

Sourcing Roadmap

Version 3 – December 2010
(for discussion at SCG meeting 14/12/10)

Key findings I

- Fuel cells: 100,000 units
- Hybrid Conversion: 200 units
- Hybrid Fuel Systems: 5,000 units
- Range extender engines: 100,000 units

Electric powertrain parts:

- Charging technology, reducers, invertors: 100,000 units
- Large electric motors: 100,000 units
- Batteries: 56,000 units

Heavy metal:
forgings, castings, large
pressings: 1 m units

Bearings: 7 m units

Wheels: 5.8 m units

Struts: 5.3 m units

- Power Springs 500,000
- Castings 20,000
- Crankshafts 20,000
- Flywheels 10,000
- Steering systems 500,000
- Aluminium pressing & assembly 100,000
- General tubular assemblies 250,000
- Pressed Metal Structures 2,000
- Suspension Springs 1,000,000

- Appliance trims 30,000
- Architectural trims 5,000
- Comfort headrests 25,000
- Door trim 100,000
- Headliners 200,000
- Instrument panels 100,000
- Bumper parts 1,000,000
- Glass 500,000

Large ext. mouldings
(mirrors, bumpers):
0.5 m units

Glass: 7 m units

Interior trim: 7.4 m
units

Key findings II

1. mutual dependence: main advantage for UK suppliers is ***proximity***
 - lower logistics cost, configuration of parts, support UK-built vehicles
2. UK suppliers are losing out on a ***unit cost*** basis
 - “proximity” is a proxy for ***risk reduction*** and ***flexibility***
 - key opportunity is to develop and promote ***total supply chain cost*** models
3. **three main clusters** of opportunity to retain/build capabilities:

Clusters of opportunity	Strategy
1. SHORT-TERM “classic”	<ul style="list-style-type: none">• assemble aggregate demands and supplier growth areas (DONE)• foster interaction, “match-making”
2. MEDIUM- to LONG-TERM “electric power-train” parts: batteries, motors, inverters	<ul style="list-style-type: none">• identify most interesting firms (ONGOING)• bespoke approach “Top-10” firms <p><i>NOTE: UK suppliers are currently not “in the loop”</i></p>
3. “heavy metal” processing: casting, forging, pressings	<ul style="list-style-type: none">• scale dependent industries, low innovation clock-speed• highlighted as constraint by both OEMs and suppliers• economic viability questionable

Sourcing Roadmap - Objective

General objective:

How to increase sourcing from UK suppliers?

Key concerns

- Only 4% new suppliers are used by OEMs per annum: how to get new suppliers “onto the radar screen” of OEMs?
- Unit cost often not competitive, yet proximity is a key competitiveness factor. So we need to help UK suppliers make a better (total cost) business case!

Developing a “sourcing roadmap” I

- A “technology roadmap” depicts shift over time
 - here we see a clear **shift over time** from one to another
- Sourcing roadmap
 - needs to reflect the fact that sourcing is **dynamic & ongoing**
 - alternative low carbon powertrain parts will gradually phase in
- Key feature
 - show recurring opportunities by key component groups
 - Show trajectory for UK sourcing, by component group
 - Link to technology roadmap

Developing a “sourcing roadmap” II

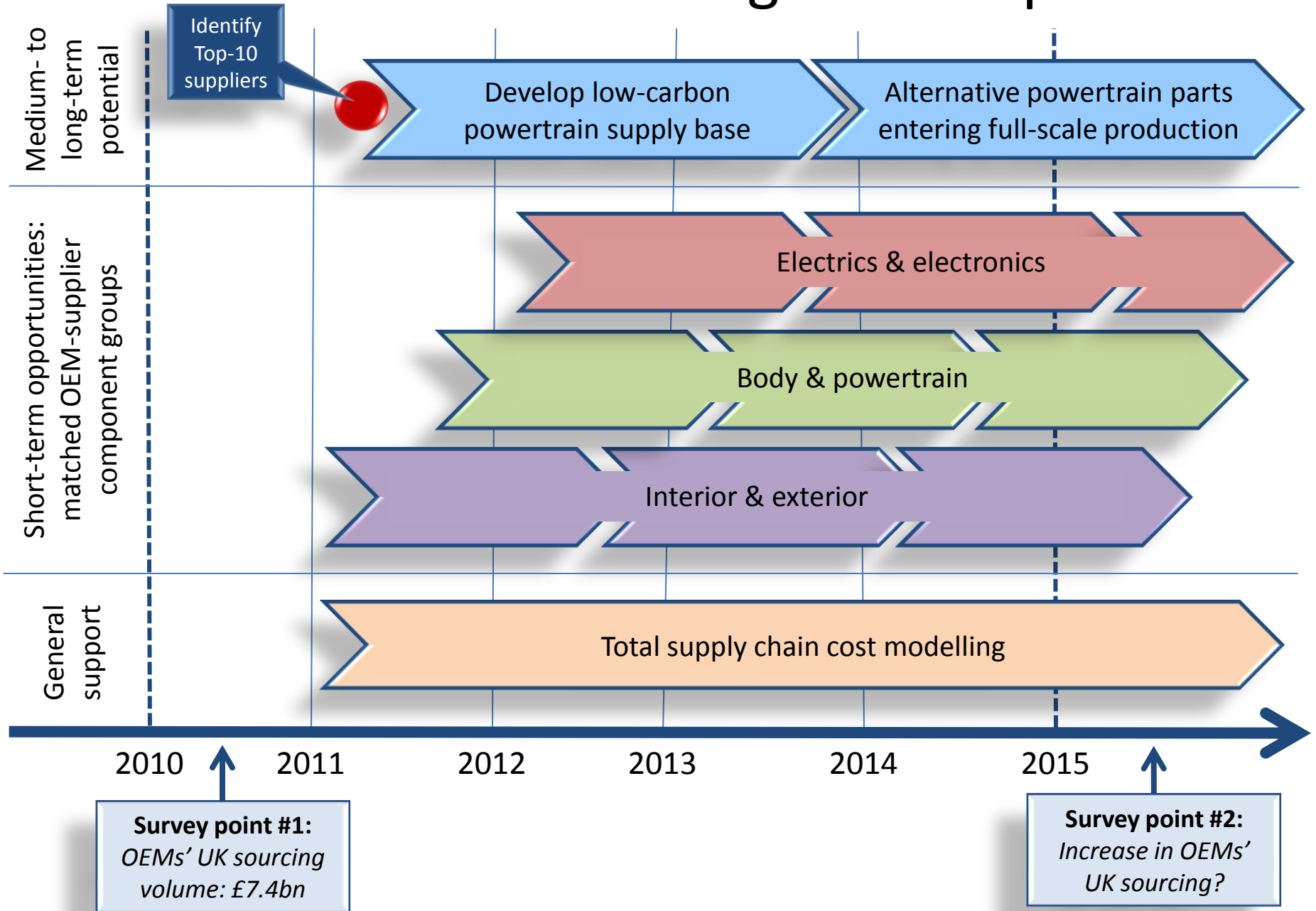
- Determinants

- OEM wish-list: “Where are the opportunities?”
- OEM perception of competitiveness of UK suppliers: “Why is business lost?”
- Suppliers’ strategic growth areas “Where do suppliers see growth?”

- Metrics for success

- re-fresh survey data on an agreed frequency to track developments and, see if there is an improvement over £7.4bn OEM purchasing spend

UK Sourcing Roadmap



Identify Top-10 suppliers

Develop low-carbon powertrain supply base

Alternative powertrain parts entering full-scale production

Electrics & electronics

Body & powertrain

Interior & exterior

Total supply chain cost modelling

2010

2011

2012

2013

2014

2015

Survey point #1:
OEMs' UK sourcing volume: £7.4bn

Survey point #2:
Increase in OEMs' UK sourcing?

Next steps

- A. Circulate first draft of report by 31/12/10
- A. Produce a comprehensive list of commodities that OEMs wish to procure and use as a guide to identify largest UK opportunities (done, updates likely)
- B. Keep developing “total supply chain cost” model to support UK suppliers
- C. Identify Top-10 most “desirable” low carbon powertrain suppliers and present opportunities (on-going)
- D. Re-run survey by 2015 in order to measure success

Commodity	Estimated volume (SMMT and Cambridge Uni research) *
1. Body & Powertrain	
1.1 Powertrain	
Air cleaners	250,000
Castings: Aluminium and iron	560,000
Chain case	250,000
Crankshafts	20,000
Flywheel	10,000
Engine commodities	volume to confirm
Gear boxes	volume to confirm
Oil pans	250,000
1.2 Body	
Aluminium pressing & assembly	100,000
Badges	volume to confirm
Exhaust hangers	966,000
Fuel filler cap (petrol & diesel)	322,000
Glass	7,000,000
Heat shields (Fuel tank & exhaust)	452,000
Hinges	1,600,000
Hot stampings	volume to confirm
Large stamping	476,000
Pressed metal structures	2,000
Latches	800,000
1.3 Chassis, braking, steering & suspension	
Alloy Wheels / Finish Wheels	1,400,000
Wheels	5,000,000
Tyres	volume to confirm
Wheel bearings	800,000
Brake systems and components (eg cables, discs, tube, pedals)	volume to confirm
Parking brake device Standard & mechanical	322,000
Clutch pedal Assembly (non plastic, non modular)	322,000
Drive shafts	560,000
Power springs	500,000
Suspension springs	1,000,000
Shock absorbers (Struts)	5,300,000
Steering systems (Steering gears, columns etc)	500,000
Corner unit module	volume to confirm

7 December 2010

Draft OEM local sourcing demand | Page 2

7 December 2010

Draft OEM local sourcing demand | Page 3



THE UK SOURCING ROADMAP

**CREATING AND SUSTAINING SUPPLY CHAIN CAPABILITIES
IN THE UK AUTOMOTIVE INDUSTRY**

on behalf of the Supply Chain Group of the UK Automotive Council, www.xxx

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