



cutting through complexity

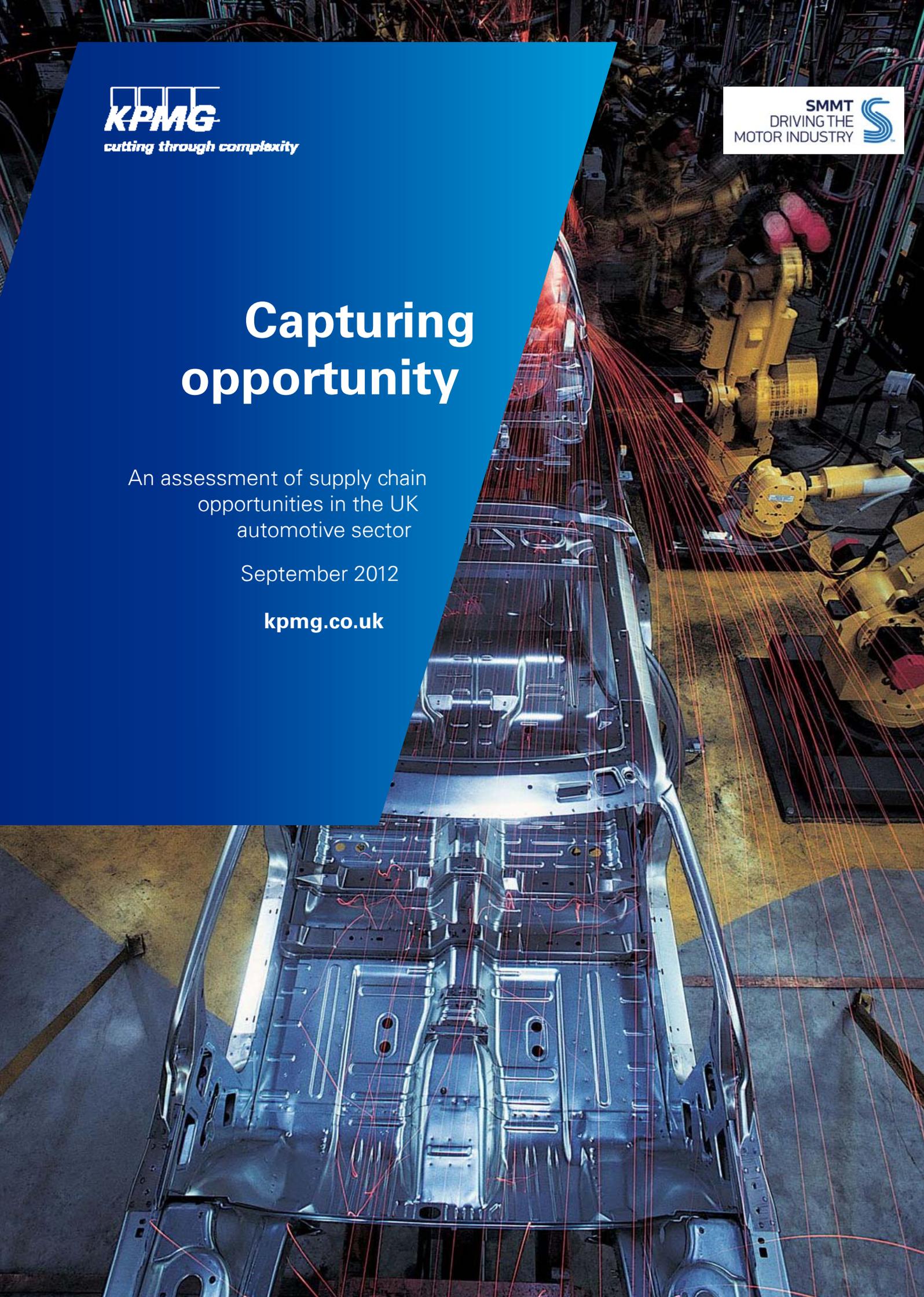


Capturing opportunity

An assessment of supply chain opportunities in the UK automotive sector

September 2012

kpmg.co.uk





INTRODUCTION BY PAUL EVERITT

Britain is rapidly becoming the destination of choice for OEMs.

The evidence for this is clear. Recent significant investments by Jaguar Land Rover (JLR), BMW and Nissan attest to the dynamism of this sector and reinforces the optimism in the industry feel. It is not just OEMs who are experiencing rapid growth, the supply chain that feeds into OEMs is also seeing demand swell, ensuring that the wider industry is coming back to health after a difficult few years.

To provide evidence and an outside perspective on this we have asked KPMG to undertake an independent study to look at the fortunes of the sector, the key drivers behind recent performance and some of the challenges we will continue to face. The following report provides the summary of this work and overall, serves to reinforce the positive view SMMT has of the industry.

The report gives an insightful account of the industry and I would encourage you to take the time to review its findings. Some insights in particular struck me as important. These included:

- The sustained levels of high growth in the sector, with OEM production in the UK to increase at 9% a year.
- The UK's export focussed production base, with a higher proportion of our vehicles going to high growth non EU countries than any other European nation.
- Our flexible and cost effective labour force, representing the best value in Western Europe and a critical factor influencing recent investments.
- The joined up approach taken by the UK Government to identify both supply chain and R&D opportunities providing the UK with a genuine competitive advantage.

These are just some of the important insights this study has identified, and it is my hope that this document can help to publicise the strengths of the UK as a leading player in automotive manufacturing.

We are not complacent about the challenges of global competitiveness and through the Automotive Council, industry and Government are working together to strengthen the UK based supply chain and ensure the country is a key player in the transition to ultra low carbon vehicles. The partnership with Government is an essential part of the UK proposition and is helping to support the stability and certainty required for long-term investment.

Finally, I would like to thank all of those who have contributed to this report: the Department for Business, Innovation and Skills; vehicle manufacturers; and tier one and tier two suppliers. Your help and support have been critical in delivering this important and timely report. I am confident the UK automotive sector can continue to grow and generate high value jobs, I hope this report helps to persuade even more companies to look closely at what we have to offer.



Paul Everitt, Chief Executive, SMMT



THE UK HAS BECOME AN INVESTMENT DESTINATION OF CHOICE FOR OEMS

Introduction

The UK has become an investment destination of choice for OEMs.

Around £6 billion of investment has recently been announced by OEMs in UK production. This represents medium term new capital investment and reflects high levels of capacity utilisation already present in the UK.

Largely driven by incremental investment into the sector, vehicle production in the UK is expected to increase at 9% per annum to 2.2 million in 2016 on the back of strong export performance and the internal success of models made in the country

The UK's position as an investment destination is expected to generate further opportunities for component suppliers.

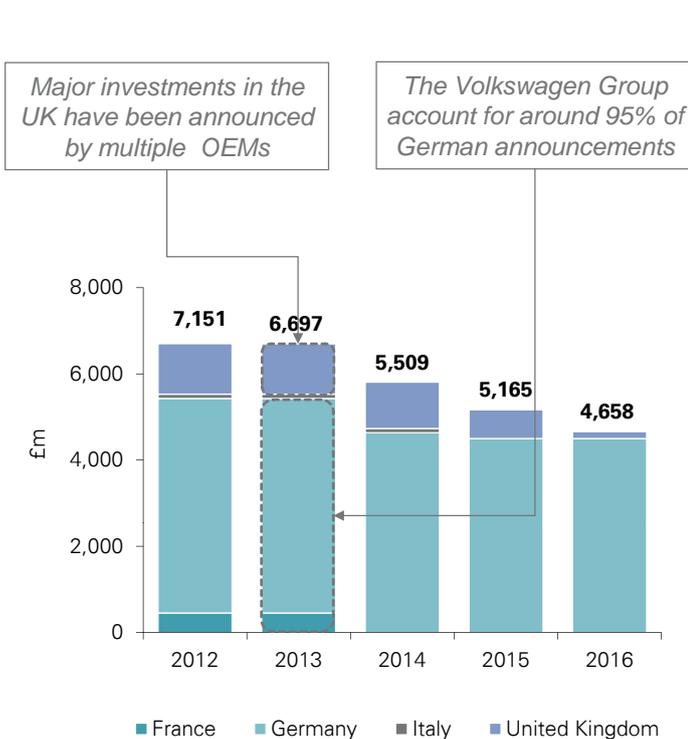
Whilst around £3 billion of unfulfilled opportunities have been identified for domestic automotive suppliers and overseas companies wanting to invest in new facilities in the UK (as identified by the Automotive Council, see page 10), further increases in capacity and production will generate further demand for component suppliers.

As a result of these increasing levels of investment the aggregate supplier opportunity in the UK market is expected to increase from £11 billion in 2012 to £21.5bn in 2016 (see page 10).

"Most of the major investment announcements have been in the UK recently"
General Manager – Purchasing, Nissan

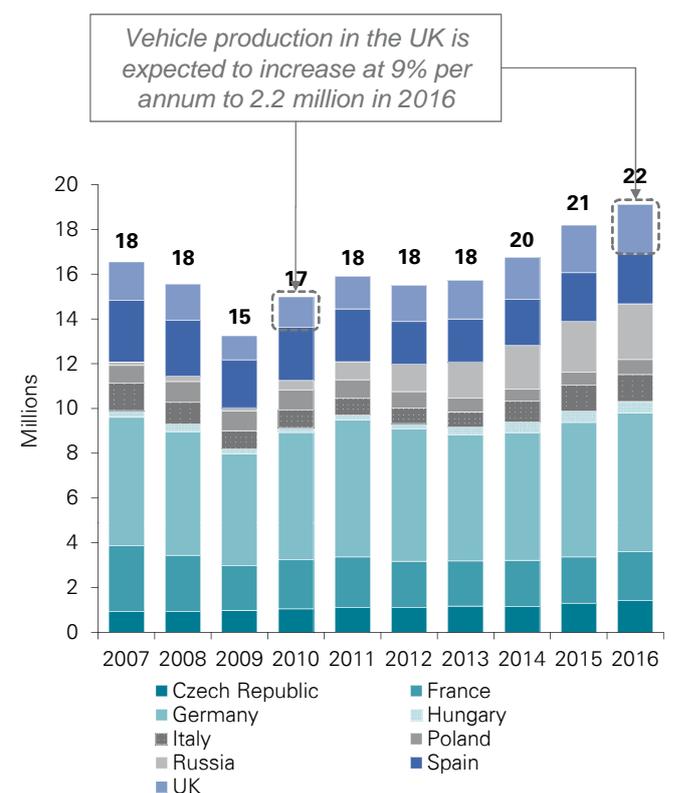
"There isn't a British car manufacturer that isn't expanding at the moment"
David Cameron

Figure 1. Investment announcements, vehicles and engines, UK versus Europe, 2012 to 2016



Source: KPMG analysis of press announcements, August 2012

Figure 2. Production of vehicles, UK versus Europe, 2007 to 2016



Source: "European Car and Light Commercial Vehicle Production Outlook," SMMT, July 2012

THE UK HAS BECOME AN INVESTMENT DESTINATION OF CHOICE FOR OEMS

Recent investment announcements

Jaguar Land Rover have recently announced:

- JLR has created more than 5,500 new jobs since the start of 2011 including 1,500 new manufacturing posts at the Solihull plant, 2,500 at the Halewood plant to satisfy increased demand for the Land Rover Freelander and Range Rover Evoque, plus 1,500 engineers.
- A £370 million investment in its Solihull manufacturing plant to build the all new flagship Range Rover.
- Supply contracts in excess of £3billion for the new Range Rover Evoque awarded to over 40 UK-based companies.
- A £355 million investment by Jaguar Land Rover into a new facility in the Midlands to manufacture low emission engines.

Recent BMW announcements include:

- £500 million investment in new facilities and equipment at the MINI assembly plant, the engine plant in Hams Hall and the pressings plant in Swindon, alongside announcements that MINI Coupé from 2011 and MINI Roadster from 2012 will both be built in the UK.
- A further £250 million investment into plants in Oxford, Swindon and Hams Hall to support international growth of the MINI.

Honda have announced a £267 million investment to support new models and engines at its Swindon plant.

Recent Nissan announcements include:

- £420 million confirmed investment in Sunderland plant for the production of the Nissan Leaf from 2013 and for a new stand-alone facility to produce lithium-ion batteries for Renault and Nissan vehicles from 2012.
- A £192 million investment to design, engineer and build the new Qashqai in the UK; 6,000 jobs safeguarded and 43% UK sourced parts.
- The production of an all-new model, the Nissan Invitation, at its manufacturing facility in Sunderland. In addition to vehicle assembly, Sunderland will carry out axle production, cylinder head casting, camshaft machining and engine assembly, representing an overall investment of £125 million.

Toyota have announced a £100 million investment in its Burnaston manufacturing facility to produce the new generation Auris hatchback.

General Motors have announced a £125 million investment to build the new Astra at its Ellesmere Port plant, creating 700 new jobs. General Motors will also increase the local supply content for the Ellesmere Port-built Astra to at least 25%, creating further employment locally and across the UK.



THE UK HAS BECOME THE INVESTMENT DESTINATION OF CHOICE FOR OEMS

Capacity utilisation is high and growing

As a result of continued increases to capital spend in the UK, OEM production is expected to continue increasing.

UK vehicle production appears on target to recover to pre-recession levels in 2012. Figures indicate that production of both cars and commercial vehicles was up 12% over the first half of 2012, driving utilisation levels to 74%. The UK is also a major producer of engines, producing 2.5 million engines in 2011.

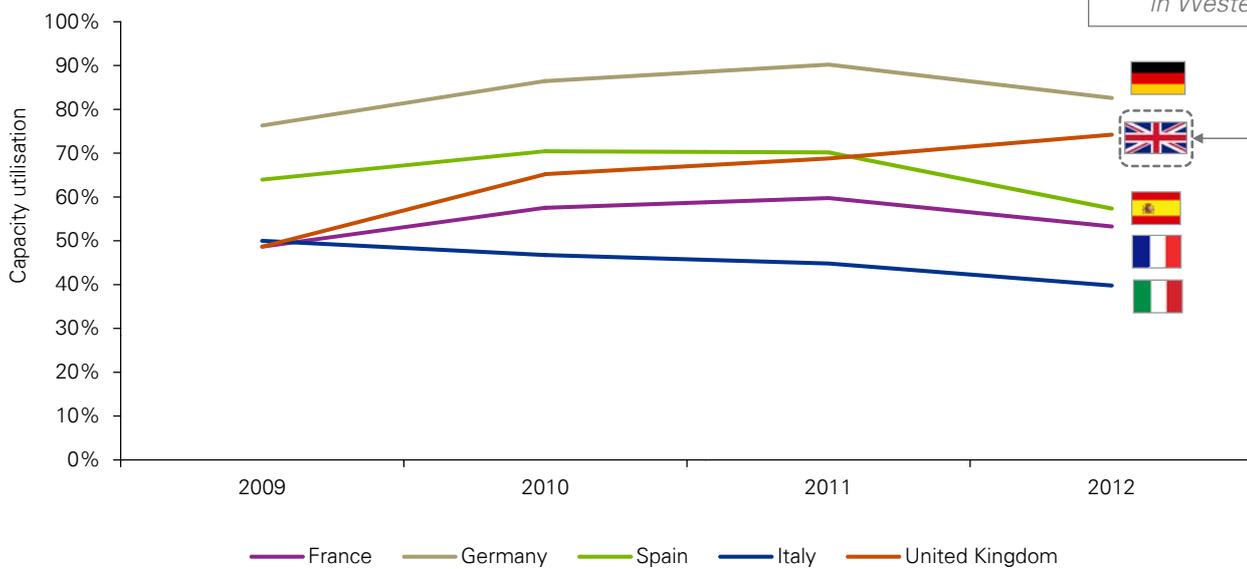
Elsewhere in Europe, the recovery in production levels has been slower with utilisation levels in France, Italy and Spain at 53%, 40% and 57% respectively during the first half of 2012.

Increases in capacity utilisation highlight the sector's competitiveness despite the challenging economic conditions and suggest that recent investment announcements are underpinned by strong fundamentals.

This has been delivered as UK plants make products desired by global markets and limits the impact of weak demand major European markets due to the ongoing economic crisis.

Taken together these factors imply a positive outlook for suppliers to the UK OEMs across the supply chain.

Figure 3. Capacity utilisation



The UK has the second highest capacity utilisation in Western Europe

Source: LMC Automotive



THE UK HAS BECOME THE INVESTMENT DESTINATION OF CHOICE FOR OEMS

The production landscape

The UK's production mix is generally stable with a strong mix of premium exports.

Premium brands, which in the UK includes Jaguar Land Rover, Rolls Royce, Bentley, Aston Martin and McLaren, have significantly outperformed the market, partly as a result of growing non-EU export markets.

The UK also has a stable base of volume car manufacturers including the production of high-growth models operating in specific market niches such as the Nissan Qashqai and the BMW Mini – these brands and models are increasing penetration both within EU and non-EU markets.

All of the key UK OEMs have committed to maintaining production in the UK reflecting the long-term stability and attractiveness of the sector. Moreover, roughly half of all cars are made by Japanese manufacturers who are actively looking to increase local content following the doubling of the Yen: Sterling exchange rate.

“Just as Bavaria is the centre of the BMW world, so the UK is, and will remain, the hub and heart of Mini”

BMW

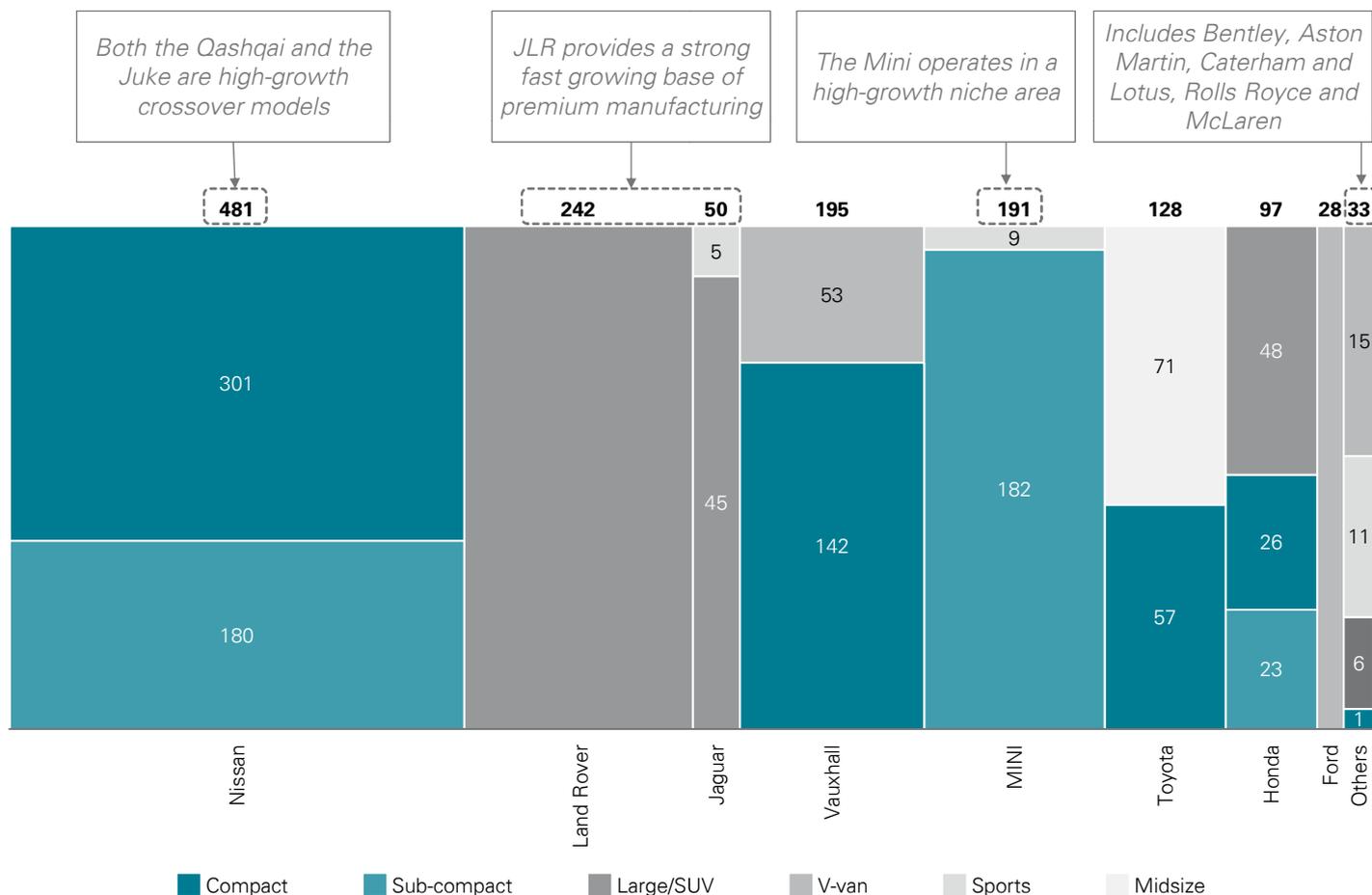
“Burnaston’s highly skilled labour force and Toyota’s strong supply base in the UK contributed to the decision to locate 100% of production here”

Didier Leroy, Toyota

“Britain is in our DNA”

Purchasing Director, Jaguar Land Rover

Figure 4. Mix of UK production, number of vehicles in thousands, 2011



Source: LMC Automotive

THE UK HAS BECOME THE INVESTMENT DESTINATION OF CHOICE FOR OEMS

Driven by its favourable production mix the UK has the highest proportion of exports to high growth non-EU markets of any European nation.

The UK exports approximately 55% of its production to non-EU countries, the highest proportion of any European nation - at an aggregate level around 83% of French, Italian and Spanish production is sold within the EU.

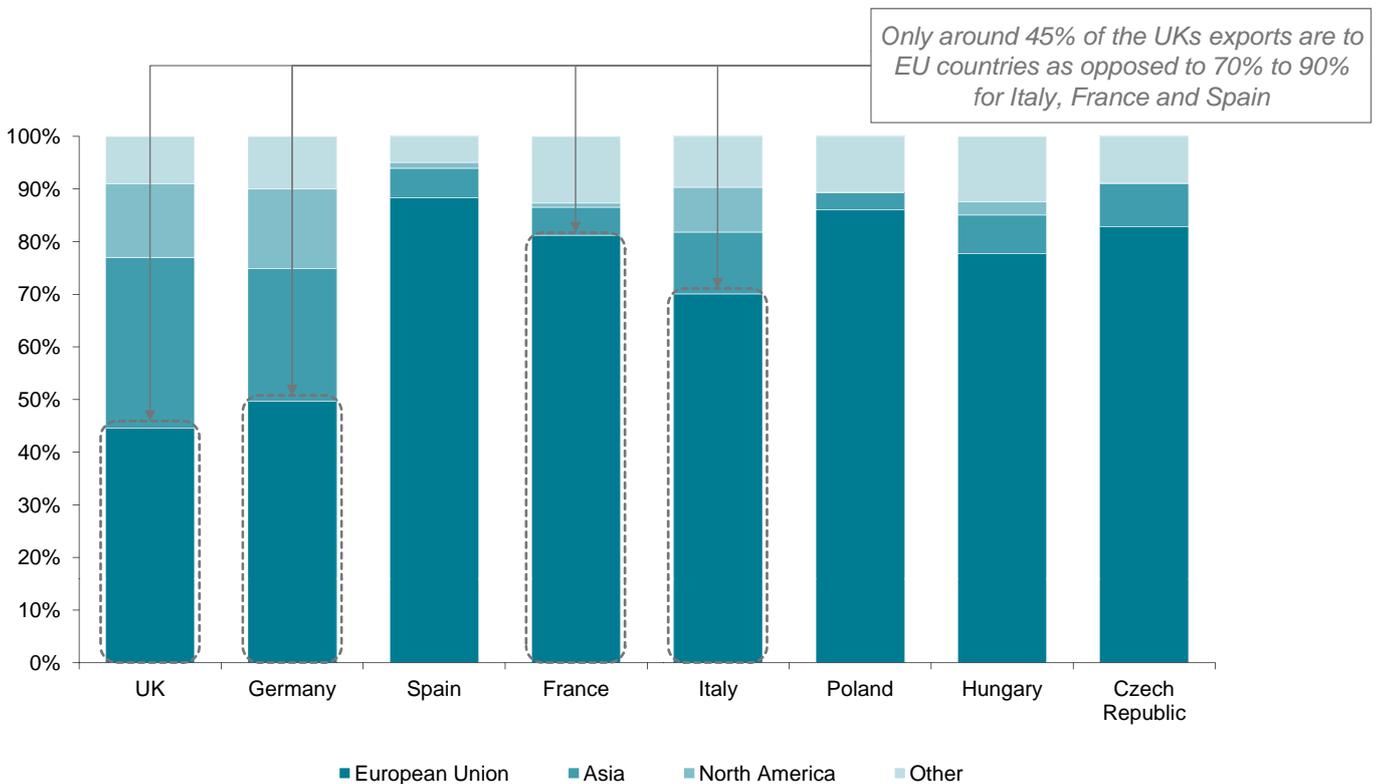
This mix provides the UK with long-term volume stability relative to other Western European countries.

Exports to outside the EU are expected to increase in the short to medium term. This largely reflects the strong demand for premium cars among the growing middle classes in developing emerging countries. In these markets, an important element of the prestige of a car can be reinforced by a manufacturing location in the UK with its reputation for quality production and performance engineering.

"I expect that the bulk of premium products currently made in the UK will remain in the UK. It would take many years to shift production to emerging market such as Russia or China and even then new markets will also be coming through... There is a real difference between producing abroad and assembling abroad"

Chief Executive, GKN

Figure 5. Final destination of exports, by value (Euros), 2011



Source: UN Comtrade data, KPMG analysis

OEM Case Studies

Case study

Jaguar Land Rover

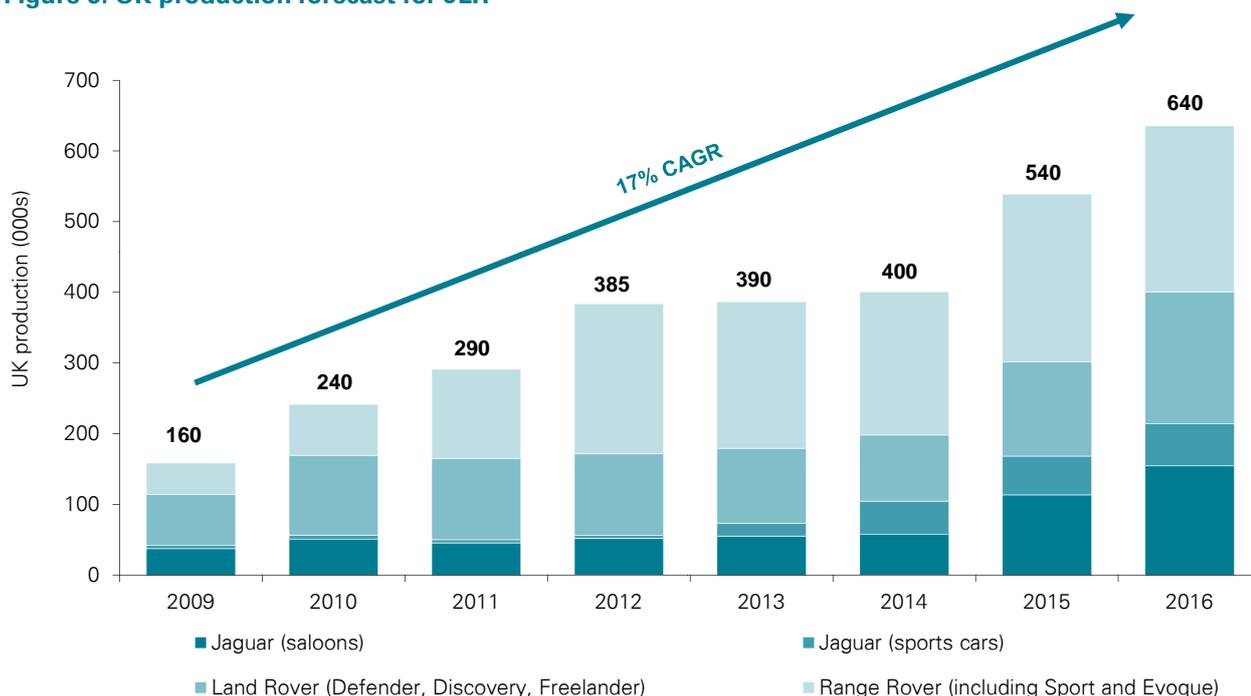
In addition to emerging market sales, JLR expect that significant incremental value will be driven by a rapidly expanding product portfolio.

In August 2011 JLR said that it will double its annual spending on product development and capital expenditure at Jaguar Land Rover to £5bn over the next five years to fund an expansion that includes a pipeline of 40 new or upgraded vehicle models.

The firm is committed to the UK and has recently announced that:

- The F-type, a new two seater sports car, will be made in the UK.
- The award winning XF will get new Sportbrake and All Wheel Drive derivatives.
- A new engine plant will be established in the West Midlands at the i54 Business Park in Staffordshire near Wolverhampton.

Figure 6. UK production forecast for JLR



Source: LMC Auto July 2012, "European Car and Light Commercial Vehicle Production Outlook," SMMT, July 2012

Note: Figure 6 data presents expectations outlined in SMMT's "European Car and Light Commercial Vehicle Production Outlook." In addition, data from LMC Auto's July 2012 report is included

Case study

Nissan

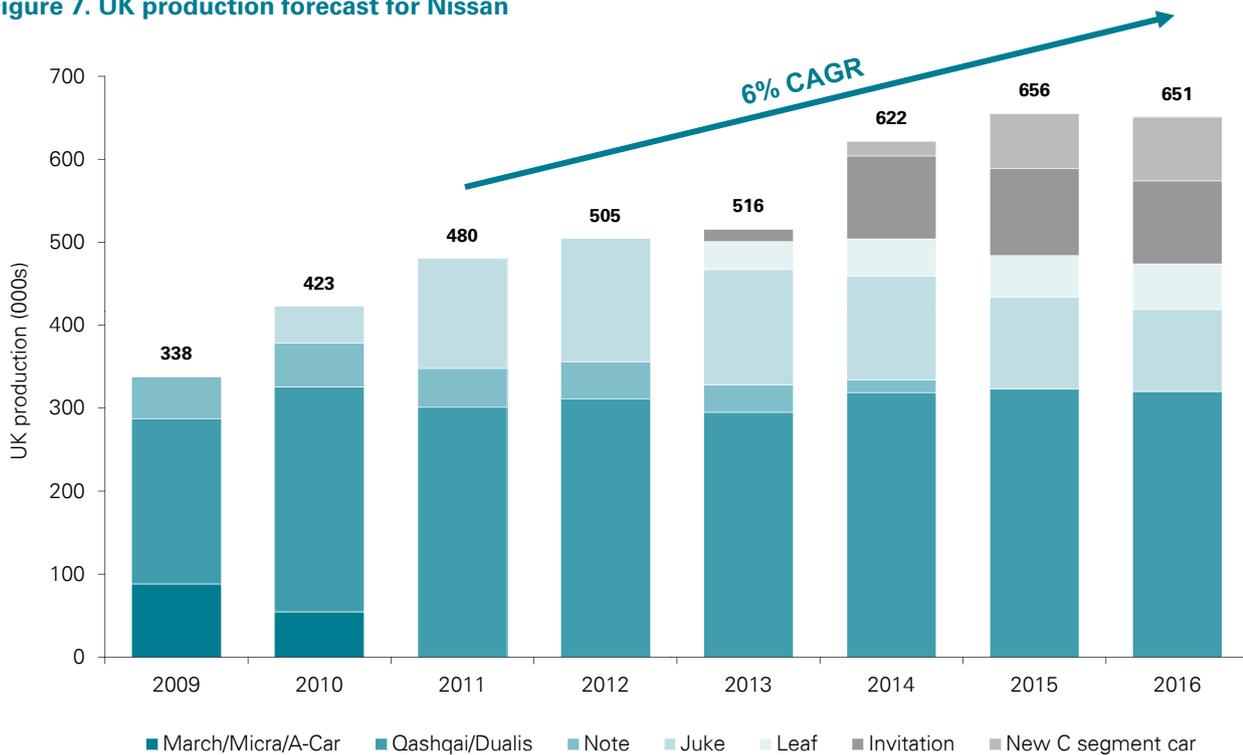
Both the Qashqai and the Juke have been groundbreaking in terms of their position in the market as Compact SUV crossovers: 1,200 Qashqais are produced every day and total sales have surpassed the one million mark, a record for a car manufactured in the UK.

Recent announcements by Nissan relating to UK production include:

- A £420 million investment has been announced to produce the new electric Leaf model in Sunderland, as well as to make lithium-ion batteries for both Renault and Nissan.

- Sunderland also won a recent bid against an Indian plant for a £125 million investment to manufacture a new 'C' segment car.
- Nissan announced in April 2012 that the Sunderland plant would be shifting to 24 hour production creating another 225 jobs.

Figure 7. UK production forecast for Nissan



Source: "European Car and Light Commercial Vehicle Production Outlook," SMMT, July 2012

OEM CASE STUDIES

Case study

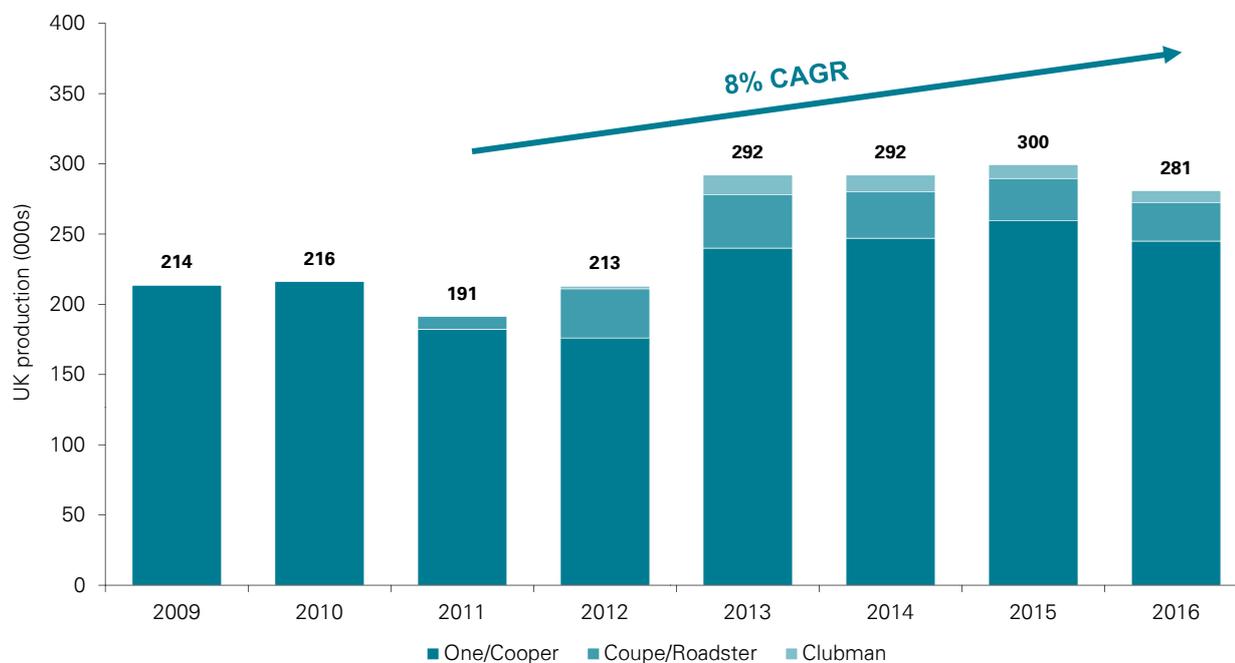
BMW Mini

UK Mini production is forecast to increase significantly between 2011 and 2013, driven by growth in the Coupe/Roadster which launched in 2011 and also the introduction of the new 3rd generation MINI Cooper.

Recent announcements that highlight BMW's commitment to the UK include:

- In July 2011 BMW announced that it will spend £500 million redeveloping its three British facilities.
- It was also announced in July 2012 that a £250 further million investment will be made into manufacturing operations.

Figure 8. UK production forecast for MINI



Source: European Car and Light Commercial Vehicle Production Outlook, SMMT, July 2012

MAJOR SUPPLY CHAIN OPPORTUNITIES EXIST

Introduction

Approximately £3 billion of opportunities for Tier One suppliers have been identified by the Automotive Council (see page 12) in collaboration with key OEMs in the UK.

Working alongside the purchasing departments of the key OEMs the Automotive Council has developed a list of unfulfilled opportunities worth approximately £3 billion (more details are provided on page 13) valued at 2011 levels of spend.

Further opportunity is likely to be driven by planned OEM CAPEX investment programmes and expected increases in production.

Currently around £11 billion is spent with Tier One manufacturers from the UK out of a total OEM spend of £31 billion. Considering the current positive outlook, the aggregate total of UK supplier opportunities could reach approximately £21.5 billion given the production outlook to 2016.

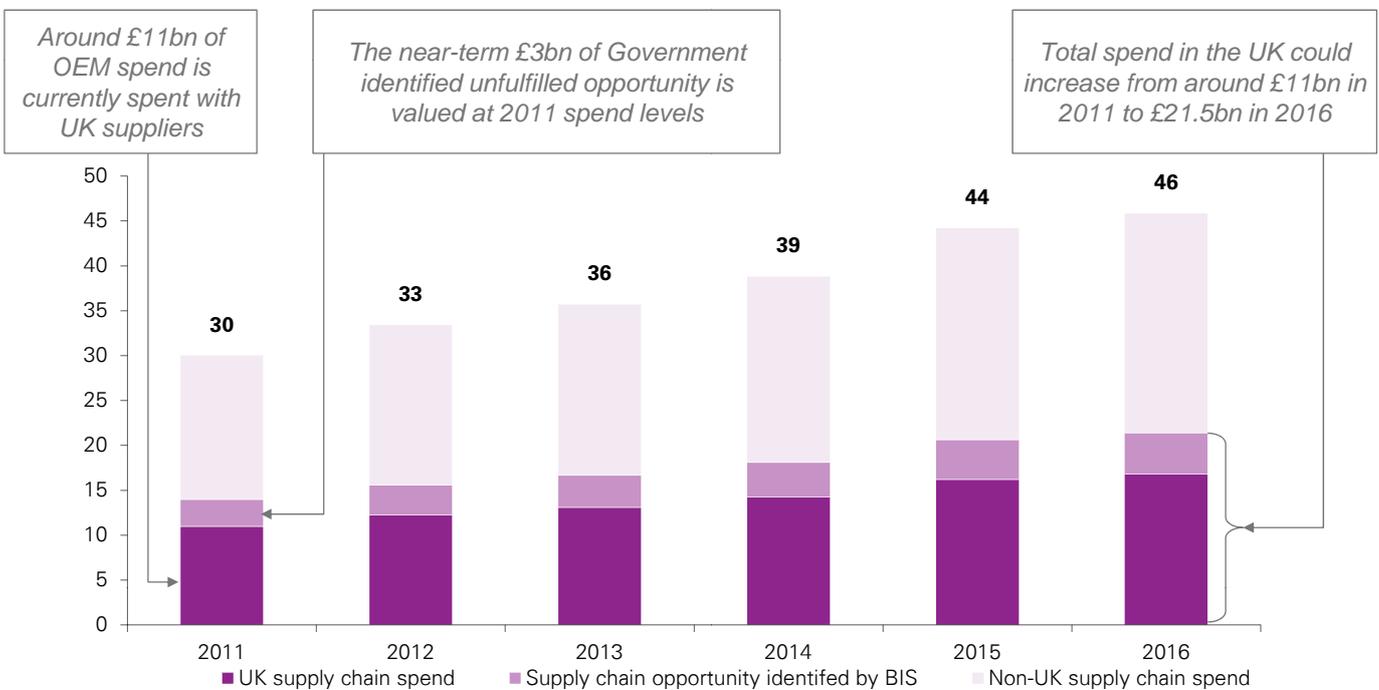
“One of the UK’s greatest advantages is that OEM volumes are growing”

Chief Executive, GKN

“Make no mistake – there is a window of opportunity here ... there appears to be a market demand to buy British. But that will only be satisfied if components are available from local suppliers”

Professor David Bailey

Figure 9. Forecast increase in UK OEM market opportunity, 2011 to 2016



Note: 2011 UK and non-UK supplier data has been developed by grossing up BIS survey results (respondents accounted for approximately £23.6 billion of supply chain spend) to reflect aggregate industry spend as reported by ONS (of approximately £31 billion).

Source: KPMG analysis.

2011 spend increased in-line with production forecasts

MAJOR SUPPLY CHAIN OPPORTUNITIES EXIST

OEM domestic sourcing requirements

OEMs have expressed a strong desire to source more bulky, highly engineered products from the UK in cases where there is sufficient scale demand.

The key characteristics of supply chain opportunities in the UK, evidenced by both the data collected in previous studies, and interviews conducted by KPMG, are well understood.

Where products are bulky, and therefore expensive to transport, there is a clear benefit for the supplier to be located close to the OEM's production facility. Examples of these products provided by interviewees include alloy wheels and engine components.

Products that OEMs would like to source from the UK typically require low levels of labour intensity with highly streamlined production.

Furthermore, as the production levels increase there are likely to be more opportunities for suppliers to enter the UK market. For example, all interviewees agree that the UK now has significant scale for all engine components to be sourced from the UK.

UK suppliers suggest that quality, delivery reliability and responsiveness are key drivers of demand for their services. This view corresponds with the current emphasis of OEMs on limiting supply chain risk.

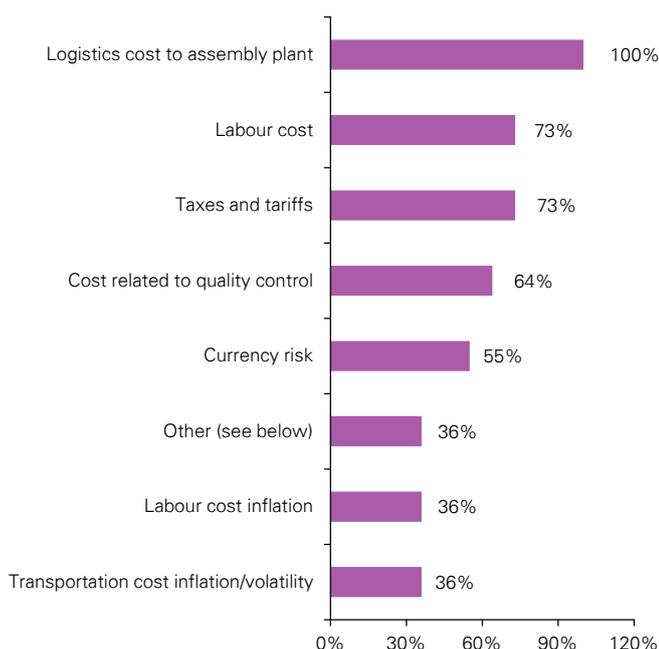
“Not being able to source in the UK adds incremental logistics costs, which can add up to 10% onto the component cost”

Purchasing Director, Jaguar Land Rover

“Sourcing more parts locally in the UK is a very recent trend ... higher transport costs make local sourcing a more competitive option”

Professor David Bailey

Figure 10. Reasons provided for OEMs sourcing in the UK



Source: "Growing the Automotive Supply Chain: The Road Forward," May 2011, Automotive Council

Figure 11. UK suppliers description of their competitive advantage



Source: "Growing the Automotive Supply Chain: The Road Forward," May 2011, Automotive Council

MAJOR SUPPLY CHAIN OPPORTUNITIES EXIST

Future supplier numbers

The Automotive Council, established in 2009, and with an active senior membership resourced from across Government and Industry, provides support to the UK sector primarily through two working groups – the Technology Group and the Supply Chain group.

The Supply Chain group provides a structured approach towards automotive supply chain development and was considered by KPMG interviewees to be at the forefront of European automotive supply chain development.

“We are big believers in the Automotive Council, the work they do to enhance regional opportunities is superb”

General Manager, Transportation, Southco

Key activities include:

- Identifying opportunities in the UK supply chain through collaboration with OEM purchasing teams.
- Working with UKTI and SMMT to facilitate introductions between buyers and sellers, partly through bespoke conferences such as SMMT’s Meet the Buyer events.
- Through acting as an aggregator and consolidator of supply chain needs in the UK, the Automotive Council, alongside SMMT, can act as a funnel to shape the competitive dynamics of the Tier One sector.

Supplier numbers are expected to increase in line with investment, production and the work of the Automotive Council reversing a downwards trend observed since 2005.

Although supplier numbers began declining in 2005, the most significant decreases have been since the start of the recession in 2008.

Much of this decrease relates to companies producing lower margin/limited speciality products moving to Eastern Europe, although recent data shows that this trend has now slowed down.

Whilst other Western European nations historically accounted for approximately 30% of lost supply, this percentage is now falling.

“The Automotive Council Supply Chain Group is helping to move things in the right direction”

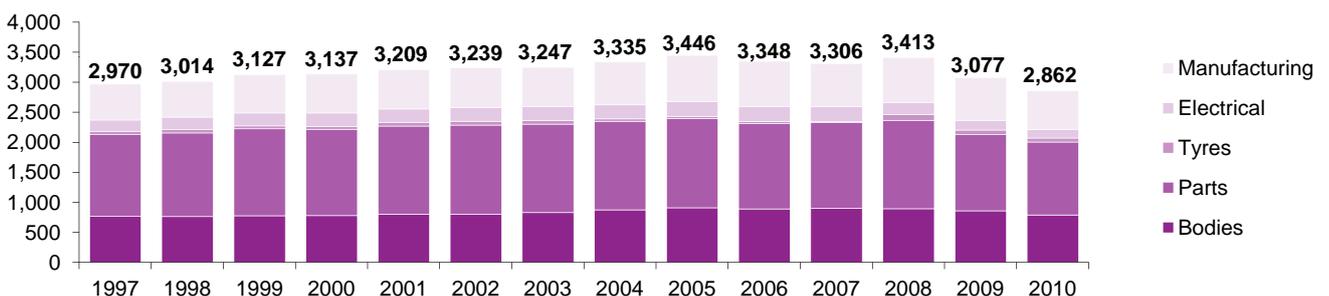
Chief Executive, GKN

- Suppliers previously believed that other OEM production bases offered greater levels of stability – given recent announcements the UK now appears to offer relatively greater levels of stability.
- Outside the UK OEMs typically concentrate volumes with a smaller number of suppliers, although the supply chain work of the Automotive Council in the UK is narrowing this advantage.

“We may be at the end of the migration of suppliers out of the UK”

Vice President, Purchasing, Toyota

Figure 12. Number of firms operating within the UK’s automotive supply chain, 1997 to 2010



Source: Office for National Statistics

MAJOR SUPPLY CHAIN OPPORTUNITIES EXIST

£3 billion of identified opportunities

The Automotive Council, following discussions with the UK OEMs, has identified £3 billion of specific and urgent unfulfilled opportunities.

These have been identified by the purchasing teams at each OEM with full consideration of current service provision and expected future demand.

Interviewees broadly agree with the aggregate outputs of the Automotive Council’s analysis.

Through interviews KPMG has confirmed that a broad consensus supports the outputs of the Automotive Council’s analysis.

There are a number of areas of largely unanimous demand for increases in supply – such as engine components and alloy wheels.

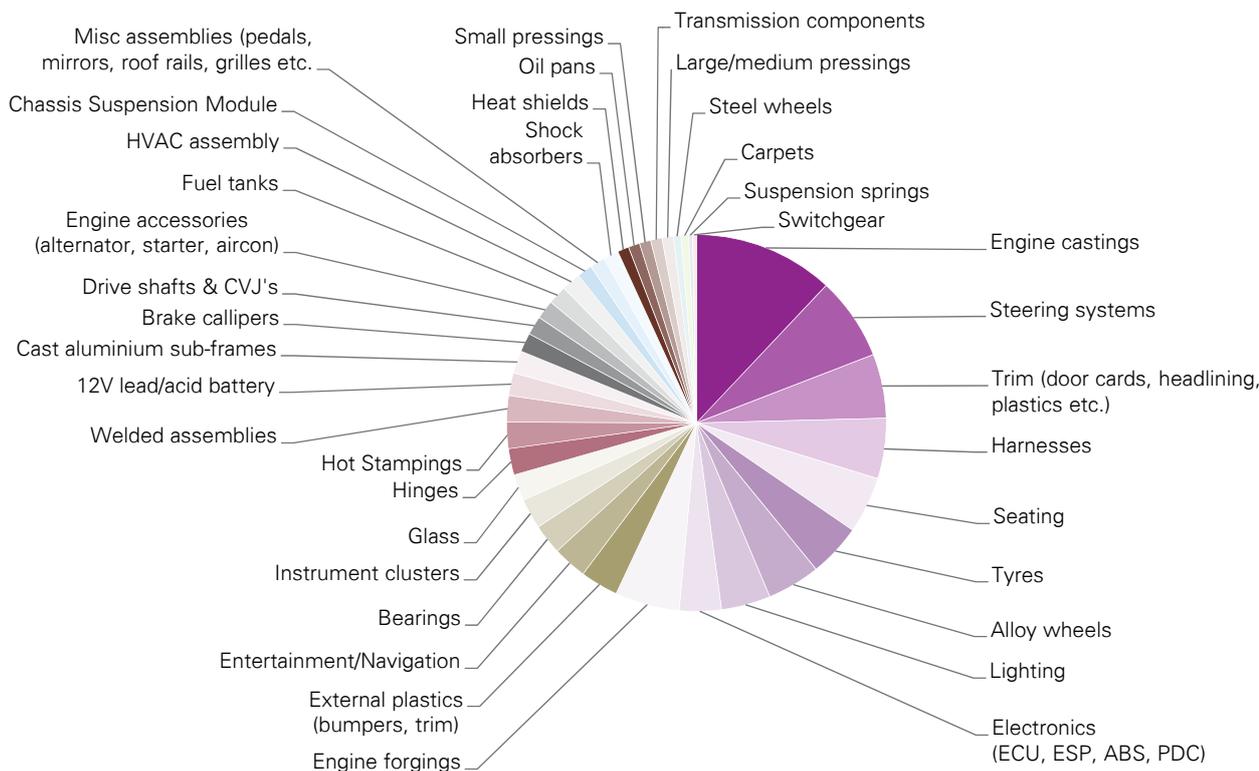
“The UK has the required scale for many engine components to be sourced in the UK...alloy wheels also offer an obvious area of opportunity”

Vice President, Purchasing, Toyota

“We anticipate a significant volume uplift for engine parts and systems”

General Manager, International Tier One supplier

Figure 13. £3 billion of UK opportunities identified by UK OEM purchasing departments



Source: "Growing the UK automotive supply chain: the road forward – 2012," BIS, August 2012

“There are some components that should absolutely be sourced from the UK... For example engine parts and alloy wheels”

Purchasing Director, Jaguar Land Rover

“We are paying a premium to ship engine components from abroad – we would love this to be available in the UK”

Purchasing Director, Jaguar Land Rover

WHY IS THE UK AN INCREASINGLY ATTRACTIVE MARKET?

Introduction

In addition to proximity to customers, interviews have revealed four key factors influencing European automotive sourcing and location decisions.

These areas are represented schematically below:

Economic environment

- A stable, supportive economic environment

Labour costs, productivity and flexibility

- A cost effective, productive labour force able to flex in line with market demand.

Skills base

- A depth of skilled experience from which to draw resource.

R&D capabilities and support

- The support and capabilities with which to undertake R&D spend.
- A focus on low-carbon.

Over the next few pages the UK's attractiveness against the identified market criteria below is considered.

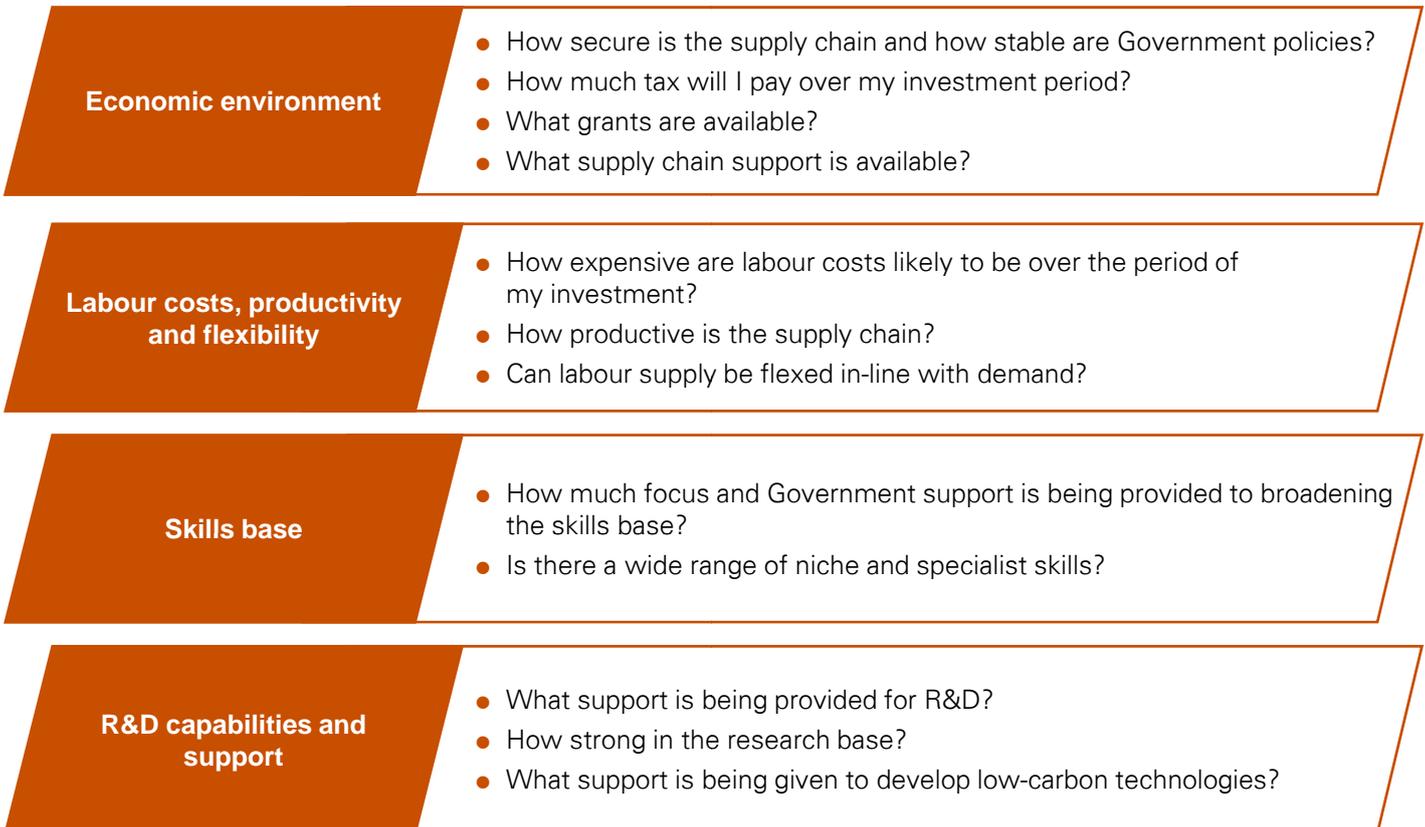
Although interviewees agree that a mix of factors is driving investment into the UK, there is a consensus view that comparative economic and political stability presents clear benefits to respondents.

A number of OEMs and suppliers also mentioned that the UK has historically had challenges in terms of the availability of some key skills, however they felt there was recent evidence of progress in this area and a focus on this area by the UK Government and across all mainstream political parties.

"The simple fact is more and more OEM's are seeing the UK as a place to do business"
Purchasing Manager, General Motors

"Pro-active Government support in the UK should help to increase supplier numbers"
Chief Executive, GKN

Figure 14. Overview of manufacturer key considerations when assessing market attractiveness



WHY IS THE UK AN INCREASINGLY ATTRACTIVE MARKET?

Economic environment

OEMs are increasingly concerned about risks attached to mainland Europe; but are attracted by the long-term stability of the UK.

Interviewees state that economic stability is one of the primary factors driving investment into the UK. In particular, the UK's recent track record of responding to macroeconomic change sets it apart from many other European nations.

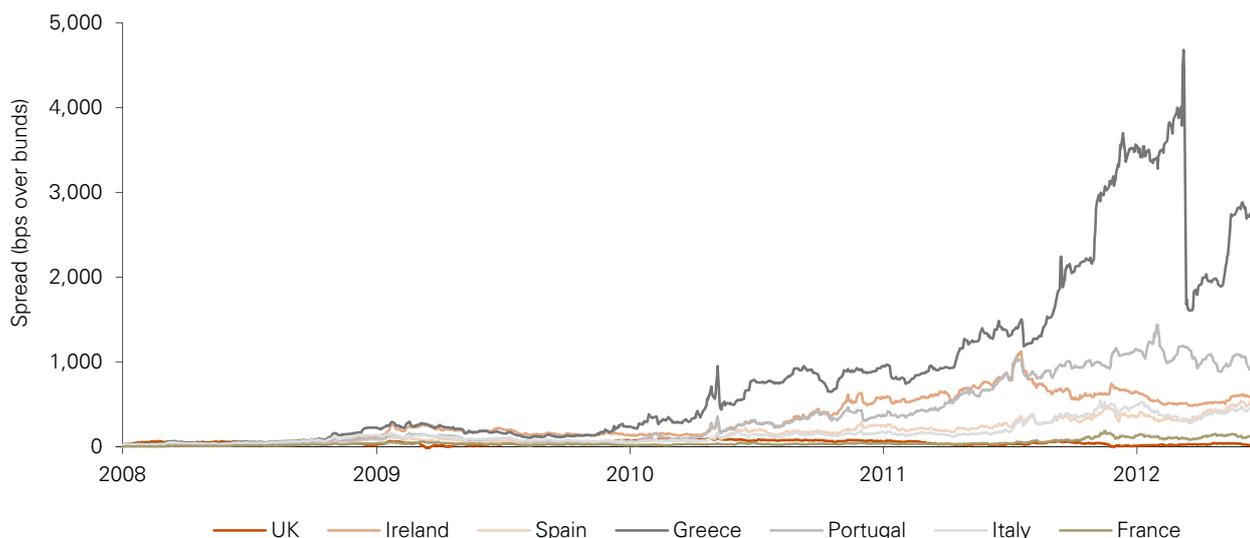
"The resilience issue has had particular resonance in the wake of the Japanese earthquake and tsunami. Toyota fared worse than Nissan, which had shifted more production from Japan nearer to end markets... ..Toyota has shifted more production to Europe, and in so doing has favoured the UK."

Professor David Bailey

OEMs and Tier Ones have also highlighted the wider uncertainty of the Eurozone as a major concern, including challenges around predicting downside scenarios of a currency break-up and resultant social impact. The comparative stability of the UK is also reflected by considerations raised by interviewees including:

- Lack of economic dependency on neighbours.
- Increased ability to predict taxes and tariffs.
- Limited risk of natural disasters.
- Comparatively low level of unionised workforce.
- Low risk of port blockages/wider supply chain disruptions due to industrial action.

Figure 15. 10 year bond yields, July 2012



Source: "European Car and Light Commercial Vehicle Production Outlook," SMMT, July 2012

WHY IS THE UK AN INCREASINGLY ATTRACTIVE MARKET?

The UK may further benefit from projected exchange rate movements

Consensus forecasts point to a continued appreciation of a number of Asian currencies relative to Sterling, particularly the Japanese Yen and the Korean Won. For example, since 2008 the Yen has doubled relative to Sterling and the Euro.

"Yen appreciation is probably the key driver of our suppliers' production location strategy"

Vice President, Purchasing, Toyota

Interviewees agree that the appreciation of the Yen and the Won will continue driving investment into the EU as Asian OEMs do not have the flexibility to contract with suppliers in European or North American denominated currencies.

"The relative weakness of Sterling in recent years to a basket of major trading currencies promotes further investment opportunities."

General Manager, Purchasing, Nissan

Furthermore, it is considered unlikely that a significant depreciation of the Euro would present a material risk to the UK's supply chain

UK OEMs and Tier One suppliers are typically able to insulate themselves from currency fluctuations:

- OEMs match Sterling revenues and expenses through paying UK staff out of domestic revenues and contracting with Tier One suppliers in Euros as required.
- Tier One suppliers are also able to contract with both domestic and European/International suppliers in Euros as required.
- Smaller UK suppliers, to the extent to which they contract in the UK, typically absorb greater proportions of currency fluctuations than OEMs and larger suppliers.

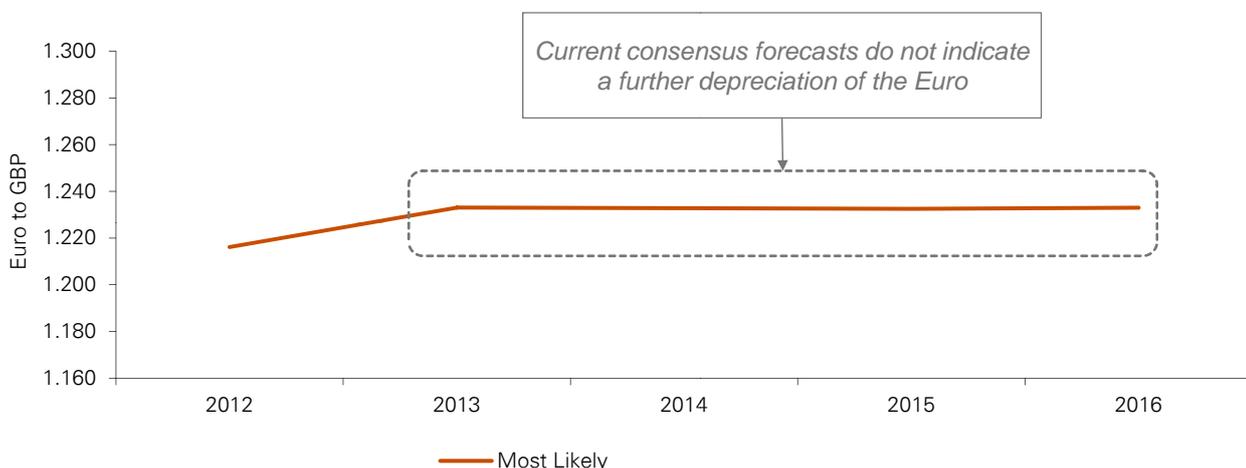
"We are actually overexposed in Euros, which is another incentive to source more in the UK – we just can't find the supply"

Purchasing Director, Jaguar Land Rover

"We incur Euro expenses so if our customer want to buy in Euros that's fine, we are naturally hedging the risk"

Chief Executive, GKN

Figure 16. Sterling versus Euro consensus forecasts



Source: "Consensus Forecasts and Analysis for Currencies, Interest Rates and Economic Indicators Worldwide" FX4casts, July 2012

WHY IS THE UK AN INCREASINGLY ATTRACTIVE MARKET?

Economic forecasts show an increase in corporation taxes in many Western Europe countries to 2015, while the UK's rates are projected to fall over the same period.

The UK has the lowest corporation tax rate of the major Western European economies, and this has been the case for the majority of the last ten years. In addition, rates have fallen from 28% in 2009 to 24% in 2012 at a time where other European countries have held rates steady.

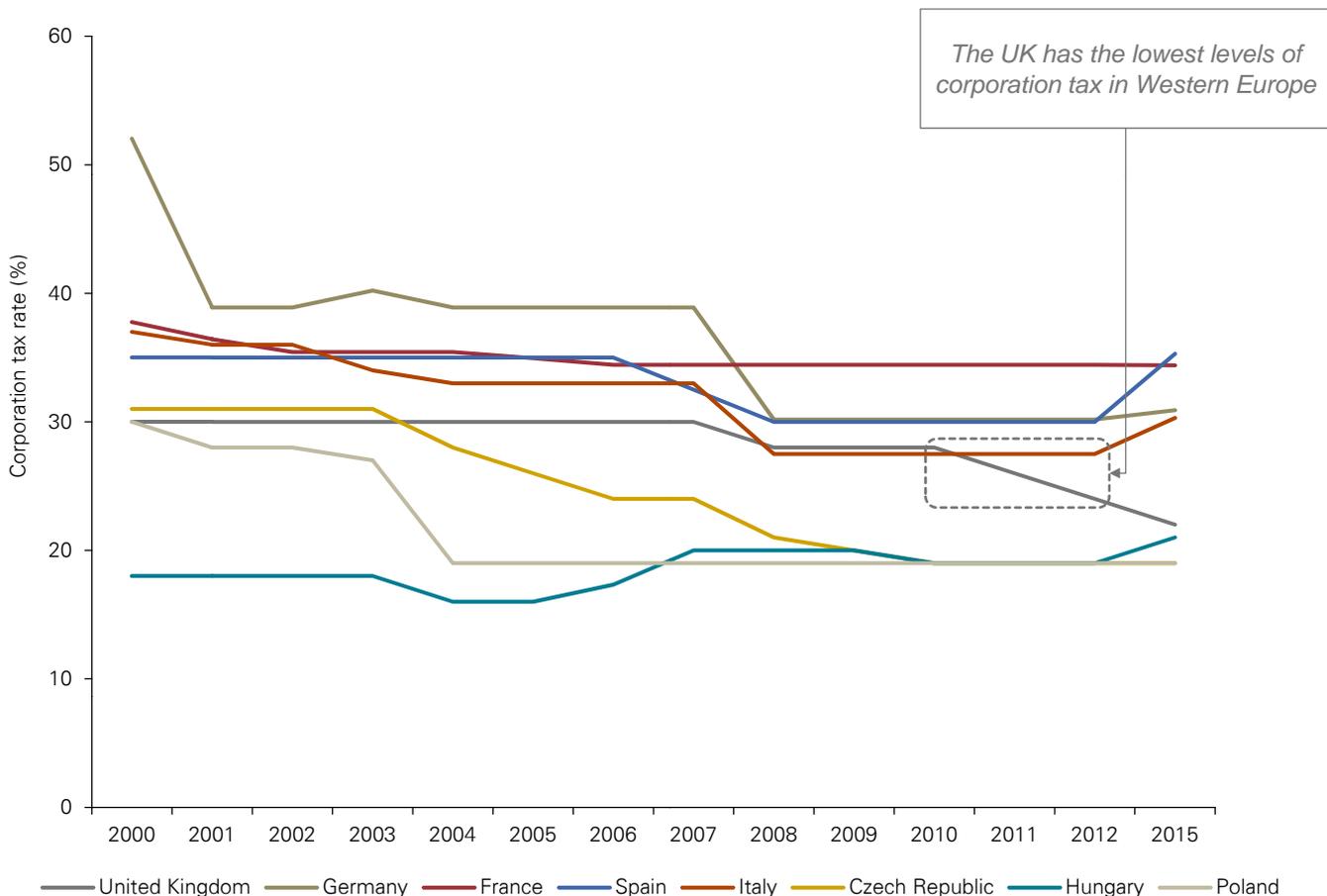
The Oxford University Centre for Business Taxation's review of announced and prospective policies expects a further drop in the rate of corporation tax in the UK but significant increases in France and Italy.

This view is supported further by KPMG's 2012 Competitive Alternatives report where the effective tax rate for a typical automotive component supplier in the UK was 18.4% versus France (24.4%), Germany (29.8%), Italy (34.9%) and the Netherlands (20.5%).

"Corporation Tax considerations form a key part of any investment formula – the impact of further decreases will be significant"
General Manager, Transportation, Southco

"Falling Corporation Tax levels are of significant importance"
Chief Executive, GKN

Figure 17. Corporation tax rates (%), 2000 to 2012



Source: Oxford University Centre for Business Taxation 2012, OECD

WHY IS THE UK AN INCREASINGLY ATTRACTIVE MARKET?

Grants are available to automotive suppliers through the Regional Growth Fund (RGF) grants and the Advanced Manufacturing Supply Chain Initiative.

Regional Growth Fund grants have been used in the UK to support various elements of the supply chain. For example, in the first half of 2012, Nissan received a £9.3 million grant to be invested in the company's Sunderland plant to enable the manufacture of the new 'Invitation' model.

The RGF has also provided significant levels of support for a number of component suppliers.

In addition, the new Advanced Manufacturing Supply Chain Initiative (AMSCI) is a £125 million supply chain grant and loan fund, targeted at sectors such as aerospace, automotive and chemicals and can be used for capital equipment, associated R&D activity and training/skills development.



"It now feels like the Government understands what the industry needs"

Chief Executive, GKN

"Global vehicle manufacturers are beating a path to the UK's door. They recognise that the Government values the automotive sector"

Vince Cable MP, Business Secretary

"The AMSCI scheme aims to build on an earlier, auto-focused Regional Growth Fund"

Professor David Bailey

"For years it felt as if nobody was listening, that has all changed, now they are clearly committed to this"

Finance Manager, MAGNA Engineering

WHY IS THE UK AN INCREASINGLY ATTRACTIVE MARKET?

Labour costs, productivity and labour flexibility

The UK has automotive labour costs significantly below those of Germany and France and at comparative levels to Italy.

The UK has the lowest labour cost per hour (€23.20) of any Western European nation. This is significantly lower than in Germany (€45.66) and France (€44.73) and is at a comparative level to Italy (€28.17).

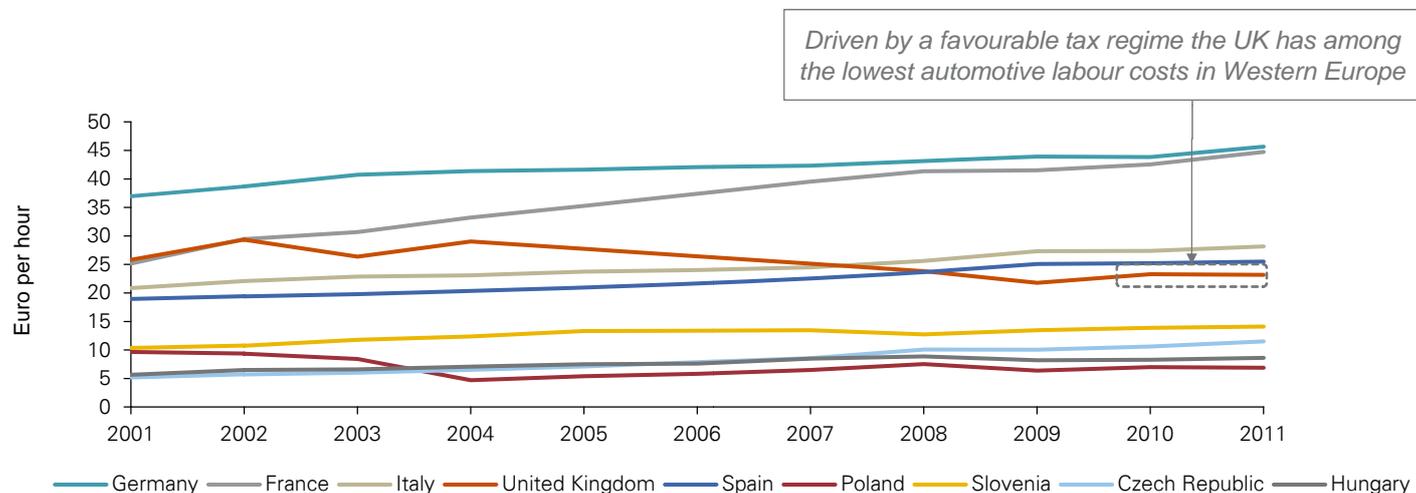
This is supported further by KPMG’s 2012 Competitive Alternatives report where average labour costs for a typical automotive component supplier in the UK were £6.1 million versus France (£7.2 million), Germany (£8.4 million), Italy (£6.5 million) and the Netherlands (£7.2 million).

The UK also offers significant stability in terms of wage inflation. After accounting for Euro/Sterling exchange rate volatility historical wage inflation is at some of the lowest levels in Western Europe at 2%. France has the highest levels of inflation in Western Europe at 6%.

Eastern European wages have also been increasing significantly – the Czech Republic has been increasing at an average of 8% per annum and Romania at 10% since 2001.

Finally OEMs interviewed are now increasingly using dynamic (as opposed to static) cost modelling when considering capital deployment decisions, meaning that investment analysis takes account of both current and expected costs - this will in turn decrease the apparent cost advantage currently held by some of the Eastern European nations.

Figure 18. Euro per hour labour cost, automotive sector



Source: "The economic situation of the automotive industry 2011" VDA

WHY IS THE UK AN INCREASINGLY ATTRACTIVE MARKET?

Eurostat figures suggest that the UK is second only to Germany in terms of European productivity levels.

In 2000, the UK had the joint-third highest productivity levels in Europe (measured as gross value added per employee cost). However, latest figures indicate that the UK is now significantly more productive than France, Italy and Spain, and has the second highest productivity in Europe (Figure 20). It is worth noting that the impact of currency volatility on this analysis was relatively limited between 1999 (€1.52 to the £) and 2007 (€1.46 to the £).

A number of mainland European countries have high levels of overcapacity and plant closures are considered likely by many industry observers.

Subsequent to the publication of the latest available productivity estimates (Figure 20) there have been large increases in overcapacity across a number of mainland European countries.

The UK's capacity utilisation is currently around 74% compared to France, Spain and Italy at 53%, 57% and 40% respectively and this trend will reinforce the positive trend experienced in the UK.

High levels of overcapacity in continental Europe may suggest significant capacity decreases in the coming months and years, as current levels of European governments support may not be sustainable in the long term. This view appears to be supported by recent announcements from PSA and Fiat.

By contrast, a series of recent landmark labour agreements demonstrate that the UK has developed an innovative and flexible labour force, further supporting productivity gains.

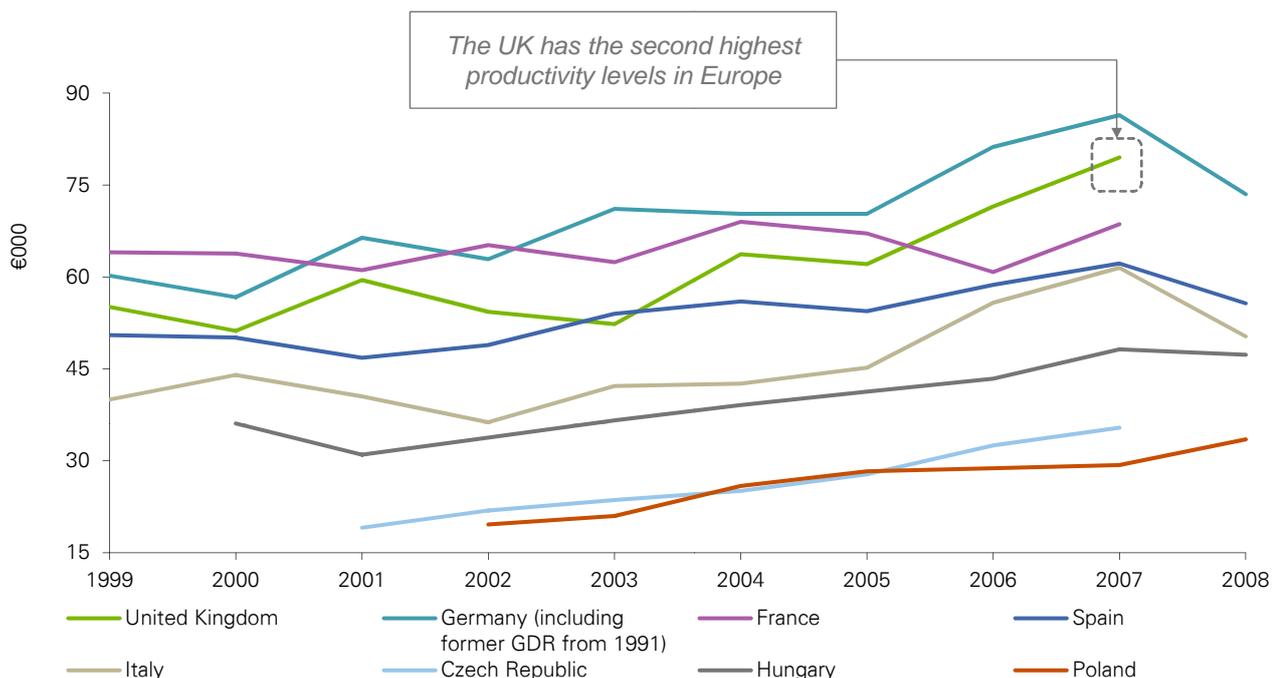
Automotive employers in the UK are increasingly able to use temporary workers, agency staff, staff on fixed term contracts, flexible working hours, 'down-days' and 'time-banking'.

Flexible labour forces enable employers to better respond to changes in demand, and therefore increase the long-term viability of any given investment.

"Labour flexibility in the UK represents a huge advantage"

Chief Executive, GKN

Figure 19. Automotive labour productivity, gross value add per employee, 1999 to 2008



Source: Eurostat

WHY IS THE UK AN INCREASINGLY ATTRACTIVE MARKET?

Case study

Vauxhall Astra labour agreement

Vauxhall recently confirmed that production of its next-generation Astra compact car will be built at Ellesmere Port following the conclusion of a 'ground-breaking' new labour agreement, whereby the plant will implement a number of creative operating solutions to improve flexibility and reduce fixed costs to significantly improve its competitiveness.

The agreement takes effect in 2013 and will apply for the lifetime of the next-generation Astra, into the early 2020s. The key provisions of the deal are:

- A four-year pay deal starting in 2013, under which wages will be frozen for the first two years, and then increase by RPI plus 1% in each of the next two years. To compensate for this freeze the pay premium for shift working will be increased by around a third.
- New recruits will receive 70% of normal basic pay, rising in stages to the full rate over five years. Pension arrangements will also differ for new recruits.
- A flexible working week will be introduced, with increased hours at time of high demand and reduced hours during slacker periods. 'Down days' will be used during quiet periods which will allow the employees to stay at home and receive full pay. The hours for that day will be banked and the employees will be required to work back the hours when there is a higher demand in production.
- The plant will operate for 51 weeks a year, with the current summer shutdown abolished. This will allow employees to take holidays when they want to, rather than during the summer shut down.
- A new 'advanced' operator grade will be introduced with an increased maintenance role, while maintenance staff will work more flexibly.

Case study

Jaguar Land Rover flexible labour agreements

JLR planned to close its Castle Bromwich plant in Birmingham in 2010 after sustaining significant losses during the financial crisis.

In order to help avoid a plant closure and establish the right environment to allow reinvestment in its UK plants JLR's assembly plant workers have agreed to increased levels of flexibility in their working arrangements, for example, to take on new hires as temporary workers, moving to fixed-term contracts after a year and full-time jobs after two.

Employees also agreed to move between JLR's Midlands plants when necessary to reflect fluctuating demand for the different vehicles they make.

Later in that year JLR returned to profit and Castle Bromwich recently announced it was to hire 1,100 extra staff.

WHY IS THE UK AN INCREASINGLY ATTRACTIVE MARKET?

Skills base

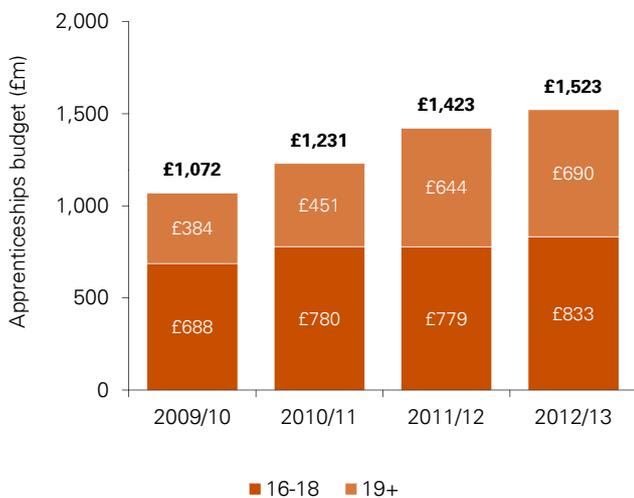
Despite historical limitations, the UK Government has taken practical measures to increase the number of engineering graduates and apprenticeships across the value chain.

The number of degree level engineering students graduating increased to 23,907 in 2011, up from 20,631 in 2007. This increase has been achieved despite increases to tuition fees and the challenging economic environment. This trend is reinforced by the fact that the starting salary of an Engineering and Technology graduate is over 10% greater than the average starting salary of £24,953.

Apprenticeship targets were exceeded in the first financial year of the current Parliament.

In total, the number of apprentices increased by approximately one-third between 2010-2011 and 2011-2012.

Figure 20. Actual government spend and 2012/2013 budget for apprenticeships (£m)



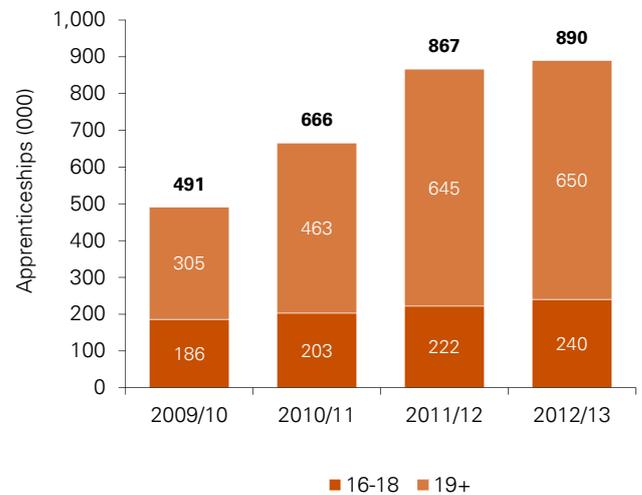
Source: BIS, DoE

A range of related policies have also been introduced to increase standards and participation including minimum standards for apprenticeship quality and loans to those who are over 24 (effective from 2013).

Automotive OEM apprenticeships specifically appear to have been growing over the last year. Examples include:

- Jaguar Land Rover is creating 1,200 new apprenticeship places and has received over 20,000 applications for those places.
- Rolls-Royce is developing a new apprentice academy which will allow a further 200 apprentices to train for work in its supply chain and manufacturing.
- BMW are adding a further 70 apprenticeships at their MINI production sites.

Figure 21. Actual number of government funded apprentices by age group



Source: BIS, DoE



"An increasing focus on manufacturing is an excellent move... the UK has seen the error of its ways and is moving back in the right direction"

Chief Executive, GKN

"The engineering expertise in the UK is second to none in Europe... its three or four times harder to recruit in Germany"

General Manager, Transportation, Southco

WHY IS THE UK AN INCREASINGLY ATTRACTIVE MARKET?

The UK's "Motorsport Valley" is widely regarded as the strongest Motor Sports sector in Europe, and attracts the best graduates from around the world.

In addition to professional racing teams including eight out of the twelve F1 teams and specialist race car manufacturers such as Radical, the UK is home to OEMs serving both the Motorsport and passenger markets such as Aston Martin, Caterham, Lotus and Morgan.

The UK's 3,500 Motorsport engineering companies typically invest around 30% of revenues in R&D and compete to attract the best high-performance engineering and Motorsport focussed graduates from around the world.

"The UK attracts the best graduates from around the world... If you want to work in Motorsport, you want to work in Motorsport Valley UK ... We have the largest concentration of high-performance motor sport companies in the world"

Chief Executive, Motorsport Industry Association

The Motorsport supply chain offers a variety of specialist skills and is able to provide expert support to the development of high-efficiency components.

As experts in short-run manufacturing, prototyping and high efficiency technologies, a large number of Motorsport suppliers are providing OEMs with the skills and services to move towards a low-carbon landscape.

"... a unique world-class community of knowledge... the jewel in the crown of British engineering"

Professor Porter, Harvard University

"Motorsport has always been premised upon the development of short-run, prototype, high-efficiency solutions... now there is scale demand for this expertise"

Chief Executive, Motorsport Industry Association

Case study XTRAC transmissions

- Established in 1984, XTRAC is recognised as a worldwide leader in the design and manufacture of transmission systems supporting "virtually all" of the world's top Motorsport teams.
- Xtrac now supports passenger OEMs in the development of high-performance, lightweight systems for use in hybrid or electric vehicles and has supported the development of the Jaguar XJ e, Infiniti's EMERG-E, Lotus's Evora 414E and the Rolls-Royce 102EX.
- Xtrac recently released a "seamless gearchange" known as Instantaneous Gearchange System for the automotive sectors which avoids the cost, mass and complexity of a dual clutch transmission (DCT).

Case study Kinetic energy recovery systems

- Kinetic energy recovery systems (KERS) store and re-use the kinetic energy that is present in the waste heat created by braking.
- The KERS systems first used in F1 in 2008 were developed by British companies such as ZYTEK, Flybrid and Torotrak.
- Flybrid Systems are currently working with a number of passenger OEMs to develop hybrid systems for road cars, in addition to offering hybrid bus and truck systems.
- Williams Hybrid offer KERS systems for use in hybrid passenger cars, construction vehicles, buses, trams and trains, notably the Jaguar CX-75.

WHY IS THE UK AN INCREASINGLY ATTRACTIVE MARKET?

Research and Development (R&D) capabilities and support

Interviewees agree that ongoing commitment by the UK Government is supporting the development of R&D capabilities.

Interviewees have stated that UK Government commitment to the development of automotive R&D capabilities will not only support future increases in spend, but also increase the impact of this spend.

“Vince Cable (The Secretary of State for Business, Innovation and Skills) and his team are listening... they get it”
Purchasing Director, Jaguar Land Rover

R&D expertise is provided by UK’s University base which is considered to include the best establishments in Europe .

The consensus amongst interviewees was that the UK’s universities are second only to the US globally in terms of R&D capabilities, and that they are the strongest in Europe.

This suggestion is supported by various sets of global University league tables .The outputs of HEEACT’s Scientific Papers league table are presented below, where the University of Oxford, University of Cambridge, University of London and Imperial College all placed inside the global top 20.

“Moving R&D tax credits above the line will represent a huge advantage for the UK”
Chief Executive, GKN

The UK automotive industry anticipate further R&D spend being driven by upcoming tax breaks.

Moving the R&D tax credit ‘above the line’ is expected to significantly increase spend on UK automotive R&D. Under the new structure the tax credit will reduce taxable profits, as opposed to reducing the tax liability. The consensus amongst interviewees is that this will generate significant increases to the amount of R&D spend in the UK.

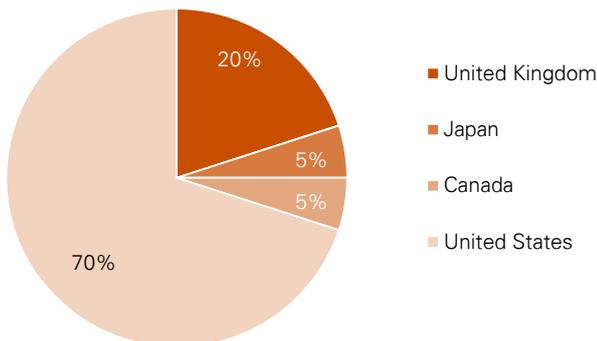
In addition, from 2013, the UK is introducing a ‘Patent Box’ which will provide for an effective 10% corporation tax rate on profits attributed to patents granted by the UK or European patent offices. This move was viewed by interviewees as a further step that will enhance the UK automotive sector’s competitiveness across the board.

“The UK is second only to the United States in terms of University innovation and development capabilities”
Purchasing Director, Jaguar Land Rover

“Now that R&D credits will be above the line, we expect to see a significant increase in spend”
Purchasing Director, Jaguar Land Rover

“The UK is an excellent base for R&D”
General Manager, Transportation, Southco

Figure 22. University research and development ranking – global top 20



Source: HEEACT

WHY IS THE UK AN INCREASINGLY ATTRACTIVE MARKET?

UK OEMs and suppliers interviewed agreed that the joined-up approach taken by the UK automotive sector to the identification and subsequent support of low-carbon requirements was having a very positive impact.

The approach taken by the Automotive Council has followed a structured approach from identifying the requirements of the supply chain through to investing significant amounts of grant funding.

- In 2009 BIS worked with the UK’s automotive supply chain to develop agreement around a ‘consensus’ low-carbon technological roadmap.
- The Technology Strategy Board (TSB) subsequently deepened this analysis by estimating potential returns across various technology areas.
- The Automotive Council’s Technology Group outlined five priority R&D areas where grant funding could generate strong returns:
 - internal combustion engines
 - energy storage and energy management
 - intelligent mobility
 - lightweight vehicle and powertrain structures
 - electric machines and power electronics.

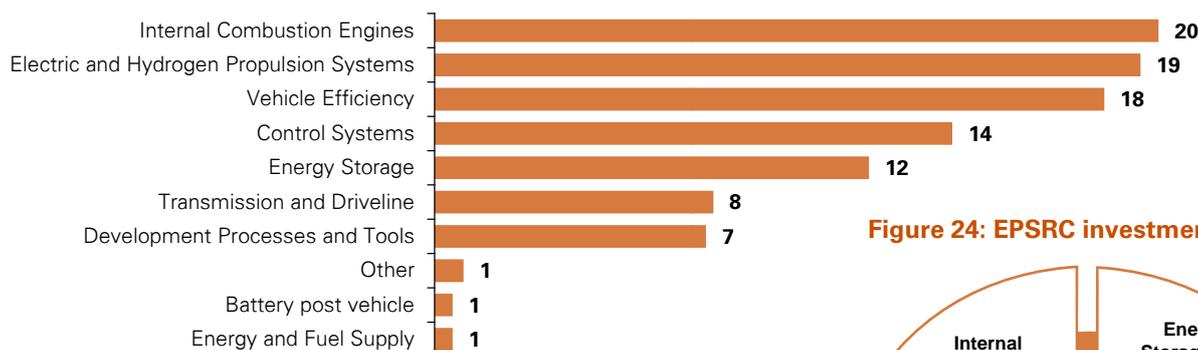
The investment profiles of both the TSB (which provides funding to industry bodies) and the EPSRC (which provides funding to University Research Centres) have closely mirrored the five priority areas identified by the Automotive Council as shown in Figures 24 and 25 below.

- The TSB has a £200 million investment fund and recently allocated £56 million to 17 projects including a proposal by Wrightbus to develop a production-ready hybrid bus and a proposal from Jaguar Land Rover to produce light-weight low energy materials.
- The EPSRC has provided approximately £91 million of grant funding to the priority areas outlined by the Automotive Council.

“One of the UK’s greatest strengths is innovation”
Chief Executive, GKN

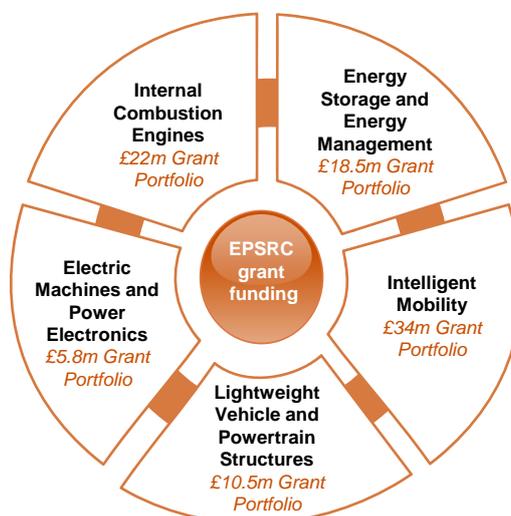
“The work being carried out by the Automotive Council has been fantastically helpful, it’s given great clarity around the direction of travel”
Chief Executive, GKN

Figure 23. Technology Strategy Board investment profile, May 2012



Source: Technology Strategy Board, May 2012

Figure 24: EPSRC investment profile



Source: EPSRC

WHY IS THE UK AN INCREASINGLY ATTRACTIVE MARKET?

A variety of measures are being employed to increase domestic demand for low-carbon vehicles, which is increasingly seen as a key driver of OEM location strategy.

Developing end-user demand is one of the most important drivers of attracting OEMs to a country in addition to increasing incentives for them to source locally. Initiatives include:

- The TSB's ultra low carbon vehicle demonstrator programme aimed to trail 340 new innovative cars in UK. This is believed to be Europe's largest co-ordinated real-world trial of low carbon vehicles.
- The Office for Low Emission Vehicles (OLEV) operates the following schemes:
 - The plug-in car grant, a grant of up to £5,000 for low-carbon cars.
 - The plug-in van grant, a grant of up to £8,000 for low-carbon vans.
 - The Recharging Infrastructure Strategy, which is developing a strategy for a UK-wide charging infrastructure.

purchasers:

- Vehicle Excise Duty exemption (£130 saving against Band F).
- Lower fuel tax and costs: EV price per mile 2-3p, conventional car 13p.

A number of hybrid and electric vehicles are currently in production or development in the UK

- BMW have tested MINI electric cars.
- Optare has developed electric passenger buses.
- Nissan produce the Leaf, an electric vehicle, at the Sunderland plant.
- Toyota produce the hybrid Auris at the Deeside plant.
- Jaguar will manufacture the low volume CX75 hybrid super car in the UK and have emphasised a strong desire to maximise local content.
- Jaguar Land Rover have announced that they will manufacture low-emission engines at a new facility in the Midlands.



CLOSING REMARKS

KPMG believes that the UK automotive sector is well positioned to exploit future growth. This forward momentum presents significant current and long term opportunities for automotive suppliers to grow.

The recent announcements of investment are, of course, testament to the change in fortunes of the UK automotive industry. However, we feel there are several factors that make these investments sustainable and opportunity creating:

- The broad mix of manufacturers and model types produced by OEMs in the UK implies a resilience to economic volatility and changing consumer priorities.
- The commercial and critical success of the models produced reinforces the reputation of the UK as a country that manufactures quality vehicles.
- The low export dependency of UK produced cars on any one particular geography.

As such, we feel that the outlook for the UK is positive, even at a time of great economic and political uncertainty across much of the world.

From the perspective of suppliers and prospective suppliers, this success story must be backed up with attractive financial and manufacturing fundamentals for the supply chain to benefit from OEM growth. Here again, there are grounds for longer term optimism including:

- A flexible workforce as evidenced by recent announcements by JLR and GM Vauxhall.
- Utilisation and capacity levels that are consistently among the highest in Europe.
- Internationally competitive labour market and taxation rates.

- Strong R&D capabilities and a real commitment to low carbon technologies.

Against these positive factors however, it is important to reflect on the challenges facing the UK. The recent change in fortunes has highlighted challenges faced by many OEMs and their suppliers including:

- Shortages in engineers and key skills areas.
- A need to reinvigorate the 'ecosystem' of smaller suppliers which suffered following the decline of production levels in previous decades.

Nevertheless, all of the OEMs and their suppliers spoken to as part of this study considered that, through the various measures identified on previous pages, the appropriate UK government departments are taking co-ordinated and meaningful action to address these issues against a backdrop of cross-party political support.

In conclusion then, considerable opportunities exist for UK based automotive suppliers at the present time and those companies that are able to exploit these will be well positioned to be part of a longer term success story.



John Leech,
UK Head of Automotive
KPMG LLP (UK)



APPENDIX 1

Figure 25. Map of key UK OEMS

Key	Manufacturer	Site
1	Alexander Dennis	Falkirk and Guildford
2	Aston Martin	Gaydon
3	Bentley	Crewe
4	BMW	Hams Hall
5	Caterham	Dartford
6	Cummins	Darlington
7	Dennis Eagle	Warwick
8	Euromotive	Hythe
9	Ford	Bridgend, Dagenham and Southampton
10	Honda	Swindon
11	Jaguar	Castle Bromwich
12	John Dennis Coachbuilders	Guildford
13	Land Rover	Halewood and Solihull
14	Leyland Trucks	Leyland
15	Lotus	Norwich
16	LTI	Coventry
17	Mellor Coachcraft	Bolton
18	McLaren Automotive	MTC Woking
19	MG Motors	Longbridge
21	MINI	Oxford and Swindon
22	Minibus Options	Whaley Bridge
23	Morgan	Malvern
24	Nissan	Sunderland
25	Optare	Leeds
26	Plaxton	Scarborough
27	Rolls-Royce	Goodwood
28	Smith (Tanfield)	Tyne and Wear
29	Toyota	Burnaston and Deeside
30	Vauxhall Opel	Ellesmere Port and Luton
31	Warnerbus	Dunstable



Figure 26. Key contact index

Manufacturer	Contact	Contact details
SMMT	Yung Tran	ytran@smmt.co.uk
KPMG	John Leech	john.leech@kpmg.co.uk
BIS	Paula Crofts	paula.crofts@bis.gsi.gov.uk
Automotive Council	Bob Lonnon	bob.lonnon@bis.gsi.gov.uk
UKTI	James Reeves	james.reeves@uktispecialist.com





www.kpmg.co.uk

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavour to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

© 2012 KPMG LLP, a UK limited liability partnership, is a subsidiary of KPMG Europe LLP and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative, a Swiss entity. All rights reserved. Printed in the United Kingdom.

The KPMG name, logo and "cutting through complexity" are registered trademarks or trademarks of KPMG International.