'Not right away': Electric cars still have long road ahead

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The electric car revolution still faces a few hurdles

Under dazzling autumn sunshine in the heart of Paris, Marc Fiot steps out of a new Zoe, Renault's flagship all-electric hatchback, and readily declares it "the future".

Does that mean the 70-year-old retiree, who says he hasn't missed an edition of the Paris Motor Show since 1966, is ready to join what carmakers insist will be the electric revolution?

"Not right away," Fiot says. "What's stopping us is the price—it's a bit expensive for a small car."

The base price for a Zoe starts at 23,000 euros ($26,500) in France, and doesn't include battery rental costs—though the government is offering a 6,000 euro clean car rebate.

But higher costs relative to traditional vehicles are just one of the hurdles facing the industry as it races to bring electric cars into the mainstream.

"The problem is the range isn't enough," said Guillaume Magne, an 18-year-old who just recently got his license, after trying out Citroen's C-Zero.

Eleven automakers have made 33 cars available for free 30-minute test drives at the Place de la Concorde as part of the motor show, which runs until October 14.

But the crowd was thin as the show opened to the public on Thursday, though the exhaust and constant honking from traffic charging chaotically through to the huge square wasn't exactly an enticement to get behind the wheel.

Although global sales of all-electric cars jumped 50 percent last year, according to Jato Dynamics analyst Felipe Munoz, they represented barely 1 percent of new registrations.

A key argument in favour of electric cars

Optimism and doubts

Electric optimism was nonetheless on full display, with executives predicting that crackdowns on pollution and the push for self-driving vehicles made the shift from combustion engines inevitable.

"There isn't a single carmaker which isn't planning to develop its own range of models in the next three or four years," said Guillaume Crunelle, an auto expert at Deloitte.

He expects that by 2022-23, "they will absolutely be competitive in terms of price."

And Carlos Ghosn, head of the Renault-Nissan-Mitsubishi alliance, said that once buyers are assured that a car can go at least 300 kilometres (185 miles) on a single charge, "range is no longer a concern".

That is indeed the case with the new models on display, including SUVs from Mercedes and Audi, which long resisted offering all-electric models.

But executives admitted that a limited and disparate network of charging stations—often using incompatible plugs or payment systems—remained a deterrent to potential buyers.

Long charging times remain an issue as well, with minimum waits of about 15 minutes currently.

The goal with new batteries expected to hit the market in coming years is for ultrafast charging in seven to eight minutes, similar to the time it takes to fill up at a petrol station.

Simple to build, easy to serve

But engineers still have to figure out how to contain the extreme heat generated by such power transfers.

'Good option'

For Yves Bonnefont, head of the high-end French carmaker DS, depending on the level of government support, "the market can either accelerate sharply, or develop slowly".

Such support has given China a huge head start in the market, with Chinese brands largely unknown outside the country making up eight of the top 10 electric carmakers by volume—the others being Renault and Nissan.

US and European carmakers worry this could make them dependent on Chinese battery technology, not least because China holds huge reserves of the rare-earth minerals needed for lithium-ion and other battery technologies.

Another challenge for carmakers is that electric vehicles are far less complicated to build and service, requiring just a small fraction of the thousands of workers currently employed across the industry.

The outgoing Daimler chief Dieter Zetsche admitted as much this week when he warned that his company could not remain a "behemoth" as the industry undergoes a seismic shift.

So executives are hoping the growing number of offerings will prove a catalyst for widespread demand, particularly among younger clients more concerned about smog and ease of use than horsepower.

"It's a good option for commuting from home to work, around 35 kilometres twice a day," said David Kihouba, a pharmacist who lives outside Paris, as he checked out a Smart Fortwo at the Concorde.

"Gas prices are only going to go up," he added.

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