State of the Auto Sector & where next?

VRA Members' Meeting

Perry Barr, 10th July 2019

"Does your car have any idea why my car pulled it over?"

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Birmingham Business School

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UK in a Changing Europe

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Automotive Sector:
Where are we now? Where Next?

New Car Market trends

Brexit

New technologies & value chain…

Policy issues

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UK New Car Market trends

- UK sales down **7%** in 2018, and down **4.9%** in May 2019 (so far 2019: **-3.4%**)
- 2019 market shares so far: diesels **27%** (33%), petrol **66%** (62%), AFVs **7%** (5%)
- Remember that Diesels took a huge bashing in 2018: Diesels **-30%** Petrol **+9%,** AFVs **+21%**
- Little sign of diesel's decline coming to an end: 27 straight months of diesel decline. 2019: **-19.4%**
- Big discounts & pre-reg cars back in a big way
- 2019 as a whole?

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New Car Best sellers

BEST SELLERS

	JUNE 2019			YEAR-TO-DATE	
1	Ford Fiesta	7,507	1	Ford Fiesta	43,297
2	Vauxhall Corsa	5,614	2	Ford Focus	32,239
3	MINI	5,535	3	Volkswagen Golf	31,493
4	Volkswagen Golf	5,473	4	Vauxhall Corsa	29,982
5	Ford Focus	5,450	5	Nissan Qashqai	29,180
6	Nissan Qashqai	5,333	6	Mercedes-Benz A-Class	27,904
7	Toyota Yaris	4,954	7	Volkswagen Polo	23,605
8	Volkswagen Polo	4,592	8	MINI	21,037
9	BMW 1 Series	4,465	9	Ford Kuga	20,425
10	Mercedes-Benz A-Class	3,953	10	Toyota Yaris	19,147

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SMMT 2019 New Car forecasts

- Cars registrations at 2.330m, **down 1.6%** on the 2018 level.
- Diesel car volume of 0.621m, down 17% on 2018 and reducing market share to 26.6%.
- AFVs registrations to rise 14% and plug-ins up 28%, taking market shares to 7% and 3%

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Market downturn: why?

- UK market 2019 (so far) -3.4%: 2018 -7%: 2017 -6%.
- **Big** shift away from diesels ongoing…
- Economy has slowed: *2% smaller* than would have bene otherwise, post Referendum.
- Supply side disruption with new testing regime
- SMMT had been too optimistic (f: 2.6% fall in 2017): it had expected “the market to continue gradually recovering” in 2018.

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UK car production

- Production **-9%** in 2018 (output for domestic market **-16%**). 2019 1st Quarter: **-16%**
- April: **-45%** May: **-16%**
- "considerable concern" – SMMT
- Production slowdowns, shut downs and job cuts at Vauxhall, Ford, Nissan, JLR.
- Combination of: Diesel's demise, 'China syndrome' & Brexit uncertainty slowdown
- Honda and Ford closure announcements.

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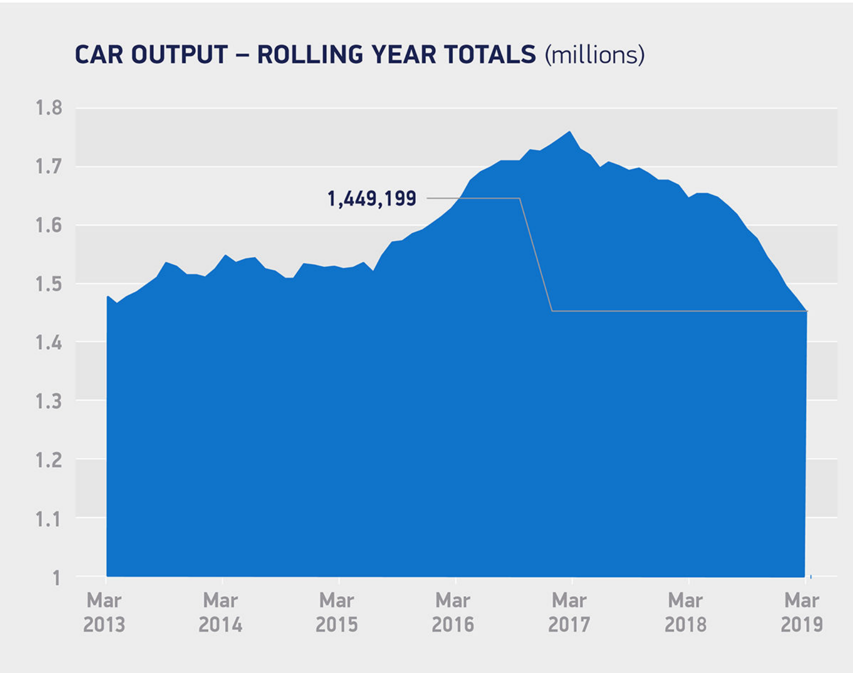

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Diesel's decline UK

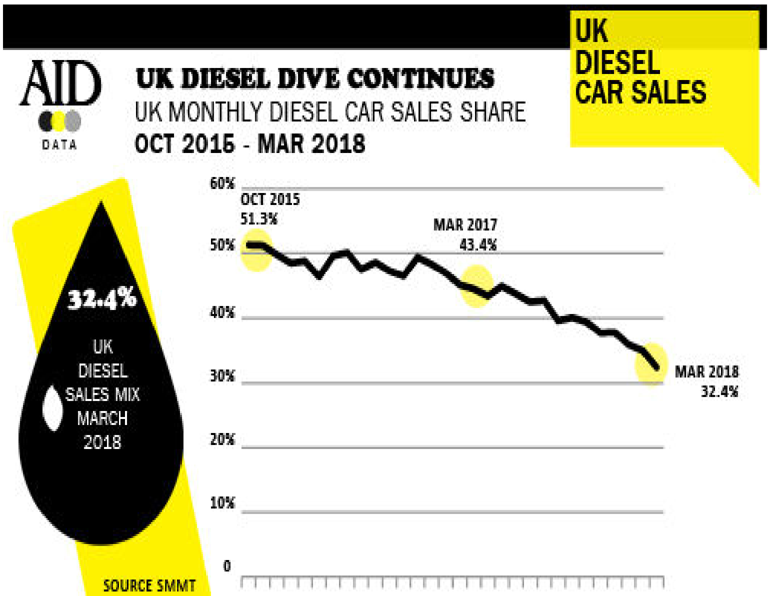

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Photo:
Matthias Schmidt

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Carmakers wrestle with diesel's decline

Electric vehicle market is not considered mature enough to take up the slack

Out of favour: a sign at a commercial vehicles fair in Hanover last year © Bloomberg

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Diesel's decline

- Diesel market share continues to fall across W Europe; March 2019 **32%** (March 18: 36%, March 17: 45%)
- Europe: >3 years of falling diesel share (52% late 2015)
- 'Starting to level off'? But further policy action likely.
- Key market: Germany - diesel share fell **below 30%.**
- May: diesel pick up – **33%** share.
- Hamburg and Berlin have banned older diesels from parts of cities. German scrappage scheme.
- Germany: share 20% by 2020, 15% by 2025?
- 2025 European market share could be as low as **15%**

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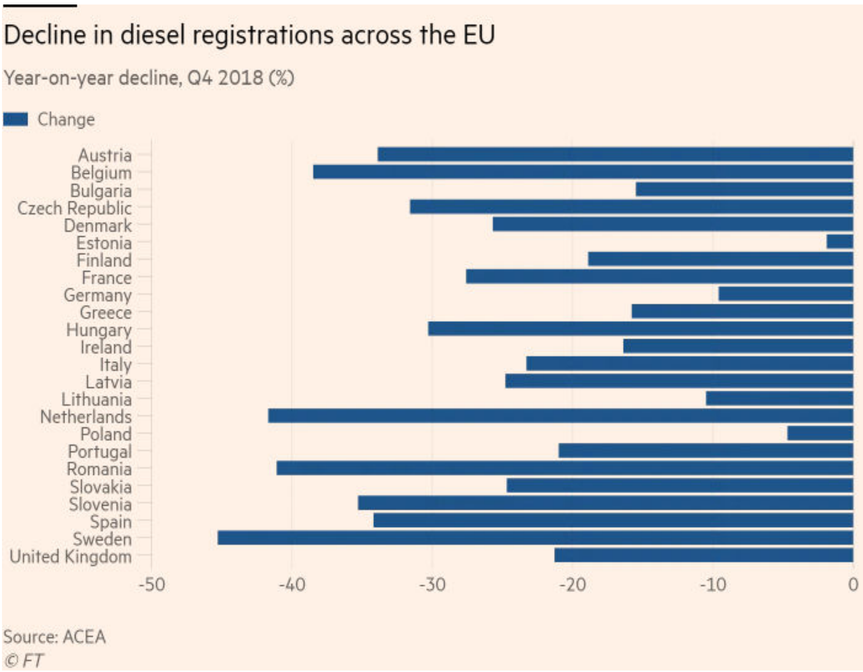

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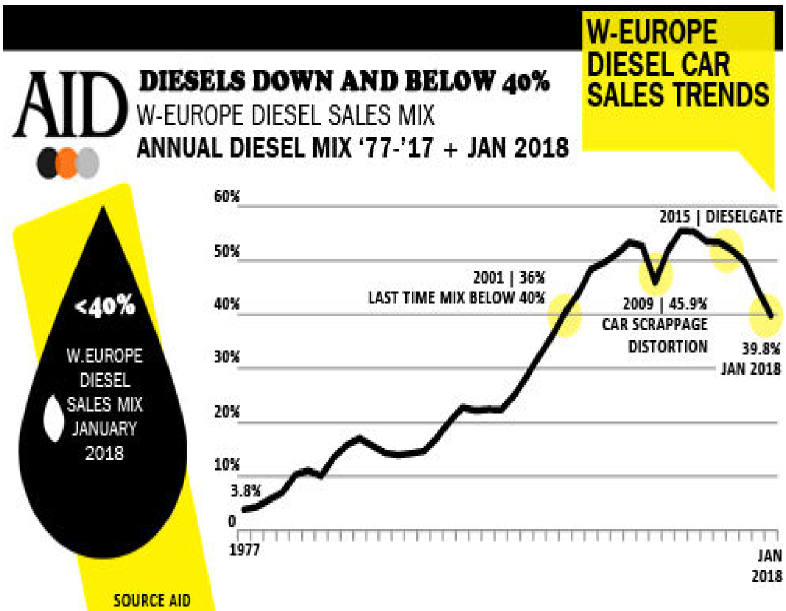
Diesel's decline - EU



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Diesel's decline

"bad publicity about diesels is freaking out the public"

- '**Perfect storm**' post dieselgate: consumer concerns over tighter regulation in cities*, new tax rates, resale values, tighter 'real world' WLTP testing, costs of new technology, plus environmental concerns...
- Auto industry has 'collectively shot itself in the foot': still failing to get over a convincing message on *which* diesels are clean.
- UK Govt stance v confused. Diesel tax, ban by 2040, hybrids? BEIS Select Ctte: ban to be brought forward to 2032.

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Effects of declining diesels? 1

- BMW, Audi, Mercedes Benz, **JLR**, Volvo most affected
- Risk for car banks & financing companies: write off €millions on diesel residual values.
- Premium players - av.CO_2 emissions will rise: increase potential for EU fines for non-compliance with 2020 emissions standards
- *"With up to 1m annual sales & emissions up to 15-20 g/km above 2020 standards... luxury [manufacturers] annual CO_2 penalties could rise towards €2 bn a year," (Morgan Stanley)*
- + need to spend heavily on technology to replace diesels. Further collaboration likely.

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Effects of declining diesels? 2

- Market pull outs: Nissan, Toyota, Suzuki, Mitsubishi, Fiat Chrysler, Porsche, Volvo all phasing out passenger vehicle diesel sales.
- Peugeot: “made a mistake with pushing diesels”
- Others to follow?
- BMW has committed strongly to diesel
- Some segments still diesel dominated

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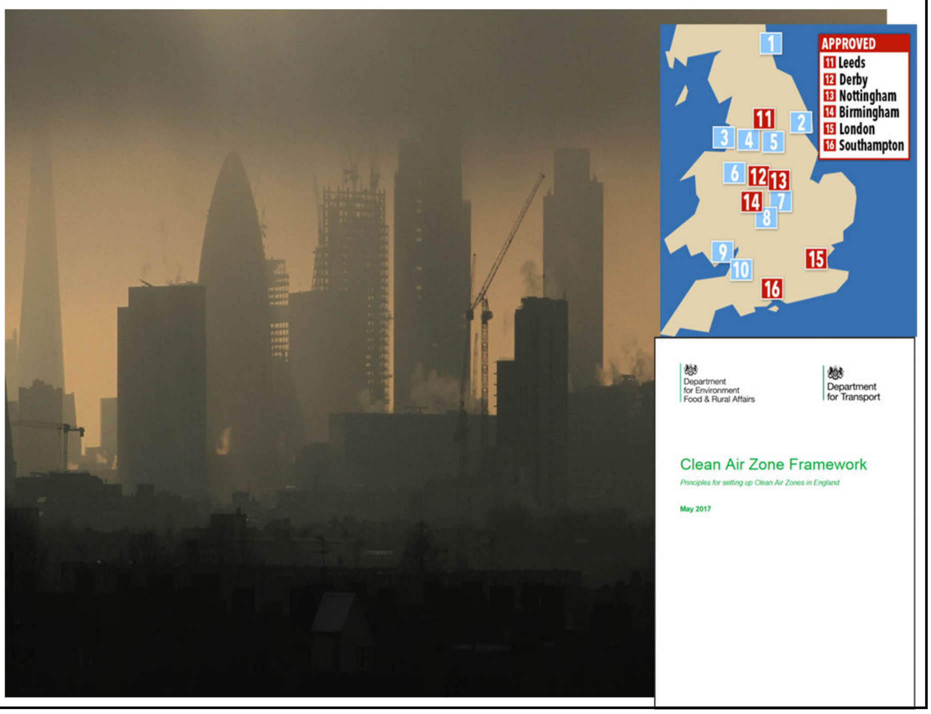

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Clean air zones

- CAZ Framework released in 2016; aim to reduce NO_x levels
- Euro 6 diesel / Euro 4 Petrol is good enough for now
- Principles: '**One of the aims of Clean Air Zones is to support the transition to ULEVs (Ultra Low Emission Vehicles)**'
- Local authorities to explore all non-charging methods before justifying use of a charging zone.
- 5 English cities **mandated to create a CAZ by 2020; Leeds, Derby, Nottingham, Birmingham & Southampton.**
- Further 15 zones required CAZ plan, & another 7 required to develop a local action plan
- **BUT Birmingham and Leeds delayed**

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Bans coming on 'ICE-only' vehicles

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Hybrids?

Michael Gove leading plan to ban sale of new hybrid cars by 2040

Environment secretary favours the move but it is hotly contested

Electric vehicles + Add to myFT

UK to ban most hybrid cars, including Prius, from 2040

Government to issue clean-air plan prohibiting vehicles relying on traditional engines

- Petrol/diesel ban from 2040 announced in 2017
- ‘Road to Zero’
- Govt thought to be considering ban on hybrids (<50m on battery) by 2040.
- Risks killing technology before it takes off?

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Brexit

- Uncertainty: 80% decline in investment over last 3 years
- Slowed economy
- Trading arrangements + Rules of Origin
- Customs
- Skills
- Regulation
- Research networks and funding: imp for SMEs in the supply chain too

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No deal?

- Short term production hit:
  -175,000 units
- Longer term:
  as much as -500,000
  by end of 2020s.
- Plant closures
- 10,000s of job losses

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Key model upgrade decisions

	2017	2018	2019	2020	2021	2022	2023	2024
Honda	Civic						Civic	
GM (Vauxhall)					Astra		MPV	
BMW (Mini)		Countryman				Clubman	Mini	
Toyota		Corolla				Corolla		
Nissan	Leaf Juke	Note		Qashqai XTrail	Infinity Q30			
Tata (Jaguar)			XJ		F-Type	XF /XE	F-Pace	XJ / XJR
Tata (Land Rover)		Evoque	New Defender	Range Rover Sport		Discovery Sport		Evoque Discovery

Adapted from PA Consulting (2016); Bailey & De Propris (2017)

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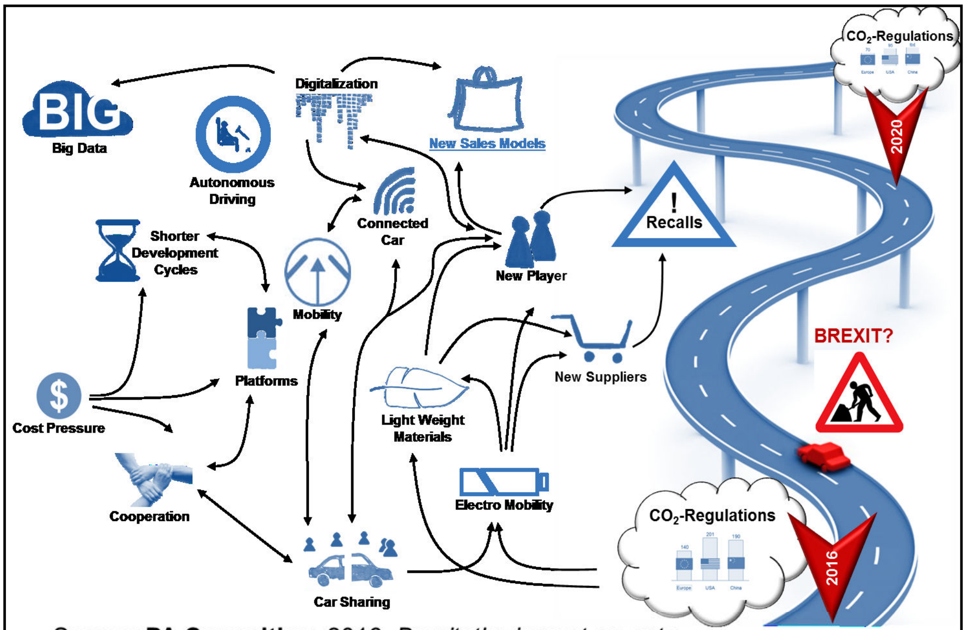

Source: **PA Consulting**, 2016. *Brexit: the impact on auto manufacturing in the UK*

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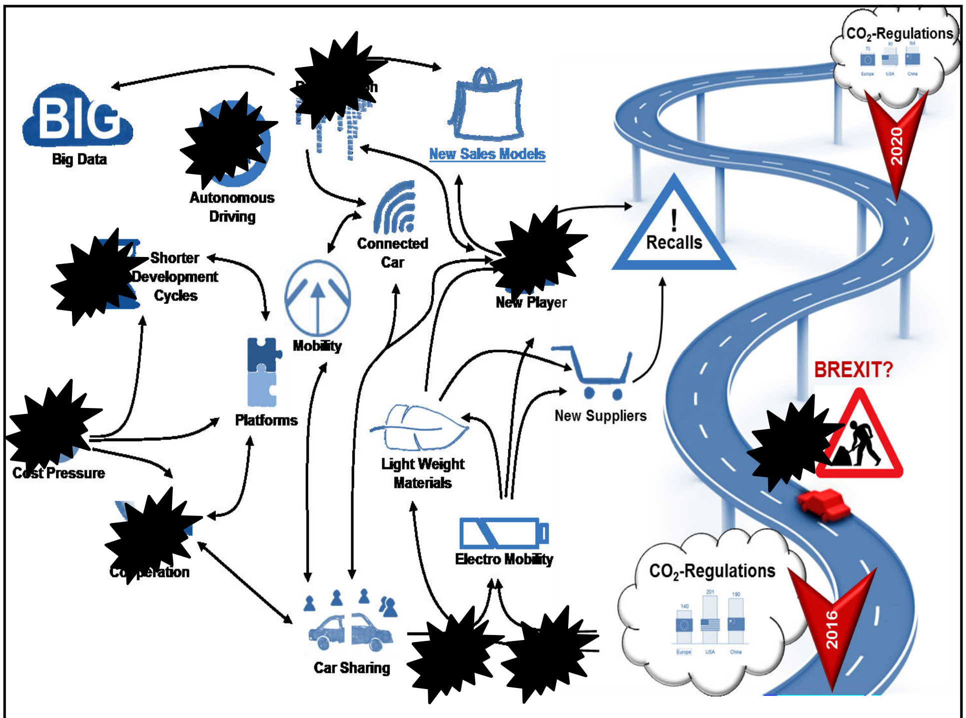

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New technologies

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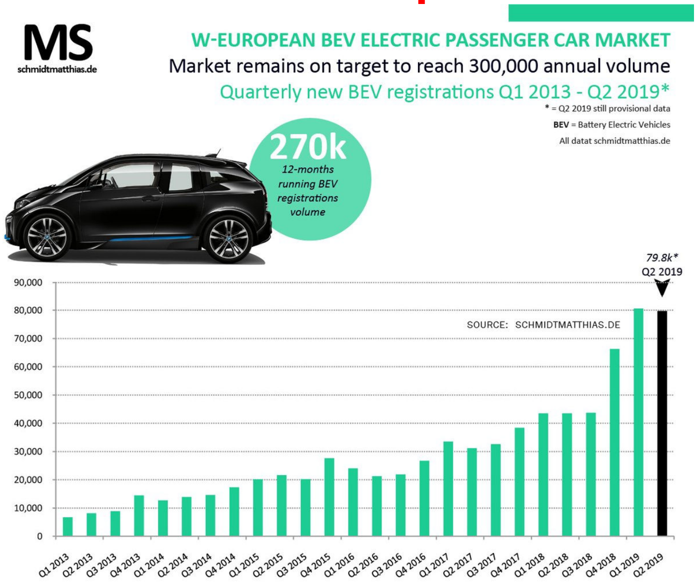
EV sales in EU up:
market share >2% 1st quarter of 2019



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2020 'Year Zero' for EVs?

- Tough EU fleet average CO2 emission targets arrive in 2020
- 'Super credits' come in for plug-in vehicles emitting under 50g/km of CO2
- PLUS emissions cut for auto of 35% by 2030 likely to add to EV take up: Morgan Stanley now forecasting 30% EV market share by 2030
- UK out of sync in cutting EV subsidies. UK market? UK won't count for EU targets plus subsidy cut…

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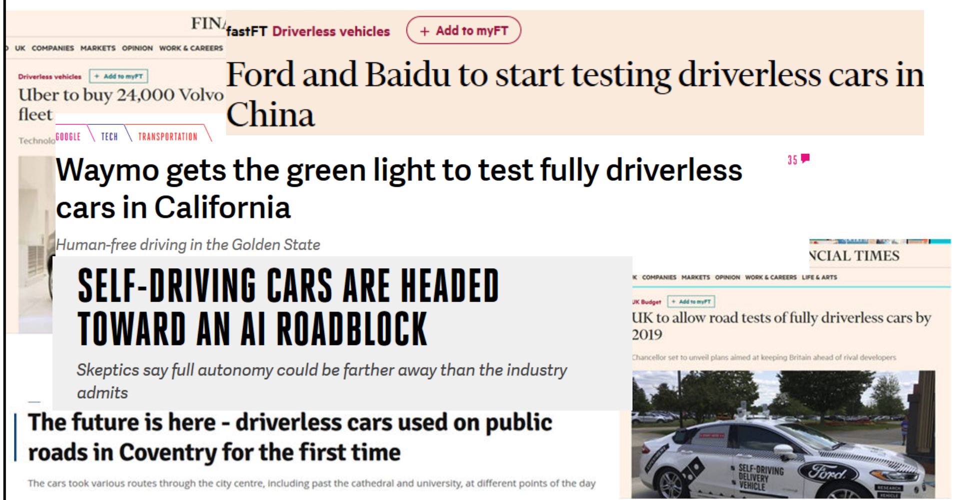
Driverless cars are coming *but* full autonomy is some time away…



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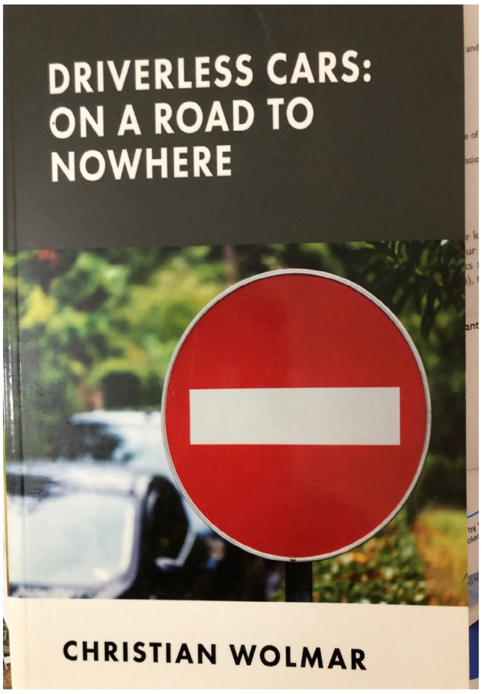

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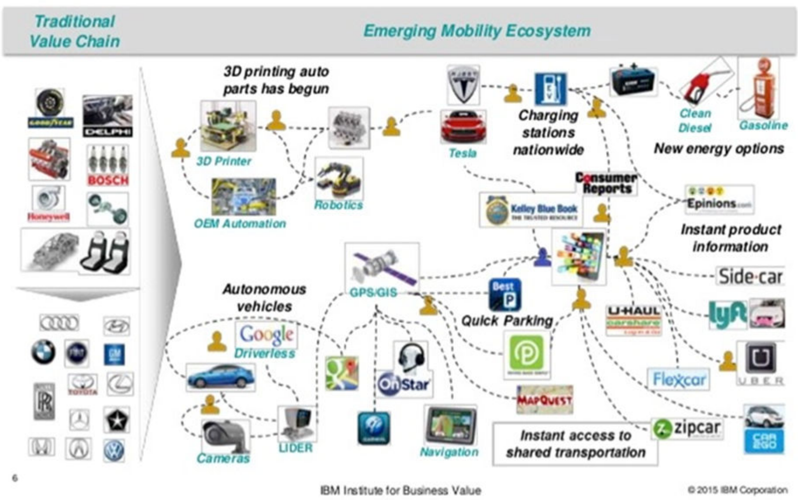

‘ICE to ACE’

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Implications for the Value Chain 1

→ **'fleet-based on-demand personal mobility' value chain**, comprising components which will share data across the value chain, such as:

- ***Vehicle design and manufacturing*** (existing automaker, outsourced automotive manufacturer, supplier or fleet operator, operating more on an open innovation model).
- ***Operating Platform*** (existing automaker, tier 1 supplier or new entrant like Waymo, Renovo or Drive.ai)
- ***User Experience Platform provider*** (controlling the passenger's mobility experience, including in-cabin experience, including hardware, software and data.

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Implications for the Value Chain 2

- ***Data services provider***: content - entertainment, traffic, mapping or weather, consumed by ACE platforms or passengers in ACE vehicles.
- ***Fleet creation****:* fleet operators could specify, design and buy/lease from a specific vehicle manufacturer or lease vehicles from a 'fleet creation company', as in the airline industry. Fleet creation involves financing and insurance.
- ***Fleet operator****:* firms operating and managing the fleet of ACE vehicles offering on-demand mobility services - extend to integrating on-demand with public transport and to '*Global Distribution System*' firms (as in the airline industry) offering reservations to on-demand mobility services?
- ***Fleet service and maintenance provider****:* servicing, maintaining and supporting fleets – specialists may provide this service.

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Policy: helpful but modest so far…

- Innovate UK funding and APC support has been key
- Chancellor announced funding for new technologies such as driverless cars and electric vehicle batteries in the last Budget.
- But sums on offer (£270 million +) for a range of disruptive technologies including robotics, biotech and driverless cars, seem pretty small beer compared to other countries.
- The Obama government set out a **ten-year, $4bn programme** in the United States to invest in driverless cars alone.

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Some policy implications

- Brexit
- Policy on diesels
- Industrial strategy for EVs; technology, skills, supply chain AND *consumer take up* – taxes, infrastructure etc
- Govt's industrial strategy and sector deal IS a start but doesn't go nearly far enough eg on supply chains.
- Long term commitment and certainty re take up of LCVs.
- Autonomous cars: need for broader planning and debate.
- EU standards – membership was a good thing: how will this be handled?

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Thanks for listening.

Comments, Questions welcome.

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