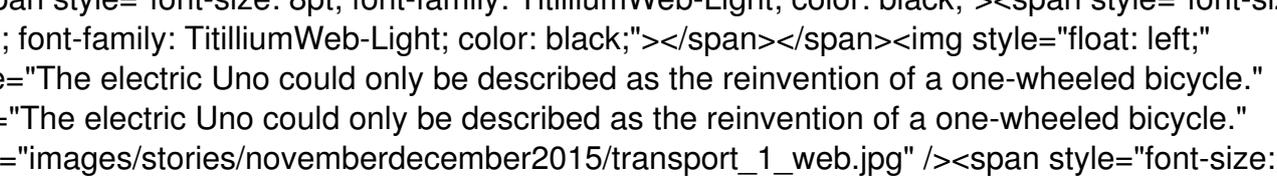


The future of alternative transport is exciting

Written by Jaco de Klerk

Wednesday, 25 November 2015 21:15

The electric Uno could only be described as the reinvention of a one-wheeled bicycle.

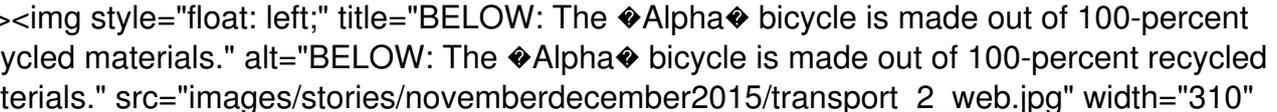
SHEQ MANAGEMENT shows you three possible futuristic solutions if green cars are too expensive.

They say that if you tug at a single thing in nature, you will find it attached to the rest of the world. We live in an era where conserving energy and saving the planet for future generations have become principal objectives of everyday life.

Global warming is no longer just a term used exclusively by scientists on PowerPoint presentations. Climate Communication, a non-profit science and outreach project, summarises it best: Recent weather events, such as deadly heat waves and devastating floods, have sparked popular interest in understanding the role of global warming in driving extreme weather.

These events are part of a new pattern of more extreme weather across the globe, shaped, in part, by human-induced climate change.

Mankind's constant urge to be mobile is a major contributor to one of the biggest challenges of the 21st century.

As consumers, we strive to buy vehicles that reflect our personality and social status. Some people think that the better we look while travelling somewhere, the faster we will get there, or the more noise we make on the way to a destination is directly linked to our self-respect.

Transport running on alternative energy sources isn't as new as you might think it has been experimented with since the 1900s and, at times, there have been some short-lived successes.

One example is the Stanley Motor Carriage Company, which was an American manufacturer of steam-engine vehicles. It produced various models from 1902 to 1924, but, ultimately, lost the car race against the internal combustion engine.

Later, we once again started to experiment with alternative propulsion forms such as hybrid-driven vehicles. These transport modes commonly run on both an electric and a petrol engine, making them a more environmentally friendly choice compared to standard petrol or diesel-powered vehicles.

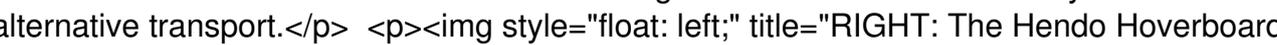
Interestingly, the Toyota Prius was introduced in 1997, but only released in 2000. The Audi Duo, the first commercially available hybrid vehicle, was released in 1997. It did not, however, achieve commercial success.

Then there are the plug-in hybrid electric vehicles (PHEVs), also known as electric vehicles (EVs). Although one of the oldest concepts for alternative transport, electric vehicles were never very successful, due to the many challenges associated with powering them.

Vehicle manufacturers are currently building stunningly beautiful EVs, such as the very sporty Tesla Model S. Although these transport modes are greener alternatives to petrol engines, an electric car could be challenging to own in South Africa.

Plans to erect recharging facilities in our country aren't moving forward at the same pace as electric vehicles. Another problem is the cost of these vehicles, which makes them less accessible to the masses.

There is, however, hope in the not-too-distant future for some exciting alternatives to these already-available forms of alternative transport.



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uses magnetic engines to levitate the board and rider around." alt="RIGHT: The Hendo Hoverboard uses magnetic engines to levitate the board and rider around." src="images/stories/novemberdecember2015/transport_3_web.jpg" width="310" height="255"/>The electric Uno could only be described as the reinvention of a one-wheeled bicycle. The dangerously unstable-looking motorbike actually uses two wheels, side-by-side, with gyroscopic technology to stay upright.

According to Science and Inventions the bike goes in the direction that the rider leans. The more you lean the faster you go, as the gyroscope works in unison with the control unit to determine acceleration or braking.

The 18-year-old Canadian inventor, Ben Gulak, says that the bike is fairly easy to ride, it just takes a bit of getting used to, because you have to learn to trust it. The Uno has a top speed of about 40 km/h and a battery life of about 150 minutes.

Imagine a future with an entire copper road network? This might not be too far-fetched as a Californian company, Arx Pax, has come up with a hover board that can be used as a form of personal transport.

The Hendo Hoverboard, with the Hendo 2.0 launched in October, uses magnetic engines to levitate the board and rider, four centimetres from a conductive surface. Arx Pax founder, Greg Henderson says that in the initial phase the boards will be sold for around US\$ 10,000 (around R130,000). The price will decrease as the systems are made more efficient.

For around R100 you can buy the Alpha bicycle. Designed by Izhar Gafni, it is able to carry more than 200 kg and is perfect for getting exercise, reducing pollution and saving money. It is made out of 100-percent recycled materials, weighs just ten kilograms and has a cardboard frame, which is supposedly stronger than its carbon-fibre counterpart.

This is quite impressive if you consider that carbon-fibre is stronger than steel. In fact, the British Broadcasting Corporation showed just how much stronger on its show: Richard Hammond's Engineering Connections.

Here, a steel drive shaft, which connects a motor vehicle's engine to its wheels, broke at 1,376 Nm, when tested compared to a carbon-fibre alternative, which broke at 4,728 Nm in the same test.

We find ourselves in a decade where we are urged to go green and save the environment, but, due to less than favourable economic conditions, it is sometimes easier said than done. There are, however, cheaper alternatives, such as public transport.