



**NOTICED**

# GREEN MY RIDE

There are many wonderful benefits of world travel, but shuttling humans across the globe takes a toll on the environment. Diana Hubbell investigates the latest developments in eco-friendly transportation.

If only there were a way to hit the road without hurting the road. Eco-conscious scientists have been trying for years to shrink the carbon footprint and hefty fuel costs of getting from Point A to Point B. Although there's still a long way to go, all of that effort is starting to pay off with advancements that could forever change the way we travel.

For instance, since biofuel, a cleaner burning, renewable form of energy, was approved for aviation in 2011, more than 1,500 commercial flights have used it in combination with traditional fuel sources. Taking things a step further, Etihad Airways successfully flew a 777 plane solely on

biofuel this past January. It may take a while before biofuel is a commercially viable option for airlines since it currently costs three to four times as much as fossil fuel, but the incentive to make it work is high: air travel generated 705 million tonnes of carbon dioxide in 2013, so any improvements would make a huge impact.

In our region, clean waters are tantamount to tourism dollars. Luckily, cruise lines are scrambling to up their game as well. Carnival Corporation, which is responsible for 10 major brands including Princess Cruises and Cunard, has already budgeted up to US\$400 million to implement a high-tech exhaust gas

cleaning system on 70 percent of its fleet to reduce the company's emissions by 20 percent by 2015.

Back on dry land, South Korea has found a clever way to encourage electric cars and buses: get them charging on the go. Online electric vehicles (OLEVs) power up through electromagnetic induction while still moving. OLEVs use batteries three times smaller than those in normal electric vehicles, making them lighter and more efficient. The city of Gumi has a 12-kilometer road wired to charge such vehicles, as well as several OLEV public buses. It's one more promising sign that the future of travel is getting greener by the day. +

**Down the Road**

**The Double Bubble D8**

This 180-seat, MIT-designed, NASA-commissioned aircraft is projected to burn 70 percent less fuel than a Boeing 737, thanks to its longer wingspan, an upturned nose and repositioned engines. As a bonus, the plane makes less noise and offers extra legroom in coach. More extensive testing of the design is already underway and the commercial models are slated to take to the skies in 2035.

**The Sky Whale** Spanish designer Oscar Viñals came up with the concept for a super sci-fi 755-passenger aircraft that maximizes efficiency with micro solar cells and "active wings" with a hybrid turbo-electric propulsion system. Although the idea has been turning heads in the aviation world in the last year, it could be a long time before this whale gets off the ground.