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The TecEco Times

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Keeping you informed about the eco-cement project.

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Deloitte Touch Tohmatsu Appointed as Financial Advisors to TecEco

TecEco have signed an agreement with Deloitte Climate Change Strategies ("Deloitte") to act as financial adviser to assist TecEco in raising \$ 10 million.

Located in the prestigious Grosvenor Place building in Sydney, Deloitte is one of the world's leading professional services firms with over 95,000 people in 140 countries. The firm serves nearly one-fifth of the world's largest companies and is well positioned to complete the capital raising. Antonio Gelonesi (Global Director), Andrew Sharpe (Analyst) and Steven Skourakis (Analyst) from Deloitte will be responsible for controlling the engagement.

Much will change at TecEco during the coming months. Directors are looking forward not just to raising some capital so we can get on with it, but the influx of new ideas into the team.

Strong Interest in Using TecEco Bricks Blocks and Pavers from James Morrison and Yvette Breytenbach Architects

TecEco have had a series of exciting meetings with James and Yvette in which they have shown strong interest in using the TecEco technology in their eco-cosm building program - a 53 unit sustainable development in Hobart.

The specification for the development was written by school of architecture Professor Roger Fay of the University of Tasmania in Launceston and is for the most sustainable structure as possible.

Yvette and James won the job in a competition because they considered both the environmental and social impact and are creating buildings that not only will have very low lifetime energies but low embodied energies as well. The development is the brain child of Judy Jackson, Minister for Health in Tasmania.

Research Going Well

Recent batches of blocks coming out of Island Block and Paver Pty. Ltd., a strategic shareholder have been excellent. We are now working on ways of making the blocks using silica flour and other wastes in Tasmania.

John Harrison Attending the Commercialisation Ready Program

John Harrison has been attending the Commercialisation Ready Program, an intensive series of workshops, presented by facilitators who are leaders in their field and aimed at increasing the commercial success of innovative product, processes and services. Run by the Department of State Development in Tasmania John's comment so far is that it is first rate.

Modules include intellectual property, marketing, controlling growth, investment attraction and planning for growth.

Publicity Campaign

We are off slow start with the publicity campaign based on a guerilla rather than Godzilla approach. This is simply because of a lack of resources to do the job with more of a splash!

We have invitations so far to write articles for at least four or five magazines and hopefully we can create some meaningful debate. If you know any editors of magazines etc. who are interested in a great environmental story – please tell them to contact us!

JJ's Column

Hi. Our ratings with search engines are climbing, but we need more links. If you operate a relevant web site and would like to help the TecEco project please navigate to www.tececo.com and check out our new links page for details on how to exchange a link.

Please also email me at webmaster@tececo.com if you have any feedback or find any problems with our website.

Ken's Column

When looking for work, I ran into John Harrison and quickly became infected by his unbridled enthusiasm for his brilliant invention – eco-cement.

My previous career was as an economist in government and as a political adviser.

Economists in government seek to design institutional and regulatory arrangements that direct the economy's resources, resources that have finite limits to their supply, to the uses most favourable to society. They also seek to have the government direct it's economic muscle in the best possible way to improve the economic lot of the community.

A great deal of good economic sense does not see the light of day because it is not acceptable to the people who keep the economy's managers - governments in other words – in power. There's no point in having top rate economic policy if it gets your government thrown out of office – or not elected as John Hewson found out. Politics is the art of the possible: better to settle for second best policies and have them accepted by the electorate than attempt ideal policies that you cannot implement because you find yourself sitting on the opposition benches.

How is all this useful to TecEco?

New ways of doing things – new technology – are an extremely powerful means of delivering better economic results. Eco-cement will make a major contribution to the economy of the world by making much better use of the world's scarce natural capital. Better use of energy, because much less energy is needed to make eco-cement than conventional cement. Better use of many pozzolanic materials that are presently discarded as waste, often using up environmental resources in the process (as a growing lad I witnessed from my bedroom window at New Town the ever rising pile of jarosite waste at the Zinc Works.) Better use of mine tailings and overburden. And as John Harrison has worked out at the micro level, better use of carbon molecules which otherwise cause

Ken Farrell B.Ec. Hons. ASA is the latest addition to the TecEco Team. Ken holds an Economics degree with first class honours and is a qualified accountant.

Ken has worked as the economic adviser to the Premier of Tasmania and Minister for State Development and the Leader of the Federal Opposition. He has worked as a senior civil servant advising on housing and construction policies and was secretary of the Federal Building Research and Development Advisory Committee.

greenhouse problems. So what TecEco is doing is right in line with what I have spent a lifetime career pursuing: it will make a major economic contribution.

In politics, the tools of trade are information and good argument because to get electors to back your side you need to convince them that your team has the best policies. That's also extremely good background for TecEco because not everyone knows about eco-cement or is convinced (yet) about its great merits. We have a lot of telling and convincing to do to get potential users to take up eco-cement technology, to get investors to back our business development plans, and to get the world's consumers to insist on the use of eco-cements because they will improve their own lives and that of their descendants.

I will pick up these two themes in subsequent newsletters.

Vast numbers of resources we use and things we consume are not traded in markets and do not enter the pricing system but that does not mean they are not important to the well-being of people. The price system, operating well, can be an extremely powerful mechanism for getting economic messages delivered. We would do ourselves a big favour to get many more things into the pricing system. You can guess therefore that I am a fan of carbon taxes (which are really just the price society puts on waste carbon molecules.)

PS I am **NOT** a GST economist!

Team TecEco Can Make A Difference

At TecEco we are convinced stopping global warming is technically feasible. TecEco's contribution is to do what nature had done for the last 3.8 billion years - use and capture carbon. There is no need to resort to other more questionable means with possible downsides such as tipping waste ferrous sulphate into the oceans.

Reducing global warming is also good business. The main reason is simply a cost issue - recycling and minimising inputs make good sense. Lower embodied and lifetime energies for buildings mean that owning and living in them will cost less. (Carbon taxes will improve these differentials).

Having established that it is technically feasible and makes good business sense to take steps to combat global warming why isn't more being done?

Is it possible that much of the inevitability we perceive in relation to global warming is a learned helplessness (Martin E Seligman Phd ¹ and many others) in relation to what is an absurd consensus (Leith Sharp, Harvard²) Leith says quite rightly "people are conditioned to conform to group perceptions and to doubt and withhold their individual perceptions if they are in conflict with the shared reality of those around them. This has enormous significance when considering how people are currently responding to the demise of the planetary systems that support human life. The degree of inaction around this profoundly life threatening situation can perhaps best be explained by viewing our state as a massive 'absurd consensus' that is the product of our social conditioning which has enforced our subservience to, and blind confidence in, shared societal constructs of reality."

What then is it that has conditioned so many of us to learn helplessness in the face of the absurd notion that global warming is something we cannot do anything about?. Is another fact related? People are much more depressed today than they have ever been. (Expressed in suicides, divorce rates etc.) Depression is an epidemic. Why?

As Phillip Sutton, director, Policy and Strategy, Green Innovations Inc. says "we have not taken steps to mobilise people,we need to think very carefully about how the processes of

¹ Seligman, Martin E. P., Phd. Learned Optimism, Random House Australia.

² Sharp, Leith, Green Campuses, The Road from Little Victories to Systemic Transformation, Harvard University. (After the teachings of Somoan Asch, 1940's and 1950's)

imagination might be catalysed and how the mobilisation of people might be accomplished. What is blocking these processes, what is or might drive them forward? How can we trigger effective action?"

Perhaps we should cast some of the blame on the way the media generally report bad news and take a pessimistic viewpoint. Optimism and solutions rarely surface. The fact is that there are solutions to global warming and climate change such as the TecEco proposition about creating the built environment using carbon as a source molecule and if we want to rise up to the challenge we must take a more optimistic view.

We need to enlist not just the scientists but all of society, especially the media, to talk up optimism and hope, that there is a solution and that we can make it happen. Most importantly we must all work towards this great goal with passion. There are many contributing solutions out there, passionately harnessed they will become a mighty force and change the world. Passion and fervour come from good hearts.

Team TeceEco can make a difference – contact John on john.Harrison@tececo.com if you would like to help.

More from John about Sustainability

In the words of Leith Sharp, Director, Harvard Green Campus Initiative, There is no doubt that we have a “global environmental crisis of profound significance to both current and future generations. The nature of this crisis is complex and wide reaching. Climate disturbance, acid rain, deforestation, species extinction, fisheries depletion, soil erosion, toxic buildup in ecosystems, water, land and air pollution and ozone depletion are amongst the menu of environmental problems that are forming a web of destruction around the world. In short, every natural life support system is in long term systemic decline and every human contributes directly or indirectly to the escalation of this decline.

Sustainability is achievable. One reason is that it makes good business sense. In the shorter term money is saved by recycling and using less energy. Business are also starting to realise the longer term value of the environmental envelope in which they operate.

The TecEco contribution is simple - It seems logical that the way to stop global warming and climate change is to do what nature has done for billions of years and create our own built environment utilising carbon. Over two or three years Tececo have found ways of doing this and are now producing bricks, blocks and pavers in a real production situation on an experimental basis. What is exciting is that the bricks can utilise well over 90% of a wide range of wastes, are recyclable, low energy and CO2 neutral or even a net sink. The potential sequestration is enormous. Even though we know that there are over 1.8 billion tonnes of Portland cement produced globally each year we do not know how many billion tonnes of clay bricks and other materials that could potentially be replaced are produced so we cannot give an accurate overall figure.

The potential for sustainability in the built environment is enormous as according to the Australian Federal department of Industry Science and Tourism in a document titled "Environmental & Economic Life Cycle Costs of Construction, 1998 - Detailed Discussion Paper (section 2 - page 8) buildings are responsible for some 30 % of the raw materials we use, 42 % of the energy, 25% of water used, 12% of land use, 40% of atmospheric emissions, 20% of water effluents, 25% of solid waste and 13% of other releases. (the reference given by Industry Science and Tourism was Worldwatch paper 124³.)

Compare this to what the Green Building Design workshop at University of Michigan finding that globally, buildings use:

³ How Ecology and Health Concerns Are Transforming Construction Worldwatch **Paper 124** by David Malin Roodman and Nicholas Lenssen

25% of the global wood harvest
40% of materials entering the global economy
35% of the total energy
25% of landfill space
3 billion tonnes of raw materials and
Generate half the global output of greenhouse gases and agents of acid rain

TecEco believe that we will be successful because so much less energy is required to make the new eco-cement resulting in a very low cost base. I think we have developed what is probably the most important technology this millennium

If readers are interested or can help with statistics, funding suggestions etc. more details are on our web site at www.tececo.com

Business the Saviour of the Earth?

In a Greenleaps email of 27th January, 2002, Phillip Sutton the moderator said "a major theme for Greenleaps for this year (and beyond) will be getting the "industrial revolution for sustainability" going.

Phillip is joining a growing number of people who are starting to think that business could end up being the saviours of the environment. Let us hope this is the case and do all we can to make it happen.

After all it makes good business sense to minimize, recycle, preserve and maintain. An excellent book about all this is "Natural Capitalism" by Paul Hawkin, Amory and Hunter Lovins⁴. I have the book in electronic form (a colleague downloaded it from the Rocky Mountains Institute site some time ago) so if anybody cannot afford to buy it contact me at john.Harrison@tececo.com. This book is a must read.



John Harrison B.Sc. B.Ec. FASA

⁴ Natural Capitalism The Next Industrial Revolution, Paul Hawken, Amory B Lovins, L Hunter Lovins, 2000 Earthscan Publications Ltd. London.