



WILLIAM KIMBERLEY looks at how TTXGP is growing apace and from just the one race last year it is organising three different championships that is attracting the interest of some serious players

A growing

Top: Lord Drayson, the British government minister for Science and Innovation (2nd from the left) unveiled the new electric bike from CRP at the Motorsport Industry Association's Cleaner Racing conference in Birmingham in mid January. Bottom: The bike was subsequently publicly tested at Monza in late March

TTXGP made history in 2009 with the delivery of the world's first zero carbon egrand prix on the Isle of Man, one of the most challenging road circuits in the world. A total of 22 bikes entered the event, 16

making it to the start line, nine of which actually finished the event, with the winner being Agni Motors. Its winning average speed of 87.43 mph was actually quicker than Honda's record for a 50cc bike on the same circuit.



While the Isle of Man has decided to organise the event itself for 2010, the TTXGP organisers remain undaunted and have organised a series of regional championships in Italy, the UK and the US. The

top eight in each championship will then go to the Albacete TTXGP final in late October. The closing date for registration in the North American series has already passed while that for the other two is at the end of April.

The organisers are keen that the TTXGP formula is a showcase for the next generation of motorsport technology, the regulations reworked for 2010 to encourage innovation and thinking out of the box.

One of the companies that has signed up to the concept is CRP Racing as the official race partner for the Italian series. Better known in the motorsport world for its rapid casting techniques and its Windform material, Modena-based CRP has designed, developed and built a

bike for the Italian championship that can be bought "off the shelf" in race configuration for €30,000.

Presented during the Motorsport Industry Association's Cleaner Racing conference just before the Autosport International show in Birmingham in mid-January, the eCRP is the result of years of experience that CRP Racing has in the world of 250 and 125cc. It is particularly light due to the materials and technologies used in its construction, many coming from high-performing sectors like Formula One and aerospace.

Its main IT characteristics are IP connectivity, an operating system open source Linux and an USB-based system bus that allows virtually unlimited number of peripherals to extend the capabilities of the machine with plug'n'play.



supplied by another manufacturer direct from the factory. It features an Agni 95 reinforced permanent magnet brushed motor, the same that

platform that invites the potential for success previously seen in electronic hardware and software, into the automotive industry," said Hussain. "We

groundswell

"CRP is a company with deep-rooted Italian motorsport heritage spanning generations across the spectrum of top flight world championships," says Azhar Hussain, CEO and the TTXGP founder. "We welcome their expertise, focus and enthusiasm for TTXGP with a brilliant product like the eCRP1.0."

Another new bike that has been developed specifically for TTXGP is the Mavizen TTX02 that has been inspired by the 2009 TT winning Agni X01. Nicknamed a 'laptop on wheels', it is being produced by TTXGP founder Hussain. Built by UK company Mavizen, TTXGP's manufacturing arm, it uses a rolling chassis from an FIM homologated and road legal bike


was installed in the Agni X01, and operates at 72V/5000rpm producing 53Nm of torque at 400A peak and 26Nm of torque at 200A continuous. It has a powerful microprocessor control where the brake signal is used to command regeneration, a Zivan NG3 lithium battery charger that comes with prewired Anderson connectors and an on-bike loom and a 72V 45Ah (3.24kWh) battery system comprising three modules.

TTX02 is the first factory production vehicle to be delivered with a dedicated IP access and connectivity to the network. Each bike can be connected from any browser through an onboard web server and WiFi.

"TTX02 is a development

need to pick up the pace of innovation and make it real fast; TTX02 is a key marker in that journey.

"By building on the open standards of the internet and the PC, we unlock the creativity and lower the costs of innovation for teams, enthusiasts and riders. We are living in a click culture and connectivity is the key across the board. Our approach was to find how we could make a laptop go racing. We think electric vehicles have more in common with consumer electronics than traditional automotive.

"The Mavizen TTX02 gives potential participants a chance to acquire a bike that they can develop themselves to make it competitive and unique to them. Racing is brutal but at least with 

Top: Zero Motorcycles is a welcome entrant into the North American championship. Although its racing bike has not been revealed it is rumoured to be styled on the production Zero S (pictured)

the Mavizen TTX02, the racers can start with a proven platform. Mavizen is about growing the grid by being an enabler by those who want to take part."

Every owner will have the option to apply to their national vehicle licensing agency under various single vehicle type approval regimes.

The Mavizen TTX02 will be available for delivery from April with a limited production of 50 units. Target price for complete bike with a Circuit Pack is £25,000. This will be a complete platform to take part in any national or FIM championship.

Gaining momentum

The new championships have attracted the interested of some big hitters, one being the Californian company Zero Motorcycles which has announced that it is entering the US TTXGP championship. It has indicated that its race-ready motorcycle will be using the same Z-Force powertrain technology that is currently used in its production electric motorcycles but few additional details have been released on the development of its race bike. However, it has been hinted that many of the design cues will come from the production Zero S street motorcycle.

"Electric motorcycles are powerful, exciting and available now," said Gene Banman, CEO of Zero Motorcycles. "There is no race that highlights electric motorcycle technology more than the TTXGP and we are excited to support their efforts with our own racing team. We have identified a series of strategic partners for this programme and will be making announcements shortly about their involvement."

Zero Motorcycles is not a stranger to competitive racing. Recently, one of its motorcycles took first place in class and third overall in a motocross race in France that was sanctioned by the French Federation of Motorcycles. The Zero MX beat more than 200 450cc gas motorcycles in fierce competition.

Zero's Z-Force technology includes its patent pending Z-Force power pack which is capable of delivering a tremendous amount of energy from a highly compact and lightweight system. It also includes a newly announced Z-Force air induction system that allows Zero to leverage the power pack's capabilities fully by dispersing excess motor heat. This development also paves the way for Zero to increase performance in upcoming models.

"We've spent four years developing the Z-Force electric powertrain technology for high-performance dirt and street riding," said Neal Saiki, Zero Motorcycles founder and CTO. "We're excited to take it to the track and compete. We expect to gain valuable information through the competition of our motorcycles and plan to apply that knowledge to the development of future products."

Agni Motors, the Isle of Man TTXGP winners, have signed up for all three championships. "We are very excited to participate in the second year of this groundbreaking race series," said Agni team boss Arvind Rabadia. "Last year was fantastic. Agni Motors won the world's first zero carbon race and winning the TTXGP 2010 world series would be an even bigger achievement. We believe TTXGP provides a fantastic race series and generates fantastic promotional opportunities. We are happy to see the TTXGP continue to grow, attract teams, and add events to its calendar, we look forward to racing with TTXGP all over the world and pushing technology, innovation and promoting the EV industry. We feel we have a great partnership with TTXGP in propelling the electric industry into a new and much bigger dimension."

Apart from pushing the technology boundaries, TTXGP is also doing so from a regulating body perspective, its latest initiative being TEO (Trust. eGrandPrix.Org), a partnership which is open to all those who



compete in TTXGP. It pays tribute to the founding principles of modern motorsport whilst being sensitive to commercial realities claims Hussain.

The TEO Partnership will have its own board, with members elected by the 'partners' – the teams. It cannot be bought into, the only way to become a part of it is to race in the TTXGP championships.

There is an escalating reward when it comes to having a say, the more a team races, the greater its share in TTXGP. There is a bonus for having signed up for 2010, the inaugural year and more if TTXGP is the team's sole racing activity. However, once a team ceases racing it has to leave allowing new teams to take their share



The Mavizen TTX02 is Hussain's initiative to bring more teams to his championships by having the bike available to everyone willing to pay for it

TTXGP NORTH AMERICAN CHAMPIONSHIP

14-16 May	Infineon Raceway, California
3-6 June	Elkhart Lake's Road America, Wisconsin
8-11 July	Mosport International, Canada
13-15 August	Virginia International Raceway, Virginia

TTXGP UK CHAMPIONSHIP

3-4 July	Cadwell Park
10-11 July	Snetterton
11-12 September	Castle Combe
2-3 October	Brands Hatch

TTXGP ITALIA/FMI CHAMPIONSHIP

26-27 June	Magione
24-25 July	Franciacorte
4-5 September	Franciacorte
25-26 September	Mugello

TTXGP FINAL / UEM 2010

October 23- 24	Albacete, Spain
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