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Nanotechnology for the manufacture of affordable housing, furniture and irrigation products from EOL waste tyres

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DENA Family of Companies was established over 28 years ago in 1990 by Brian Sulaiman, M. Auslmm to work in the field of advanced Nano- technology. The Company utilises a patented Reactor that modifies particles to achieve dramatic improvements in productivity, quality and profitability, with a diverse range of applications from pharmaceuticals to inks and more recently, in the eco-products arena for converting waste tyres in to high value and durable construction products. We have worked with Clients from different backgrounds include Glaxo Smith-Kline, ICI, CIBA, BP, Boots, BASF, 3M, Crown, Akzo Nobel, Astra Zeneca and many more, with Joint Venture projects world-wide exceeding sales in 2010 of £500M. DENA Nano-Wood Ltd has developed an End of Life (EOL) tyre recycling technology that creates a range of high value and durable construction eco-products whilst using zero emissions and zero waste. As the tyres are available worldwide for a fraction of price compared to virgin rubber, the raw materials cost is negative and there is also steel and fibre that can be reclaimed and sold off to provide an additional income. Whilst tyre crumbing is established, the material forming technology is completely new and has no competitors as it is proprietary and covered by several International Patents since 1991. DENA Nano- Wood Ltd uses a unique process to produce these materials using micronized rubber and a special Nano-particle composite. The resulting material has an almost endless range of final products, all of which are infinitely recyclable using the same processes that created them in the first place. These range from super-strength and durable 'wood replacement' to special porous irrigation hose.

Speaker Biography

Brian Sulaiman gained his Doctorate from Leeds University in England and has since become a renowned expert in the field of Nano-metrics, having won several awards for Environmental Innovation. He invented the Nanometric Processing Reactor and founded Dena Technology in the mid-90s which was used to commercialise. Sulaiman's patented engineering accomplishments. Sulaiman brings a wealth of expertise in engineering technology to any project. Whilst working as a University Lecturer Dr Sulaiman was approached by an American firm who specialised in electronics who wanted him to work for them on solving a problem they had with defective microchips. During his time with them the idea for the Nanometric Process came to him during a walk on the seashore when he noticed that a rock was dispersing fine droplets of water. This gave him his initial idea for what would be the Dena Nano-Technology Reactor.

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