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Open for Business – The UK as a global investment for Automotive

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BUSINESS IS GREAT

BRITAIN & NORTHERN IRELAND

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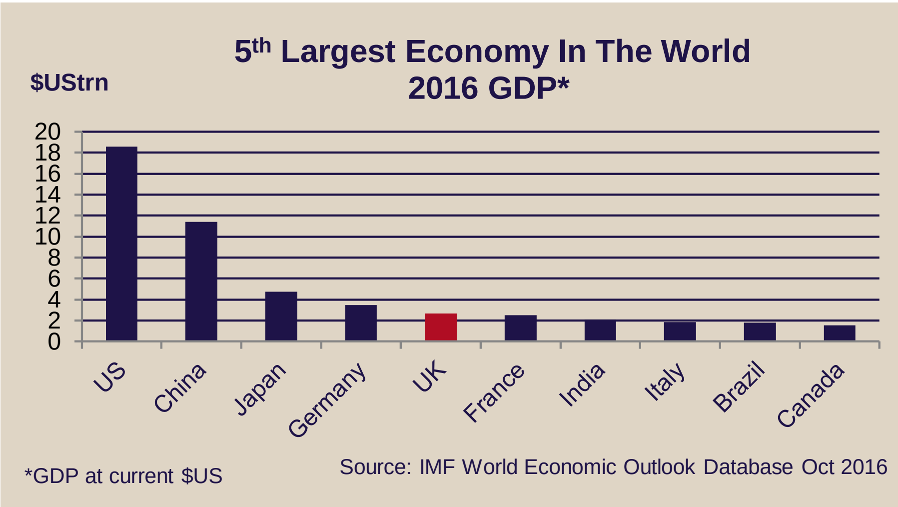
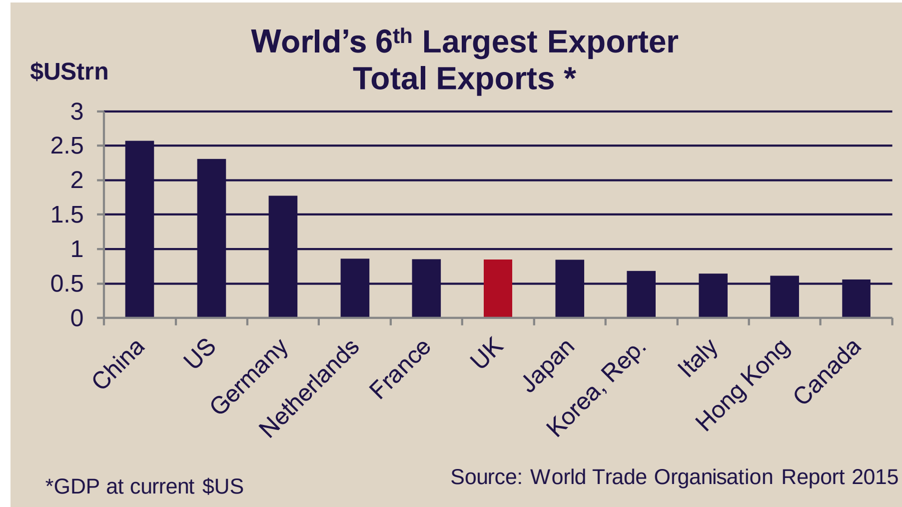
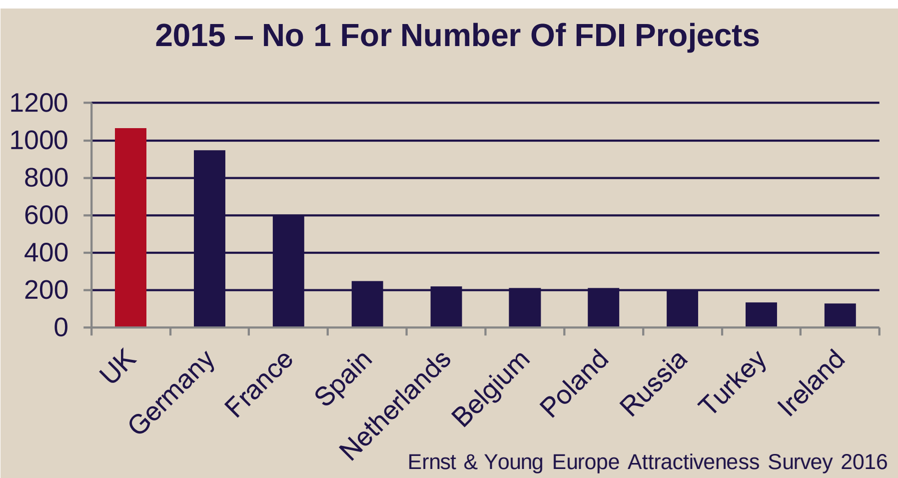
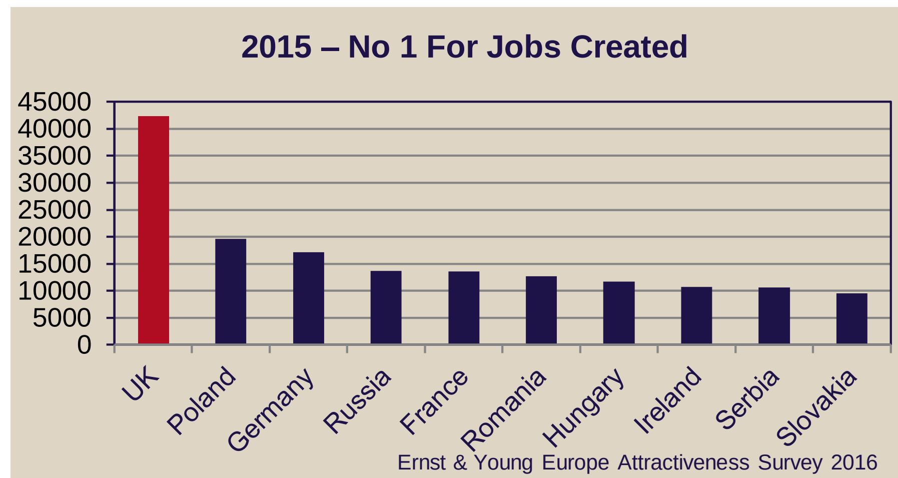
Britain's strong economy









2010-2015: The UK economy grew 18.8% - 2nd fastest growing economy in the G7 (World Bank)

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UK Automotive Industry - Overview

- 1.8m vehicles manufactured in 2016
- 2.5m engines produced in 2016

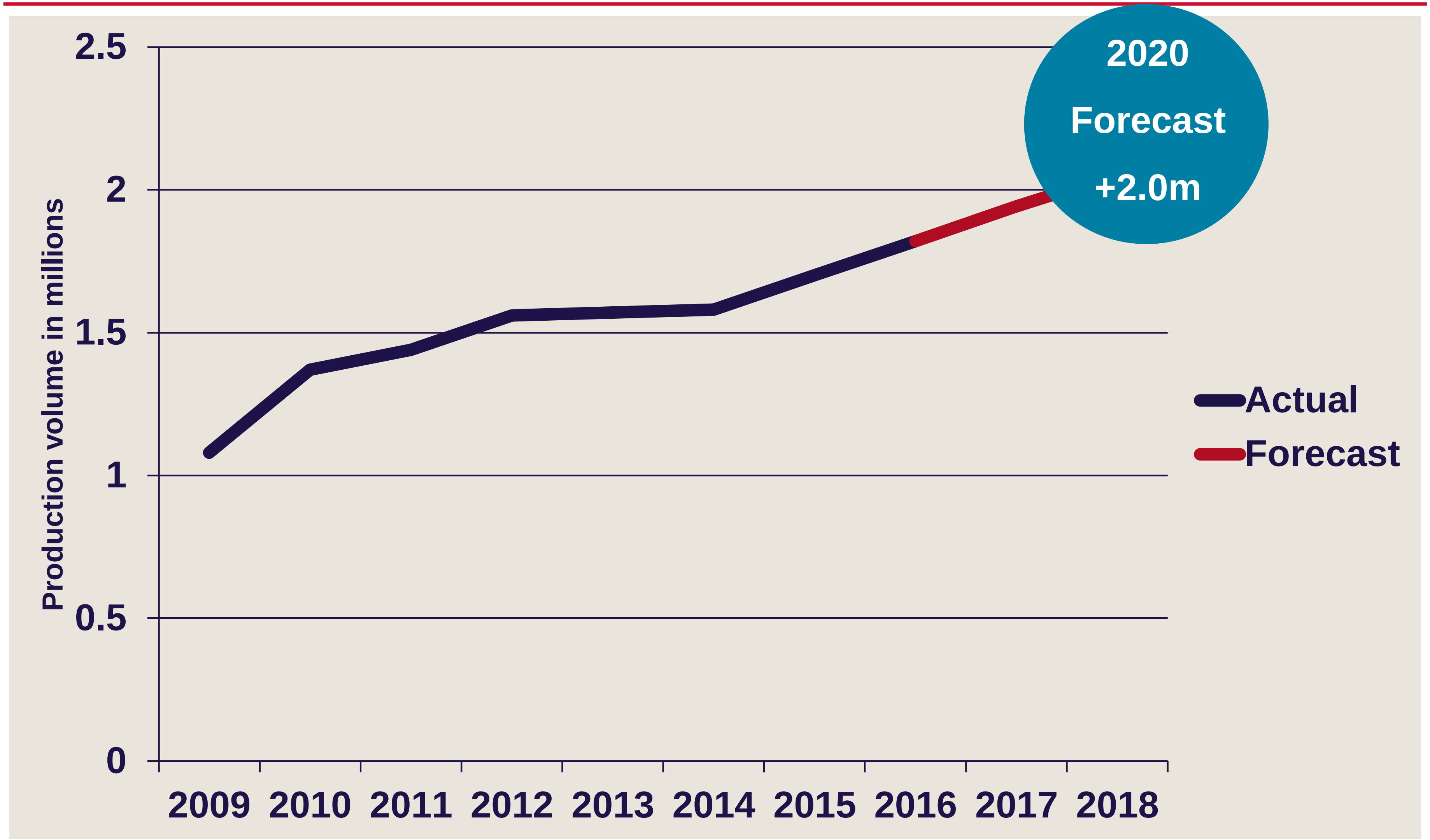
- £71.6bn sales
- Exports generate £12bn trade surplus
- 78% of UK-built cars are exported

- Over £15 billion FDI into UK automotive since 2012
- £2.6 billion R&D per annum

- World's largest producer of luxury cars
- 159,000 directly employed in manufacturing

- UK vehicle production has grown every year since 2008

Projected production growth



Source: SMMT 2016

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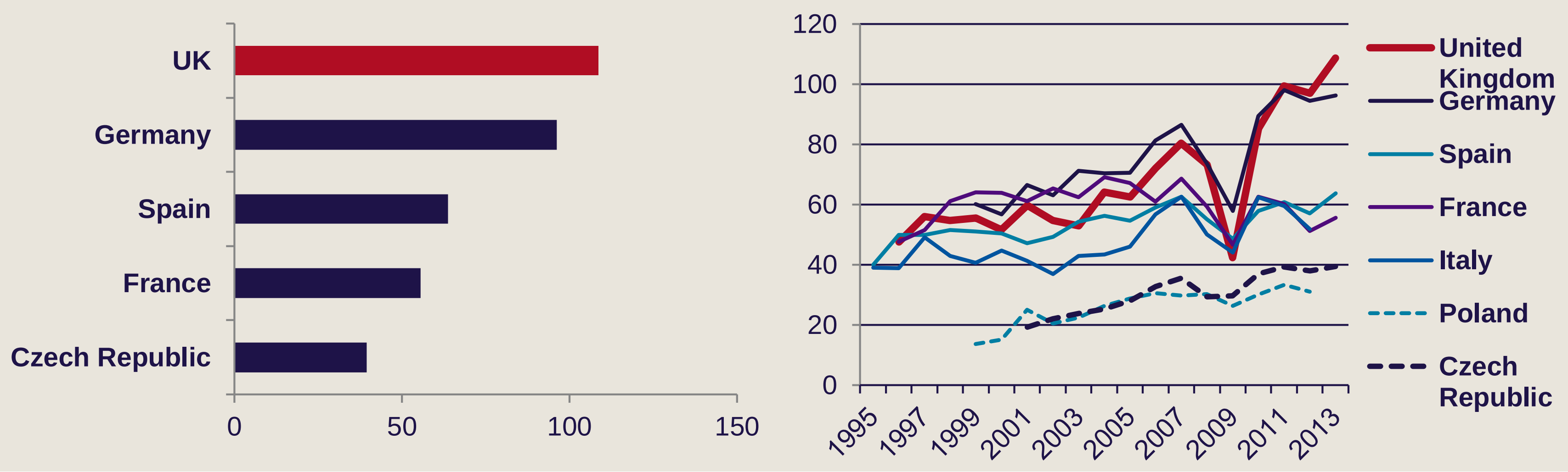
Productivity – value added

- The UK now has the highest value-added per employee of any automotive industry in Europe



Units: €000 Source: Eurostat

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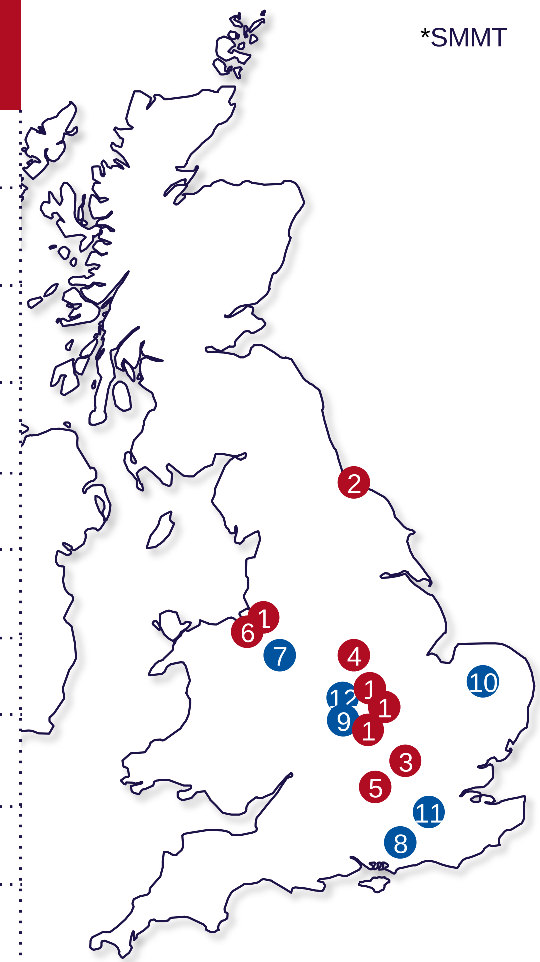
UK Automotive Industry – OEMs

#	Manufacturer	Location	2016 Production	Model
1	Jaguar / Land Rover	Halewood, Solihull, Castle Bromwich, Coventry	544,000	• All
2	Nissan	Sunderland	507,000	• Leaf, Qashqai , Juke, Q30, X-Trail (2018)
3	BMW	Oxford	211,000	• All Minis except Countryman
4	Toyota	Burnaston	180,000	• Avensis, Auris • Auris Hybrid
5	Honda	Swindon	134,000	• 5-door Civic
6	GM / PSA Groupe	Ellesmere Port	118,000	• Astra
7	Bentley	Crewe	11,700	• All
8	Rolls Royce	Goodwood	4,100	• All
9	Aston Martin	Gaydon	3,700	• New factory in Wales
10	Lotus	Hethel	1,300	• All
11	McLaren Automotive	Woking	3,200	• All
12	Geely	Coventry	1,300	• New £300m Coventry factory

*SMMT



48% Japanese Production

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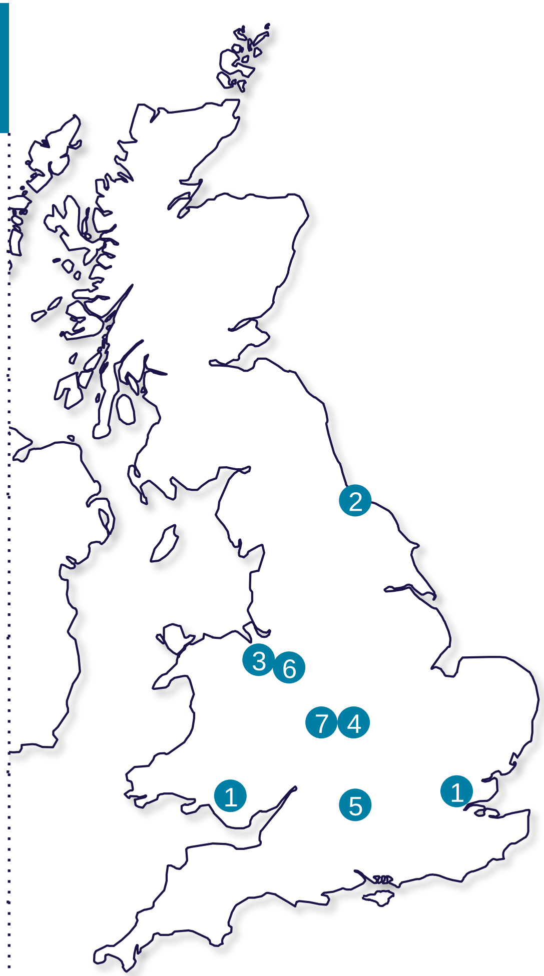
UK Automotive Industry – Engine Manufacturing

#	Manufacturer	Locations	2015 Production
1	Ford	Bridgend & Dagenham	1,606,887
2	NISSAN	Sunderland	250,539
3		Deeside	204,352
4	BMW	Hams Hall	170,659
5		Swindon	124,940
6	BENTLEY	Crewe	11,100
7	JAGUAR LAND ROVER	Wolverhampton	TBC



*SMMT

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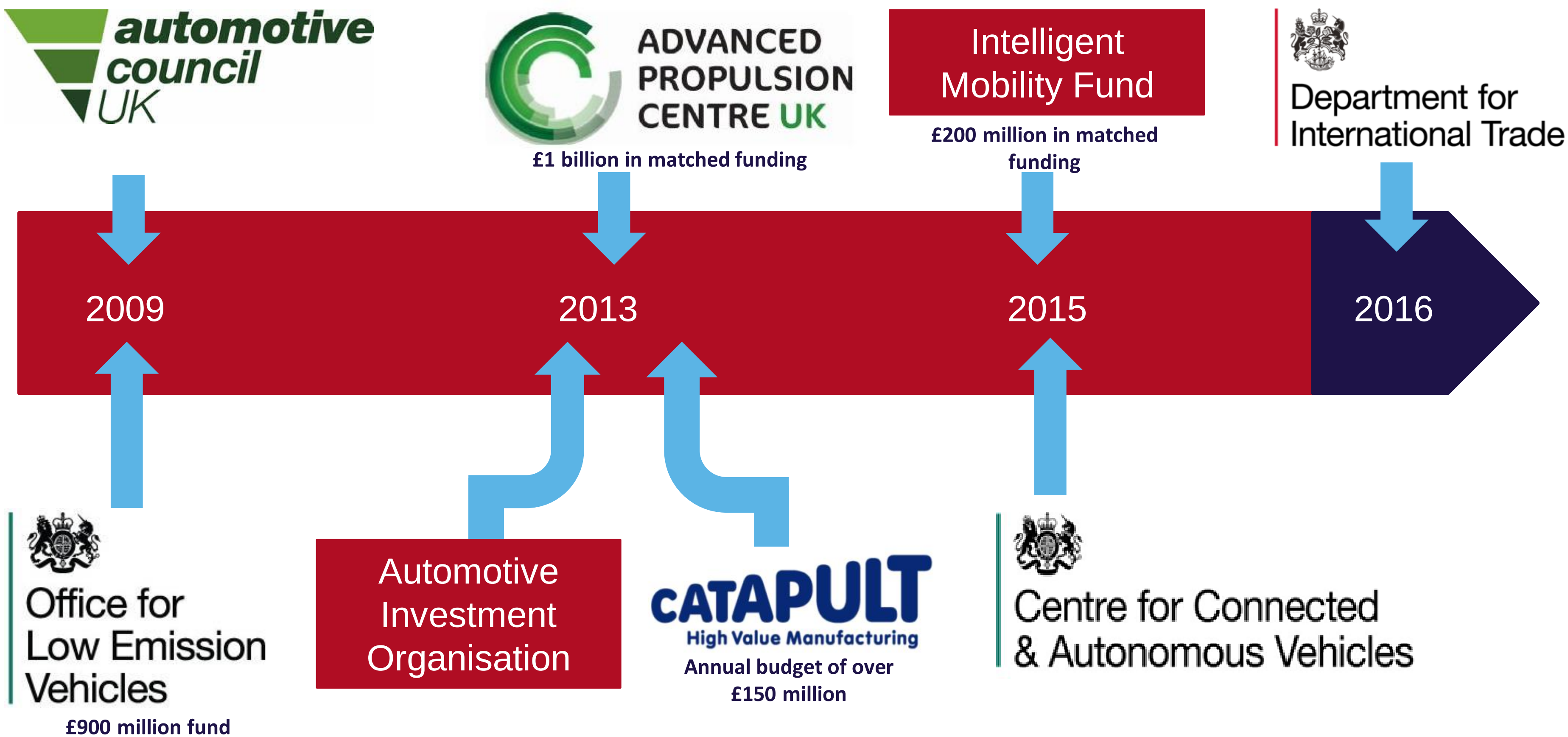
Transformational Approach to UK Auto Industry



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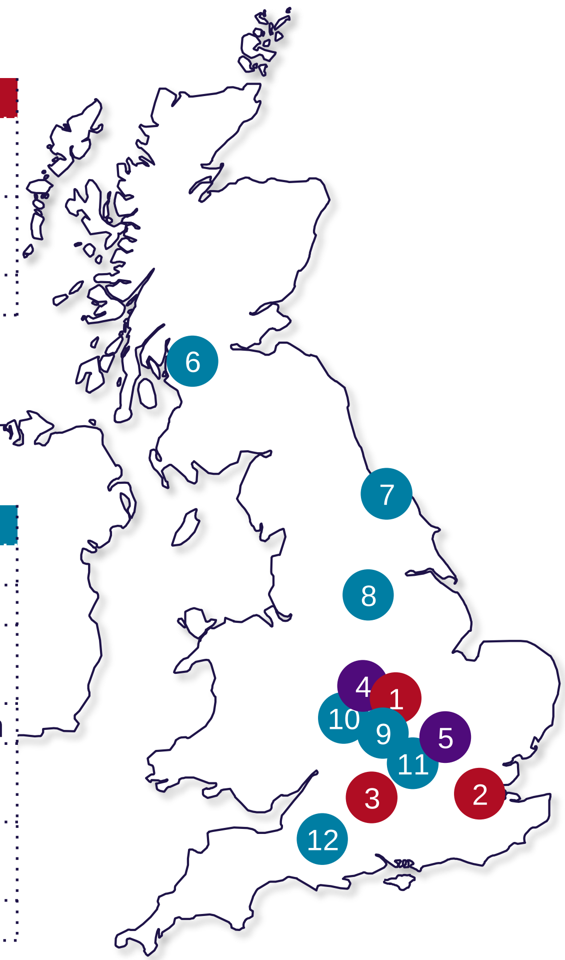
UK Automotive R&D Centres

Automotive Research Funding Hubs			
1	APC - Advanced Propulsion Centre	Coventry	Low Carbon Propulsion & Lightweighting
2	C-CAV - Centre for Connected & Autonomous Vehicles	London	CAV Development
3	Innovate UK	Swindon	Materials Technology

Commercial Engineering Centres /Technology Parks		
4	Horiba MIRA	Nuneaton
5	Millbrook	Millbrook

High Value Manufacturing Catapults			
6	AFRC - Advanced Forming Research Centre	Strathclyde	Metal Forming
7	CPI - Centre for Process Innovation	Wilton	Printed Electronics
8	AMRC - Advanced Manufacturing Research Centre	Sheffield	Castings, Integrated Manufacturing
9	MTC - Manufacturing Technology Centre	Coventry	Intelligent Automation
10	WMG - Warwick Manufacturing Group (also National Automotive Innovation Centre)	Warwick	EV Batteries
11	TSC - Transport Systems Catapult	Milton Keynes	Intelligent Mobility
12	NCC - National Composites Centre	Bristol	Composites



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R&D Support for Automotive

- APC - £1 billion matched funding over five years (low carbon propulsion)
- CCAV - £200m (Connected and Autonomous Vehicles)
- Innovate UK - £500m per year across all industries, including automotive.
- OLEV (Office for Low Emission Vehicles) - £500m to incentivise purchases of ULEVs
- Additional funds announced late 2016 for automotive:
  - — £100 million for new infrastructure to trial driverless cars;
  - — £120 million for plug-in car grant and electric vehicle charging infrastructure;
  - — Enhanced Capital Allowances: Costs of EV charge-point can be set against tax
- Patent Box: Reduced 10% tax rate on profits attributable to patents
- R&D Expenditure Credit: “Above the line” credit, representing 11% of qualifying R&D

Areas funded by APC and CCAV - examples

APC Low carbon propulsion £1 billion matched funding	CCAV Connected and Autonomous Vehicles £200 million matched funding
Energy storage/battery technology	Connectivity (V2X)
Electric machines/motors	Sensors
Power electronics	Navigation
Digital engineering and test	Control systems
ICE thermal efficiency	Driverless shuttles
ICE system efficiency	On road testing
Lightweight materials	Telematics

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The current £4bn / annum of supply chain opportunity

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

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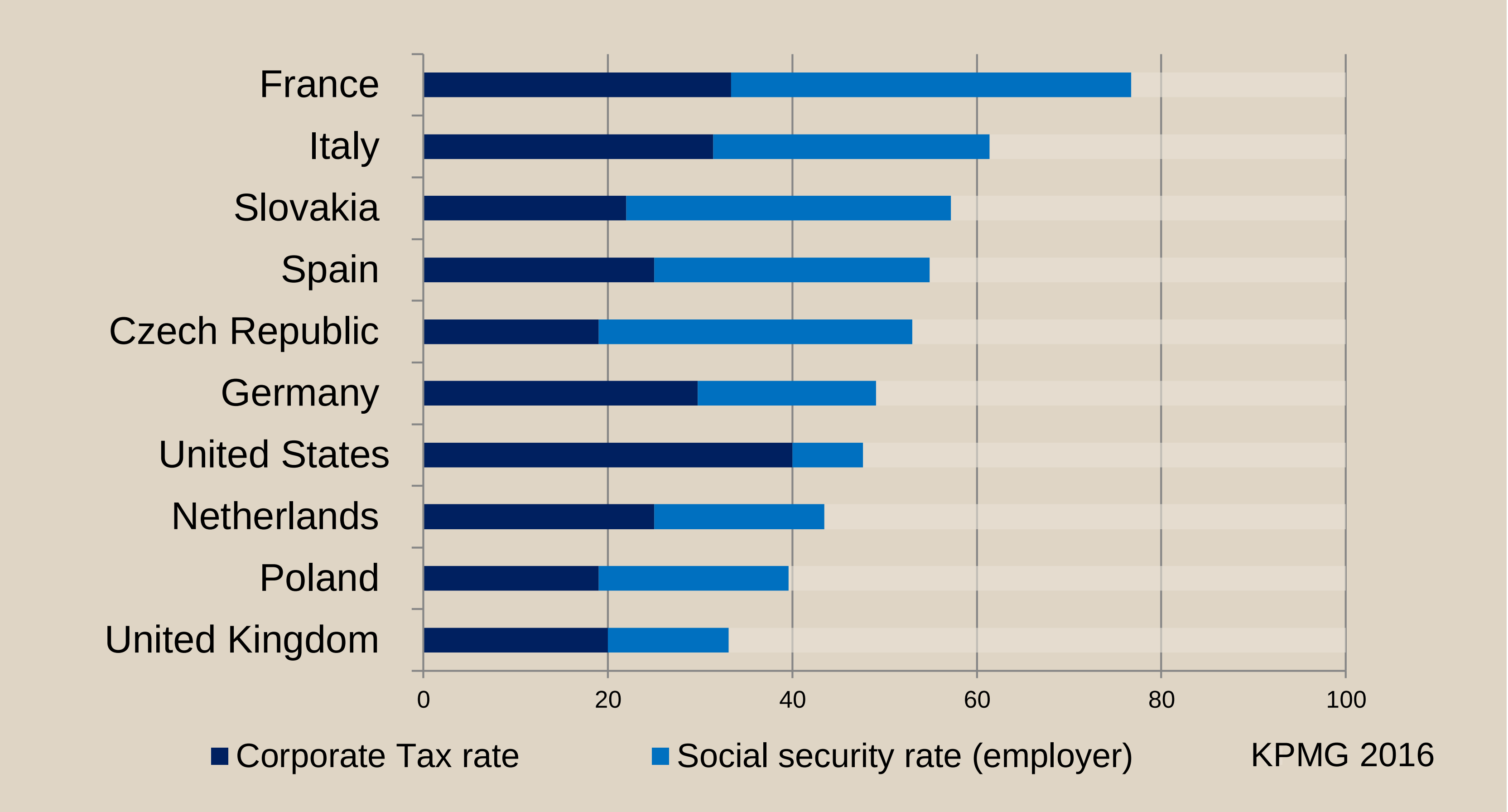
International Tax Comparison

The UK's overall corporate tax burden is the lowest of all major European countries*



*Indirect taxes are excluded due to the lack of comparability across markets.

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European Labour costs

- UK labour costs are the most stable in Europe
- UK labour costs are lower than Germany, France and Italy
- The gap between Eastern Europe and UK is steadily closing

Source: Eurostat

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Regional Business Environment

- 38 LEPs (Local Enterprise Partnerships) manage funding programmes across all regions of England

- Two additional initiatives in automotive manufacturing areas:
  - The Northern Powerhouse
  - The Midlands Engine

- The Devolved Administrations of Scotland, Wales and Northern Ireland directly manage funding programmes

- Enterprise Zones offer (England):
  - Up to 100% business rate discount worth up to £275,000 over 5 years
  - 100% enhanced capital allowances (tax relief) on plant and machinery on 8 Zones in Assisted Areas

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Japanese Investment in UK Automotive Manufacturing

Continued UK Investment by Japanese Car Manufacturers

Toyota 2017 - £240m investment

Nissan 2016 - £250m expansion

Honda 2016 - £200m investment

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Britain is open for business

Lowest corporation tax in G7
Falling to 17% by 2020

Patent Box: 10% tax rate on profits from R&D done in the UK

World-class research base:
4 of world's top 10 Universities,
18 of top 100

Top 10 economy for global competitiveness

No 1 major European economy for global talent

Highest-ranked major economy for ease of doing business

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