

UK Auto Outlook after Brexit

AM Auto Retail Congress

Ricoh Arena, Coventry

21st May 2019

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Birmingham Business School



*“Does your car have any idea why
my car pulled it over?”*

How market trends, Brexit and new technologies are affecting the automotive sector

Market trends

Policy issues

Trade tensions and Brexit

New technologies & value chain...

Globally...

China is slowing down. *Sales down for 11 successive months - 17% in April* ('natural' trend, economic slowdown + govt constraining credit growth esp. P2P lending + trade tensions/uncertainty...)

(2008-17: market grew by 14% per year on average)

+

EV industry hotting up: 1m 'EVs' made last year in China; 'NEV' sales up 53% y/y last quarter, PHEVs up 120%. Could see 1.6m EV sales this year.

UK exports to China down (by over 70% early part of year -JLR)

UK Auto Market trends

- UK sales down **7%** in 2018, and down **4.1%** in April 2019 (so far 2019: **-2.7%**)
- 2019 market shares so far: diesels **28%** (33%), petrol **66%** (62%), AFVs **6%** (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: 25 straight months of diesel decline. So far 2019: **-18%**
- Instant 'used cars': pre-reg cars back in a big way
- 2019 as a whole?

SMMT 2019 forecasts

- Cars registrations at 2.313m, **down 2.3%** on the 2018 level.
- Diesel car volume of 0.624m, down 16.9% on 2018 and reducing market share to 27.0%.
- AFVs registrations to rise 25.3% and plug-ins up 43.0%, taking market shares to 7.7% and 3.7%

Sharp drop in borrowing for car finance this year

Bank of England: consumer credit increased by £549 million in March, the lowest increase since Nov 2013.

Weakness largely due *to a fall in new lending for car finance.*

Best sellers

BEST SELLERS

APRIL 2019

①	Ford Fiesta	5,606
②	Ford Focus	4,565
③	Volkswagen Golf	3,953
④	Nissan Qashqai	3,791
⑤	Mercedes-Benz A-Class	3,584
⑥	Ford Kuga	3,455
⑦	Volkswagen Polo	3,022
⑧	Volkswagen Tiguan	2,822
⑨	Vauxhall Corsa	2,728
⑩	Hyundai Tucson	2,702

YEAR-TO-DATE

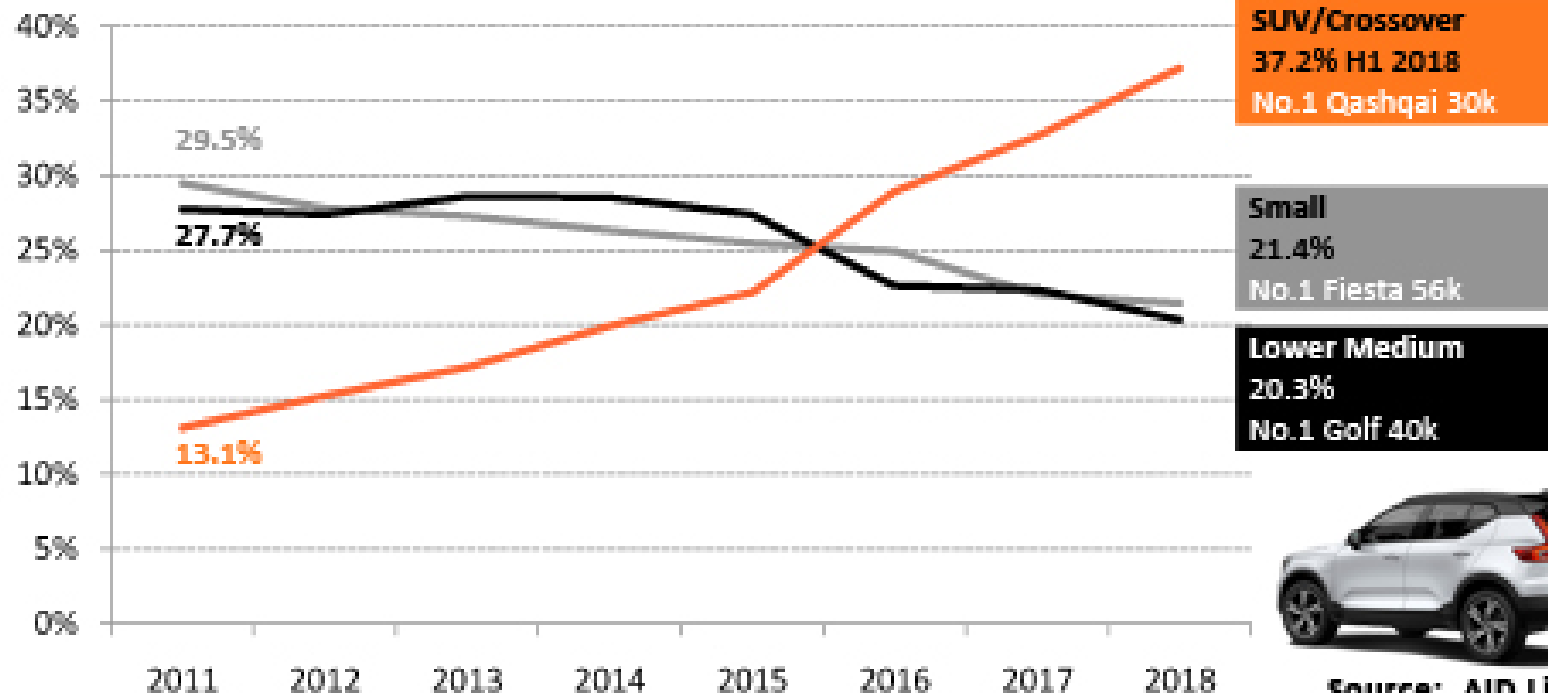
①	Ford Fiesta	29,080
②	Volkswagen Golf	21,365
③	Ford Focus	21,233
④	Vauxhall Corsa	20,375
⑤	Mercedes-Benz A-Class	20,216
⑥	Nissan Qashqai	20,211
⑦	Volkswagen Polo	16,111
⑧	Ford Kuga	14,260
⑨	Kia Sportage	13,329
⑩	MINI	13,280

Love affair with SUVs/Crossovers...

United Kingdom

Love affair with SUV/Crossovers

Passenger car sales by segment 2011 - 2018 (6-Months)



Source: AID Limited

Market downturn: what's changed?

- UK market 2019 (so far) -2.7%: 2018 -7%: 2017 -6%.
- **Big** shift away from diesels ongoing...
- Economy has slowed: *2% smaller* than would have been otherwise, post Referendum.
- Softening economy, falling consumer confidence, prices have risen (linked to £ depreciation post Brexit vote AND recovering European market) → slowdown
- Supply side disruption with WLTP
- SMMT had been too optimistic (f: 2.6% fall in 2017): it had expected “the market to continue gradually recovering” in 2018.

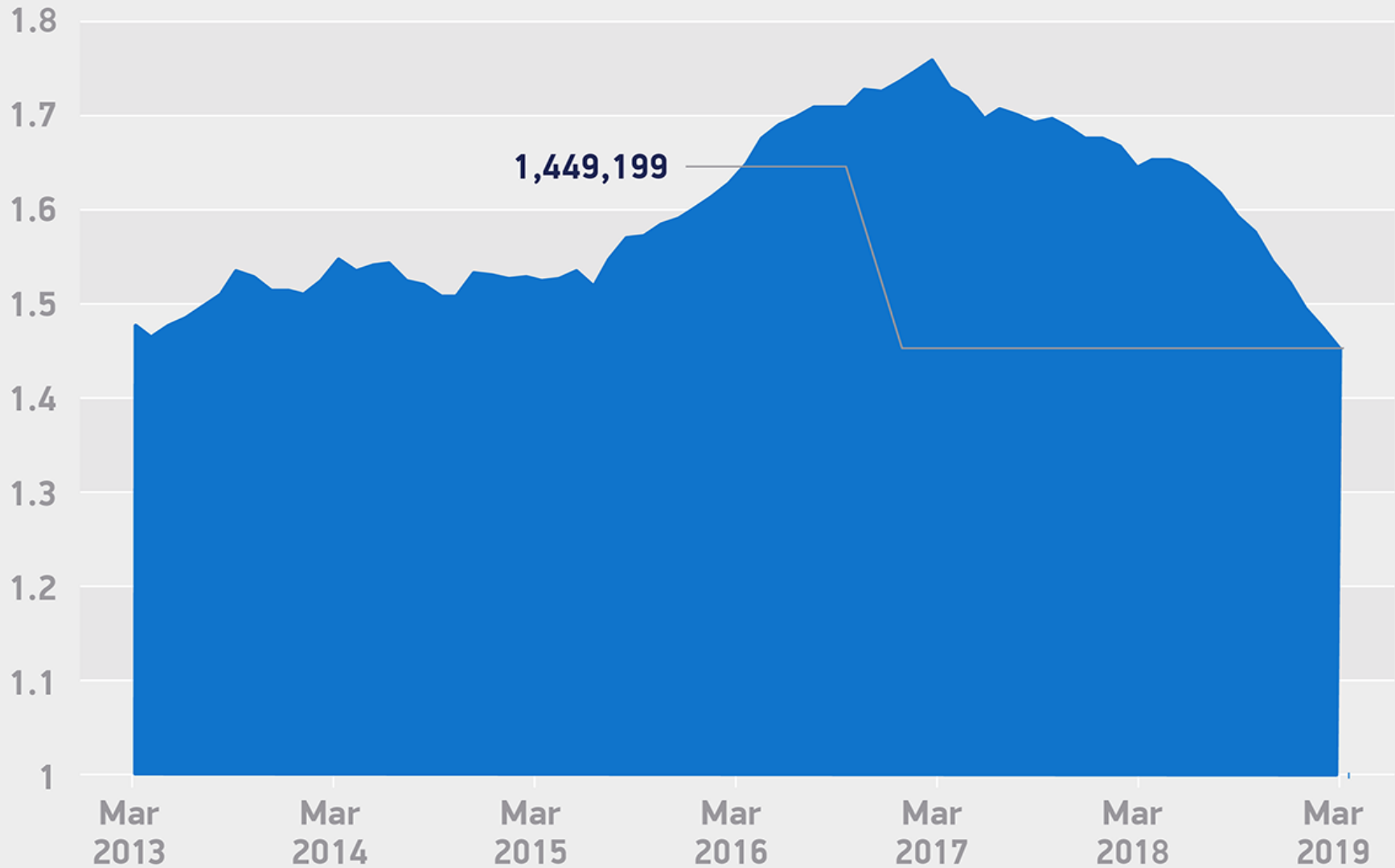
EU car market

- EU car registrations stable (+0.1%) 2018
- There was big volatility around the intro of WLTP testing
- ACEA suggesting similar volumes in 2019
- BUT economies are slowing.
- Down by 3.6% last month, 7th consecutive monthly fall (diesel city ban, falling consumer confidence and Brexit uncertainty?)
- Up to a 5% contraction in 2019?

UK car production

- Production **-9%** in 2018 (output for domestic market **-16%**). 2019 1st Quarter: **-16%**
- “considerable concern” – SMMT
- Production slowdowns, shut downs and job cuts at Vauxhall, Ford, Nissan, JLR.
- Combination of Brexit uncertainty slowdown, Diesel demise and China
- Honda announcement.

CAR OUTPUT – ROLLING YEAR TOTALS (millions)

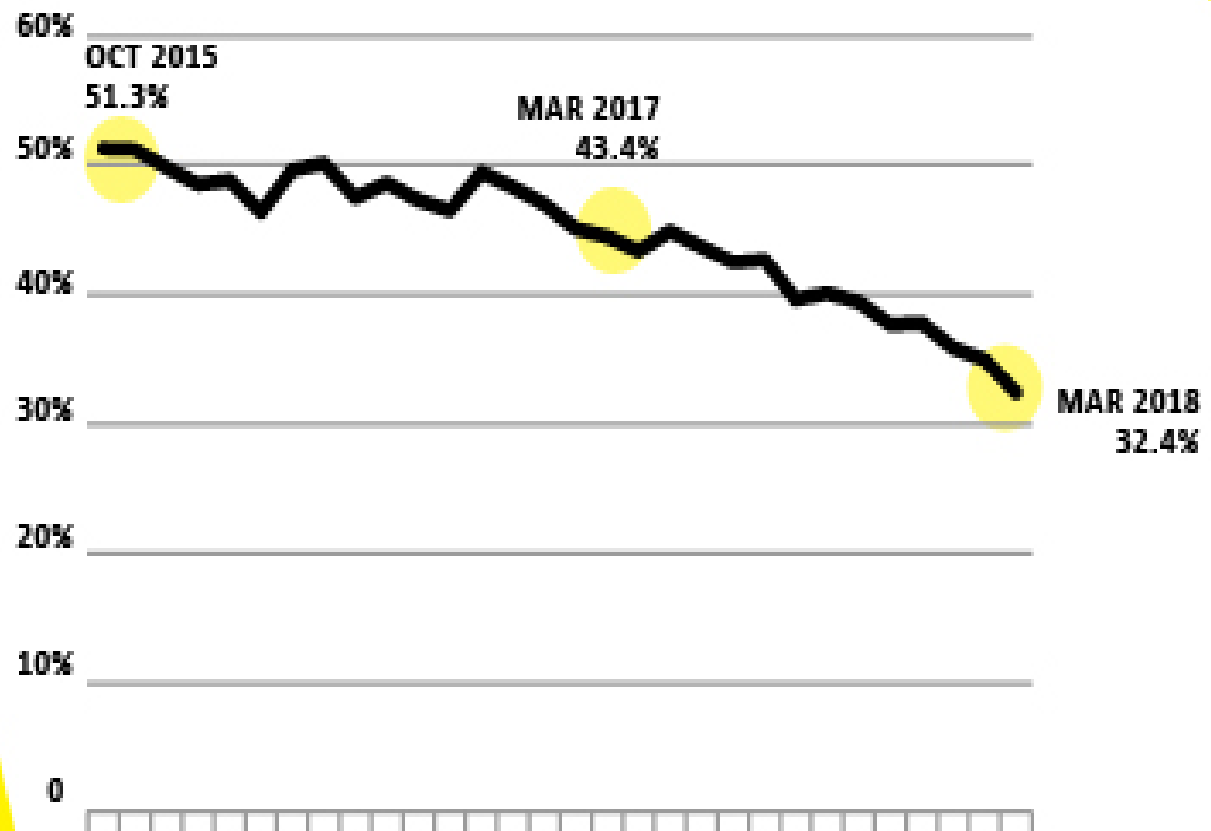


Diesel's decline UK



UK DIESEL DIVE CONTINUES UK MONTHLY DIESEL CAR SALES SHARE OCT 2015 - MAR 2018

UK
DIESEL
CAR SALES



32.4%

UK
DIESEL
SALES MIX
MARCH
2018

SOURCE SMMT



Photo:
Matthias Schmidt

Diesel's decline – EU

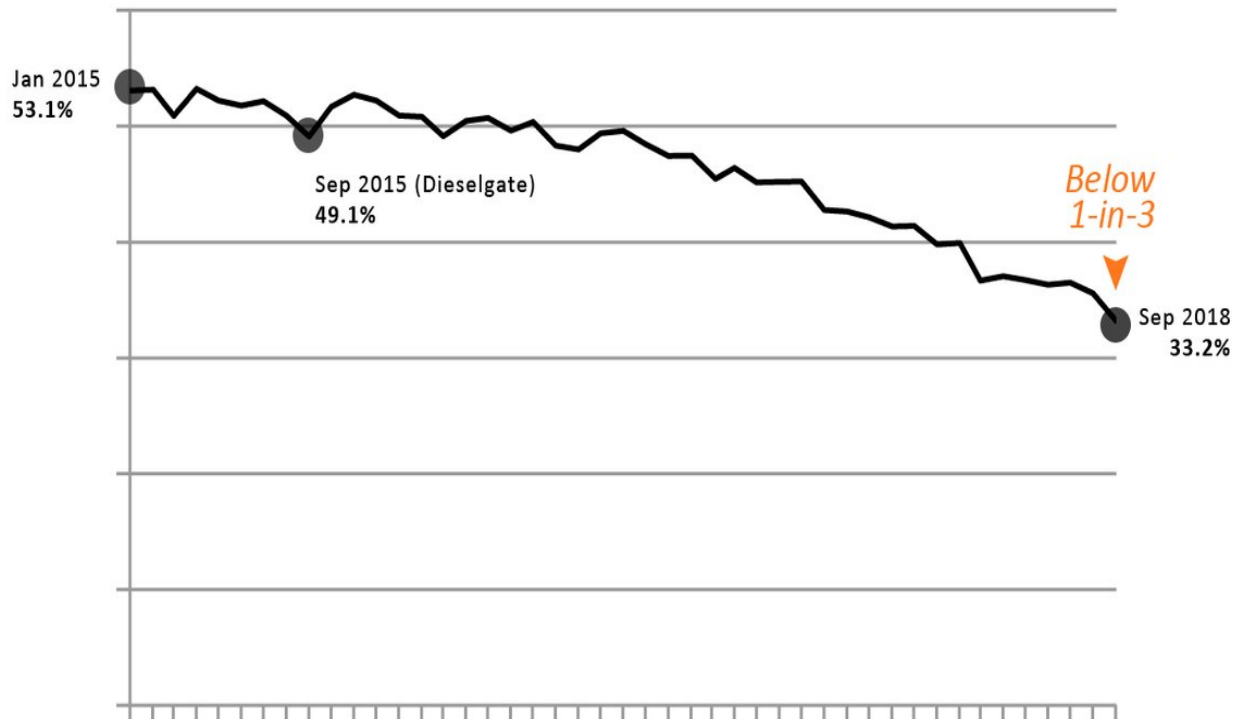
MS
schmidtmatthias.de



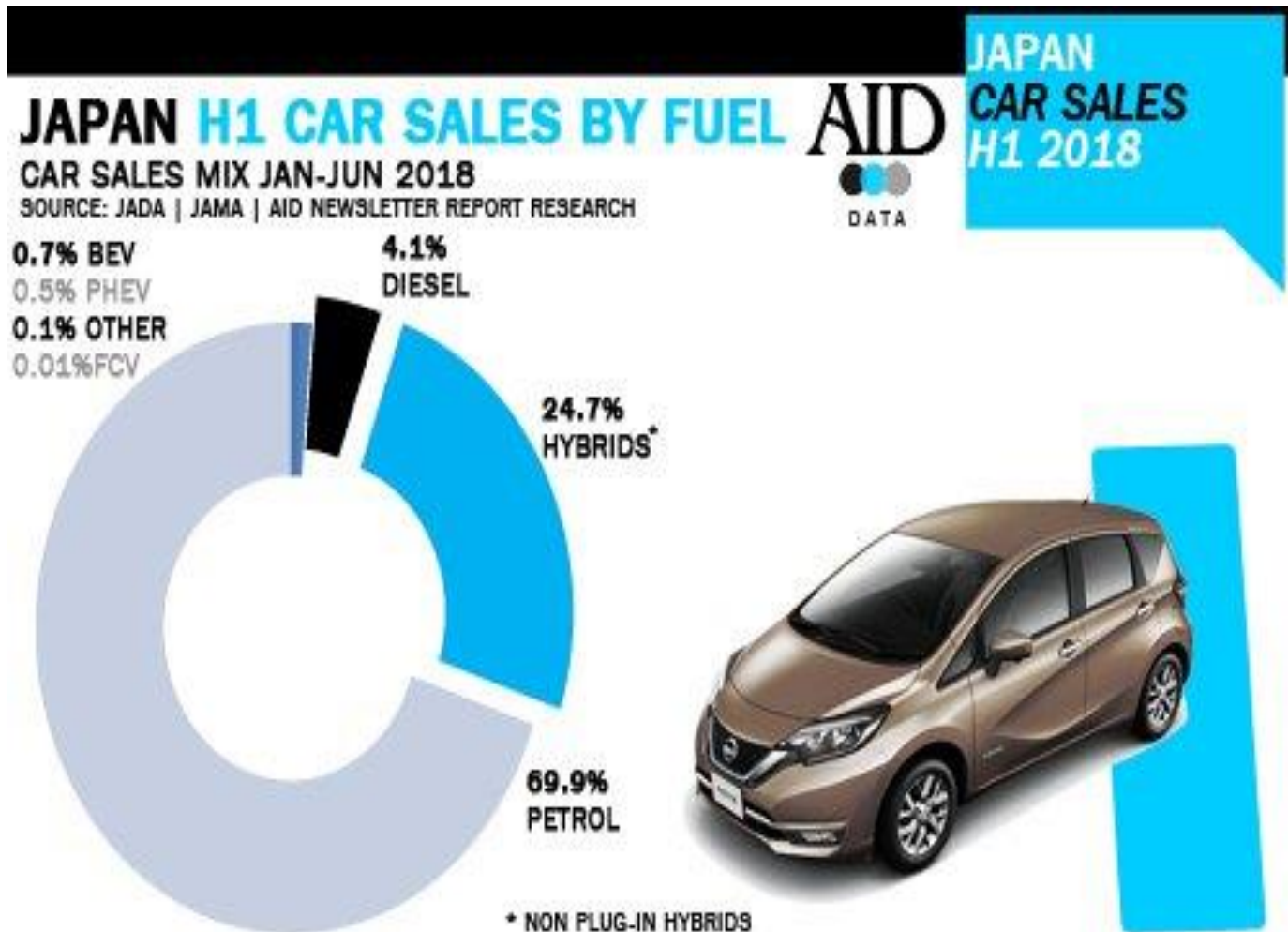
DIESEL

W-Europe diesel mix of new car registrations

Jan 2015 - Sep 2018



Diesels are not a big deal elsewhere...



Diesel's decline

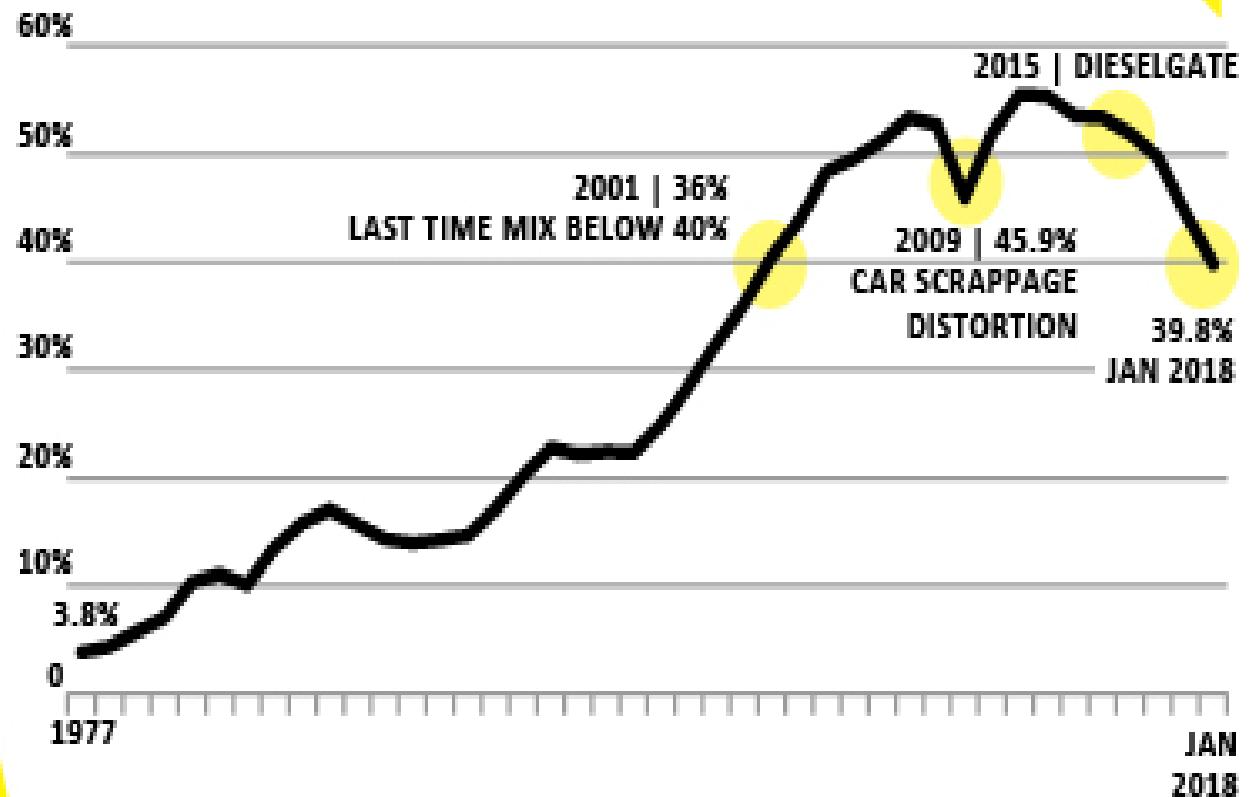
- Diesel market share continues to fall across W Europe; March 2019 **32%** (March 18: 36%, March 17: 45%)
- Europe: >3 years of falling diesel share (52% late 2015)
- Worst figures since end of 1990s.
- Key market: Germany - diesel share now **below 30%**.
- Hamburg and Berlin have banned older diesels 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%**

Diesel's decline - EU



DIESELS DOWN AND BELOW 40%
W-EUROPE DIESEL SALES MIX
ANNUAL DIESEL MIX '77-'17 + JAN 2018

**W-EUROPE
DIESEL CAR
SALES TRENDS**



<40%

W.EUROPE
DIESEL
SALES MIX
JANUARY
2018

SOURCE AID

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 Cttee: ban to be brought forward to 2032.

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.CO2 emissions will rise: increase potential for EU fines for non-compliance with 2020 emissions standards
- *“With up to 1m annual sales and emissions up to 15-20 g/km above 2020 standards... luxury [manufacturers] annual CO2 penalties could rise towards €2 bn a year,” (Morgan Stanley)*
- + need to spend heavily on technology to replace diesels. Further collaboration likely.

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 odd one out in committing strongly to diesel




Department
for Environment
Food & Rural Affairs


Department
for Transport

Clean Air Zone Framework

Principles for setting up Clean Air Zones in England

May 2017

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: ‘**ultra-low emission vehicles with a significant zero emission range will never be charged for entering or moving through a CAZ**’, ‘**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 the 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 by March 2018, & another 7 required to develop a local action plan due to NO₂ exceedances on just one stretch of road.

Bans coming on 'ICE-only' vehicles

News > World

Paris to ban all petrol and diesel cars by 2030

CHRIS BAYNES | Thursday 12 October 2017 11:05 | 0 comments



Like Click to follow The Evening Standard



All diesel and petrol-engined cars are to be banned

News > World

European cities announce bans on petrol and diesel cars as green initiative spreads across continent

'It's not a human right to pollute the air for

Oxford

Charlotte Beale | @CharlotteAGB | Saturday 14 October 2017

Oxford aims for world's first zero emissions zone with petrol car ban

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Norway to 'completely ban petrol powered cars by 2025'

'What an amazingly awesome country', Elon Musk tweeted in response to the plan

Jess Staufenberg | Saturday 4 June 2016 | 264 comments



hasing out polluting vehicles including taxis, cars and area in 2020



Hybrids?

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

Environment secretary favours the move but it is hotly contested within government

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

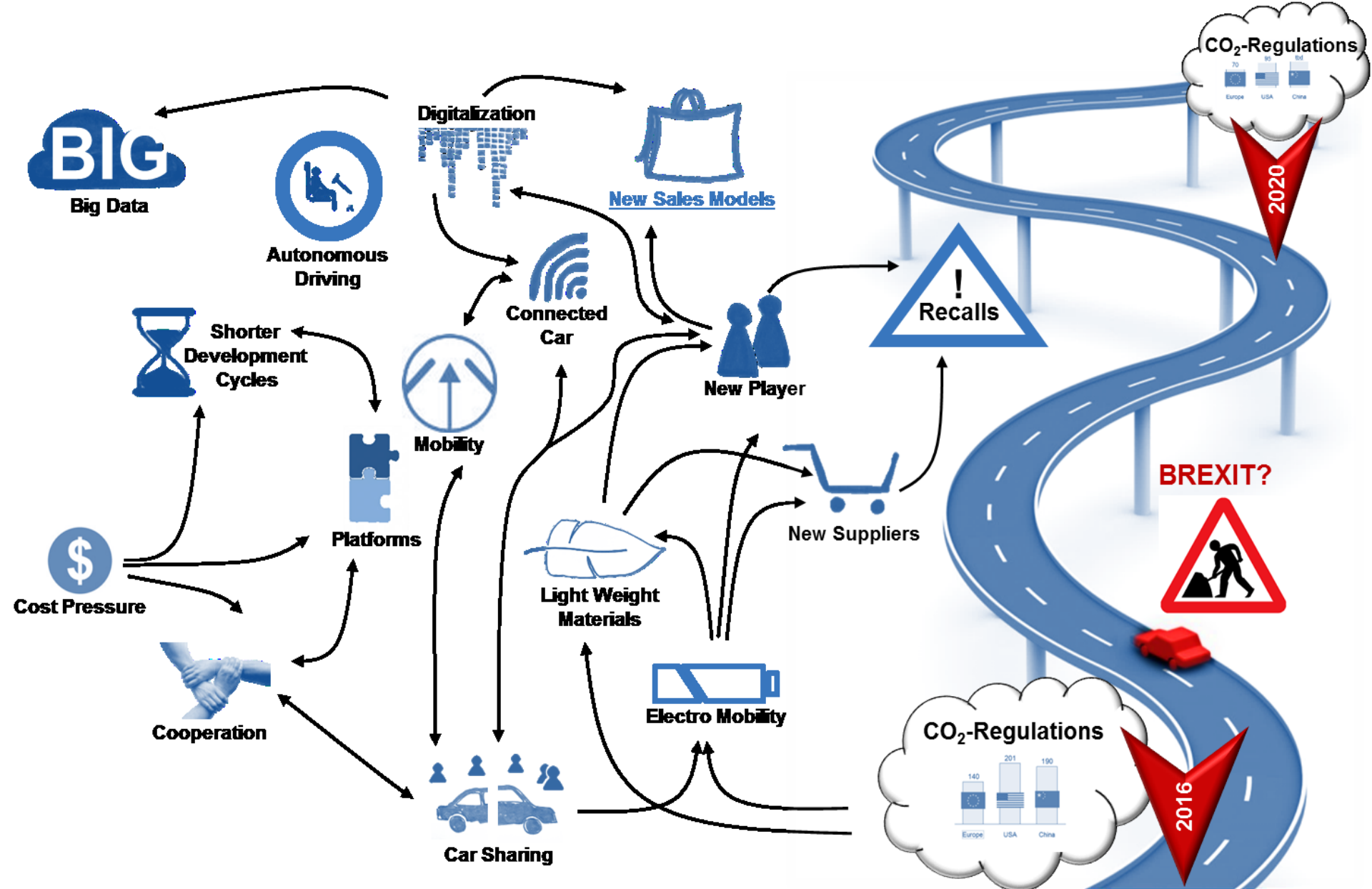
- Petrol/diesel ban from 2040 announced in 2017
- 'Road to Zero'
- Govt thought to be considering ban on hybrids (<50m on battery) by 2040.
- Risks killing technology before it takes off?

Brexit

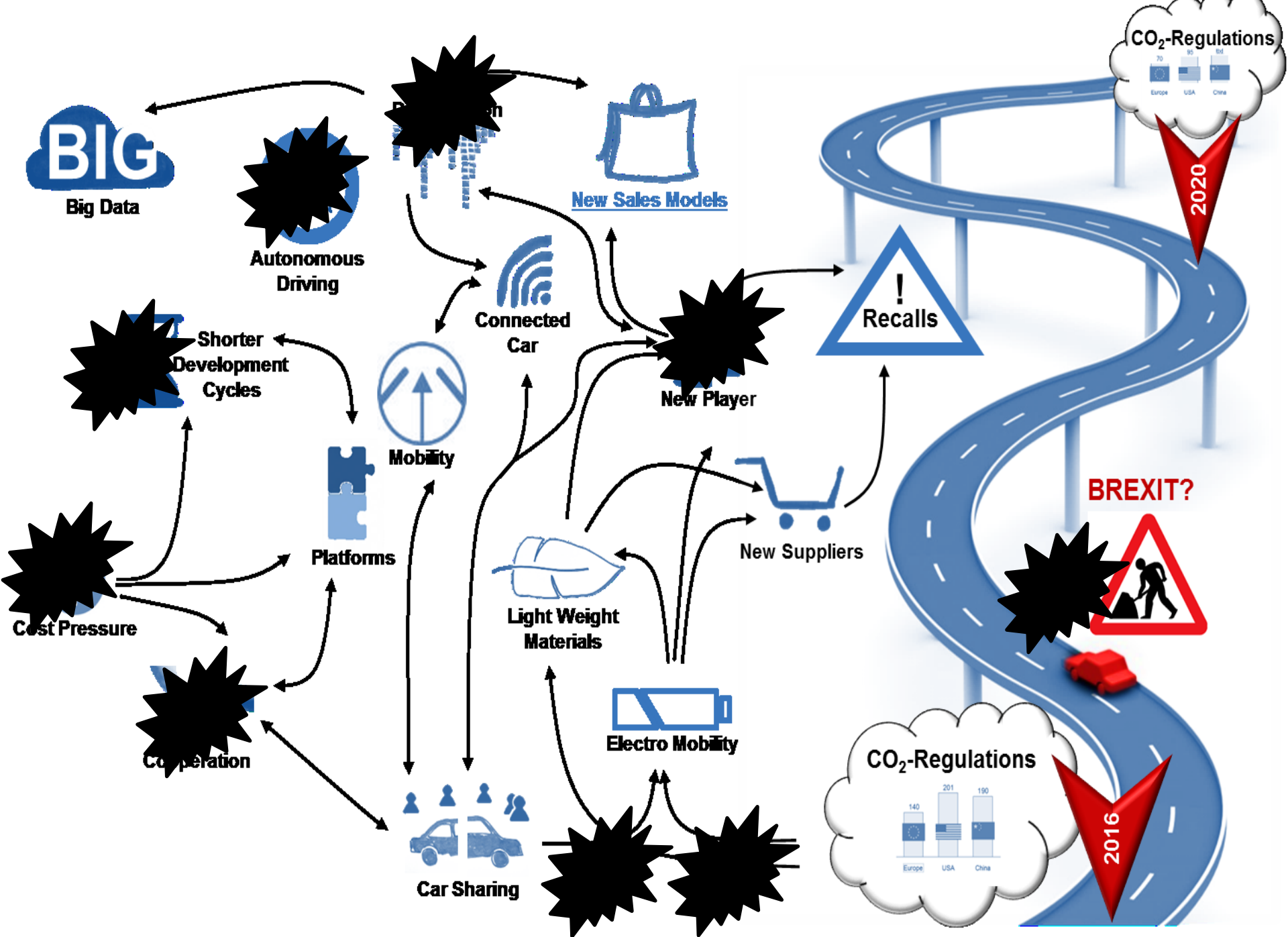
- Uncertainty: investment
- Trading arrangements + Rules of Origin
- Customs
- Skills
- Regulation
- Research networks and funding

Brexit

- Impact of Brexit: economic growth, investment delays, shifting cost bases, export disruption
- Transition agreement *if* May gets deal through but huge uncertainty over actual deal: customs union, single market access?
- Uncertainty: big deterrent to foreign direct investment.
- Investment has been reduced, firms postponing big decisions.
- No deal planning: Stockpiling parts (Honda, Aston Martin), temp plant closures last month (MINI, Honda, JLR, Vauxhall)
- JLR warnings over effects of no deal: £1.2bn hit to profits, 10000s job cuts, Question mark over £80bn inv programme, question whether plants can actually operate at end of March
- Canada style trade deal won't sort customs issues
- May unlikely to get the 'deal' through Parliament so bumpy ride ahead...



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



No deal?

- UK might see a short term recession.
- Short term production hit: -175,000 units
- Longer term: as much as -500,000 more as compared with a baseline 'orderly' Brexit by end of 2020s.
- Plant closures
- 10,000s of job losses

New technologies

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



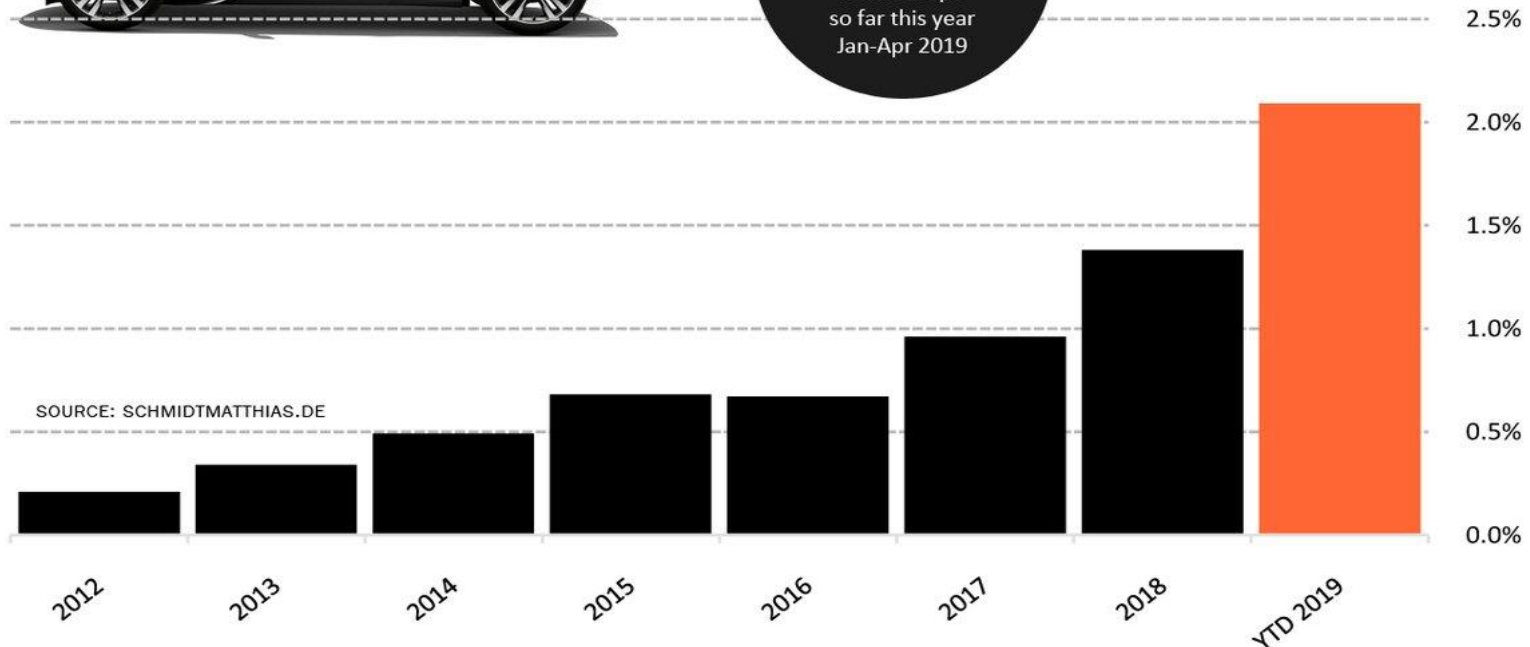
EVERY 50TH CAR NOW REGISTERED IN W-EUROPE IS PURE EV
West European BEV electric car registrations mix of total market

2012 - 2019*
* = Jan-Apr

BEV = Battery Electric Vehicle or pure electric featuring no internal combustion engine
Western Europe = EU Member States before the 2004 enlargement + Switzerland and Norway



>100,000
Pure electric BEV
passengers cars
newly registered
in W.Europe
so far this year
Jan-Apr 2019



SOURCE: SCHMIDTMATTHIAS.DE

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...

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

FINANCIAL TIMES

UK COMPANIES MARKETS OPINION WORK & CAREERS

fastFT Driverless vehicles

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Driverless vehicles + Add to myFT

Uber to buy 24,000 Volvo fleet

Ford and Baidu to start testing driverless cars in China

Technol

GOOGLE TECH TRANSPORTATION

Waymo gets the green light to test fully driverless cars in California

35

Human-free driving in the Golden State

SELF-DRIVING CARS ARE HEADED TOWARD AN AI ROADBLOCK

Skeptics say full autonomy could be farther away than the industry admits

The future is here - driverless cars used on public roads in Coventry for the first time

The cars took various routes through the city centre, including past the cathedral and university, at different points of the day

FINANCIAL TIMES

UK COMPANIES MARKETS OPINION WORK & CAREERS LIFE & ARTS

UK Budget + Add to myFT

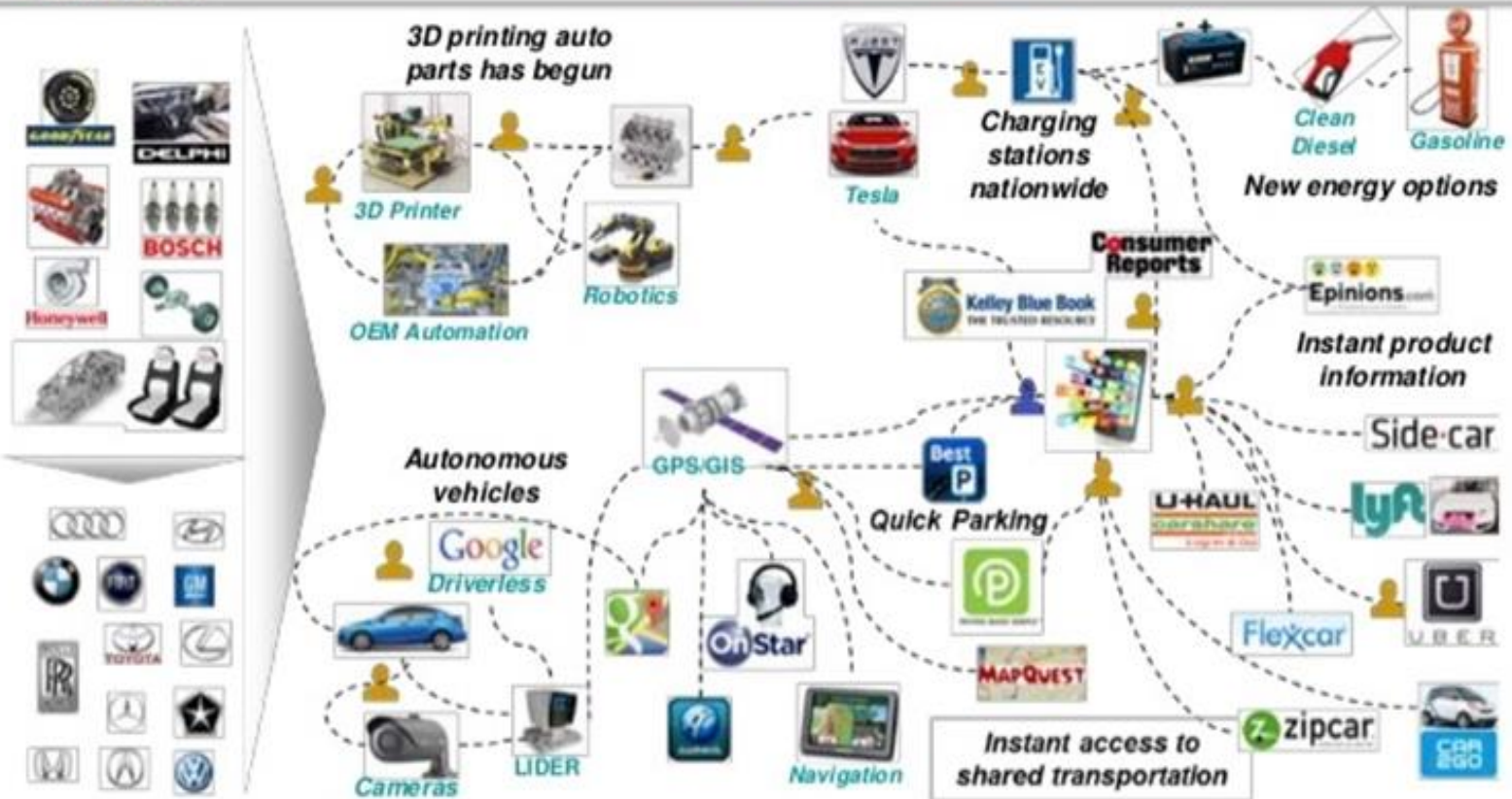
UK to allow road tests of fully driverless cars by 2019

Chancellor set to unveil plans aimed at keeping Britain ahead of rival developers



Traditional Value Chain

Emerging Mobility Ecosystem



‘ICE to ACE’

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.

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.

Support: helpful but small so far...

- Chancellor announced funding for new technologies such as driverless cars and electric vehicle batteries in the last Budget.
- A welcome start and something that the auto sector has been calling for.
- But sums on offer (£270 million +) to put the UK at the "forefront" of a range of disruptive technologies including robotics, biotech and driverless cars, seem pretty small beer compared to what is going on in other countries.
- The Obama government set out a **ten-year, \$4bn programme** in the United States to invest in driverless cars alone.

Some policy implications

- Industrial Strategy to develop new technologies (batteries, EVs, autonomous tech) here in UK and create manufacturing jobs.
- Align policies on innovation, skills, supply chain, procurement, planning, energy...
- 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.

Some policy implications

- Brexit
- Policy on diesels
- Industrial strategy for EVs; technology, skills, supply chain AND consumer take up
- Autonomous cars: Testing; Privacy and data; digital infrastructure; Cyber security – min levels hardware software; telecom standards (bandwidth, IoT, M2M talk to each other)
- EU standards – membership was a good thing: how will this be handled?

Thanks for listening.

Comments, Questions welcome.

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