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* The Ministry of Research, Science and Technology (MoRST) has released two consultation papers relating to research, science and technology in New Zealand.

The two papers are:

* New Zealand Research Agenda

* An Advanced Skills Action Plan for RS&T

MoRST is keen to receive feedback on these papers both from organisations and individuals engaged or interested in research, science and technology. For the Advanced Skills Action Plan, MoRST is particularly encouraging individuals to make a submission, in addition to any submission made by their employer organisation. This is because this document sets out options for facilitating RS&T career paths and it is important to capture a range of individual experiences and perspectives.

The two papers, background information, and information about how to make a submission is available at www.morst.govt.nz/consultations. Written submissions on the two papers are invited up until the close of consultation on 18 January 2008. Interested parties should feel free to make a submission on either or both documents.

* Check on this article to read how the New York fashion industry is coping with global warming. You'll be surprised.

* At 48.5%, greenhouse gas emissions in New Zealand from agricultural activities are an unusually high proportion of emissions for a developed country. {In:Curtis: Agricultural Emissions 'Read what Neil Curtis has to say on the subject}.

* We've all heard over the last year of two how China's economy is expanding. Tom Whipple is a well respected American commentator who usually seems to get his facts right. This is from his 27 August posting. You might be surprised to read about the number and type of cars being bought in China these days. Global warming - What's that? China's economy

"Last week China imported its first cargo of gasoline –ever. Although China is a major gasoline exporter – 3.6 million tons so far this year – refiners can earn higher profit margins overseas.

In July, China's oil imports increased by 39 percent over the previous year. Oil imports have tripled in the last five years as production from domestic fields failed to keep pace with demand.

Last year 7.2 million cars were sold in China, a rate that is rising by more than 20 percent annually. The government is building a nationwide network of highways. About 15,000 miles, the equivalent of one-third the U.S. interstate system, have been built since 2000, and 30,000 more miles are planned by 2020. In the first half of 2007, sales of cars with engine displacement smaller than 1 liter declined by 28.9 percent over the same period last year while sales of all sedans increased by 25.9 percent, and sales for SUVs rose 39 percent.

After 4 years of 10+ percent growth, China is looking like a country out of control. Inflationary pressures, especially for food, are starting to build and China's environmental degradation is reaching unprecedented levels. Only 1 percent of China's population breathes air that is clean by European standards. The water situation is not much better, and death rates from environmental pollution are rising sharply.

The urge to develop and grow wealthy has become so strong in China that it is doubtful that government can control it in the near term. There is simply too much momentum.

From the perspective of world oil consumption, China's rapid economic expansion and particularly its rapidly growing fleet of cars spells imminent trouble. Nowhere in the world is there enough new oil production in sight to satisfy a demand growing like China's. Even an economic recession that cuts into demand for Chinese products is unlikely to reduce demand for oil in the short term – the situation in China is simply moving too fast.

Something will have to give - soon". * An interesting article on the use and availability of phosphate in agriculture.

There's time enough, it seems, for policy makers to take future shortages into consideration. This paper points up the issue, very important to New Zealand, with well researched, credible competency, giving food for thought.

* As the probability of Peak Oil happening in the next few years increases, and credible but once very optimistic organisations like the International Energy Agency in Paris start changing their outlook from optimistic to pessimistic, so does the cacophony of 'back to basic living'; increase in intensity. The more extreme commentators would have us all composting our toilet effluent to grow our own vegetables in bucolic surrounding as of yore. Quite how people in inner-city environs (where most of the world's population live these days) might cope with this formula for a successful future, never seems to be fully addressed.

This article is one of the more balanced ones seen recently on the issue, albeit from an unusual source. Is the future dependent on viable, medium sized city-states emerging in importance? Are Palmerston North, Hamilton and Nelson the places where our future lies?

* Not only is the belief in global warming controversial, but so also are the possible effects. In this article economists argue the point about the effect of global warming on the US economy. The principles discussed hold for the NZ economy. It's no wonder the average punter has trouble making up his/her mind about the issue, when the 'experts' can't seem to agree.

* Does the following ring a bell with you? "civilizations emerge when a creative minority inspires the rest of their society with a vision of human possibility powerful and appealing enough to break through what he calls the 'cake of custom,' the rigid body of tradition that shapes the behavior of traditional cultures. The key to their success is the universal human habit of mimesis — our incurable habit of trying to imitate what impresses us". For the full article, check this out ; a thought provoking piece, possibly relevant to the gang culture in NZ. * Energy continues to be the number one item on our 'Towards 2030' horizon. A year or so ago, our Energy Group concluded there was a strong probability long term oil demand would overtake long term supply within a decade. At that time, the International Energy Agency, in Paris, the organisation most Western governments look to, was more upbeat. Their latest July 2007 report is swinging much more to the Energy Group's conclusions. It's a gloomy outlook for oil, but the implications for our agricultural exports more than balance the picture. The emphasis on bio-fuels, especially in the US, is forecast to get stronger in the short to medium term, leading to significantly higher basic food prices.

It's a continuing wonder why the focus should be on keeping internal combustion engines going, when they waste 80% of the fuel they use.

Notwithstanding, the IEA report is worth reading. Here is the overview, plus the URL for you to see the whole report. It's worth the time taken to read it.

Overview" Despite four years of high oil prices, this report sees increasing market tightness beyond 2010, with OPEC spare capacity declining to minimal levels by 2012. A stronger demand outlook, together with project slippage and geopolitical problems has led to downward revisions of OPEC spare capacity by 2 mb/d in 2009. Despite an increase in biofuels production and a bunching of supply projects over the next few years, OPEC spare capacity is expected to remain relatively constrained before 2009 when slowing upstream capacity growth and accelerating non-OECD demand once more pull it down to uncomfortably low levels. It is possible that the supply crunch could be deferred — but not by much. The demand side of this analysis is based on country-level GDP growth forecasts from the OECD and IMF, which amount to a global average of around 4.5% annually. However, with GDP being the primary driver of our strong outlook, warnings from institutions that the risks to economic growth are skewed to the downside confer similar risks to our medium-term forecasts - but they do not necessarily dramatically alter the projections".

The full report can be seen at <http://online.wsj.com/public/resources/documents/iea20070707.pdf>

* Nuclear fusion is seen by some to be the answer to our energy challenge. Nuclear fusion is the process of banging atoms together to create energy. Not to be confused with nuclear fission, (currently used in nuclear power plants and nuclear bombs) where atoms are split to create energy. The most impressive things about nuclear fusion are the cost and the way all the major power blocs are co-operating in a small number of projects to develop the technology. Here's the best piece we've seen yet on the subject. It's readable for those with little knowledge of science; the heavier stuff can be skipped without losing the over-all drift. But you'll need a bit of time, and probably peace and quiet to help the concentration.

* For the most balanced we've seen recently on the international energy scene, see this URL.

* Food and the energy issue are beginning to be linked. An article from the UK 'Independent' newspaper, is an interesting insight for New Zealanders whose livelihood depends so much on food exports.

* An alternative to oil is coal. However using coal produces a lot of greenhouse gas. Neil Curtis has recently done a paper on this issue for FTA which is recommended reading for those who want to understand more about using coal and

global warming in New Zealand.

* On 29 March, the US Government Accountability Office (similar to our Audit Dept.) released a report on their findings relating to international oil and US preparedness. An easy-reading summary is on <http://www.energybulletin.net/27919.html>. This site contains also a link to the full official report for those who want to follow through in greater depth. Both the summary and the full report constitute a wake-up call for those still sceptical about the concept of 'peak oil'.