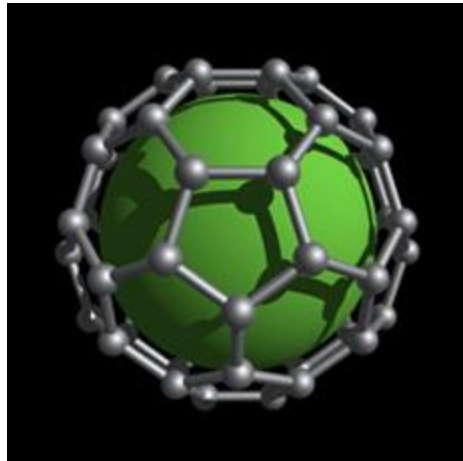


AUSTECH Nanotechnology Article – March 2007

Today, consensus has it that Nanotechnology is a key technology and that it is having a profound impact on industries ranging from manufacturing, food processing, construction, textiles, optics and microelectronics, to medical engineering amongst many others. Manufacturing organisations wanting to strengthen their competitiveness are required to add value to current products and technological enterprises and will need to gain detailed information about production process changes using Nanotechnology.



Statistics dictate that there is a future to be gleaned from acquiring the discipline. The global Nanotechnology sector has a projected value of between \$US1 and \$US2.6 trillion by 2015, with international demand for two million direct workers and seven million indirect workers. Aggregating these figures into Australian data would see the sector valued at \$10 - 60 billion by 2015, employing an estimated 125,000 people¹.

It is common knowledge that manufacturing methods using normally accepted disciplines has physical limitations. Nanotechnology as a discipline now makes “engineering without limits” a reality. Its application is perceived to be predominantly aimed at very high volume production, specifically accredited to the semiconductor industry. However, while this may be true, it certainly does not preclude the highly profitable application of Nanotechnology in niche markets that best suit Australia’s manufacturing capability. If this is a consideration, then, as a process, the application of this key discipline requires the facilitation of manufacturing management aspects and capabilities we know are already well established in the Australian manufacturing sector, namely:

- Quality assurance
- Management of complexity and diversity
- Returns from low to medium volume production
- IP based products.

The manufacturing industry has delivered a successful production environment in the not too distant past by combining local manufacturing knowledge and IP capability with process excellence. This combination must therefore be a winning one. This can be achieved again.

Realtek Technologies Pty Ltd

Where process is concerned, Realtek Technologies, through their technology transfer capability, will facilitate access to the required process excellence. Realtek’s close association with world leading Nanotechnology equipment manufacturers and their global consortiums and associations makes effective and profitable process strategy development possible. Locally accessible staff and expertise are also

¹ Roco, Mihail US National Nanotechnology Initiative”: Planning for the Next Five Years. Nanotechnology Business Alliance, US based on Lux Research (NY) data Australian Financial Review “Nano Work Chases Mega Numbers”, June 5, 2006

