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Technology

Car design for a green future

A truly green vehicle will emerge out of collaboration, not competition

By Joseph Wilson

With Al Gore winning peace prizes and polar bears gracing the covers of magazines, green technology has become an important investment for struggling companies. The auto industry has been hit especially hard by the recent economic slump and is eager to recast itself in a green hue.

At the Canadian International Autoshow last week, industry stalwarts like General Motors and Toyota revealed new models showing off the latest in electric-gas hybrid engine technology.

Now the race is on to create a market-friendly, low-emission vehicle.

The X Prize Foundation, famous for awarding $10 million to the first team to successfully build and test a privately owned spacecraft, has announced a multi-million-dollar purse for the first team to create a vehicle that gets 100 miles per gallon of gas.

The final guidelines haven't been released yet, but the idea of the contest is to reward green entrepreneurs for generating super-efficient vehicles that help break our addiction to oil.

Given that our current environmental woes are at least partly due to the unfettered progress of technology, we really need a new philosophy of development. The process of designing a viable green machine must happen outside the money-first competition of the corporate world.

The Vehicle Design Summit (www.vehicledesignsummit.org) embraces a decidedly non-hierarchical view of green vehicle creation. Launched from the halls of MIT, the VDS team was inspired by the open-source business movement described in Don Tapscott and Anthony Williams's Wikinomics.

The team uses the strength of collaboration over competition, enlisting help from dozens of teams around the world, tapping into a vast reservoir of green expertise.

Collectively, they hope to design, build and bring to the market a hyper-efficient four-to-six-passenger vehicle earmarked for India that will demonstrate a 95 per cent reduction in embodied energy, materials and toxicity.

So far, universities from 18 countries around the world are participating: the electric motor comes from Belgium, the electronics from Uganda and a whole slew of biofuel technology from Brazil.

A Canadian team from L'École Polytechnique de Montréal is working closely with the Brazilians to develop an auxiliary power unit that runs on ethanol.

VDS team members recently sent delegates to the high-tech region of Aachen, Germany, to assemble the first prototype of their VDS Vision 200 green car.

After redesigns, the team hopes to have something ready for public release by August 18, complete with suppliers, distributors and 100,000 pre-orders.

Lofty goals, to be sure, but the team is convinced that the expertise to solve the world's energy problems exists already; it's just a matter of finding the right people to collaborate on the project.

If you hide your tech secrets behind a corporate firewall, you're robbing the world of potentially valuable information and ensuring that your ideas won't grow and evolve with the needs of the market.

Speaking of which, the team is always looking for people. From the technicalities of drive shafts and pistons to the "soft tech" of managing people and finding distributors, the VDS project is still evolving.

Consider this your invitation to contribute to our green future (vds-org@mit.edu).

tech@nowtoronto.com