



## **Environ-MENTAL**

*The steering wheel is made from Carrots...*

*powered by Waste Chocolate and Vegetable Oil...*

*with Potatoes used to produce the bodywork...*

*and it goes 125mph round corners!*

Following the recent turmoil in Formula 1 arising from the high costs of running competitive motor racing teams, and doubts in sponsors' minds over the commercial value of their involvement, the viability of motor racing is being critically questioned. With this in mind the Warwick Innovative Manufacturing Research Centre (WIMRC) at the University of Warwick, are seeking to prove to the motor industry that it is possible to build a competitive racing car using environmentally sustainable components.



WIMRC's Response to the need for 'Green' motor sport : The World's First truly green Racecar



The new WorldFirst Formula 3 racecar is a clever piece of lateral thinking. It is the first racing car designed and made from sustainable and renewable materials, putting the world first by effectively managing the planet's resources.

The project truly is a WorldFirst. The car encompasses:

- Composite **Steering Wheel** derived from **Carrots** and other **Root Vegetables**
- **Potato Starch Wing Mirrors**
- **Wing End Plates** made from **Cellulose** and **Flax** composite
- Lightweight **Wiring Loom** incorporating **Recycled Aluminium** and **Plastic**
- 3D woven **Natural Fibre** composites in the **Barge Board**
- **Bio Diesel** race calibrated **Engine**. Not only is the car made of plants it can also run on them
- **Glass Fibre** and resin from **Recycled Plastic** for the **Side Pod**
- A groundbreaking **Oxygen Generating catalyst** on the **Radiators** that cleans the air as the car moves
- A seat made from **Flax Fibre** shell, **Soybean Oil** foam and recycled polyester
- **Recycled Carbon Fibre** for the **Engine Cover** and **Damper Hatch**
- Pre impregnated woven **Flax Fibre** for the **Bib**
- **Plant Oil based Lubricants**
- **Non-carbon** disks, with low embodied energy for the **Brakes**
- **Recyclable Livery** and **Sustainable Branding**

The project promotes a different perspective on “green”, which does not revolve solely around tailpipe emissions. The car itself features cutting-edge advances in the manufacture of race vehicles.

The WIMRC at the University of Warwick, responsible for this revolutionary project, have focused their energy into bringing sustainable development to the forefront of motor sport design. Project Manager, James Meredith, a researcher in WMG at the University of Warwick said *“It’s been very exciting working on the project and important for our team to develop a working example of a truly ‘Green’ motor racing car. The WorldFirst project expels the myth that performance needs to be compromised when developing the sustainable motor vehicles of the future”*

Team WorldFirst, which also includes Dr Kerry Kirwan and Dr Steve Maggs as principle investigators on the project, have collaborated with OEM’s, tier 1 automotive suppliers and local SME’s throughout. Their collaboration has achieved spectacular results paving the way for motor racing in the future.

The WorldFirst car proves that the practical application of sustainable and renewable materials can spearhead the innovation needed in the “championing



of green technology” by motor sport, as recently called for by Sir Richard Branson who showed interest in sponsoring the Honda F1 team.

Green technology can often be viewed as being a bit old fashioned. Contrary to this, the biggest environmental gains can come from simple, common sense means. In WorldFirst’s case these common sense developments have been applied in ingenious ways. Whilst road car manufacturers focus on adjusting their engine technology in order to adhere to new EU emission strategy, the WorldFirst team has striven to lead the way in engraining sustainability into every aspect of its car design. The end result demonstrates that green innovation can be exciting and be effectively utilised in cutting edge applications.

As the country contemplates a long recession and sponsors withdraw, many teams, are struggling to find the budget to go racing. The idea behind the WorldFirst racing car is to look at ways of producing a car that is **‘truly green’** and can be run as a competitive racecar with minimal impact on the environment.

It is also hoped that WorldFirst’s ethos will eventually lead to a cost reduction for both fans and teams, as the technology advances and components become increasingly recyclable, reusable and cheaper as a result of their more widespread use.

The championing of green technology, through the reduction of energy use and environmental impact, is the key to the future survival of motor sport in these ever challenging economic times. Max Mosely, President of the FIA, has reinforced this point by stating *‘In order to survive we need to concentrate on a more ecological motor sport’*.

The WorldFirst car represents original and innovative thinking at a time when the world needs lightweight construction, clean manufacturing and sustainable development techniques more than ever.

### **Notes to Editors**

- For further information, please contact Matthew Heatherington from the WorldFirst Racing Press Office on **0121 200 7200** or alternatively via email on **[matthew.heatherington@lifeagency.co.uk](mailto:matthew.heatherington@lifeagency.co.uk)**
- Key WorldFirst team members; James Meredith, Dr Steve Maggs and Dr Kerry Kirwan, who are all researchers at the University of Warwick, are available for interview via Matthew Heatherington
- Additional press ready photography available on request