Electric cars star at Frankfurt fair

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The new "Trabant nT" electric car is unveiled during the 63rd International Motor Show in Frankfurt am Main , Germany on September 15, 2009. The Frankfurt auto show hummed with talk of electric cars Wednesday, but the luxury vehicles on display were often equipped with hybrid motors, with experts predicting drivers will continue to roll with a variety of power sources for some time.

The Frankfurt auto show hummed with talk of electric vehicles Wednesday but experts predict cars will roll on a variety of power sources for a while.

Among the world premieres was Volkswagen's E-Up!, an all electric city car that would run up to 130 kilometres (80 miles) on a five-hour charge.

The VW model's range depends on driving styles, and charging times for its lithium-ion battery are longer from 110-volt power grids.

It could first hit the streets in 2013, the company said.

A probable rival is Daimler's "smart fortwo" electric drive that is rolling off a production line in France now and derives from a model tested in London since 2007.

Top speeds for electric cars are modest, 135 km/h (85 miles per hour) for the E-Up! and a limited 100 kph for the Smart to extend its range to 135 kilometers and because it is designed for urban use.

Electric models were presented by many manufacturers including Ford and Opel, but Ford Europe's chairman John Fleming told AFP he was not convinced they were the last word in auto power sources.

"My personal view is that it will be a range of technologies that will come through," he said, even as Ford showed two electric vehicle (EV) prototypes.

An ambitious project unveiled by Renault and the US group Better Place meanwhile aimed to sell at least 100,000 EVs in Israel and Denmark by 2016.

Success would create the first mass market for such cars and is based on the new family-sized Renault Fluence, which has a range of 160 kilometres.

Better Place has developed a "quick drop" option that allows drivers to exchange empty batteries for a fully-charged one faster than it takes to fill up a tank with petrol, allowing the vehicle to undertake longer trips.

It will also take standard plug-in overnight charges, or a 20-minute booster shot that would replenish 80 percent of its power.

BMW's electric Mini drew plenty of attention too, as it undergoes trials in Germany and the United States with Britain set to complete a trio of

test environments by regular customers in late October.

Project manager Peter Krams said over pumping Indie Dance music that the tests would run until July and the group would then decide where to go with development.

"There are many things that have not been defined" by EV regulators that will partly determine the rate of development, he told AFP.

Even the iconic east German brand Trabant was thinking in EV terms, showing a bright blue concept car that resembles its old plastic sister, with a stylised smile up front that was seen elsewhere on small EVs.

The Hong Kong-based company APET showed a prototype EV system whose battery is charged by fuel cells that transform zinc into zinc oxide and release electricity in the process.

APET managing director Masa Chiu told AFP it produced twice as much energy as an equivalent petrol engine, without carbon emissions.

The zinc oxide can be recycled but the process is slow and expensive and APET has had trouble finding backers among auto manufacturers.

Indian car maker Reva showed two electric models in Frankfurt and plans a global launch of its NXR city car early next year.

A prototype of the NXG coupe was also on display, and Reva co-founder Chetan Maini said: "We are for the first time seeing everything come together, the technology and people's concerns about the environment."

As autos moved upscale, hybrid models dominated however. A cutting edge study shown on BMW's Efficient Dynamics stand had two electric

motors on front and rear axels along with a 1.6-litre diesel engine.

Heat from the engine is captured to produce electricity and the car was said to have a total range of 700 kilometers, including 50 on the batteries alone.

BMW also claimed its concept vehicle, parts of which are already in use in other models, could leap from zero to 100 kph in just 4.8 seconds, startlingly fast for any car, let alone a hybrid.

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