



LESSONS FOR AIR QUALITY, MOBILITY
AS A SERVICE AND COMMUNITY RESILIENCE

Developing Car Clubs in England Programme

DECEMBER 2016

carplus™
bikeplus™
supporting shared transport



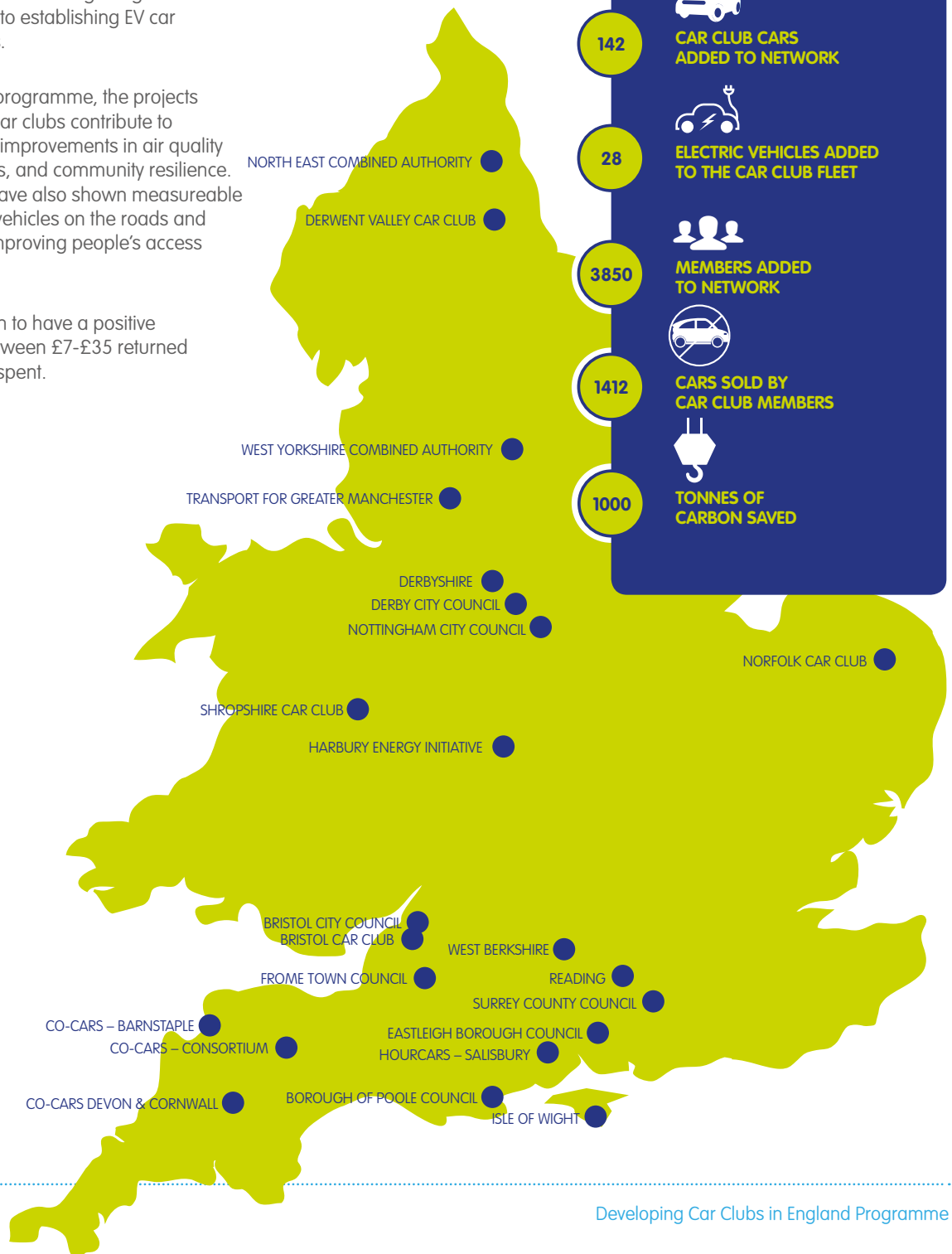
Developing Car Clubs in England

Improving air quality, creating integrated mobility and promoting community resilience.

The Developing Car Clubs in England Programme was established to demonstrate the role and potential of car clubs to contribute to policy outcomes in different contexts. A total of £1.6 million from the Department for Transport provided opportunities to start or develop 25 projects across England from integrating car clubs into city-wide smart cards to establishing EV car clubs in rural communities.

Over the two years of the programme, the projects have demonstrated how car clubs contribute to integrated urban mobility, improvements in air quality and reduction in emissions, and community resilience. The supported car clubs have also shown measurable reductions in numbers of vehicles on the roads and miles driven, whilst also improving people's access to personal travel.

Car clubs can also be seen to have a positive economic impact, with between £7-£35 returned over 30 years for each £1 spent.



KEY OUTPUTS



15

NEW CAR CLUBS CREATED



43

MORE COMMUNITIES THAT NOW HAVE ACCESS TO CAR CLUBS AS RESULT OF THE PROGRAMME



142

CAR CLUB CARS ADDED TO NETWORK



28

ELECTRIC VEHICLES ADDED TO THE CAR CLUB FLEET



3850

MEMBERS ADDED TO NETWORK



1412

CARS SOLD BY CAR CLUB MEMBERS



1000

TONNES OF CARBON SAVED

Air quality

Car club cars are significantly cleaner than private cars, and include a high proportion of electric vehicles in areas where air quality is an issue. Each car is accessed by several dozen members enabling more people to try these new technologies. In addition, for each car club car, at least 8 private cars are taken off the road. This means that modern car clubs are a serious air quality management tool.

Case study: Norfolk






Norfolk Car Club has expanded greatly as a result of funding through the Programme. Twenty two new vehicles with telematics equipment were added to the fleet, and concerted and effective marketing activity raised the profile and understanding of car clubs in the Norwich area. By developing good practices and a strong network of vehicles, Norfolk Car Club has developed a successful business model for a thriving car club in a smaller city.

- Norfolk Car Club grew by 36% over the first eight months of the programme
- Nearing 250 new members joined the car club in this time and total membership stands at 645

- The car club experienced a 25% increase in the number of bookings of vehicles

The reduction in cars on the roads and annual mileage driven by these 250 new members is measurable. Norfolk Car Club members have avoided buying cars and have taken privately owned cars off the road as a result of joining the car club. We can also compare the number of journeys made using private cars before and after joining the car club. New car club members in Norfolk have made an estimated 274 fewer private car trips each week.

KEY STATS

	37	vehicles
	645	members
	130,500	annual mileage reduction for project
	30	private cars removed from the roads
	74	deferred private car purchases



Mobility as a Service

Car clubs, alongside public transport, walking and cycling, provide an attractive mix of mobility services to promote a shift from private car use. The Programme has supported the first integration of car club services with public transport smart cards in West Yorkshire, Nottingham and Norwich. In West Yorkshire, cars were co-located at rail stations and transport hubs to facilitate easy integration and joined up journeys.

Case study: West Yorkshire and York

The West Yorkshire Combined Authority (WYCA) has added 10 cars across the Authority from York in the north to Halifax in the west, with seamless bus, train and car club travel possible through the MCard.

The project explored the technical issues around integrating the car club and the MCard. Initial trials proved that the integration of the car club car 'key' function could be achieved and the MCard enabled as a car club key for members. Now, when an Annual MCard member joins the car club in West Yorkshire they are provided with an option of linking their MCard to their car club account rather than using a separate card.






Integrating the car club with the MCard involves providing a simple, integrated payment system – one payment for car club and public transport use. WYCA is trialling a 'post-pay' account based solution. This has potential to allow maximum flexibility for the user whilst allowing the providers to

apply additional user incentives. It requires no additional equipment in vehicles and provides more compatibility by linking the MCard smartcard to a modified car club payment system. This trial creates the foundation for linking other services including cycle hire and cycle storage to an MCard account based 'post pay' system.

The integration achieved so far has facilitated combined promotion with the MCard. Fifty new members joined in the initial promotion phase. It is now being promoted across all MCard smartcard products, including 'pay as you go' and weekly/monthly smartcards. The new payment facility is expected to increase membership further.

A total of 427 new members joined the car club in West Yorkshire and York, and made 291 fewer private car trips each week. They reduced their mileage by 309,455 miles for the year.

KEY STATS

	82	vehicles
	3,263	members
	309,455	annual mileage reduction for project
	120	private cars removed from the roads
	122	deferred private car purchases



Community transport resilience

Some of the new car clubs have helped to support vulnerable people in isolated areas. Others have enabled towns and villages to incorporate low emission transport into community resources – with car club vehicles powered by locally generated renewable energy.

Case study: Harbury, Warwickshire

Harbury car club runs two electric vehicles in Harbury, a small village in rural Warwickshire. The cars are available to members and are also used for rural community transport.

The club established “E-Wheels” in November 2015 to provide a free local community transport service using voluntary drivers for those unable to afford costs such as getting to the doctor or dentist.

The cars are also used by the local food bank for delivering donated goods.

Although car ownership is still regarded as a necessity in the village, the car club has allowed some people to give up a second car.

KEY STATS



2 vehicles



40 members



Proving the economic benefits of car clubs

As part of the project, Carplus has published a tool for evaluating the economic benefits of car clubs. This new publication provides tools for evaluating the potential benefits for future projects or assessing the actual economic benefits of existing car club schemes.

The benefit cost ratio analysis tool was used to assess six key projects that form part of the Programme and shows significant returns on every pound spent. Benefits outweighed costs for all projects assessed over both 5 and 30 year time frames.

Larger schemes in urban areas tended to show stronger benefits than smaller rural ones. For urban car clubs in large conurbations the benefit cost ratios over a five year period range between 2.8:1 and 5.7:1 and over a 30 year period range between 17.6:1 and 35.5:1. This is further demonstrated by the growth in income for DCCE first round projects from a total of £53,000 for January 2015 to £82,500 for December 2015. Initial reporting shows at least £700,000 was generated by DCCE Projects in 2015.



Summary of the projects

The Developing Car Clubs in England projects:

Bristol

City wide car club provision was also expanded by 49 bays, particularly increasing car club provision in the city centre. Car club membership has increased and further bays are planned. This project was managed by Bristol City Council working with Enterprise Car Club, Zipcar and Co-wheels.

A self-service wheelchair accessible vehicle was piloted through Bristol Car Club in conjunction with Co-Wheels.

Derby and Derbyshire

Established a new car club with 10 city centre vehicles available to businesses and residents. The project was a collaboration between Derby City Council and Co-wheels.

In addition, car club vehicles were added across Derbyshire with NHS and local authority partners to complement the new club in Derby.

Derwent Valley, Co Durham

Market research to examine the demand for car club electric vehicles in the area surrounding the existing car club. This was carried out by Derwent Valley Car Club, County Durham.

Devon, Dorset and Cornwall

The project enabled a merger between Dorset Flexicars and Co-cars to create a much stronger, more integrated car club offer across Weymouth, Dorchester and Blandford Forum. In addition, a new car club was launched in Barnstaple, North Devon. Co-cars continues to work in partnership with First Great Western to provide car club vehicles at rail stations in Newton Abbott, Plymouth, Truro and Falmouth.

Eastleigh

The scheme raised the profile of the local car club, replacing two diesel car club cars with two electric vehicles and relocating them to a prominent on-street location. It was run by Eastleigh Borough Council.

Frome, Somerset

The town launched a new car club using electric and hybrid vehicles charged by locally produced renewable energy. The project was run by Frome Town Council.

Guildford

The car club was expanded with ultra low emission vehicles and integrated with the local smart travel card. The project was run by Surrey County Council.

Harbury, Warwickshire

A village electric car club with two cars was launched to serve this rural Warwickshire community. It is run by Harbury Energy Initiative.

Isle of Wight

A new car club using electric and low emission vehicles was launched in this island setting.

Manchester

The project supported a new car club in Salford. It also funded assessments of the business case for car clubs in the surrounding boroughs and good practice guide for local authorities establishing their own car clubs. It was run by Transport for Greater Manchester.

Newcastle and the North East

The car club in Newcastle was extended into communities across the North East by adding 35 additional vehicles. The project was run by the North East Combined Authority with Co-wheels.

Norfolk

The Norfolk car club fleet was expanded by 22 vehicles, linking it to more public transport hubs, bike paths and cycle parking. In addition, the car club booking system was integrated with the Norfolk County Council Holdall smartcard. This was supported by marketing which increased membership and turnover by over 30%. The project was a collaboration between Norfolk County Council, Norwich City Council and the Norfolk Car Club.

Nottingham

New car club vehicles were sited at 5 new hubs at bus, train and tram intersections. Access to car club cars was integrated with the Nottingham CityCard, an integrated smart ticket which also offers train, tram and bus travel. The project was managed by Nottingham City Council with Enterprise Car Club.

Poole

The project will launch a new car club running 4 electric and 1 hybrid vehicle in central Poole. The car club cars will be accessible by Poole smartcards.

Reading

The car club was expanded and integrated into multi-modal travel nodes which link with shared bikes, buses and trains as well as offering an innovative marketing initiative.

Salisbury

Hourcars, the local car club, added a second vehicle to its fleet and upgraded its booking system.

West Berkshire

A new car club with 5 vehicles was launched in central Newbury and integrated with vehicles in new housing developments around the Newbury race course.

West Yorkshire

The project added 10 cars (of which 3 are electric) across Yorkshire, from York in the north to Halifax in the west, and added car club booking and payment to the MCard – the West Yorkshire bus and train travel smartcard. The project was lead by West Yorkshire Combined Authority with Enterprise Car Club.

Recommendations

The Developing Car Clubs in England programme has shown the potential for car clubs to improve air quality by reducing the number of miles driven and improving integration with public transport. It has also highlighted how car clubs can support community resilience.

Our recommendations from the programme are:

1. Create a national forum for car clubs

Developing Car Clubs in England has demonstrated the role of car clubs to deliver social, environmental and economic benefit in a variety of contexts and scales. These opportunities would be captured, coordinated and developed more efficiently through the establishment of a national car club coalition.

A national forum for car clubs would be to bring together the public sector and car club operators (and others) in order to accelerate implementation of “what works” as well as to create opportunities for innovation. It would aim to maximize private sector investment where appropriate, and identify clearly the role for targeted public sector investment.

2. Car club integration

The programme has demonstrated two significant ways that make comprehensive “mobility packages” a reality today, through the integration of car clubs in smart card platforms plus car club vehicles located at key rail stations and transport hubs.

- In metropolitan areas, car clubs should now be specified within smart cards as a norm.
- The integration of car clubs into rail services (parking, ticketing, information and marketing) should be embedded in rail franchising.
- The ongoing development of “Mobility as a Service” should include car clubs as a core part of compelling modern mobility packages.

3. Promote public sector use of car clubs

Public sector bodies are well placed to benefit from using car clubs for employee mobility needs. This provides a significant – and popular – opportunity to tackle inefficient grey fleet use. The guaranteed revenue also accelerates car club viability.

4. Develop shared e-mobility programme via OLEV

Car clubs are an effective way of giving people access to EVs and hybrid vehicles. This not only means that the driven journeys are low emission, but more importantly normalizes EVs among a much more diverse group of people than those who currently buy EVs.

5. OLEV should establish a shared e-mobility funding stream

The purpose would be the normalization and acceleration of use of EVs through car clubs.

6. Support car club innovation beyond urban cores and at community level

The programme highlighted the roles of car clubs in a diverse range of settings beyond urban cores. Optimising the opportunities for rural accessibility – and enhancing the likelihood of viability – requires national and local Government to understand better the benefits that result from investment in car clubs at the community scale.

About Carplus

Carplus promotes car clubs and shared transport. We work to promote accessible shared mobility including car clubs, 2+ car sharing, bike sharing. We are a not-for-profit, environmental transport organisation.

Carplus provides technical support, best practice guidance and practical advice to car club operators, community groups, local authorities and transport authorities to assist in setting up and developing car clubs. We are also a resource centre on 2+ car sharing, bike sharing and the integration of shared mobility schemes.

Across the UK car clubs have over 245,000 members with over 4,000 cars.

The Carplus Annual Survey demonstrates that car club schemes reduce car ownership, increase the proportion of low emission vehicles on the roads, help improve air quality and reduce CO₂ emissions.

Car club benefits:

- 65% of car club members travel less than 500 miles in the past 12 months.
- Car club members walk, cycle and use public transport more than the UK population.
- A car club car saves on average 0.80 tonnes of carbon per year.
- Across the UK the car club fleet saves over 3,000 tonnes of carbon per year – the equivalent of 1011 return flights from London to Sydney.
- Car club vehicles in England and Wales typically produce around 34% less carbon than the national average car.

(derived from the Carplus Annual Survey for England and Wales 2014/15 and 2015/16)



Each car club car in the UK replaces

8.6

VEHICLES removed from the road in the last 12 months



The UK car club fleet saves over

3000

TONNES OF CARBON PER YEAR

compared to the national average car emissions



26% of car club members are regular cyclists

(COMPARED TO 15% OF THE E&W POPULATION)



47% of car club members regularly use the bus

(COMPARED TO 27% OF THE E&W POPULATION)



29% of car club members regularly travel by train

(COMPARED TO 8% OF THE E&W POPULATION)

Download the Carplus Annual Survey 2015/16:

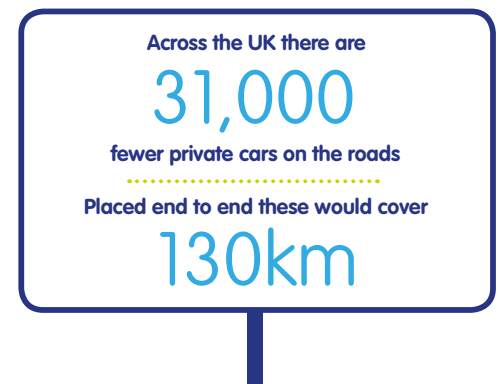
www.carplus.org.uk/tools-and-resources/annual-survey-of-car-clubs

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