John Curtis
CHAIR
Steven Hayles
FLEET SUPPORT MANAGER, GATESHEAD COUNCIL
Gateshead Council
Fleet Profile
Gateshead History

- Embraced both Green Fleet And Safe Driving since the Early 90’s
- Successful trails of Bio Diesel
- Early adopter of LPG
- Low Carbon Vehicle Procurement Programme since inception.
- EV’s and Hybrids, stop start
- EV Infrastructure
Low Emission Vehicles

- Ashwood Transit hybrids
- Smith Electric Transit vans
- Electric cars
  - I-Miev
  - Peugeot ION
  - Nissan Leaf
- Nissan e-NV200
- Euro 6 vehicles
Low Emission Vehicles
Vehicle Charging

- Photovoltaic charger
- Fast Charging Stations: depot and highway
- PIP Gateshead/Newcastle
Fuel Savings achieved by

- In House Driver Training
- Daily checks
- SAFED
- MPG performance data for drivers
- MCS fuel monitoring (Co2)
- Restricted to 56mph
- Adopting latest vehicle technology, i.e. tracking, route optimisation and Lightfoot.
- Vehicle technologies
# Ashwoods Lightfoot

<table>
<thead>
<tr>
<th>Vehicle Registration</th>
<th>Time In Green</th>
<th>Time in Amber</th>
<th>Time in Red</th>
<th>Violations</th>
<th>Mileage This Week</th>
<th>Total Vehicle Mileage</th>
<th>Lightfoot Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>YD10VXN</td>
<td>91.15%</td>
<td>8.60%</td>
<td>0.25%</td>
<td>0</td>
<td>208</td>
<td>24281</td>
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</table>
**Fuel Data**

### Performance Reports

**Saved Reports**

**Search Results (1.38 seconds)**

<table>
<thead>
<tr>
<th>Vehicle Number</th>
<th>Vehicle Brand</th>
<th>Vehicle Model</th>
<th>Vehicle Code</th>
<th>Vehicle Mileage</th>
<th>Historical Miles</th>
<th>Historical Distance</th>
<th>Historical litres</th>
<th>Historical MPG</th>
<th>Historical LPG</th>
<th>Historical 1/100km</th>
<th>Historical 1/1000km</th>
<th>Historical 1/10000km</th>
<th>Selected Count</th>
<th>Selected Start</th>
<th>Selected End</th>
<th>Selected Distance</th>
<th>Selected litres</th>
<th>Selected MPG</th>
<th>Selected LPG</th>
<th>Selected 1/100km</th>
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<td>2213</td>
<td>PERISTAl</td>
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<td>2</td>
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<td>47058.0</td>
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<td>46.09</td>
<td>5.87</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### MPG Graph

- Data for 01/10/2017 00:00:00 to 31/12/2017 23:59:00
- Click and drag for full zoom in

**Gateshead Council**
Partners: Green Fleet

- OLEV panel participant
- Future Transport Systems
- Joint Cities Programme PIP
- Switch E V
- Councils within the Region
- Charge Your Car
- Clean van commitment
Grey fleet initiatives

- Common Wheels
- Available to Public
- Staff mileage reduction
Useful Contacts

- Cenex: www.cenex.co.uk/vc3
- Commercial Fleet (cost/emission calculator tools): www.commercialfleet.org/tools/van/running-costs/
- Go Ultra Low: www.goultralow.com
- Zap Map (charging): www.zap-map.com
- Energy Saving Trust: www.energysavingtrust.org.uk/transport/electric-vehicles
- UKEVSE, Electric vehicle supply equipment assoc: http://ukevse.org.uk/
Thank you

‘Gateshead will continue to monitor new and emerging technologies and develop relationships with our partners to ensure our common aim of minimising our carbon footprint and improve our driving standards’.
Edward Nelson
HEAD OF LOCAL AND DEVOLVED DELIVERY, OLEV
Kim Harrison

CATEGORY LEAD – FLEET, CROWN COMMERCIAL SERVICE
GreenFleet
2019
Introducing Crown Commercial Service

We help organisations across the entire public sector save time and money on buying their everyday goods and services…

- Commercial expertise
- Supporting frontline services
- Significant savings
- Customer focused
- Bulk buying power

We aim to help our customers save £2 billion between 2016 and 2020
Our Numbers

**£13bn**
public sector spend through our commercial agreements

**£6.3bn**
from the wider public sector

**£6.7bn**
from central government

**17,000**
Customers

**£601m**
commercial benefits including savings

**5,000+**
Suppliers
How we work

Developing category strategies and commercial agreements:

- Industry engagement and market research
- Strategic supplier relationships
- Aligning customer needs to market opportunities
- Benchmarking and savings: focus on total operating costs

Managing commercial agreements:

- Managing the procurement process
- eAuctions and aggregation
- Supplier performance management
- Contract management
- Category advice and guidance
Total Fleet Solutions from CCS
Electric Vehicles for Smart Cities

Infrastructure
Transport technology solutions:
- Consultancy services
- Sustainable transport infrastructure
- A dynamic catalogue for commodity products

Vehicles
- Full availability of alternatively fuelled vehicles, all brands
- Buy, lease or hire
- Access associated consultancy and fleet management services
- Post-production conversions
- Vehicle telematics
Selecting the right solutions

The CCS Fleet Portal:

- Real-time quotations
- Purchase or lease
- Full range of vehicles
  - All fuel types
- Compare
- Filter e.g.
  - Environmental
  - Safety
- Whole life costing
  - Service, maintenance & repair
  - Residual Values
  - Cost per mile
Get Involved

- CCS Fleet Customer Forum
- Fleet Portal
- eAuctions
- Speak to us about your future needs and how we can help
Sukky Choongh-Campbell

AIR QUALITY AND ULTRA LOW EMISSION VEHICLES, SMMT
Road to Zero Roadshow
Trends and Emissions from the UK Vehicle Market

Sukky Choongh-Campbell
Environmental Manager, Air Quality and Ultra Low Emission Vehicles
Motor Industry Facts

- **8** Major premium and sports car manufacturers
- **5** Commercial vehicle manufacturers
- **6** Design centres
- **9** Bus and coach manufacturers
- **9** Engine manufacturers
- **60+** Specialist car manufacturers
- **6** Mainstream car manufacturers
- **2,500** Suppliers
- **20** R&D centres

### Key Facts:

- **£82 billion**
  - UK automotive turnover
- **2,540,617**
  - New cars registered in 2017
- **160+**
  - Companies importing UK-built vehicles
- **1,334,538**
  - Cars exported in 2017
- **856,000**
  - People employed across UK Auto
- **34.7 million**
  - Cars currently on UK roads
- **1,671,166**
  - Cars built in 2017
- **78,219**
  - Commercial vehicles built in 2017
- **2,722,325**
  - Engines built in 2017
Vehicles on the road in the UK

More than 8.1 million used cars sold in 2017

Year | Cars (millions)
-----|----------------
2006 | 30.6
2007 | 31.1
2008 | 31.3
2009 | 31.0
2010 | 31.2
2011 | 31.4
2012 | 31.5
2013 | 31.9
2014 | 32.8
2015 | 33.5
2016 | 34.5
2017 | 34.7

The average car on the road in the UK is silver from the Supermini segment and 7.8 years old.

110,684 plug-in cars

39,675,562 vehicles on UK roads

Birmingham has the most electric and plug-in cars in the country at 8.7% of the national total.
Emissions since 1970

- Increases in road traffic account for rise in NO$_2$ between 1984 and 1989
- Catalytic converters and regulation resulted in downward trend since 1990
- Transport still accounts for 49% of UK NO$_x$ emissions. The rate of decline has slowed down due to the increase in diesel vehicles
Particulate Matter emissions 1990-2015

PM10 (kilotonnes)

- Passenger Cars
- LGVs
- HGVs Buses and coaches
- Non road Mobile Machinery

Nitrogen dioxide emissions 1990-2015

The graph shows the trend of nitrogen dioxide emissions from various sectors over the years 1990 to 2015. The y-axis represents NO2 (kilotonnes) and the x-axis represents the years from 1990 to 2015.

Key sectors include:
- Passenger Cars
- LGVs
- HGVs Buses and coaches
- Non Road Mobile Machinery

The emissions for each sector have decreased over time, indicating a positive trend towards reduced nitrogen dioxide emissions in the motor industry.
Megatrends Transforming Transport
Evolution or Revolution?

The Baker Electric is as well and favorably known, that any extended introduction, in presenting the new and extra models, would be unnecessary. The Baker has become the acknowledged Standard Electric of the World through a progressive development which nearly finds a parallel in any other industry.

The First Electric

The first electric car built was a Baker. The foundation of the electric automobile industry was laid in the Baker factory, and the history of the industry since then has been practically the history of this factory.

Exclusive “Baker” Features

The Baker is today the only electric that has a heavy series wound motor of 200 amp, overload capacity, with a commutator absolutely proof against sparking and burning under all conditions. The Baker Motor Vehicle Co. is the oldest and largest manufacturer of electric motor cars in the world.
A decade’s worth of progress

New Automotive Innovation and Growth Team (NAIGT)

LCVPPP

2009-2010

2008

LowCVP

2011-2012

Low Carbon Vehicle Partnerships

Plug-in Car Government Grant

2013-2014

OLEV Workplace Charging and Homecharge Schemes

2015-2016

2017

Plugged-in Places

LCVPPP

Office for Low Emission Vehicles

2008

2009-2010

2011-2012

2013-2014

2015-2016

2017

Advanced Propulsion Centre UK

Go Ultra Low

FORMULA-E CHAMPIONSHIP

Formula-e

Vehicle Technology and Aviation Bill

Government encourages new electric charging points

THE SOCIETY OF MOTOR MANUFACTURERS AND TRADERS LIMITED
State of the ULEV market in the UK

c. 149,000 Plug-in Car Grant orders (Jun 2018)

c. 155,000 plug in cars registered in the UK (Jun 2018)

5,500 plug in vans registered in the UK (Jun 2018)

16,584 charge points in 5,560 locations (Jun 2018)

56 diesel or petrol/ electric models (May 2018)

2 FCEV models, 62 cars registered (Jan 2018)

4.72 % AFVs registered (out of total registrations) (Dec 2017)

17 pure electric models (May 2018)
All Fuel Vehicle Registrations 1998 - 2018

All Fuel Vehicle Registrations 1998 - 2018

- Diesel
- Petrol
- Petrol/Electric
- Plug in Hybrid
- Electric
- Petrol/Electric Range Extender
- Hydrogen/Electric
Supply?
Who is leading in alternatives? – a look at global markets

<table>
<thead>
<tr>
<th>Country</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norway</td>
<td>39.2%</td>
</tr>
<tr>
<td>Iceland</td>
<td>11.7%</td>
</tr>
<tr>
<td>France</td>
<td>1.7%</td>
</tr>
<tr>
<td>United States</td>
<td>1.2%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1.7%</td>
</tr>
<tr>
<td>Sweden</td>
<td>6.3%</td>
</tr>
<tr>
<td>Japan</td>
<td>1%</td>
</tr>
<tr>
<td>China</td>
<td>2.2%</td>
</tr>
<tr>
<td>Germany</td>
<td>1.6%</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>2.7%</td>
</tr>
<tr>
<td>Iceland</td>
<td>11.7%</td>
</tr>
</tbody>
</table>

BEV and PHEV market share, 2017
Source: International Energy Agency, 2018
Convergence: a future of ACES
Policy requirements

- Charging and refuelling infrastructure
- Technology neutrality
- Consistent policy
- Consumer incentives
- Education and awareness
- Shared mobility
The new normal

- The future is not merely about cars, but mobility services and solutions.
- Servitisation of products: new business models wrap around technologically advanced products.
- Vehicle manufacturers and major mobility innovators are already ‘horizontalising’ and hedging their bets.
- In some ways, the future is already here – it’s just not evenly distributed!
Thank you

The Society of Motor Manufacturers and Traders Limited
71 Great Peter Street, London SW1P 2BN
www.smmt.co.uk

SMMT, the ‘S’ symbol and the ‘Driving the motor industry’ brandline are registered trademarks of SMMT Ltd.
Toyota & Lexus

MANUFACTURER’S BRIEF
James Mackintosh
Regional Public Sector Manager, Toyota & Lexus Fleet
The Original Hybrid Electric Vehicle Launched 1997

Mk1 Prius
13,000,000+
TOYOTA & LEXUS BRANDED HYBRIDS SOLD WORLDWIDE

15 MILLION BY 2020
TARGET FOR HYBRID SALES

93 million tons of CO2 SAVED BY TOYOTA HYBRIDS

34 HYBRID MODELS ON SALE WORLDWIDE

4+ million Prius SOLD GLOBALLY

>90 COUNTRIES & REGIONS WHERE TOYOTA HYBRIDS ARE SOLD

SINCE 1997
**Greenest Mainstream Auto Manufacturer**

### Top 20 Best-Selling brands ranked by Average CO₂ emissions (Volume weighted) Europe-23

<table>
<thead>
<tr>
<th>Make</th>
<th>Av. CO₂ 2018 (g/km)</th>
<th>Av. CO₂ 2017 (g/km)</th>
<th>Δ (g/km)</th>
<th>Position 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 TOYOTA</td>
<td>99.9</td>
<td>101.2</td>
<td>-1.4</td>
<td>1</td>
</tr>
<tr>
<td>2 PEUGEOT</td>
<td>107.7</td>
<td>104.5</td>
<td>+3.2</td>
<td>2</td>
</tr>
<tr>
<td>3 CITROEN</td>
<td>107.9</td>
<td>105.5</td>
<td>+2.4</td>
<td>3</td>
</tr>
<tr>
<td>4 RENAULT</td>
<td>109.1</td>
<td>106.6</td>
<td>+2.5</td>
<td>4</td>
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<tr>
<td>5 NISSAN</td>
<td>110.6</td>
<td>115.8</td>
<td>-5.2</td>
<td>7</td>
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<tr>
<td>6 SUZUKI</td>
<td>114.2</td>
<td>114.9</td>
<td>-0.7</td>
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<tr>
<td>7 SKODA</td>
<td>116.7</td>
<td>115.9</td>
<td>+0.8</td>
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<td>8 SEAT</td>
<td>116.9</td>
<td>118.0</td>
<td>-1.1</td>
<td>10</td>
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<tr>
<td>9 VOLKSWAGEN</td>
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<td>119.5</td>
<td>-0.7</td>
<td>11</td>
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<tr>
<td>10 FIAT</td>
<td>119.2</td>
<td>115.6</td>
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<tr>
<td>11 KIA</td>
<td>120.4</td>
<td>120.1</td>
<td>+0.4</td>
<td>12</td>
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<tr>
<td>12 DACIA</td>
<td>120.8</td>
<td>116.9</td>
<td>+3.9</td>
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<tr>
<td>13 HYUNDAI</td>
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<td>122.0</td>
<td>+1.2</td>
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<tr>
<td>14 FORD</td>
<td>123.7</td>
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<td>+2.9</td>
<td>13</td>
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<td>15 OPEL/VHALL</td>
<td>125.6</td>
<td>123.4</td>
<td>+2.3</td>
<td>16</td>
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<tr>
<td>16 AUDI</td>
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<td>124.3</td>
<td>+3.3</td>
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<td>17 BMW</td>
<td>128.9</td>
<td>121.8</td>
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<td>18 VOLVO</td>
<td>130.0</td>
<td>124.3</td>
<td>+5.8</td>
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<tr>
<td>19 MAZDA</td>
<td>135.2</td>
<td>131.2</td>
<td>+4.0</td>
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<td>20 MERCEDES</td>
<td>139.6</td>
<td>129.0</td>
<td>+10.5</td>
<td>19</td>
</tr>
</tbody>
</table>

- **Low CO₂**
- **Virtually zero NOx**

**Awards and Recognitions**

- "Fleet Car Manufacturer of the Year" 2018 GreenFleet Awards
- "Green Fleet Manufacturer" 2018 Fleet News Awards
- "Best Large Hybrid – Lexus RX" 2019 Driving Electric Awards
- "Best Compact Hybrid – Toyota Prius" 2019 Driving Electric Awards
- "Technology Award – Toyota & Lexus Hybrids" 2018 Fleet World Honours
#3 Greenest Company in the World

## THE CLEAN200™ LIST

<table>
<thead>
<tr>
<th>RANK</th>
<th>NAME</th>
<th>COUNTRY</th>
<th>SECTOR</th>
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<tbody>
<tr>
<td>1</td>
<td>Alphabet Inc</td>
<td>United States of America</td>
<td>Communication Services</td>
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<tr>
<td>2</td>
<td>Siemens AG</td>
<td>Germany</td>
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<tr>
<td>3</td>
<td>Toyota Motor Corp</td>
<td>Japan</td>
<td>Consumer Discretionary</td>
</tr>
<tr>
<td>4</td>
<td>Cisco Systems Inc</td>
<td>United States of America</td>
<td>Information Technology</td>
</tr>
<tr>
<td>5</td>
<td>HP Inc</td>
<td>United States of America</td>
<td>Information Technology</td>
</tr>
<tr>
<td>6</td>
<td>Taiwan Semiconductor Manufacturing Co Ltd</td>
<td>Taiwan</td>
<td>Information Technology</td>
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<tr>
<td>7</td>
<td>ABB Ltd</td>
<td>Switzerland</td>
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</tr>
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<td>8</td>
<td>Telefonaktiebolaget LM Ericsson</td>
<td>Sweden</td>
<td>Information Technology</td>
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<tr>
<td>9</td>
<td>Unilever PLC</td>
<td>United Kingdom</td>
<td>Consumer Staples</td>
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<td>10</td>
<td>Banco do Brasil SA</td>
<td>Brazil</td>
<td>Financials</td>
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</table>
Hybrid Benefits

Great Choice for Drivers

- BIK
- CO₂ g/km
- MPG
- £ BIK
- TAX

Great Choice for Fleets

- £ TCO
- P
- Repair
- £
- NI

Seven all new hybrid electric models launching in 2019
New Toyota Corolla: World’s Best Selling

New 1.8l and 2.0l high power hybrid

- CO2: from 76 g/km
- MPG: from 65.9
- BIK: from 19%
- TAX: from £95
New Toyota Camry

- CO2: from 98 g/km
- MPG: from 53.9
- BIK: from 20%
- TAX: from £115
New Lexus ES

- **CO2 (g/km):** from 100
- **MPG:** from 64.2
- **BIK:** from 21%
- **TAX:** from £155
New Lexus UX

CO2:
- from 94 g/km

MPG:
- from 53.3

BIK:
- from 20%

TAX:
- from £115
21 different Hybrid Electric models
Cars To Drive Today

- Corolla Hybrid Electric Vehicle
- RAV4 Hybrid Electric Vehicle
- Mirai Hydrogen Fuel Cell Electric Vehicle
- ES Hybrid Electric Vehicle
Have a Great Day!
LDV

MANUFACTURER’S BRIEF
Presentation to
Green Fleet Event

Intelligent Driving for the Future

With

LDV

Presented by
LDV U.K & Ireland
Established in 1942
We are the Distributors for LDV

- Ireland
- UK
- Channel Islands
- Isle of Man
- Cyprus
- Malta
SAIC are the 7th largest manufacturer in the World, manufacturing in excess of 6,930,000 vehicles per annum.

Ranked 36th in the global fortune 500 companies with $128.819 billion in revenues

200,000 Employees Worldwide with R&D Centre in UK employing over 300 people
SAIC Motor - Plant
SMAC - FOUR Manufacturing Plants

NAN JING:
Product: SV51 and SAICYUE JIN Light Truck
Capacity: 100,000 units/year

LIYANG:
Product: RV80
Capacity: Over 25,000 units/year

WU XI:
Product: V80, G10, T60, D90
Capacity: 200,000 units/year

SHANG HAI:
Product: EV31
Capacity: Over 42,000 units/year

WU XI:
Product: V80, G10, T60, D90
Capacity: 200,000 units/year
Global EV outlook 2026

Global Sales of Electric Vehicles and Plug-in Hybrids

Plug-in Sales and % Growth

- China: 351, 606 (+73%)
- Japan: 22, 56 (+150%)
- Europe: 222, 308 (+39%)
- USA: 157, 200 (+27%)
- Other: 23, 55 (+133%)

EV VOLUMES.COM
What type of charging do I require

✓ Where is the vehicle parked when not in use
✓ Do you have any current charging infrastructure on site, type and capacity?
✓ What power source is available on site? Three phase/single, both
✓ Easy Access to public charging?

IEC DC Charging Systems

<table>
<thead>
<tr>
<th></th>
<th>System A</th>
<th>System B</th>
<th>System C</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHAdeMO (Japan)</td>
<td></td>
<td>GB/T (PRC)</td>
<td>COMBO1 (US)</td>
</tr>
<tr>
<td>Connector</td>
<td><img src="image1.png" alt="Connector" /></td>
<td><img src="image2.png" alt="Connector" /></td>
<td><img src="image3.png" alt="Connector" /></td>
</tr>
<tr>
<td>Vehicle Inlet</td>
<td><img src="image4.png" alt="Vehicle Inlet" /></td>
<td><img src="image5.png" alt="Vehicle Inlet" /></td>
<td><img src="image6.png" alt="Vehicle Inlet" /></td>
</tr>
<tr>
<td>Communication Protocol</td>
<td>CAN</td>
<td>CAN</td>
<td>CAN</td>
</tr>
</tbody>
</table>
LDV
SAIC investment into Battery Technology

SAIC MAXUS SAIC CATL and CATL SAIC New RV & Battery Manufacturing Facility
With over $7.2 Billion investment from SAIC into Innovation and R&D and cleaner technology, this is SAIC commitment into OUR future

- 6 New Models with over 20 variants
- New Euro6d D20 Diesel Engine
- 1.5T - 5.5T Van and Chassis cab range with full EV option
- 4x4 Pickup Range T60
- Full Electric Mid-SUV Tarantula
- PEHV Technology
- Hydrogen Fuel Cell Technology
LDV

The EV80 range today

More energy-efficient, more powerful, cleaner, more environmentally-friendly: This is green power at its best with advanced technology giving it a head of its time.

Interactive high-tech integrated dashboard system
Helps you stay in touch with business design for use day-to-day by displaying all data you need

The most advanced pure electric power system with range extender offering the extra range you need - electric motor controller full high-efficiency and high power supply

Signal reinforced CTV
Regenerative Power Control System ensuring optimum range and extended range in all conditions

IPM system
Permanent magnet motor enabling the highest power density and performance

EXTERNAL FEATURES
- Roofs and doors are reinforced with integrated foam
- Single sliding door with rear door opening up to 2535mm (99.7"")
- Low roof height: 1990mm
- Rearview in door mirrors
- Floor console
- Rear roller grills frets
- Cargo net ilustration

INTERIOR FEATURES
- Air conditioning (front)
- Power steering (front)
- Front side windows
- Driver 3-point rear seat belt
- Coat hook with headrest
- Driver and passenger deep door storage and boot storage integrated cap holders

Technical Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>EV80</th>
<th>EV80+</th>
<th>Classic LDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery kWh</td>
<td>36</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>Drive</td>
<td>EV+</td>
<td>EV+</td>
<td>EV+</td>
</tr>
<tr>
<td>LDV</td>
<td>2000</td>
<td>2000</td>
<td>1900</td>
</tr>
<tr>
<td>O&amp;M</td>
<td>360</td>
<td>360</td>
<td>360</td>
</tr>
<tr>
<td>Max speed</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Load Volume</td>
<td>m³</td>
<td>4.3</td>
<td>4.3</td>
</tr>
<tr>
<td>Payload (front &amp; front sliding door)</td>
<td>kg</td>
<td>185</td>
<td>185</td>
</tr>
<tr>
<td>Immobiliser (HID)</td>
<td>mm</td>
<td>1140</td>
<td>1140</td>
</tr>
<tr>
<td>Flex Ornaments</td>
<td></td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>E-mobiliser (mm)</td>
<td></td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

This MEPC norm European Driving Cycle range is a comparative indication of range measured under very specific conditions and will vary depending on various factors, such as weight, driving style, and road conditions. Under real-world conditions, the range will vary accordingly in speed, driving style, the terrain of the road, and the use of air conditioning. The European Driving Cycle is a standardized European measurement of emissions and consumption based on a real road test.

This guide is to be used as a guide and should not be relied upon as a definitive guide. The manufacturer reserves the right to make changes without notice.

LDV EV80 Electric Vehicle

120 miles
1.5h
Zero Emissions
High power 60kW Power
120kWh battery: 120kWh
Compressor type
DC 40kW
Long range option 125/
Compressor type
Two-stage DC 20/40 kW
www.myldv.co.uk
LDV
Full R&M option from autoserve

Years 5
Miles 15000
Make LDV
Model LDV V80 model range
LDV EV80 LWB Chassis cab or Van 56kw battery 92kw motor Auto
Profile 1 + 59
Full Maintenance Plan

Monthly Maintenance Plan including Tyres Cost
£33.70

Extra Mileage 1.86 (pence per mile)

Years 3
Miles 15000
Make LDV
Model LDV V80 model range
LDV EV80 LWB Chassis cab or Van 56kw battery 92kw motor Auto
Profile 1 + 35
Full Maintenance Plan

Monthly Maintenance Plan including Tyres Cost
£23.23

Extra Mileage 1.86 (pence per mile)
The EV31 Platform with two wheel base options.
Cargo volume of 4.8m³ and 6.1m³
70Kw motor and two battery options, 35kW & 53kW. A driving range of upto 325km (200 Miles) on a single charge.
- New generation of EV commercial (super large space)
- Big slide door (>700mm) and double open rear door (Internal H1330mm, W1300mm)
- Payload (875kg & 1000kg)
- \(4.8 m^3 \& 6.1 m^3\)

**Benchmark Payload Car Size**

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Payload</th>
<th>Cargo size</th>
</tr>
</thead>
<tbody>
<tr>
<td>EV31</td>
<td>875/1000 kg</td>
<td>4.8/6.1 m³</td>
</tr>
<tr>
<td>Nissan e-NV200</td>
<td>700 kg</td>
<td>4.2 m³</td>
</tr>
<tr>
<td>Renault kangoo ZE</td>
<td>640 kg</td>
<td>3.0/3.6 m³</td>
</tr>
</tbody>
</table>
The EV31

- New generation of EV commercial (long endurance mileage)
  - mileage 225km & 325 km (NEDC)
  - 35.7 & 53.6 kwh Battery pack
  - Steel and aluminum hybrid frame body

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>CVW</th>
<th>Battery level</th>
<th>NEDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>EV31</td>
<td>1325kg</td>
<td>35.7/53.6kwh</td>
<td>225/325km</td>
</tr>
<tr>
<td>Nissan e-NV200</td>
<td>1517kg</td>
<td>40kwh</td>
<td>280km</td>
</tr>
<tr>
<td>Renault kangoo ZE</td>
<td>1585kg</td>
<td>33kwh</td>
<td>170km</td>
</tr>
</tbody>
</table>
New generation of EV commercial (strong power)

- 35kW permanent-magnet synchronous motor (70kw /220N·m)
- Max speed 120kph

Benchmark

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Power</th>
<th>Torque</th>
<th>Max speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nissan e-NV200</td>
<td>80KW</td>
<td>254N·m</td>
<td>122kph</td>
</tr>
<tr>
<td>Renault kangoo ZE</td>
<td>60KW</td>
<td>225N·m</td>
<td>130kph</td>
</tr>
</tbody>
</table>
New LDV T60, Euro 6d 2.0 Ltr Twin turbo, 160Kw/215hp and 480Nm
5 STAR ANCAP SAFETY RATING
From 2020 All New LDV Products will meet 5 Star NCAP

Worldwide Harmonised Light Vehicle Test Procedure (WLTP)
## LDV
### The Future 2020 - SV63

<table>
<thead>
<tr>
<th>Model</th>
<th>Power Energy</th>
<th>Driven Mode</th>
<th>Length (m)</th>
<th>Height (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SV63</td>
<td>Diesel &amp; Pure Electric</td>
<td>Front &amp; Rear</td>
<td>5.0/5.5/6.0/6.7</td>
<td>2.3/2.5/2.7</td>
</tr>
</tbody>
</table>

**New SV63**
- EV & Euro6d
- Upto L4 H4 - 15.6m³
- 3,500kgs - 5,000kgs
- FWD
- RWD
- Single Rear Wheel
- Twin Rear Wheel
SV63 KEY FEATURES

- Pedestrian protection
- ESP9.3+HHC
- LDWS
- ACC+AEB
- CAN-BUS
- Intelligent interconnection system
- E-call system

- High performance TCDI engine (D20)
- High transmission efficiency
- START-STOP
- Light weight design
- Low wind resistance
- EPS

- NVH
  - Suspension system set-up
  - Double mass flywheel flexible coupling
  - Multi-function driver & passenger seat
  - EPB/360°image/remote control/PEPS/automatic wiper

- Competent
  - Share Architecture
  - EGR+DOC+SDPF+SCR
  - Euro 6d
  - ELV、REACH
  - Advanced air conditioning system

- Energy Effective
  - Pedestrian protection
  - C2B

- Competitive
  - Start-Stop
  - Advanced air conditioning system

- Comfortable Drive
  - Light weight design
  - Pedestrian protection

- Innovative Design
  - Suspension system set-up
  - High transmission efficiency

- Intelligent Safety
  - Double mass flywheel flexible coupling
  - Multi-function driver & passenger seat

- Environmental Protection
  - EPB/360°image/remote control/PEPS/automatic wiper

- Pedestrian protection
- ESP9.3+HHC
- LDWS
- ACC+AEB
- CAN-BUS
- Intelligent interconnection system
- E-call system

- High performance TCDI engine (D20)
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- NVH
  - Suspension system set-up
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  - Multi-function driver & passenger seat
  - EPB/360°image/remote control/PEPS/automatic wiper
In terms of body size, the biomimetic intelligent pure electric SUV concept car is 4,755mm, 1,900 mm and 1,715 mm in length, width and height. Its wheelbase is 2,760 mm. This body size gives it a huge interior space and a range of 200 + Miles.
First commercialized FCV in LCV

- Equipped with autopilot
- 3-5 minutes charging, 430km mileage
- In application to Shanghai HongQiao Airport
Recent Award

LDV

GreenFleet Awards 2017 WINNER - LCV Manufacturer of the Year

GreenFleet Awards 2018 WINNER

COMPANY CAR AND VAN 2019 WINNER - EV Van of the Year

LDV EV80
MANY THANKS
Cooper BMW Sunderland

MANUFACTURER’S BRIEF
Our timeline

- **2000**: Trakm8 is established
- **2012**: T8 Mini
  - 30k units reporting to SWIFT worldwide.
  - ecoN and hardware launched.
  - Trakm8 s.r.o opens in Prague.
- **2013**: North America launch
- **2014**: Hardware
  - 192k units reporting as of March 31, 2017
- **2015**: Acquisitions
- **2016**: Acquisitions
- **2017**: Acquisition
- **2018**: Acquisition
- **2019**: Awards
  - RH600 wins Great British Fleet Awards Innovation Award
  - RH600 wins GreenFleet Awards IT Innovation Award
- **2020**: Customers
  - Direct Line
  - Churchill
  - Privilege
  - Kubota
  - ScottishPower
  - AA
  - Contract extensions / wins
    - Direct Line Group
    - Iceland
    - Marmalade
    - Shell
    - Intelematics
    - Mecalac
    - Calor
- **2020**: Awards
  - ScottishPower
  - COLAS CZ
  - FMG
  - HW Martin
  - EE
Our Technology
Our Technology

Over 1 million units sold to date.

Over 251,000 units reporting to our servers.

UK based in-house manufacturing capacity of 1,000,000 units per annum.

Billions of miles of data generated annually. Over 15 billion miles of data generated in the business.
Our manufacturing facility
Our Technology

Trakm8 owns the entire process from design, to manufacturing to implementation.

We manufacture all telematics hardware at our dedicated plant in the West Midlands.

We have the capability to manufacture 2600+ units per day
What we do
Fleet management

Trakm8 create fleet management solutions which provide businesses with the insights needed to reduce fuel consumption, lower carbon emissions, manage risk and improve safety. Our end-to-end fleet management solution includes:

- Utilisation Reports
- Vehicle Reports
- Vehicle Tracking & Trace
- Camera Integrated Telematics
- Route Optimisation and Scheduling
- Driver Behaviour Monitoring
- DVSA Compliance
- Geo - Fencing
- FNOL (First notification of loss)
- Trailer Tracking
- Asset Tracking
- Preventative Maintenance
- EV Modelling
- ePOD Integration
- Tacho Integration
Insurance

Telematics is reshaping the car insurance industry. By manufacturing the smallest self-install devices in the market, our telematics insurance solutions provide insurers worldwide with user-friendly risk profiling solutions.

- Outbound FNOL Telephony Service
- Vehicle Diagnostics/Prognostics
- Vehicle Recovery
- FNOL Alerts
- Usage Based Insurance
- Commercial /Consumer UI
- White Label Capability
- Partnerships
- Fulfilment
- Driver Behaviour Monitoring
Optimisation

We are leaders in the optimisation of vehicles, goods, people and energy. Our award-winning algorithms and cutting-edge Intelligent Mobility applications help hundreds of organisations to improve productivity, reduce costs, and cut emissions.
Automotive

The connected car is transforming the automotive industry. Our automotive telematics solutions are enabling the connected car and other connected assets to notify businesses and end users about vehicle faults, maintenance requirements and more.
Electrifying your journey to sustainable mobility
Top Tips to Consider

- Do your research
- Ask questions
- Vehicle types & dwell time periods
- Public or private access
- Positive user experience
- Sufficient localised power capacity
- The ability to future proof
Q&A Session