

Engineers bring rain to Peru



An ingenious and eye-catching solution has been found to address the lack of rainfall in Peru. Scientists at The University of Engineering and Technology (UTEC) in the country's capital city, Lima, have created a billboard that draws moisture from the air and delivers it to the people via a tap at the bottom.

The innovation makes for a fascinating and striking display but also has a serious side; it was inspired by the fact that the city of Lima doesn't usually get much in the way of rainfall, leaving some Peruvians to collect drinking water from often polluted wells, while humidity can be as high as 98 per cent.

Inside the billboard is a processing system including an air filter, condenser, carbon filter and cold tank that takes moisture from the humid air by means of reverse osmosis before cleaning and feeding the supply to the tap below at an impressive rate of 96 litres (over 25 gallons) per day.

Tight CO₂ laws could save drivers money

A new report claims that drivers will save £3,300 over the lifetime of their vehicles if strict new standards for manufacturers proposed by the EU are accepted. It has been estimated that these standards, which limit CO₂ emissions from the average car to 95g per km, will cut fuel use by 25% and help meet the EU target of reducing transport CO₂ emissions 60% by 2050.

The report has been published jointly by consultancies Cambridge Econometrics and Ricardo-AEA, and released to coincide with a round of votes set to take place in the European Parliament during 2013.

Some German MEPs are predicted to resist the proposals in defence of manufacturers that build bigger, heavier cars but those in favour of the new standards claim there is a pressing need to ratchet up efficiency to compete with US manufacturers who are striving to meet President Obama's demand of 93g of emissions per km by 2025.

As well as saving money for drivers, the changes could create an estimated 350,000-450,000 net additional jobs thanks to an increased spending on vehicle technology, say the report's authors.

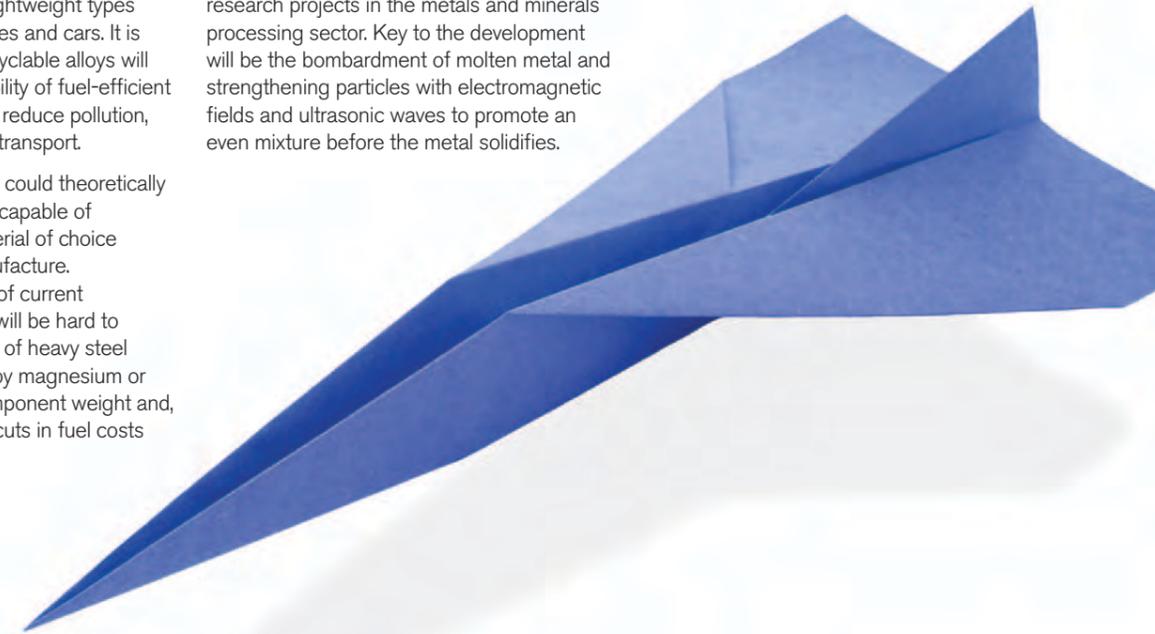


Travelling light

The European Space Agency (ESA) is leading a scheme to develop nanotechnology towards the manufacture of new, lightweight types of transport, including planes and cars. It is hoped that lightweight, recyclable alloys will contribute to the sustainability of fuel-efficient future vehicles and further reduce pollution, transforming the future of transport.

The €20m ExoMet project could theoretically develop materials that are capable of replacing steel as the material of choice for high-volume auto manufacture. The established traditions of current manufacturing processes will be hard to break but the replacement of heavy steel with strengthened light alloy magnesium or aluminium could halve component weight and, crucially, make significant cuts in fuel costs and CO₂ emissions.

The development of new materials will build on expertise gained in a series of earlier research projects in the metals and minerals processing sector. Key to the development will be the bombardment of molten metal and strengthening particles with electromagnetic fields and ultrasonic waves to promote an even mixture before the metal solidifies.



ERIKS know-how secures contract renewal from Tullis Russell

ERIKS has been awarded a new five-year Integrated Solutions contract by employee-owned premium paper and board manufacturer Tullis Russell. The contract underlines ERIKS' capabilities within the paper industry and its consistent delivery of high quality service on-site with Tullis Russell. The five-year contract is estimated to be worth approximately £7.5 million.

"Our product expertise and experience in this market, plus our strong track record on-site, were key to Tullis Russell choosing to remain with ERIKS and we are delighted to remain closely associated with a company of Tullis Russell's standing," said Paul Lynch, Commercial Director, Integrated Solutions, ERIKS UK. "This is yet another example of a customer renewing their contract with Integrated Solutions, and will take our relationship with Tullis Russell to the 17-year mark. This is practically unheard of in other outsourcing fields."

