next most important consideration is **lack of suitable finance to assist UK upstream suppliers** to invest to meet UK Tier-1 requirements. Other reasons for not buying from UK suppliers were:



- Cost, including exchange rate considerations
- Supplier quality
- Company policy
- Customer direction (to use 'low cost' locations)
- Absence of any UK supplier.

We thus note three distinct modes of failure why firms are not sourcing from the UK:

1. There is no qualified source available in the UK. Rectifying this deficiency would require enticing domestic or foreign suppliers to invest in the UK to build, or in the case of electronics, to rebuild this capability.
2. There is insufficient capacity at existing UK suppliers. Rectifying this gap would require additional investment into existing UK suppliers, and in turn, access to finance to invest in additional capacity.
3. UK suppliers are available, but lack the capability to win this business. Rectifying this gap would require both additional investment into existing UK suppliers, as well as skill development in terms of manufacturing process technology.

Business development and finance

UK Tier-1 companies have expressed a strong willingness to attend 'Meet the Buyer' events in order to identify new UK suppliers, giving a good opportunity to counter pre-conceptions of what might be available to them.

Yes		35	83%
No		7	17%
Total		42	100%

SUMMARY OF KEY RESULTS

First and foremost we note that Tier-1 purchasing mirrors OEM purchasing patterns. The results obtained in this report mirror the 2012 results both qualitatively, as well as quantitatively. More specifically, we find that Tier-1 suppliers source an average of 34% sourced in the UK, while 27% of their turnover is exported.

The main UK OEMs (JLR, Nissan, Honda, Toyota, BMW) represent principal customers, but with a fair spread overall, including overseas vehicle makers not present in UK, and customers from other sectors such as aerospace.

The key constraint towards increasing UK sourcing is the availability of UK sources (cost, quality, technology, materials). This finding mirrors the 'hollowing-out' of the UK automotive supply chain that was identified at Tier-1 level in the 2012 report.

The availability of finance is second most mentioned constraint, albeit at a far lower frequency.

The patterns of sourcing in the upstream supply chain largely mirror the earlier findings at OEM and Tier-1 level. A consistent picture emerges that with this report now provides a comprehensive overview of the entire UK automotive supply chain.

- Upstream UK suppliers are capturing about 34% of demand at Tier-1 level. These figures are consistent with the 36% sourcing content measured at OEM level in the 2012 report.
- At every level in the automotive sector there is a willingness to purchase more from UK. The key constraint remains the availability of qualified suppliers, or insufficient capacity at existing UK suppliers.
- The realistic potential to increase business for UK suppliers is estimated as **£2 billion** of demand at Tier-1 level.
- The largest sourcing gaps were identified for electronic systems (which at present are almost exclusively imported to the UK). More than half (58%) of the value of imported components and materials are electronics, machined metal components, forgings, steel and plastic granulate/resin.
- Across the supply chain, the main reason for not purchasing more from the UK is a lack of suitable suppliers with the necessary capacity and capability.
- One key market failure is the information gap, with buyers insufficiently aware of suitable suppliers, whilst suppliers are insufficiently aware of who they should be promoting their products to. Extending the 'Meet the Buyer' events to all supply chain partners is one direct way of addressing this market failure.
- Access to finance remains a challenge, with more work needed to help finance providers to have a full understanding of the investment potential of the sector, while recognising that there are times when a refusal to offer finance is based on an accurate understanding of the risk attached to the particular proposal.
- Fundamentally, the UK supply chain, particularly the upstream sector, comprises a large number of small companies, and those with the right potential should be helped to grow to the point where they are more credible in the market, in comparison with their larger, better financed, overseas competitors.
- Analysis of trade flows indicates that the majority of imported products are sourced from countries such as Germany, France and Japan, where UK should not have a fundamental cost disadvantage.

4 UPSTREAM SUPPLY CHAIN GROWTH POTENTIAL



OBJECTIVES OF THE SURVEY

The main objectives of this survey were to build a picture of the capability and capacity of the upstream supply chain, to understand the appetite for growth, and also to give the suppliers the opportunity to indicate any constraints to that growth.

To this effect a survey was designed that:

1. understands the upstream supplier landscape and what capabilities and capacity it currently offers,
2. assesses the purchasing profile and appetite to reshore,
3. seeks to identify business development opportunities, and
4. identifies any constraints to growth.

METHODOLOGY

The web based survey was designed to be short and simple to complete in order to maximise the response rate and was developed using the existing Automotive Supplier Finder (ASF) software platform. This allowed the survey to take basic details directly from the database and pre-populate the questionnaire with known data making the whole process a lot shorter. These fields included company name, address, establishment type, number of employees, quality standards, website address and products and service categories.

The survey was piloted with a small number of upstream suppliers to ensure both the technology and process worked smoothly.

208 survey responses were received, with each respondent's view receiving equal weighting. This is a small proportion of the known upstream supply chain; however, the survey has captured over 20,000 jobs which probably captured at least a quarter of the inputs purchased by UK Tier-1 companies from UK-based upstream suppliers.

The location of the sites surveyed is shown on the map below.



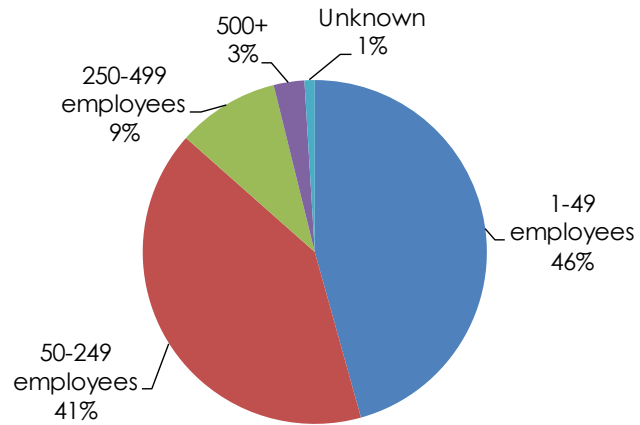
SURVEY RESULTS

The majority of the establishments (75%) that responded to the survey were manufacturing sites, although a few responses were received from service providers and R&D operations.

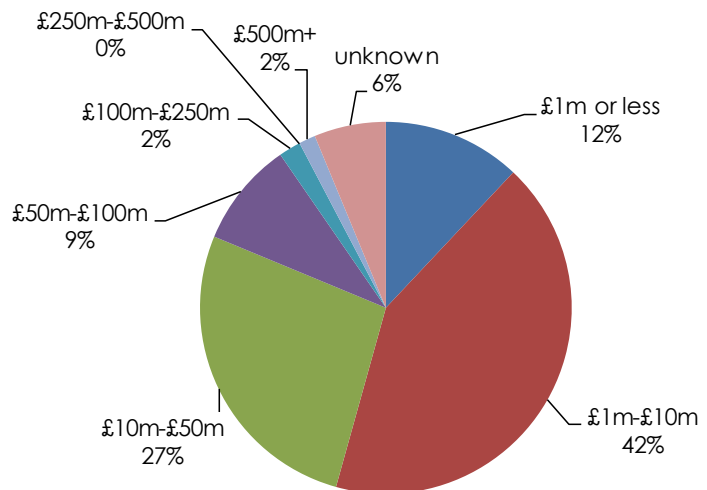
Nearly half of the respondents (46%) employ less than 50 people, with 87% employing less than 250 people, which is in line with official statistics on the numbers and sizes of VAT-registered businesses. Indeed, the results suggest that the survey sample is skewed towards larger businesses in the sector, with the very large number of very small businesses not properly represented.

Likewise, over half (54%) of businesses surveyed have a turnover that would put them firmly in the 'SME' category (small and medium-sized enterprise).

Number of employees on site



Survey respondents: company turnover



Products and service categories

There were 1,318 unique product/service categories which were identified across all the company submissions from manufacturing to non-production services and R&D. This shows the diverse range of capabilities of upstream suppliers and is just over a quarter of total products and services category held in the ASF database. The table below is a sample of the products and services identified.

Sample of commodities/services supplied by respondents

Adhesives	Fastening/joining/locating
Automotive switches by application	Forging/forming/extruding/sintering
Bearings/balls/bushes/linear systems	Fuel/air system
Body shell/chassis	Jigs and fixtures for machining centres
Body trim, fittings and basic equipment	Machine tool equipment/accessories
Boring	Mechanical transmission systems
Brakes/ESP systems	Milling
Brazing	Nitro carburising
Business operations and management systems	Pipe/tube working
Casting by material	Plant design services
Coating/plating	Plastics moulding
Cooling system	Safety/security systems
Electronic components	Shock isolation materials
Engine assemblies and mechanical comp'ts	Springs
Entertainment/communications/telematics	Steering
Exhaust systems and emissions	Wiring harnesses

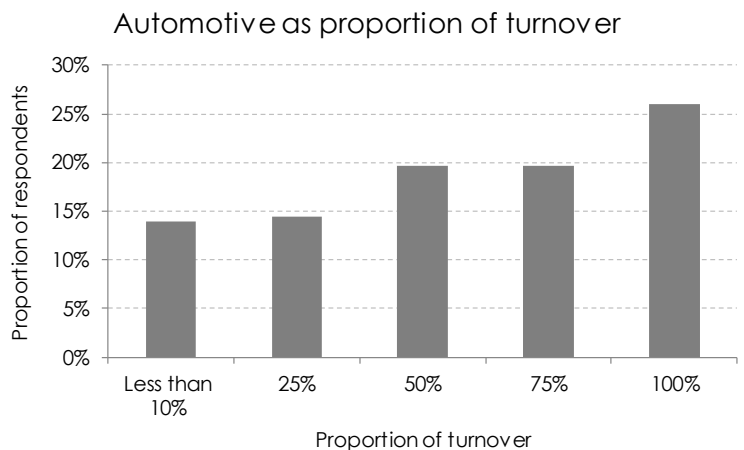
Quality accreditations

More than 40% of the companies which responded to the survey hold TS16949. The survey confirms that ISO9001 and TS16949 are the predominant quality standards held by companies in the UK supply chain.

Quality standards	
TS 16949	41%
Working towards TS	3%
FORD-Q1	13%
ISO 14001	42%
ISO 9001	67%

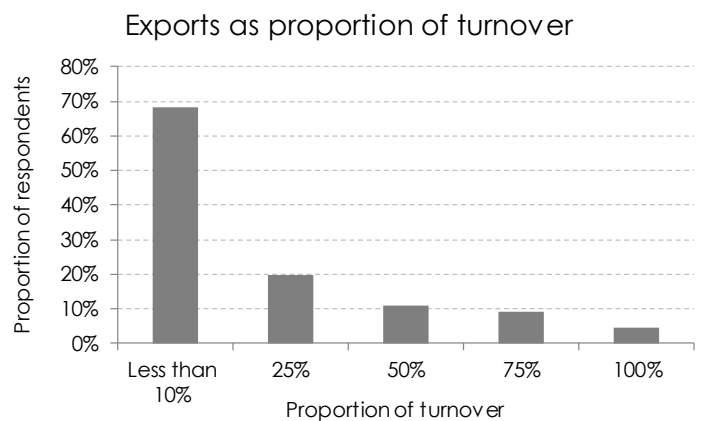
Automotive turnover as a percentage of total turnover

Nearly three quarters of respondents supply to other sectors as well as to automotive customers. Automotive still represents a large proportion of their business with around 70% of respondents indicating 50% or more of their turnover is automotive. Nearly 30% of companies derive their turnover solely from automotive with 15% deriving less than 10%.



Automotive turnover as a percentage of exports

Very few upstream suppliers export their products and services outside the UK with nearly 70% indicating less than 10% of their turnover is derived from exports. This may in part be due to the level of opportunities currently available in the UK but could also reflect the lack of appetite due to limited overseas market knowledge and awareness of support available in this area. This is one obvious area for further work as many upstream suppliers are missing out on export opportunities.



Principal automotive customers

In trying to understand the customer base of upstream suppliers, the survey asked respondents to list their principal customers. The table and chart below highlights the diverse range of customers and given the number of OEMs listed, this would suggest many have indicated the end customer for their products rather than their immediate customer. Over a third (35.8%) of principal customers who were identified only once are not listed in the table below.

Principal customers			
<i>Individual firms</i>	35.8%	Lear Corp	1.0%
JLR	14.2%	Morgan	1.0%
Ford	9.5%	TRW	1.8%
Honda	4.9%	Daimler	0.8%
Aston Martin	4.4%	Delphi	0.8%
Bentley	3.9%	Perkins	0.8%
BMW	3.4%	Alfa Romeo	0.5%
Toyota	3.1%	Calsonic	0.5%
Nissan	3.1%	Caterpillar	0.5%
Lotus Cars	2.8%	Federal Mogul	0.5%
McLaren	3.1%	GKN	0.5%
GM	2.1%	Isuzu	0.5%
JCB	1.8%	Iveco	0.5%
CAT	1.5%	Leyland	0.5%
Magna	1.5%	PSA	0.5%
Cummins	1.3%	Renault	0.5%
Tata Motors	1.3%	Rolls Royce	0.5%
Volvo	1.3%	Chrysler	0.3%
ZF	1.3%	DAF	0.3%
Caterham	1.0%	Dennis Eagle	0.3%
IAC	1.0%	Fiat	0.3%
Intier	1.0%	LTI	0.3%
JCI	1.0%	Optare	0.3%
Confidential (no answer)	9.8%		

PURCHASING

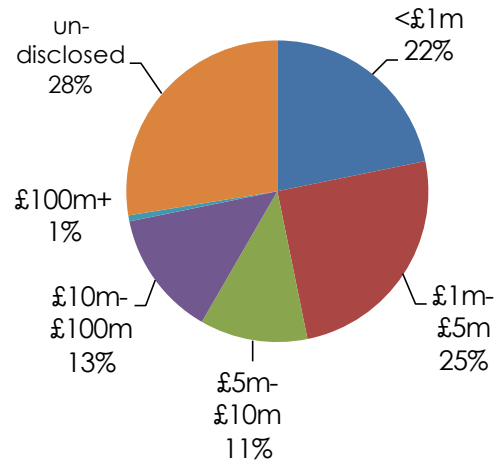
The spend value of many upstream suppliers is relatively small with over 60% spending less than £5m on raw materials, products and services. This unsurprisingly reflects the size of many firms operating below Tier-1 level.

Proportion of automotive spend in the UK

Of those that gave an indication, the chart on the right shows how much is spent in the UK.

Over half of respondents indicated that less than 25% of their purchasing is from UK suppliers, while 15% indicated that almost all their purchasing is done within the UK.

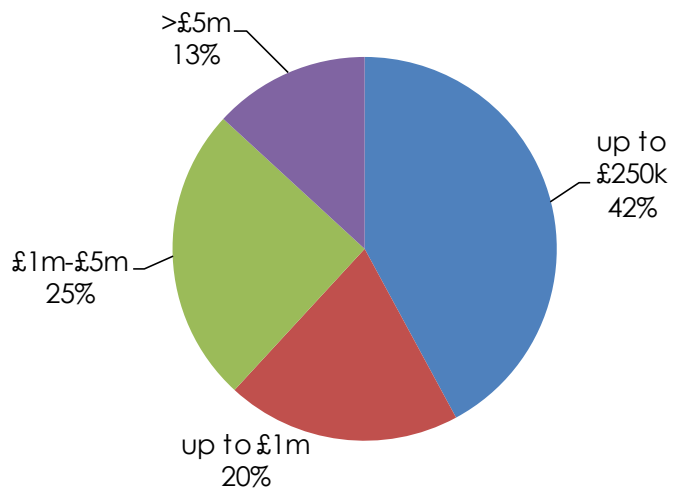
Annual purchase spend



Reshoring potential

Upstream supply chain companies have a significant appetite to reshore purchasing, with 15% of respondents recording that they would ideally like to repatriate 100% of their purchases back into the UK. The potential value of the reshoring opportunity generally related to the scale of the business responding, with more than one third of respondents identifying the potential to purchase in excess of £1 million-worth of goods per annum.

Purchasing ideally UK-sourced

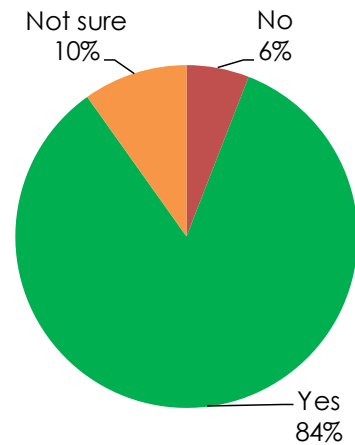


The chart on the right shows the annual spend on imported products which would preferably be sourced in the UK.

Interest in Meet the Buyer

A large majority of the respondents are willing to participate in Meet the Buyer events. This gives scope to having more of these events at both a national and a regional level.

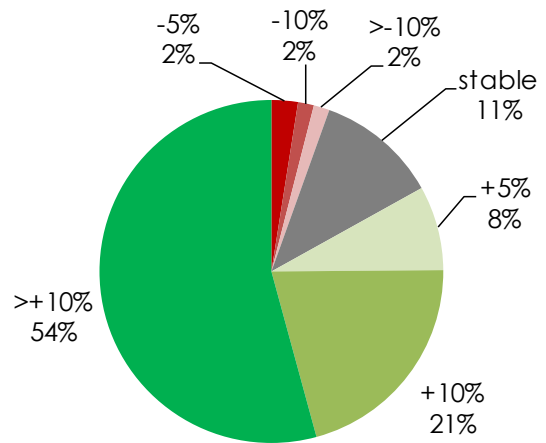
Interest in 'Meet the Buyer' events



Confidence

83% of the companies were confident in the growth based on their current order books, with more than half of respondents reporting an order book up more than 10%. This compares well to the Tier-1 survey which also shows a similar level of near term confidence.

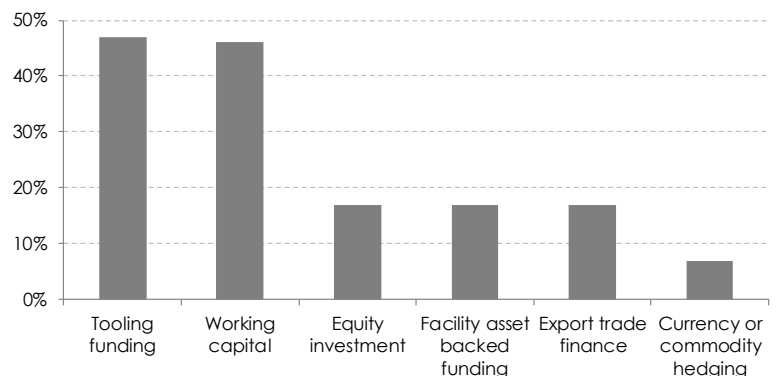
Confidence: Current order book



Access to finance

40% of respondents indicated access to finance remains an issue for their business. Asked what the specific priorities were, funding for tooling was the most important with over 45% of respondents; second is working capital at just under 45%. At just over 15% we can see equity investments and facility asset backed funding; and finally export trade finance and currency or commodity hedging.

Financial support requirements



SUMMARY OF KEY RESULTS

- As with the Tier-1s, SMEs also have an appetite to source more in the UK.
- Many upstream suppliers have a diverse customer base with nearly three quarters of respondents supplying other sectors as well as to automotive customers.
- Suppliers import much of their materials from overseas but few export to overseas markets.
- Access to finance remains a constraint with around 40% of respondents wanting support with the issue. In particular, tooling funding and working capital are high on the list.
- Confidence is high with many SMEs expecting growth in the near term.

5 CONCLUSIONS

There is a good measure of consistency between the findings of these surveys and the previous work on OEM purchasing. Typically, companies at all levels are buying around one third of their parts and materials from UK sources, with the three key reasons for importing being:

1. The UK lacks a credible supplier source (such as for high volume electronic systems).
2. Suitable UK suppliers are available yet lack the capacity to win this business.
3. Suitable UK suppliers are available yet lack the technical or processing capability to win this business.

The first of the three failure modes above requires new domestic or foreign investment which for some commodities may be impractical; the latter two require access to finance and development of manufacturing process skills.

Overall, it is judged that if UK can achieve levels of local content that are typical of our European peers, an opportunity exists to reshore £2 billion-worth of parts and materials annually. Analysis of Eurostat data indicates that the UK's manufacturing cost base is fully competitive with nations from whom we purchase the majority of our automotive parts imports.

Increasing UK sourcing will require both the development of UK businesses and inward investment, with mechanisms already in place to assist in this process. Manufacturing Advisory Service is well placed to help smaller businesses grow, while the Automotive Investment Organisation (AIO) is already working to attract inward investors. SMMT is another source of help and support, especially with finding new local suppliers via the Automotive Supplier Finder database and also through matching demand to local UK suppliers at events such as 'Meet the Buyer'.

In addition, an opportunity exists to grow exports, and while that has not been quantified in this report, it is likely that this potential is substantial given the low percentage of export business achieved by many in the upstream supply chain, and the fundamental cost competitiveness of UK automotive manufacturing.

ENDNOTES

ⁱ For more information on the work of the Automotive Council UK see: www.automotivecouncil.co.uk.

ⁱⁱ A Tier-1 or 'first tier' supplier is a supplier that directly delivers parts, components or materials to the vehicle manufacturers (or OEMs, the 'original equipment manufacturers'). Tier-2 suppliers are delivering predominantly into Tier-1 suppliers, while Tier-3 suppliers deliver into Tier-2 suppliers, and so on.

ⁱⁱⁱ See Table 3a, page 44, of Driving success – a strategy for growth and sustainability in the UK automotive sector: July 2013

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/211901/13-975-driving-success-uk-automotive-strategy-for-growth-and-sustainability.pdf

The six themes are:

1. Developing process excellence capability
2. Building leadership capability
3. Building management capability
4. Reduce total delivered cost and improve supply stability
5. Improve supply chain flexibility and complexity management
6. Build functional capabilities

^{iv} Source: 'Growing the Automotive Supply Chain, The Road Forward: 2012 Update', Automotive Council UK, 2012, <http://www.automotivecouncil.co.uk/wp-content/uploads/2012/08/GROWING-THE-UK-AUTOMOTIVE-SUPPLY-CHAIN-Aug-2012.pdf> .

^v These include both production and non-production suppliers to the automotive industry

^{vi} BIS analysis of Eurostat data for 2011, SIC 29.3

^{vii} BIS analysis of UKtradeinfo data, SIC29.3

^{viii} As identified by 'Automotive News' Data Center, 2014.