E-products for 2008

Worldwide Light Electric Vehicle Trends

BERLIN, Germany – Electric mobility is in: the industry, huge retail chains, designers, investors and service providers all believe in the environmentally-friendly way to commute. therewith, the market for Light Electric Vehicles, including pedelecs and E-Bikes, is more dynamic than ever before. In this article Bike Europe highlights all the new trends and the most striking new models for 2008.

By Susanne Brüsch

As we all know, pedelecs have electric assistance when pushing the pedals, whereas e-bikes are throttle-controlled and do not necessarily have to be pedalled. In China, pedalling is frowned upon (cycling is for the poor) and e-bikes are *en vogue*. The bigger and fancier, the better.

Big scooters

This could clearly be seen at this year's Shanghai show: most e-bicycles of last years' show have now lost pedals, got even more plastic and have turned into electric scooters. When most electric 2-wheelers at the world's biggest 2-wheeler show are big scooters, this means something.
German designer Norbert Haller (who works for Fairly, among others) sees a big market for electric scooters in the USA and Europe as well. He has been involved in new vehicle concepts and he is convinced that the trend of e-bikes turning into electric scooters has to find its own direction. "We need new concepts, which offer new values, not electric scooters that are copies of their gasoline equivalents and are likely to score worse both in price and range," says Haller.
Pedelecs are different. Norbert Haller thinks that they will always remain a separate market because they have a different operation principle. Here, the trend goes towards cleaned-up bicycles with hidden cables, individual styling and more power.

Run on utility pedelecs

Recently, utility pedelecs made headlines when Royal Mail announced that they plan to buy 14,000 pedelecs for mail delivery in England (see separate story on these pages). So far, Deutsche Post is the largest fleet operator with 8,000 delivery pedelecs. Mail delivery companies in Japan, Finland and other countries are using pedelecs. The French mail just announced a bid invitation to manufacturers of such vehicles.
For private use, utility pedelecs are getting more interesting as well. For example for young families where a utility pedelec might replace the second car.

Taipei: Sophistication

At this year's Taipei Cycle Show, there were products with individual frame styles, advanced battery technologies and less obvious drive units. There were also a few China-style e-bikes. Compared to previous years, electric exhibits were less, but, as a general judgement, more sophisticated.

Curry Technologies, joint venture with Taiwan manufacturer ACE Bikes, showed their electric bikes and small sit-down scooters labeled IZIP and JCE. The new IZIP Express is the latest incarnation of what used to be Swizzbee, formerly Velocity Dolphin from Switzerland. It has now a Curry 450 - 800 Watt drive unit with a 12Ah or 20Ah Lithium battery. The system allows various configurations to suit many markets. 45 km/h is easily reached. Eurobike is going to be the official launch of the new Dolphin.

Dahon has stepped in with a folding bike with bottom bracket electric drive for the Chinese home market.
JD Components officially introduced their new very compact pedelec drive unit TranzX (See BE May 2007). The company is looking for distribution partners in Europe.
Canadian OHM presented their Sport XS 700 pedelec with BionX 350W system, E-One Moli Energy (Molicel) 38V Lithium battery, suspension and disc brakes. OHM pedelecs are available through dealers in USA and Canada. OHM is looking for distribution partners in Europe.
Pihsiang apply their Advanced Power Technologies (APT) system, a compact hub motor, with 1.4kg Lithium battery on a variety of Sunrunner bicycles. Sunrunner bikes ride very smoothly, as do their wheelchairs and electric mini cars with APT technology.
Wiz Energy Technology presented a hybrid scooter with Lithium battery and lead battery as a backup.

Shanghai Show

At the Shanghai show, a solid one-third of all space was for electric vehicles. Big electric scooters were the dominant vehicle type. The overall trend: bigger and fancier. Industry-expert Ed Benjamin summarises the show like this: "The electric bike industry of China is no longer amateur, minimal and without resources. It is the main issue in two-wheel transportation in the world's largest country. It has grown remarkably fast."
The vigour, energy, and excitement were found in sophisticated booths. Well-developed product selections and marketing were rule rather than exception. The quality of the e-bike product has improved greatly. And the bikes have a sophisticated look with attractive plastics, graphics and colours.
Among the exhibitors were: China Domestic appliance brands (for household electronics) offering their own e-bikes.
Taiwanese bicycle companies, notably Fairly/Wettsen, Giant and Merida offered models for the Chinese market with lead-acid batteries. Chinese bicycle brands like Phoenix and Forever offered e-bikes as their largest product category. There were companies like LuYuan, Angell, Cranes, component makers, trading companies, accessories makers, and American exhibitors Trek, Specialized and Pacific.
Four major types of electric two-wheelers were shown: Electric scooters which were the electric equivalent of motor scooters like Vespa or Honda Dream. They typically use a 350-500 Watt hub motor and lead-acid batteries. Typical FOB price is USD 500-700.
Last year's dominating product – somewhere between bicycle and scooter with lots of plastic and hardly functioning pedals – has almost disappeared. Only a few e-bicycles were left.
Another previous-year model was still a major type: small wheels, often foldable, with suspension, bulky lead-acid batteries.
Bicycle style e-bikes (and some pedelecs) with 26" or 28" wheels and Lithium batteries are mainly for export to Europe, USA, and Japan.
On one of the biggest booths of the show, Wettsen, presented more bicycle style e-bikes for the domestic market. An extremely simplified German design must appeal to Chinese customers who want something different. Wettsen has its first concept store in Shanghai.

Thailand: electric bicycles

Petrol motorbikes dominate the

roads in many other Asian countries like Thailand, Malaysia, Vietnam. Low price, convenience and infrastructure are hard to beat unless the government enforces electric mobility as in many provinces of China.
Nevertheless, Bangkok Cycle launched an electric bike product line in a huge promotional event with street parades and an open air show in Bangkok in late April this year. The bikes are primarily designed for the domestic market and sold under Bangkok Cycle's owned brand name LA Bicycle. "It was important to stick to the bicycle style to provide something familiar," says CEO Prakit Lertyaovarit. As it is common in Thailand to carry a passenger, the padded battery case on the rear rack doubles as a second seat.

Europe: More at lower prices

Ever more quality electric bikes of European manufacturers are sold through wholesalers at € 1,000-2,000. Examples are Pegasus Electra and E-Power with NiMH battery or Simplex (Derby Cycle) with the latest Panasonic drive and 10Ah Li-Ion battery, which is currently offered at € 1,799 through ZEG dealers. Hartje sells Convay pedelecs (by Biria) for € 1,099 resp. 1,199. Victoria (Schachner) electric bikes sell at € 1,649 and 2,049 (PanTerra – Panther).
Good products in this price category close an important gap between high-end pedelec brands starting at € 2,000 (Sparta, Gazelle, Biketec, Heinzmann etc.) and low-end import products from China, which are often sold for under € 1000. This is a step in the right direction.

Product Preview

Several players have improved their models as shown at last year's Fall shows. Among them are BikeTec with the Flyer S-Series, Heinzmann with new better and nicer battery bags, Schachner with a smaller and stronger hub motor, which is now used in pedelecs from Winora and MaXX.
KTM will come out with a new Heinzmann-powered bike. Giant is supposed to introduce a new pedelec line with a variety of models that also appeal to more sportive riders.
Canadian motor company BionX impressed fans of speed and power with their high torque motor on a mountain bike and high-speed motor on a racing bike. Now they have combined those two characteristics to an even stronger 36V 350W drive unit.
Austrian Gruber have improved their power assist drive hidden in the down-tube of a normal bicycle. The system is available for € 1,790 retail. Ten dealers in Austria have the system on stock, and Gruber is looking for partners in Germany and Italy. The target for the 2008 season is to sell 500 Gruber Assist units. Reactions to the hidden extra power are contrary, says CEO Monika Schweitzer.
A new player is Olimpia Bicycles from Budapest, Hungary. Their Gepida pedelec uses a small brushless front hub motor, the battery is hidden in the main frame and it has many comfort features. The product that is very reminiscent of the Sparta ION sells for € 1,499 retail. Olimpia distributes in many east European countries.
German company E-Wheels from Hamburg is going to introduce an electric bike (Visper Works 905E) of their own design.

Test it Yourself

Most products will be available for test rides on the ExtraEnergy TEST IT Track: At Eurobike in the Zeppelin hall and at IFMA in hall 9. Most models were tested by ExtraEnergy. The test results will be available at IFMA.

New product line by Wettsen/Fairly for the Chinese market

Gruber Assist: Contrary reactions on the motor that is placed in a mountainbike frame

Bangkok Cycle just launched an electric product line.

Photo Gruber