CUTTING-EDGE VEHICLE SHARING USING REAL-TIME VEHICLE, INFRASTRUCTURE AND PUBLIC TRANSPORT DATA

Delivery Partners: Carplus, Co-wheels, Frome Town Council, Trip IQ

BACKGROUND
Co-wheels operates over 30 car clubs, increasingly introducing shared electric vehicles. Trip IQ’s platform is being introduced by them to upgrade vehicle booking and management. This is a fully managed, cloud-hosted service giving tools for cutting-edge vehicle sharing using real-time vehicle, infrastructure and public transport data.

In Frome in Somerset, Co-wheels’ vehicles are charged by solar panels, reducing carbon emissions. The Frome club has strong support, so the new Trip IQ software will allow the operator to ensure requested cars are sufficiently charged between users.

FIRST USE
This is the first known integration of charge levels with booking, and with public transport integration for full Mobility as a Service provision.

APPLICATION
Future developments will combine charge state information and charging post availability, to avoid the customer support and operational issues of electric vehicles in shared fleets. The technology also facilitates public transport integration and third party electronic payment methods into car share models.

BENEFITS
Carplus’ research shows that each club vehicle removes upwards of ten cars in London, and five elsewhere in England. Members reduce driving per year by 750 miles in London and 1,000 miles per year elsewhere in England. This combination can reduce congestion, emissions and parking requirements. Shared vehicles are in use 25% of the time compared to around 5% for the average vehicle, have higher occupancy than average (2.5 people compared to 1.6) and emit at least 30% less CO2 than the national fleet. And, where schemes such as Frome generate renewable energy, the footprint is reduced further.

However, shared electric vehicles must be closely managed to ensure they are charged for each user. The Trip IQ system allows operators to manage bookings by charge status, so allowing seamless use and making joining an electric vehicle car club a viable alternative to car ownership.

The development of Mobility as a Service depends on solutions that both integrate with public transport and allow people to make journeys not possible by it. Outside urban centres this is particularly challenging. The Frome Co-wheels vehicles are an example of how this might be achieved.

Further information:

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