

E-Car

# “Electric Car-Sharing for Everybody”

## Introduction

E-Car – the UK’s first entirely electric car-sharing club, was founded by social entrepreneurs Chris Morris and Andrew Wordsworth as a start-up in 2011, subsequently attracting £100,000 in crowd-funding investment. The company combines the increasing popularity of pay-per-use car clubs as an appealing, affordable alternative to traditional car ownership with the improved performance and lower cost of electric vehicles. E-Car is now operating in over 15 UK towns and cities, from London to Stornoway, for personal use, and has a growing portfolio of business clients. In 2013, E-Car was sold to rental giant Europcar.

## Opportunities and Drivers

Private vehicles have historically been the only way to provide on-demand, convenient, efficient mobility to any destination for family day trips, errands or commuting. But those journeys are typically short: 95% of trips in Great Britain are less than 25 miles<sup>i</sup>, which means that the average car is only driven for less than an hour per day. Increasing urbanisation and a reported shift in attitude to a preference for (or perhaps just acceptance of) access over ownership by millennials are oft-cited drivers for the move away from traditional car ownership.



Businesses face similar challenges to providing staff with on-demand mobility. The options include inefficient investments in under-utilised pool cars, expensive private mileage claims, taxis or inconvenient traditional car rental that typically needs to be arranged a full day in advance. At the same time, the cost of electric vehicles has been coming down fast, and this trend is expected to increase. The price of batteries (which make up a third of the cost of an electric vehicle) fell 35% last year, and this trajectory is predicted to make unsubsidised electric vehicles as affordable as their petrol counterparts by 2020<sup>ii</sup>. And while the number of petrol stations in the UK has declined steadily since

## Opportunity

- 95% of trips in Great Britain are less than 25 miles
- Businesses face challenges in providing staff with cost-effective and environmentally friendly, on-demand mobility
- The number of charging locations in the UK will reach 7,900 by 2020

## Approach

- Pay per use vehicle clubs delivered with electric vehicle fleets
- Simple payment structure and convenient 24/7 access
- Mixed public/private use models to maximise use of assets

## Expected Impact

- Each car club vehicle removes around 15 private vehicles from public roads
- For those who drive less than 10,000 miles a year, switching to E-Car’s pay per use model could save over £2,000 per annum
- Improved air quality - no tailpipe emissions

the 1970s, the UK’s EV (electric vehicle) charging network is expanding fast. New analysis by auto giant Nissan predicts the number of charging locations will reach 7,900 by 2020, up from 4,100 today.<sup>iii</sup>



## Approach

For the personal use market, there is a geographical overlap between urban areas where car clubs can achieve the necessary critical mass of customers needed and the most developed EV charging infrastructure. A simple payment structure and convenient 24/7 access have proven popular.

Providing a tailored offering for different public sector and business clients, such as local authorities, education, healthcare and property development has also enabled E-Car to capture market share in the B2B space. Many businesses are looking for ways to drive down the carbon footprint associated with staff travel.

Specific features for business include telematics and reporting systems to provide increased oversight and control of staff business travel, resulting in reduced total mileage. E-Car also works with property developers to help them demonstrate improved use of local space by integrating a car club at the planning stage.



Increasing utilisation of assets is the ultimate aim of car clubs in order to maximise profit, and to achieve that, E-Car also offers a mixed-use model. Cars located on a business premises are for use by that business during business hours, but then made available to the local community at weekends and evenings.



## Benefits and Impact

Significantly increasing the utilisation rate per vehicle reduces the number of vehicles on the road. E-Car cites research that shows car club vehicles reduce private car ownership, with each car club vehicle removing approximately 15 private vehicles from local roads.<sup>iv</sup> The company also suggests that, for those who drive less than 10,000 miles a year, switching to their pay per use model could save over £2,000 per annum when the total cost of car ownerships, including fuel, maintenance, tax, insurance and depreciation is taken into account.

Calculating the environmental benefits of driving an electric car is complex and takes into account the (more) energy intensive manufacturing process and the mechanisms through which the energy is generated. As the grid is decarbonised and production

volumes drive manufacturing efficiencies, the environmental benefits will increase. One immediate benefit of electric vehicles is the lack of tailpipe emissions – which is of particular interest to UK cities that continue to miss EU air pollution targets.



*“E-Car Club provides a cost effective travel solution for both businesses and individuals. The schemes bring communities together to use resources more efficiently while benefiting the environment.”*



Image source: <https://ecarclub.co.uk/press/>

<sup>i</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/3986/plug-in-vehicle-infrastructure-strategy.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/3986/plug-in-vehicle-infrastructure-strategy.pdf)

<sup>ii</sup> <http://www.bloomberg.com/features/2016-ev-oil-crisis/>

<sup>iii</sup> <https://www.theguardian.com/environment/2016/aug/04/electric-vehicle-charge-points-to-outnumber-petrol-stations-by-2020-say-nissan>

<sup>iv</sup> <https://ecarclub.co.uk/business/local-authorities/>

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