Futurist keynote speaker on the future of the auto industry.

Written in 2009 - you can see for yourself how accurate the forecast was.

The most important way to reduce motoring costs, reduce carbon use in transport, improve air quality and reduce global warming.

What are electric cars?

City cars costing 1p per mile in electricity, range 200 miles. Ultra-cheap, safe, vehicles with zero emissions, which can be easily customised.

How they work

Vehicle batteries are charged from a power socket at home / garage or at work. Energy is saved when braking to recharge batteries. Two motors provide power, the machanics are much simpler than with petrol or diesel and there are hardly any maintenance costs.
The current distance of 100 miles between charges will soon double. 80% of battery recharge happens in 20 minutes.

Case study: Steven Vehicles is a two person company based in UK which launched a new electric 5 door car in 2008 with limited capital. A new assembly system can be sent in a single van to another country. Electric cars are simple to design and build, require little maintenance and can easily be adapted in manufacture. The limitation has been battery power to weight, but this is due to improve rapidly. Cost to buy: £10-15,000 Payback period: can be less than 3 years including discounts on parking in some cities and fuel / tax savings.

Why electric vehicles matter

Burning fuel in a small, mobile engine is inefficient compared to industrial power generators. If the electricity used is generated from wind, solar, waves, tide or nuclear fuel then electric cars have zero emissions.
Either way, air quality improves dramatically in cities.
Owners can also save a huge amount of vehicle tax on petrol or diesel since taxation is far

lower on electricity.

Electric vehicle challenges

The greatest obstacle is battery technology which remains heavy and low capacity. Expect doubling of battery performance in the next three to four years and falling battery costs. Batteries also don't last more than 2-3 years in normal use and are expensive to replace. However the performance of these cars is improving dramatically with astonishing acceleration in the most expensive models - 0-60mph in less than 5 seconds with a 200 mile range.

Business Opportunities

16 million new cars a year are sold in EU alone (2.4m in UK). If we assume that up to 25% of the smallest car market could be electric cars within 10 years, that would mean over a million sold each year, at an average cost £10,000.
Electric car sales would then be worth £10bn a year in the EU.

There are also opportunities for boutique "designer" electric cars: this could become 1-5% of the electric market or up to £500m a year across the EU.
Expect generous tax concessions for all electric cars especially in cities where air quality is a problem.