automotive council UK

GROWING THE AUTOMOTIVE SUPPLY CHAIN

THE OPPORTUNITY AHEAD

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March 2015

FOREWORD

The Automotive industry is at the forefront of the UK economy's recovery. In 2014 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, 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 annual UK vehicle output will reach 2 million vehicles over the coming years.

The opportunity for automotive suppliers to invest in the UK has never been more valuable, offering local sourcing of the high value components that the UK's world-class vehicle makers require.

Back in 2012, working together through the Automotive Council, government and industry identified a £3 billion opportunity to increase UK Tier-1 supply chain value. Since then, UK vehicle makers have already re-shored in excess of £1 billion-worth of purchasing and yet as the industry grows, so the opportunities to invest are ever greater. We now estimate that over the coming years, the potential to re-shore purchases by UK vehicle makers amounts to £4 billion per annum of added Tier-1 supplier business.

Winning this opportunity will take renewed efforts on the part of the Automotive Council and companies throughout the supply chain, but we believe the actions recommended in previous reports have identified the key issues. If we continue to focus on these actions it will be possible to deliver a significant increase in the proportion of the materials and parts purchased locally by both the vehicle makers and the UK Tier-1 community, bringing further jobs and growth 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.

Vince Cable

Secretary of State, Department for Business, Innovation & Skills

Co-Chair, Automotive Council

GROWING THE AUTOMOTIVE SUPPLY CHAIN: THE OPPORTUNITY AHEAD

Executive summary

As UK vehicle makers add new models and expand their output, so the opportunity for supply chain investment grows. Previous reports identified a £3 billion opportunity to re-shore tier-1 sales, together with an additional £2 billion re-shoring potential for the upstream supply chain to increase sales to the tier-1 community.

Since those reports were published conversations between vehicle makers, suppliers and Government have led to a number of new supply chain investments. Sales from UK suppliers to UK vehicle makers have grown by 19% through 2014, whilst sales growth at the UK vehicle makers was a more modest 5%, as the European market remains subdued. Through this period, UK vehicle makers have been investing in new products for European and global markets, putting in place the conditions for robust growth in coming years, and expanding the opportunity for investment in the UK supply chain.

The appetite for local sourcing remains strong, bringing the benefits of responsiveness and reduced logistics costs. Despite a steady flow of new supply chain investments, the opportunity afforded to suppliers by a growing UK vehicle industry has never been stronger.

This report refreshes the estimated tier-1 opportunity, taking account of investments already captured, but noting the expectation that UK vehicle output will grow to an estimated two million vehicles annually within a few years, and that those vehicles will be of higher value, requiring ever more complex and technically advanced components.

In summary, the potential tier-1 re-shoring opportunity is now estimated to be worth £4 billion annually over the next few years.

Growth opportunities for the sector overall include:

- Organic growth of the existing UK supply chain as vehicle production increases to two million vehicles
- On-shoring products currently imported through new investment
- Export growth for existing UK suppliers, and export opportunities for new investors

The work of the automotive council has already yielded significant results, and UK vehicle makers have indicated that at least £1 billion-worth of parts supply has been re-shored since the original £3 billion opportunity was identified, over and above the production-related growth during this period. This includes commodities on the £3 billion list but also others that have arisen since the surveys were undertaken. Without recent re-shoring achievements, the future opportunity gap would thus by now have been at least £5 billion annually.

1 The UK automotive industry landscape

In 2009 the global automotive industry was enduring a major contraction in demand following the financial crisis. UK car sales were showing monthly falls in excess of 30% by comparison with that month in the previous year, whilst the fall in export demand for UK vehicles resulted in first quarter 2009 output less than half the level achieved in the first quarter of 2008. As many European nations introduced car scrappage schemes, so the fall in demand became less severe, but by year-end, the net result for the UK supply chain was a 26% fall in sales. Many supply chain businesses closed, either due to the fall in cash flow, or when overseas owners consolidated at 'home' plants in mainland Europe, closing their UK operations. Over the course of the next two years, 25,000 jobs were lost from the supply chain as the sector contracted by more than a quarter.

In order to understand the competitive status of the UK automotive industry, the New Automotive Innovation and Growth Team (NAIGT) commissioned a study, conducted primarily by Dr Matthias Holweg with support from SMMT and BIS, and this work was published in 2009[ii].

The report found that the UK auto industry had transformed itself from a sector with turbulent labour relations and a poor reputation for quality and productivity to one that was fully competitive. The UK auto workforce was one of the most productive in Europe, and UK was home to some of the most recognisable global brands. However, a drive to 'low cost' sourcing caused an increasing trend towards purchasing parts from overseas, citing availability of UK suppliers, skills and quality as primary reasons for selecting overseas suppliers.

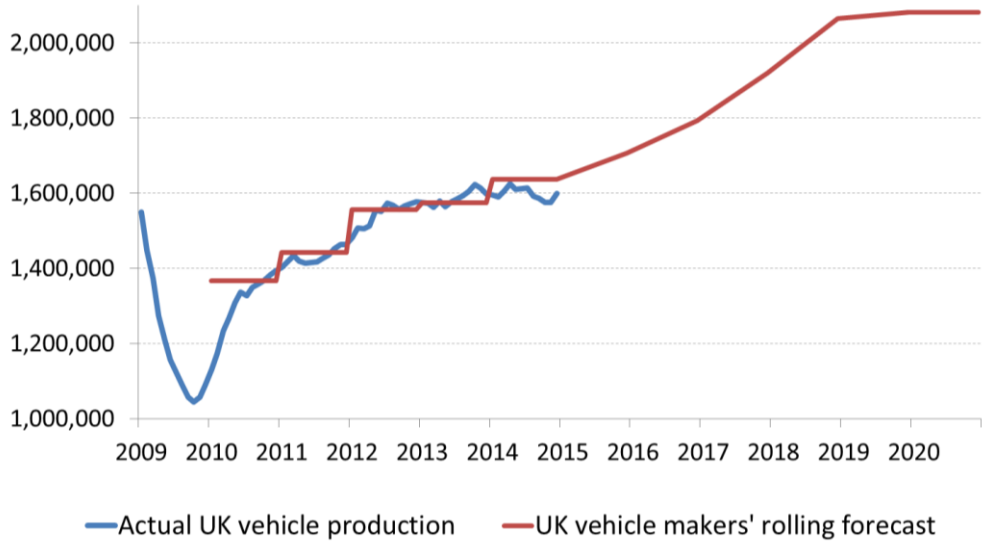

Fig.1. UK vehicle output in units – actual and forecast volumes until 2020

Since 2009, when UK vehicle output bottomed out at just over 1 million vehicles, the sector has experienced a strong recovery. In 2014, nearly 1.6 million vehicles were made, with increased employment despite strong productivity gains. Indeed, in financial terms the industry is growing more strongly than the vehicle numbers would suggest, with turnover up

7% compared to 2013. 2014 saw major investment announcements and product launches, whilst 2015 will see new models from several UK carmakers that will boost output in both unit and value terms, and generate significantly increased exports.

Figure 1 shows actual UK vehicle production since 2009 and a projection[iii] through to 2020, from the Production Outlook service of the SMMT prepared by AutoAnalysis. This shows that the UK has the potential to reach two million units annual production, but for this to occur, a number of things need to happen in parallel, namely:

- Output growth continues at Jaguar Land Rover (JLR), where output has almost doubled since 2010. Even with production under way in China with Brazil and other locations to follow, there remains scope for further production growth at all JLR's UK plants, with a number of as yet unannounced models understood to be in the pipeline.
- Nissan maintains production volume. However, volume is not all that matters: making the Infiniti Q30/QX30 in the UK rather than the Nissan Pulsar may have reduced potential Nissan output in volume terms but increased in terms of value, with a consequent boost to the UK in terms of export earnings.
- Output needs to be maintained, and ideally grown, at the other UK vehicle plants.
- Annual UK production of two million vehicles is thus dependent on several favourable product location decisions, supported by the continued development of the UK supply chain.

Being able to source more components in the UK will help boost the case for further UK investment at the vehicle companies just as investment by the vehicle companies in the UK boosts the investment case for suppliers.

UK-made vehicles are exported worldwide, with total UK automotive export earnings in 2014 approaching £35 billion-worth of vehicles, parts and related products. This accounted for 7% of UK's entire export earnings. However, the sector continues to record a large trade deficit, with nearly £48 billion-worth of vehicles and parts imported in 2014. The UK vehicle market is dominated by imported products, and the strong growth in sales resulted in £35 billion worth of imports of cars and commercial vehicles, whilst the UK OEMs imported nearly £12 billion-worth of parts, whilst there were also a further £1 billion of other automotive-related products imported, including bodies, trailers and caravans.

Industry product cycles are such that it will normally take a change of model for a significant change in supplier sourcing. So it is that many supplier investments announced since the initial studies were published are associated with models yet to enter production, and so have yet to come fully on stream.

Typically, supplier nomination takes place at least two years before the start of full production, with a period of specification and negotiation before final nomination can take place. Thus the new models for which supplier nomination was open for discussion at the time of the first meet-the-buyer event in July 2010 are only now starting to generate sales through the supply chain.

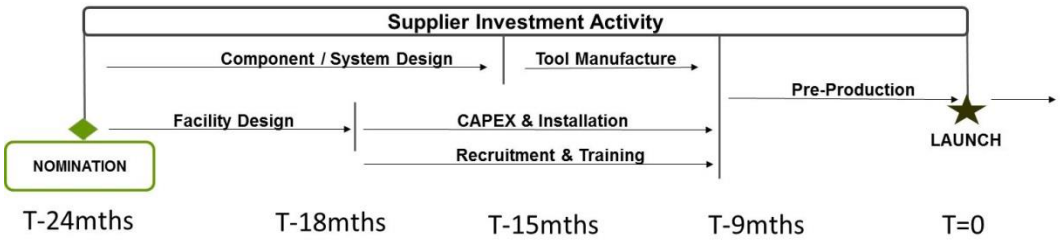

Fig.2. Indicative timeline from supplier nomination to product launch[iv]

The generally held view is that the supply chain has been 'hollowing out' since the 1970's, and this view is supported by evidence from a report at the time[v] finding that the imported content in UK-made cars was between 5% and 10% of ex-works cost. Indeed, evidence exists[vi] that as long ago as 1906 there were concerns over the availability of UK sources of automotive parts supply, with wheels and springs amongst commodities that were mainly imported.

In recent years, the UK supply chain's share of available UK business has continued to fall as sourcing decisions made several years ago have increased the proportion of parts imported, even though the actual volume of UK supply chain business has increased, from £11.8 billion in 2009 to £15.9 billion in 2013.

However, there are signs that a corner was turned in 2014 as the actions taken by the Automotive Council have started to bear fruit. There is clear evidence that the industry is now re-shoring parts supply from overseas, as can be seen visually in the chart below[vii], with the growth in UK supply chain sales to UK customers approaching 20% by the end of 2014.

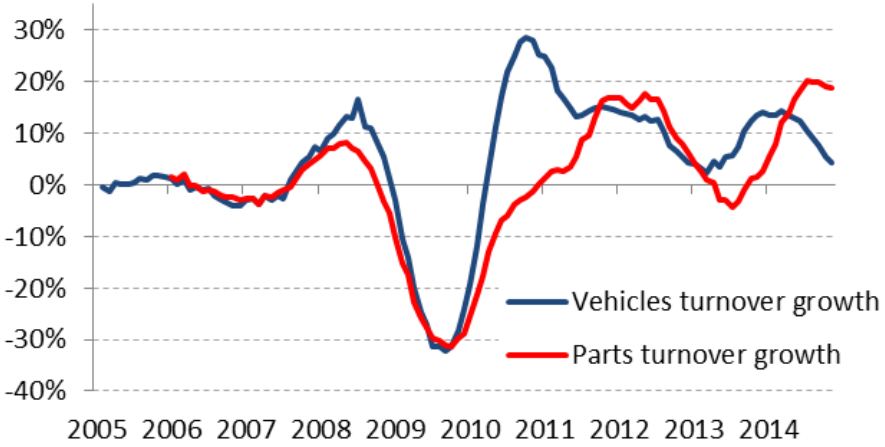

Fig.3. UK automotive sector turnover

Looking ahead, UK vehicle output is projected to reach two million units in coming years, and this will amplify the supply chain opportunity both for existing UK businesses and those yet to invest here.

3 Institutional support for supply chain investment

The UK features two main institutions where the government and industry interact on a regular basis: the Automotive Council UK, and the Automotive Investment Organisation (AIO). The UK features a unique combination of institutional support that enables industry and Government to work in partnership without compromising either the independence of participants or their various competitive interests.

3.1. The Automotive Council UK

The Automotive Council was established in 2009 to enhance dialogue and strengthen co-operation between UK government and the automotive sector. It is jointly chaired by Vince Cable, Secretary of State for Business, Innovation and Skills (BIS) whilst the outgoing industry chair is Richard Parry-Jones, former Group Vice President and Chief Technology Officer of Ford. The Council is made up of senior figures from across industry and government.

In June 2013, the Automotive Council published the sector strategy: Driving Success – a strategy for growth and sustainability in the UK automotive sector. The strategy addresses the cross-cutting objectives of improving access to finance, support for emerging technologies, skills development, and developing supply chains.

The activities of the Automotive Council are channelled through three working groups, each divided into a range of workstreams. The working groups are:

- **Supply Chain,** established to build consensus on the challenges facing UK automotive supply chain companies, and identify actions to promote supply chain re-shoring
- **Technology,** established to analyse evidence and provide advice to the Council on UK automotive R&D investment opportunities with the aim of fostering the development of a stronger UK engineering, supply and manufacturing base.
- **Business Environment and Skills,** established to ensure that the UK automotive industry has the best business environment to operate in, including access to the right skills.

This report has been prepared by the Supply Chain subgroup 'Quantifying and capitalising business opportunities for the UK supply chain', tasked to understand UK automotive industry sourcing patterns, and identify specific opportunities for the UK supply chain. Other supply chain subgroups are tasked with improving long-term competitiveness, identifying ways to satisfy re-shoring needs, improving access to finance, and improving innovation in premium product manufacturing.

Long-term supply chain competitiveness programme (LTASC)

Through the work of the Automotive Council's Supply Chain Group and SMMT, AMSCI[viii] funded long-term supply chain competitiveness programmes (LTASC) have been launched. These programmes have secured investments of nearly £90m to increase competitiveness and growth of suppliers of all sizes throughout the automotive supply chain. To date more than 48 individual supplier projects have been supported with investments of £12.6m already

made in capex, R&D and skills to create and safeguard more than 1,200 jobs across the automotive supply chain. With many more supplier projects in the pipeline the long-term supply chain competitiveness programmes will continue to support the individual needs of automotive suppliers of all sizes over the next few years.

LTASC case study #1: Delphi

Delphi Diesel Systems was awarded £4.1 million AMSCI funding through the Automotive Council supported LTASC Programme to develop the next generation of its common rail technology.

The project started in May 2013 and will run for three years. It will yield components that meet OEMs' needs for commercial vehicle engines targeted for production from 2018 onwards. The funding will be used in the development stage of the project which will help maintain 25 jobs, and create a further 11. The project and the product being taken to market are supported by 500 UK manufacturing jobs.

LTASC case study #2: Toolspec

Toolspec began as a toolmaker employing 55 toolmakers and five employees hand-bending tubular components, but has re-invented itself over the past 25 years, to become an expert producer of not just tubular parts, but virtually any kind of hollow section 'road to roof' assembly for the automotive, construction and agricultural industries.

However the company needed to change; its only customer began sourcing tooling needs on the global market rather than from local suppliers. "So the headcount reversed – we have 55 people making tube components and just five toolmakers," explained Toolspec CEO Mark Blythe. "But the latter are still key, because we can make the jigs, fixtures and so on that have enabled us to progress from making simple tubular products to complex ones, while boosting quality and response time, and those toolmakers are also more productive thanks to modern technology. This 'can do' attitude and ambition to get better and faster is the essence of the Toolspec success story and why it sought AMSCI funding through the Automotive Council's supported LTASC programme towards a £837k capital investment towards future growth.

Toolspec's sponsoring OEM was JCB. Mark Blythe said: "We couldn't have done it without JCB supporting a bid for the AMSCI funding on our behalf – as a small firm we can't justify that expertise on the payroll. The 10% £87K grant aid towards our capital expenditure will create nine jobs and, by taking on the SMMT training over the next few years, improving the talent in our business and boosting productivity, quality and all the other hallmarks needed in a fast-moving competitive sector. We've also taken on younger people who can quickly familiarise with the Windows-based interface on our newest equipment, while experienced guys are re-deployed, speeding processes and products on other machines."

The programme has also supported funding of three new machines: two hi-tech bending machines from fellow UK firm Unison and a machining centre, costing £370k in total. "The bending machines are the biggest revelation," said Mark. "They speed up the whole process and cut out most of the waste through measurable accuracy and quality. It allows us to make things better, quicker, faster and hunt down better contracts. We're also more of a 'one-stop shop' making ever more complex components."

Access to finance

The Automotive Council Supply Chain Group and the British Banking Association established a roundtable forum to help resolve post-recession access to finance barriers that were preventing some automotive component suppliers from expanding. This team has focused on four key areas as follows:

- Improved automotive industry to banking industry communications – an automotive immersion course has been written and delivered to the four largest UK banks at modern automotive industry manufacturing plants to help build the confidence and capability in the Financial Services Sector to invest in a growing and low risk automotive sector.
- Developing new bespoke lending solutions for the automotive industry – several UK banks have launched tooling finance products designed to resolve an industry specific funding gap between the OEM placement of a tooling order and its payment at start of production.
- Working with Government in areas of market failure – The Automotive Council, Finance Birmingham and MAS established a £24 million Tooling Funding Programme using RGF 4 for suppliers in England where banks were still unable to lend to suppliers who had reached the limit of their credit facilities.
- Alternative funding for growth – equity and supply chain finance solutions have been launched to the benefit of the automotive industry by Business Growth Fund and British Business Bank respectively.

Premium products

Through the work of the Automotive Council's Supply Chain Group low volume premium product manufacturers across marine, aerospace, motorsport and automotive supply chains are being brought together. The programme of work will identify and develop premium product manufacturers from all sectors to become capable suppliers into premium and luxury Automotive OEMs based in the UK.

Further initiatives

Elsewhere in the work of the Automotive Council, the Government is working closely with leading UK automotive manufacturers to boost skills across the sector, inspire the next generation of vehicle and component makers and create new routes into automotive careers. Central to this is the Automotive Industrial Partnership which was developed through the Automotive Council's Business Environment and Skills Group. £11.3 million of government funding alongside £2.8 million cash investment and £16.4 million in-kind contributions from

industry will be provided, to help identify and meet the skills needs for the current and future workforce.

This industry-wide programme builds on £20 million of government funding provided through the Employer Ownership Automotive Supply Chain Project, designed to increase skills and capability in the UK automotive supply chain.

The Automotive Council has strengthened cooperation and coordination with Local Enterprise Partnerships and devolved partners with a major automotive presence, through the creation of the LEP leadership Forum. One page summaries have been compiled, which set out the distinctive local offer for companies looking to invest within the LEP area. This includes information on existing sector expertise and details of local business support and funding schemes available.

3.2. The Automotive Investment Organisation

The Automotive Investment Organisation (AIO) was established by UK Trade and Investment in April 2013 to target global automotive component manufacturers to fill the gaps in the UK supply chain through inward investment in UK production facilities. The AIO was given a 'hard target' to support the creation or safeguarding of 15,000 supply chain manufacturing jobs through inward investment over 3 years. This represents a doubling of the figure for 2010-2013.

AIO's initial review of list of UK sourcing requirements ("£3bn list") highlighted that not all commodities and components listed were equally well suited to UK manufacturing. Certain factors negatively impacted some commodities more than others, such as having a highly energy or labour intensive production processes, which would favour locations with lower input costs than the UK in these areas. Another major factor against UK production was present for components where high scale economies are relevant, particularly given the prevalence of under-utilised facilities in other European locations where many global automotive manufacturers had invested heavily in capacity leading up to the economic downturn.

In contrast, there were several powerful factors for many commodities acting in favour of UK production. Increasing logistics costs act to offset the advantages of other input costs where heavy or bulky components are concerned. Components which are highly sequenced and those susceptible to cosmetic damage favour manufacture close to the point of fitment to the vehicle.

AIO undertook a high level comparison of these factors, to better understand how they might balance for each of the commodities on the £3bn list and therefore anticipate the likely responses of potential investors.

In addition to considering the commodities of interest to the OEMs, it was necessary to select target inward investors. AIO began with a list of some 500 names of the world's largest automotive component manufacturers and undertook research to identify which of these might be most receptive to considering investment in the UK. This was a process of building a picture of each company's financial standing, current global footprint and customer base.

The output from this work was matched to the commodity analysis to provide a shortlist of companies to target for each commodity of interest.

The next stage was to develop a compelling message to sell the UK to the decision makers within the target companies. Early conversations highlighted that many overseas automotive executives believe that the UK automotive sector has been in decline since the 1970s and has little to offer in terms of any commercial opportunity. To address these misconceptions, a portfolio of marketing material was created around three pillars:

- A great **business case** underpinned by growing, global demand,
- an **automotive ecosystem** which brings together leading-edge firms, universities, motorsport and funded projects to deliver transformational R&D, and
- the most **supportive business environment** in Europe for automotive companies.

To take the 'UK Automotive' message to market, the Automotive Investment Organisation brings together individuals from the automotive industry with UKTI's global network of expertise in attracting inward investment into the UK and connects with a number of various organisations and stakeholders with an interest in the sector: BIS, BIS Local, UK Trade and Investment's national Investment Services Team and UK-based International Trade Advisors, the Foreign and Commonwealth Office's global network of overseas Posts, LEPs and Devolved Administrations, SMMT and MAS.

The interest raised in the UK automotive sector by all of the players involved has been very successful. As tracked by UKTI, the number of new automotive projects related supply chain jobs is on course to meet the year 3 KPI.[ix]

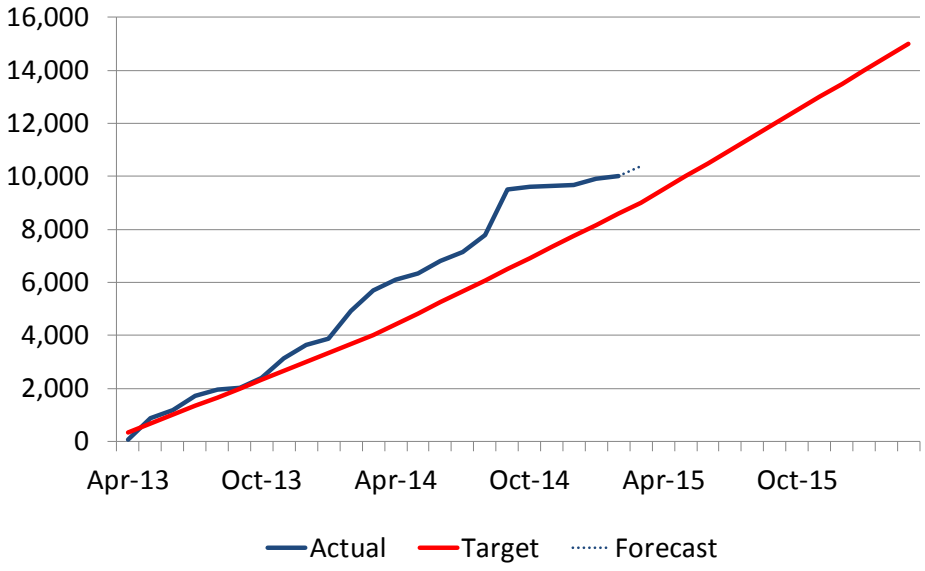

Fig.3. Number of new automotive projects. Source: UKTI

A significant proportion of these projects align closely to the opportunities defined in the '£3 billion' list. It is possible to demonstrate that investment is occurring across the entire automotive supply chain from the publicly available lists of investments which have been supported by central or local government funding. Companies which have been supported include Amtek Limited, Ashwoods Automotive Ltd, Bifrangi UK Limited, BorgWarner, Brose UK Ltd, Cooper Tyre and Rubber Company Europe Limited, Covpress, Dynex Semiconductor

Limited, Gestamp Tallent Limited, Johnson Matthey Fuel Cells Limited, Maier UK Limited, MTCE Limited, Nifco, Rimstock plc, Sertec, Tenneco, TRW Automotive Limited and TRW Systems Limited.

Many of the areas identified in the '£ 3 billion' report have seen substantial investment. Significant expansion has occurred in the areas of carpets, engine castings, exhausts, hot stampings, metal pressings, seat foam, and small plastic mouldings.

Two cases which illustrate this rebuilding of the automotive supply chain are Calsonic Kansei Europe and Nifco UK Ltd.

Case study #1: Calsonic Kansei Europe

Calsonic Kansei is a global supplier of automotive components, employing over 1,700 employees across four manufacturing locations in the UK. Calsonic Kansei develops a range of products within the UK for supply to a global market. These include cockpit modules, interior mouldings, electronic controls and displays, air conditioning, powertrain cooling and exhaust systems. Product development is supported by the Technology Centre in South Wales, employing over 100 engineers within a in world-class R&D facility

With the considerable investment from Calsonic and support from the Regional Growth Fund and the Welsh Assembly Government, significant expansion of facilities and technologies have taken place at its sites in both Sunderland and Wales, securing and creating 351 jobs.

Calsonic Kansei's growth is clearly linked to the success of the UK vehicle manufacturers. The company continues to manufacture a range of components for the iconic Nissan Qashqai and Juke vehicles produced in Sunderland, UK including cockpit modules, instrumental panels, engine cooling modules, air conditioning units and full exhaust systems. Since production launch in 2006 and 2010 respectively, Calsonic Kansei has produced components for over 2,000,000 Qashqai vehicles and over 600,000 Juke vehicles.

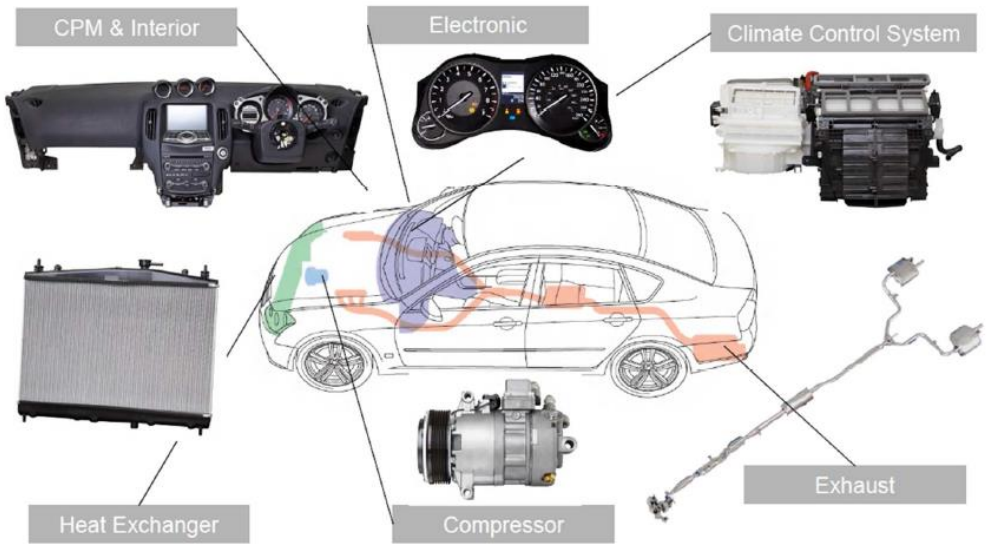

Fig.4. Calsonic Kansei – product portfolio

Case study #2: Nifco UK Ltd

Nifco is a world class plastic injection moulding company based in the North East.

In 2007, the company was facing similar challenges to many in the automotive sector; turnover was a mere £300,000. However, an injection of cash, and perhaps more importantly, faith and direction has turned things around.

Together with the backing of Nifco Inc, the business was supported in its development with two tranches of investment from the Regional Growth Fund, both of which have allowed for increased capacity thanks to moves to new, state-of-the-art facilities.

A new building has not only significantly increased Nifco UK's manufacturing capacity, it has added a new dimension to the business' credentials, introducing a Powertrain Research and Development facility that will lead to staff numbers increasing to more than 500 over the next two years.

Mike Matthews, MD of Nifco UK Ltd has stated: "There is a renewed optimism and confidence in the UK automotive industry and this is reflected in our future projected growth. Our order book is full for the next five years, we have a clear strategy to move the business to be a £75 million company by 2016 and we are moving our offer on, working closer than ever with our customers to develop products that help them to innovate."

Fig.5. Nifco parts on the new Nissan Qashqai

Due to the success in attracting investment across many component areas, together with the projected growth of UK vehicle production rising to two million by 2017, the need arose to reassess the industry's view of the UK supply chain, and the UK sourcing opportunity relating to the next period of significant growth.

4 Growing the automotive supply chain

In 2010, the Automotive Council commissioned a further report from Dr Holweg, examining the supply chain in more detail, and this work was published in March 2011[x]. The study found that about 80% of all component types required for vehicle assembly operations could in theory be produced by UK suppliers, though in practise not all potential UK suppliers had been selected, and a considerable proportion of what could in theory be locally source was in fact sourced from overseas. The survey found that the actual amount purchased in the UK equated to around 36% of OEMs global purchasing spend. The combined UK purchasing value of the UK-based automotive, commercial vehicle and yellow goods manufacturers at that time was estimated to be £7.4 billion per annum.

The key findings of the OEM survey were:

- There is both **scope and strategic intent to increase UK sourcing** for components where the UK has a competitive offering
- There is an **extensive OEM wish list** of further items that OEMs would like to procure in the UK if a capable source were available
- The main reason why OEMs wish to purchase in the UK is **proximity**, as a means to reducing supply chain risk and lead-times.

The main barriers to UK sourcing were found to be uncompetitive unit cost, and a lack of capable, qualified suppliers with sufficient capacity.

Several questions remained unanswered from this survey, highlighting the need for further work, and in particular, the need to gain a full understanding of exactly which commodities the OEM community would like to see re-shored, and in 2012 this requirement was met with publication of a further report[xi], which included a list of commodities by value.

The total value opportunity was estimated at £3 billion per annum, based on the value of parts imported during 2011 that OEM's would have preferred to source locally. Top items were engine castings (£370 million), steering systems (£220 million) and trim (£170 million) with the full list shown later in this report.

Two main strands of activity followed publication. Whilst the AIO put together a list of global suppliers for whom the opportunity might be of interest, a series of 'meet the buyer' events were organised by SMMT[xii]. The first 'meet the buyer' event was on 14th July 2010, attended by eight OEM buying organisations and 38 suppliers.

At the early events, it quickly became apparent that many of the companies wishing to grow their businesses were UK upstream suppliers, typically at tier-2 and tier-3. This, in turn, highlighted the need to run events where tier-2 sellers could meet tier-1 buyers, and also indicated the need to understand the breadth of the opportunity for these upstream suppliers.

Once again, industry surveys were needed, and whilst Dr Holweg conducted a demand survey of the UK tier-1 community, Yung Tran and Nikki Huggett at SMMT surveyed the upstream community to establish the degree of appetite for growth, and the scope of the commodities on offer. This work came together in a report published in 2014 entitled 'Growing the Automotive Supply Chain: Assessing the Upstream Potential[xiii]'.

This report found that the pattern of sourcing by the tier-1 community was similar to that of the OEMs, with UK upstream suppliers capturing around one third of the available business. As with OEM purchasing, the surveys found 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 were a lack of suitable suppliers in the UK, or a lack of suppliers with the necessary capacity and/or technical capability.

The results of these surveys have formed a strong evidence base for the work of the Automotive Investment Organisation, and considerable progress has already been made in capturing investments to fill a number of sourcing gaps. This report concentrates on the opportunity for tier-1 suppliers, whilst other work continues to develop the opportunity for the upstream suppliers.

These findings informed several strands of the work of the Automotive Council, with a variety of initiatives launched to address the various issues. As for the Supply Chain group, the report highlighted the need to understand which commodities the OEM's would most like to source locally if a suitable supplier could be found, so as to enable selective targeting of potential investors. This led to publication of further reports detailing the industry's requirements, and ultimately led to UK Trade & Investment setting up the Automotive Investment Organisation in order to promote the opportunities to the global suppliers, and capture the investments needed to grow the UK supply chain.

5 The future supply chain opportunity

In order to estimate the future supply chain opportunity, further discussions have been held with the vehicle makers to determine which commodities have now been re-shored, which opportunities remain open, and which might be more challenging given global clustering, such as is found with some high value electronic systems.

Over the coming years, UK vehicle output will increase, and it is expected that growth will come particularly from higher value vehicles in premium and luxury segments. This will generate increased demand for premium commodities including higher levels of equipment, more technology features, and premium materials and finishes. Thus not only will OEM's need more inputs, those inputs will often be of higher value.

This is explicitly addressed through the work of the Supply Chain Group, reaching out across sectors where UK has established expertise.

Analysis of the projected future requirements has taken account of what has already been re-shored, and what is likely to be more challenging to re-shore given global clustering elsewhere, and yet indicates that the future opportunity to re-shore tier-1 supply chain activity is likely to be in the region of £4 billion per annum over the next four to five years.

It should be noted that this figure takes account of investments committed since the previous reports were published. Experience to date has been that where investments have been committed, the total business value has exceeded initial estimates. Whilst it is estimated that around £500 million of the opportunity identified in 2012 has been filled, the total value of investments catalysed by that work is nearer £1 billion.

The detailed list of opportunities currently identified[xiv] is shown below. It is headed up by engine components (castings and forgings), steering systems, trim, and metal pressings. It

should however be noted that this list is not exhaustive, and UK vehicle makers remain open to offers of UK supply for commodities not listed here, subject to suitable commercial business terms being offered.

It should be recognised that to change established sourcing patterns for multinational foreign owned companies is not an easy process: OEMs need to be convinced of the credibility of an alternative UK supply; Tier 1's need to be convinced that investment in new UK facilities will realise a return; SME's need to be convinced that their organic investment growth will find OEM and Tier 1 customers; and Government needs to efficiently commit incentives to act as a catalyst to the process. Through the work of the Automotive Council some of the barriers to change are being removed and we look forward to reporting the realisation of the majority of the £4 billion opportunity in future reports.

6 Conclusions and recommendations

The evidence gathered for this report indicates that good progress is being made towards re-shoring the UK automotive supply chain, and that in large measure the activities of the Automotive Council have been instrumental in achieving this progress. Vehicle makers report increased UK purchasing spend and this is supported by analysis of available data. The experience of re-shoring to date has been very positive, and the opportunity to increase UK sourcing is stronger than ever.

Based on this evidence, the following recommendations are made:

- 'Meet the Buyer' events offer an effective route to market, and there is scope to broaden the events to include lower tier buyers, commodity-specific and regional events in addition to the flagship events attended by the global vehicle makers and tier-1 suppliers
- The Automotive Investment Organisation has demonstrated its effectiveness in attracting inward investment and also in assisting companies to export, and this work should continue
- Whilst international competitiveness data shows that UK is a good location for manufacturing, further work is needed to fully understand purchasing criteria, including total landed cost analysis, in order to inform the offer to investors.
- There remains an information failure where buyers and sellers are unaware of each others' requirements. An automated signposting system would help promote the capabilities of UK suppliers to UK buyers and help fulfil re-shoring objectives, whilst consideration should be given to an event showcasing the UK components industry
- Commodity workshops promote engagement with trade associations in supply chain sectors, and more are needed to understand the unique characteristics of specific commodity supply chains, and their potential to be re-shored.

Appendix: The opportunity, detailed by commodity

Commodity	2012 opportunity £m	2017 opportunity £m
Engine castings	370	550
Steering systems	220	330
Trim	170	255
Engine forgings	170	255
Pressings and hot stampings	130	240
Seat components	150	225
Alloy wheels	140	210
Lighting	130	210
Electronics	110	170
Plastic mouldings	100	150
Entertainment & navigation	90	135
Bearings	80	120
Instrument Clusters	80	120
Glass	70	110
Hinges	70	105
12V Lead/Acid Battery	60	90
Cast aluminium sub-frames	60	90
Brakes	50	80
Drive shafts	50	80
Fuel tanks	50	75
Engine accessories	50	75
HVAC assemblies	50	75
Misc. (pedals, mirrors etc.)	40	60
Shock absorbers	40	60
Oil pans	30	
Premium finish		50
Weather strips		50
Switchgear	10	30
Other *	520	
Total	**3,090**	**4,000**

** This mainly includes commodities where investments have been made and immediate re-shoring requirements fulfilled.*

Endnotes

[i] Cover image courtesy of Nissan

[ii] Holweg, M., Davies, P., and Podpolny, D. (2009) The Competitive Status of the UK Automotive Industry. New Automotive Innovation and Growth Team.

[iii] The projection excludes heavy commercial vehicles, currently accounting for 1% of total UK vehicle output

[iv] Figure courtesy of Jaguar Land Rover.

[v] A. Jennings (1970) Government Policy and the British Motor Industry's Export Performance, *Applied Economics*, 2:1, 65-72, DOI: 10.1080/00036847000000016

[vi] Royal Commission on Motor Cars, Volume II, Minutes of evidence 1906.

[vii] Source ONS TOPSI http://www.ons.gov.uk/ons/about-ons/business-transparency/freedom-of-information/what-can-i-request/published-ad-hoc-data/econ/february-2015/index.html

[viii] Advanced Manufacturing Supply Chain Initiative, https://www.financebirmingham.com/amsci/.

[ix] Final job figures are shown for the period April 2013 to March 2014. Interim figures are shown for the period April 2014 to February 2015, pending UKTI verification at date of report publication.

[x] Holweg, M., Tran, Y., Davies, P., and Schramm, S. (2011). Growing the UK Automotive Supply Chain: The Road Forward. Automotive Council UK.

[xi] Department for Business, Innovation and Skills (2012) Growing the UK Automotive Supply Chain: The Road Forward. 2012 Update. Automotive Council UK.

[xii] SMMT: Society of Motor Manufacturers and Traders, www.smmt.co.uk.

[xiii] Davis, P., Holweg, M., Huggett, N., Schramm, S. and Tran, Y. (2014) Growing the Automotive Supply Chain: Assessing the Upstream Potential. Automotive Council UK.

[xiv] The opportunity values should be regarded as indicative of the overall opportunity for the commodity, and not a precise forecast. Values are estimated based on the quantities and typical purchase costs of each commodity that vehicle makers have indicated they wish to re-shore, in interviews with AIO.