

The UK manufacturing sector bounces back after a lacklustre spring, but confidence remains low

Economists are still torn on the negative effects of the longest period of bank holiday this country has ever had, as its statistical 'noise' may have clouded the economic outlook. But according to official figures published in early July, manufacturing's performance in May showed an annual increase of 2.8% compared to the same month a year ago. Output increased in 10 of the industry's 13 sub-sectors, with the largest contributions being made by the food and drink, machinery and equipment, and transport equipment industries.

The sector may have shown its biggest monthly rise since March last year, but economists warned it has still 'shifted down a gear recently', with output for manufacturing in the past three months down on the previous quarter, based on an article recently published in The Independent. Above all optimism has fallen, as indicated by a study from the accountants BDO which shows a fall to

90.1 last month, from 97.5 in May, and way down from 116.4 in February, as reported by the BBC lately.

So with a mixed international market, a weak Eurozone and confidence at low ebb a number of economists continue to fear a double dip recession. A mixed bag of messages really and manufacturers need to concentrate even more on increasing output towards the only global growth areas, the well-known BRIC countries.



Made by Britain



Business Secretary, Vince Cable has announced a new initiative, Made by Britain, designed to celebrate the best of the UK's design and manufacturing expertise.

The Government initiative requires each MP, of which there are 650, to research and nominate the company which best represents British ingenuity and design. Several of the votes are already in with some classic British institutions such as the Rolls Trent engine and Land Rover to some rather surprising nominations for toilet rolls, fish fingers and custard creams.

The idea is to create a kind of virtual 'Crystal Palace', a reference to the Great Exhibition of 150 years ago. Cable is aiming to 'build up a more positive picture of Britain being very inventive and actually very good at making things'.

Join the discussion by following **ERIKS UK** on **Facebook** or **Twitter** and let us know who you would choose.

Slippery bodies



Anyone using ball bearings will tell you that the lesser the friction the greater the efficiency. In the case of ship's friction turns into drag as the vessel moves in the water, greater drag means greater fuel consumption and so on. But this is where the Leidenfrost Effect may come to help as recently researched by Prof. Chan of Melbourne University. The Leidenfrost Effect explains the behaviour of liquids when they come into contact with a surface which is hotter than their boiling point; the liquid in contact with the surface

becomes a vapour cushion keeping the rest of the liquid away from the surface. Prof. Chan believes he has enough of a handle on the Leidenfrost Effect to allow him to investigate its potential in practical applications, such as shipping.

How to keep a ship's hull at boiling point and what effect this may have on the environment is another story.

The research is laid out in a paper by Chan and his colleagues, published in the journal Physical Review Letters.

Can waste from copper mines help the roofing industry?

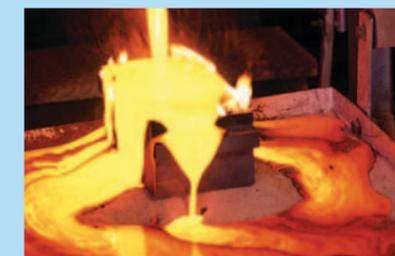


Extracting copper from the Upper Michigan copper mines is a mechanical process during which a large amount of waste material is

produced. The waste material comes into the shape of millions of cubic metres of sand that still contain enough copper and other metals to generate a fungicidal and algacidal effect, making it ideal for roofing applications. The mining company and university researchers have joined forces to devise a clever way to make the sand bond well to the tar paper, offering the prospect of a commercial operation in which much of the waste material could be successfully recycled for this purpose.

Smart metal

German and Chinese researchers have come up with a metal that changes from brittle to malleable using electric signals. Precious metals such as gold and silver have been used and the goal is to get to a state where the metal heals itself when cracks start appearing, for example. Work towards intelligent materials of this kind continues and one day perhaps we may not worry too much about damaging our



alloy wheels if we clipped a kerb, in the knowledge that in a few hours they may just heal themselves.

Periodic table gets longer and longer

It is official – the periodic table has now been extended to 114 and 116. But don't get too excited; these new elements have been produced artificially, by bombarding elements together.

For element 116 calcium nuclei were smashed into curium ones, creating this elusive and highly radioactive new element that only lasted a fraction of a second. It is unlikely that there will ever be a use for elements with such a short lifespan, remaining for ever of interest to researchers, rather than ordinary mortals.

Indeed, some academic qualification bodies have confirmed that even students needn't worry about knowledge of these new elements, which are for the most part un-named anyway. However, there is a purpose to this quest for new elements as scientists are convinced that after element 126 stability of a sort may be reached again. This discovery would have far greater practical implications of course, but we are still a long way off.

3 Li Lithium 6.941	4 Be Beryllium 9.0122
11 Na Sodium 22.9897	12 Mg Magnesium 24.305
19 K	20 Ca



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