



# Realities of Reshoring: A UK Perspective

A survey of 262 UK based manufacturing organisations

In association with



## The Way Back...Reshoring the UK Supply Chain



Reshoring UK is the unique collaboration of leading industrial engineering associations and Manufacturing Catapults, led by the GTMA, to support both UK and inward investment companies to find trusted accredited suppliers.

With support and funding by Innovate UK, a web-enabled Manufacturing Tier 3 Resource Database and Search Tool has been developed for the Reshoring UK website, www.reshoringuk.co.uk

The new website is a big step forward and delivers a significantly enhanced 'ease of use' for manufacturing companies to source supply chain partners, particularly in the lower tiers.

Currently, UK manufacturing directly employs 2.7 million people, accounts for nearly half of our exports and represents two thirds of business R&D. The UK Electronics industry ranks fifth largest in terms of production. It employs over 800,000 and 95 per cent of the 6,000 companies are SMEs generating around £80 billion pa. The UK is the world's second largest

defence exporter behind the US, generating an average of £7,7bn for the UK every year, growing nearly 20 per cent each year since 2010. Annual turnover is £24 billion with 142,000 direct employees with the same number of indirect jobs in over 9,000 companies, including SMEs, in the UK.

The Reshoring UK website technology will maximise the value of the data available for industry by directly addressing the objectives of the Reshoring UK programme, to provide deeper visibility of the UK's engineering skills across Tier 3 suppliers. Unlike standard search engines where multiple keyword entries will look for single pages to match the companies' keywords; the Reshoring website will search across a number of different pages of the company's website and then display the corresponding URL page links on the profile page on the Reshoring website and locate the company's co-ordinate on the UK map. It is anticipated, with the interest already expressed by other trade associations, we will see approaching 5000 companies on the Reshoring website by the end of 2017.

The results of the survey by WMG cover both direct reshoring, which refers to the physical re-location of off-shored manufacture back to the UK, and indirect reshoring, which is when a decision is made to retain or increase manufacturing activities in the UK instead of moving it abroad. This has resulted in companies increasing their output as they have moved their production closer to their main market.

#### Julia Moore

Chief Executive, GTMA, on behalf of Reshoring UK

**I** The report by WMG, and the development of the Reshoring initiative, is to encourage engagement with our manufacturing supply chain and to recognise the strength, skills and innovation available to manufacturers in the UK.

Baroness Burt, Patron of Reshoring UK

### Realities of reshoring

The Global Economic Crisis (GEC) in 2008 forced companies to re-evaluate their manufacturing location decisions and was perceived to have accelerated the trend towards reshoring manufacturing back to the UK. This report presents the results of a survey of 262 UK manufacturing companies, conducted at the end of 2016, to understand the different types of shoring decisions they have taken since 2008.

70% of companies have undertaken some form of shoring activity since 2008. 40% of companies offshored, with only 13% of companies directly reshoring (i.e. relocated offshored production capacity back to the UK). However 52% had indirectly reshored, explicitly making a strategic decision to increase capacity at home instead of abroad. Over the last 9 years there were 594 incidences of indirect reshoring, and 127 incidences of direct reshoring. There are more shoring incidences than number of companies, as companies can make multiple shoring decisions. Looking forward, this trend reverses with 70% of respondents likely to consider direct reshoring whilst only 20% would consider indirect reshoring.

An emphasis on the competitive priorities of time and flexibility is more prevalent in companies that have reshored. Access to qualified personnel, skills, technology, innovation and reducing supply chain risk were other factors influencing the decision to reshore. Proximity to a main market was another key consideration, accounting for 38% direct and 37% indirect reshoring decisions. 74% of reshoring decisions were internal to the company, with finished goods (not components or subassemblies) the most commonly reshored items.

The study indicates companies that engage in indirect reshoring having better business performance than companies who took no shoring decisions or only directly reshored. It was surprising to find that the lowest business performance was reported by companies who had only directly reshored. These companies also reported the highest manufacturing performance in terms of flexibility, which could suggest that enhanced flexibility comes at a cost. It also led to an increase in manufacturing output for 58% of the companies who directly reshored and 75% of the companies that indirectly reshored. The impact on the supply base was not as extensive as expected, with only 24% of respondents reporting an increase in the number of suppliers as a result of reshoring. This could be because the additional volume was accommodated within the current supply base, but requires further investigation.

#### UK shoring decisions

70% of respondents undertook some form of shoring activity, with 52% indirectly reshoring, but only 13% directly reshoring

> No shorina decisions 30%



## What are the main reshoring considerations?

Reshoring decisions are more complex than they first appear

### Framework for reshoring decisions

What do we mean	by res	horing?
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**Offshoring:** A firm's decision to relocate production capacity from its home country to an overseas destination

Nearshoring: A relocation of offshore production capacity to a country geographically closer to the firm's home country

Direct reshoring: A relocation of offshore production capacity back to the home country

Indirect reshoring: A firm's explicit strategic decision to increase capacity at home instead of abroad

Strategic considerations	Business strategy <ul> <li>Generic strategy</li> <li>Growth strategy</li> </ul>		<b>Decision type</b> • Internal decision • Customer requirement		
<b>Operational</b> considerations	Why?	Internal competitive priorities • Cost • Quality • Time • Flexibility	External incentive • Tax • Subsidies	S	<b>Risk mitigation</b> • Cultural distance • Political risk • Social risk • IP risk
	What?	<ul><li>Product type</li><li>Finished good</li><li>Sub-assembly</li><li>Componet</li></ul>	<ul> <li>Product heritage</li> <li>Original/Existing</li> <li>Update or new variant</li> <li>New product</li> </ul>		Other • Remanufacturing • Product volume
	Where?	<b>Proximity</b> • R&D Centre • Head office • Registration country • Main market			
	How?	Governance• Our company• An existing supplier• A joint-venture• An new supplier			
Impacts on suppliers       Local supply base         • Local supply base increased       • Local supply base decreased					
Outcome/ performance	Business performance• Market share• ROI• Market share growth• ROI growth• ROS• Pre-tax return of• ROS growth• Customer satistic		on assets (ROA) sfaction	Manufacturing performance <ul> <li>Cost</li> <li>Quality</li> <li>Time</li> <li>Flexibility</li> </ul>	

Reshoring decisions are strategic in nature. They need to ensure that a company's manufacturing strategy is designed to support the company's business strategy. For some companies this may not be an internal decision, but one that is driven by a customer requirement.

Reshoring decisions are discussed quite simplistically, but they involve a broad range of operational considerations, the why, what, where and how of the reshoring decision. Why to reshore is a blend of internal competitive priorities, external incentives and risk mitigation. There is an assumption that 'what' is reshored is the same as what was offshored, but this may be a finished good, sub-assembly or component. The original item, a new variant or new product. It may be the full production volume, only part of it or just the volume associated with remanufacturing.

Another consideration is where to reshore to? This can be driven by a range of different proximity considerations, such as proximity to R&D facilities, head office, country of registration or a main market. The mechanism by how the reshoring activity takes place can also vary. It might be conducted by the company independently or through a supplier or joint venture.

Finally, the impacts of the reshoring decision need to be considered. They could have an impact on the local supply base, and the manufacturing and business performance of the company.

### Who responded to our survey?





### Offshoring

56% of offshored products were relocated to China and India



Cost is the primary driver for offshoring and is achieved in different ways **Reasons for offshoring** 



# How is it offshored?





Reshored companies have a greater focus on access to gualified personnel, skills, technology, innovation and reducing supply chain risk

#### **Other considerations**



No shoring decisions

Offshoring

Direct+Indirect

The business performance of indirectly reshored companies is better than companies who offshored, only directly reshored, or made no shoring decisions

### **Business performance**



Companies that have indirectly reshored have better manufacturing performance than companies who offshored, only directly reshored, or made no shoring decisions

### Manufacturing performance



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## Reasons for reshoring

Since 2008 the number of companies indirect reshoring has been significantly higher than those direct reshoring

### Number of companies that reshored in a given year



## Direct and indirect reshoring: what and how?

51% of directly reshored finished goods and 62% of indirectly, are not the original product

### What is directly reshored?



### Reshoring decisions are generally an internal decision

### Who makes the reshoring decision?



### Finished goods are most commonly reshored

### What is reshored?



### 77% of finished goods are directly reshored by the original manufacturer

### How is it directly reshored?



### What is indirectly reshored?

### 80% of finished goods are indirectly reshored by the original manufacturer





### Direct and indirect reshoring: output and proximity

57% of companies that directly reshored saw an increase in output and 75% of companies that indirectly reshored saw an increase in output



### 38% directly reshored to be closer to a main market and 37% indirectly reshored to be closer to a main market



### Impact on suppliers

66% of the 144 companies that reshored so no impact on their supply base as a result

### Number of companies that reshored



### Looking forward

70% of companies would consider direct reshoring in the future, but only 20% would consider indirect reshoring

**Direct reshoring** 



46% of respondents are neutral to the impact of Brexit on the trend towards reshoring





### Reshoring insights for the automotive industry

#### This study presents an opportunity to review the automotive sector against the overall study results, in a sector where the only constant has been change.

Globalisation has had a significant impact on the UK automotive sector in the last four decades. In the early 1970's, local content was over 90% and most cars made in the UK were sold here. Today, OEM sourcing to Tier 1 suppliers is assessed at 44%, with something above 20% UK content in the upstream supply chain, while over 80% of the cars made here are exported around the world. In between, the sector has endured low cost country sourcing, leading to a significant hollowing out of the UK supply base and we have experienced a severe financial crisis in the last ten years. Despite the challenges, the sector has enjoyed good growth in the last ten years and presents an opportunity to increase UK content going forward.

There were 35 responses from automotive companies, about 63% were 100% UK owned, around 50% were SME's, with 9 large companies with turnover greater than £100m, providing a representative spread.

### The reasons for off-shoring for automotive were similar to the overall results

### **Reasons for offshoring**



#### But a lesser proportion used a supplier, preferring joint venture or overseas expansion, perhaps to have greater control of the process



### For automotive, there was a significant number of indirect reshoring actions in 2008, at the onset of the financial crisis when UK production volumes fell by over 30%

### Number of companies that indirectly reshored in a given year



There was a corresponding drop in incidences of direct reshoring as companies took a prudent approach to the crisis



### From the bottoming out of UK production in 2009, volumes had risen 70% by 2016

### UK Vehicle production (Source: SMMT)



## There was a higher tendency to reshore to be closer to an R&D centre for the automotive sector than the sample overall



This could indicate that R&D is a strong driver in the sector and that rooting R&D in the UK can lead to manufacturing opportunity, a strategy being supported by the Government's automotive industrial strategy.

## The impact of reshoring on production output was broadly the same for the automotive sector as for the overall results



## The business performance of automotive companies is better than the average for both offshoring and reshoring



## Reshoring provided better benefits for the automotive industry in terms of flexibility and delivery times



In conclusion, the financial crisis reduced off-shoring in 2008, but the strong sector recovery since then has fuelled reshoring opportunity. This recovery, in combination with relatively low UK content in the automotive supply chain, provides great opportunity for further reshoring activity, particularly as overall production is set to rise further over the next three years. Lastly, automotive companies are seen to achieve improved results from both off-shoring and reshoring, so perhaps have a more mature view of right-shoring than companies in general.

# Shaping the Future

### Supply Chain Research Group

We adopt a practical, problem-centred approach to our supply chain and operations research, using supply chain strategy as a lever for business transformation. Working with industry partners, we bring academic rigour to the resolution of complex business and organisational problems.

The diversity of our partners means we have impact across sectors including agrochemicals, automotive, defence, consumer-packaged goods, retail, and pharmaceuticals. Current research areas include right-shoring, the circular economy, customer responsive supply chains, data driven decision making, and offsets and economic engagement.

Our innovative research and the industrial expertise of our teaching staff, helps to inform our postgraduate education, including both full and part-time MSc programmes. We also support PhD and EngD candidates within our expert research teams.

### **SME** Group

We are a multidisciplinary team pioneering support for innovation in small and medium sized businesses. We accelerate productivity and growth in SMEs by helping you utilise research-led tools and techniques, building profitable and collaborative relationships.

We are committed to supporting manufacturing SMEs through providing access to a unique mix of talented and experienced engineers, materials scientists, designers, business experts and systems specialists from industry and academia. In addition to working collaboratively with members of the team, the businesses we support have access to our expert academics, excellent equipment and state-of-the-art facilities at our impressive location in Coventry.

"Academic excellence with industrial relevance has always been at the heart of what we do...it's what makes us unique."

THE UNIVERSITY OF WARWICK

Professor Lord Kumar Bhattacharyya, Kt, CBE, FREng, FRS Regius Professor of Manufacturing Chairman and Founder

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Thank you to our authors Professor Jan Godsell, WMG Dr Joshua Ignatius, WMG Dr Antonios Karatzas, WMG Professor Jon King, WMG Di Li, WMG Julia Moore, GTMA

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The information contained in this report was correct at the time of going to print.