

# GM's EN-V Envisions Future of Personal Mobility

December 6 2010

---



Rapid urbanization, aging populations and more demand for personal mobility globally present challenges today's vehicles will be hard-pressed to meet. Envisioning what that future will need gave birth to the Electric Networked Vehicle, or EN-V.

“In megacities like London, New York, Beijing, Singapore and New Delhi, the sheer number of vehicles on the road has become unsustainable,” says Chris Borroni-Bird, General Motors director of Advanced Technology Vehicle Concepts.

“Building more and wider roads is expensive and doesn't really solve all of the problems, meaning that smarter solutions are needed,” he says.

“Public transportation is important, but with so many people going from point to point in different directions, some personal transport is needed as well.”

Following completion of the Chevrolet Sequel fuel cell vehicle program in 2007, Borroni-Bird began working on what became the EN-V program. The first concepts debuted at the recent 2010 Expo Shanghai, where they wowed crowds and collected awards.

“One step is to reduce the physical footprint of vehicles, especially since so many only carry one or two occupants anyway,” he says. “By shrinking EN-V down to just two wheels and two upright seats, several of these vehicles can fit in the same physical space as one traditional car. Electric propulsion in short-range urban commuter vehicles will allow air quality in megacities to be vastly improved.”

The EN-V concepts take advantage of enabling technologies developed within GM, including powertrain electrification, sensing, automation and Telematics.

Combining vehicle-to-infrastructure communications technology pioneered by OnStar and vehicle-to-vehicle communications, EN-V users could benefit from real-time rerouting to avoid congestion while advanced sensing technology could allow autonomous operation privately or as part of vehicle-sharing programs.

As part of a public sharing network, a user could summon an autonomous vehicle to his or her location using a smartphone application and then sit back and relax while they are whisked off to a destination. Without the need to drive, passengers are able to take advantage of OnStar communications technology to work or play while safely riding.

The sensing technology, derived from the winning vehicle in the 2007 DARPA Urban Challenge allows EN-V to detect other vehicles, obstacles and pedestrians, virtually eliminating crashes.

For those that prefer to drive, the light and nimble, fun-to-drive EN-V offers full manual control while its autonomous mode can provide a new degree of independence to the young, old and physically challenged.

“EN-V represents another major step forward in GM’s leadership in the development of advanced vehicle technology,” says Borroni-Bird. “By creating a new automobile DNA through the convergence of electrification and connectivity, EN-V offers the promise of eliminating traffic congestion, crashes and [vehicle](#) emissions in tomorrow’s urban communities.”

Provided by General Motors

Citation: GM's EN-V Envisions Future of Personal Mobility (2010, December 6) retrieved 26 April 2024 from <https://phys.org/news/2010-12-gm-en-v-envisions-future-personal.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.