

*Dr Peter Binks, CEO, Nanotechnology Victoria Ltd (NanoVic) and Chairman Australian Nano Business Forum*

**Responses to written questions on notice.**

**Questions re the ANBF**

**1). Can you briefly outline the reasons why the Australian Nano Business Forum was established? What service do you provide to your member organisations?**

The ANBF was established in 2005 by a group of industry CEOs and consultants. The group believed there was a need for a body to represent the views of businesses, as distinct from research organisations and Governments. Such a body could:

- provide an “industry” view to policy discussions on issues such as OH&S
- enable information flows across the industry, which covers many sectors
- provide support to the marketing of Australia as a nanotechnology investment destination
- provide support to Australian nanotechnology companies seeking to participate in international markets

**2). What are the significant differences between jurisdictions in Australia in relation to support for the commercialisation of nanotechnology research? What suggestions do you have to improve the current situation in NSW?**

To date, each of the States has taken a different approach, dictated by the priorities of its Government around innovation and investment attraction. Both Victoria and Queensland have followed paths similar to their biotechnology strategies, making large investments in enabling infrastructure (AIBN in Brisbane, Synchrotron in Melbourne) and participating in international activities (conferences and trade delegations). Victoria has also established commercialisation mechanisms (the Small Technologies Cluster, Nanotechnology Victoria) to improve the translation between research and industry

NSW has a very strong capability in nanoscience in its universities, CSIRO divisions, and ANSTO. It could establish mechanisms for commercialisation, similar to STC or NanoVic. It should also consider developing a leadership position, through a statement of priorities similar to the recently released Victorian Nanotechnology Statement.

## Questions re Nanotechnology Victoria

**3). NanoVic was established prior to the Australian Office of Nanotechnology. What was the rationale for establishing NanoVic and what ongoing role is there for NanoVic now that the Australian Office of Nanotechnology has been established?**

NanoVic plays a very different role from the AON. It was established to support the development of industrial technologies, and the translation of university nanoscience into Victorian and Australian industry. It has a small team of project managers who work across materials sciences and biotechnologies, investing in key developments which use nanoscience and managing development for commercial purposes. As a corollary, it also supports development of education, policy, regulation, and awareness activities which it believes are beneficial for the industry and community.

The AON does not work to support industry. It works primarily around public awareness, metrology, and OH&S.

**4). Can you describe some of the highlights of NanoVic since it started in 2003? What kind of impact has NanoVic had on the commercialisation of nanotechnology in Victoria?**

Over the last 5 years NanoVic has invested \$12 million in commercialisation of nanotechnologies. Around \$2.5 million has supported its team and overheads, and \$9.5 million has gone into over 60 projects, ranging from <\$10,000 to over \$1 million.

It now has a portfolio of bionanotechnology investments valued at over \$10 million, and a nanomaterials portfolio of around \$5 million.

Highlights include its development of new medicine and vaccine delivering technologies based on nanomaterials and nanostructured surfaces, and diagnostic systems for medical, veterinary, and environmental analysis. It has also developed innovative structural materials for manufacturing, and novel pigments and other industrial products.

Through its development of these products, and its interactions with over 30 companies, NanoVic has played a major role in improving the awareness of nanotechnology opportunities in Australian industry, and developing their capabilities to capture these.

NanoVic is also proud of the role it has played in supporting the formation of NanoSafe Australia (a network of toxicologists developing expertise in nanomaterials), the nanotechnology regulation group at Monash Law

Faculty, and the nanotechnology education initiatives led by Mrs Francesca Calati, who won the 2007 Prime Minister's Science Prize for Secondary Education.

**5). Can you briefly describe the type of information for the general public that is provided on the NanoVic website. Are you able to advise on how well used the website is by the public?**

The NanoVic website receives about 550 visits per day, with about half coming from Australia. A significant portion of the enquiries relate to education; we also receive approaches from companies interested in existing or new products. The website aims to provide information for multiple purposes: nanotechnology education, nanotechnology applications for industry, NanoVic's own products and people, issues in nanotechnology, and links and key papers.

The NanoVic Blog provides a separate forum for discussion of interesting and unusual aspects of the technology, and attracts over 1,000 visitors per day.

**Questions re ANBF Submission to NSW Inquiry**

**6). The ANBF submission (p6) states that there is an opportunity for Australia to stake out a distinctive position as a leader in nanotechnology. Can you please expand on that statement, and give some consideration of the role of the NSW government in meeting that opportunity?**

Australia, by virtue of its small size, relatively focused Government and industry, and strong research sector, has an opportunity to contribute to the development of some of the supporting mechanisms for the industry, notably education and public awareness, regulatory structures, and OH&S principles. In regulatory analysis and secondary education we are already leading the world. That position could be strengthened and extrapolated to make Australia an attractive location for nanotechnology enterprises and institutes, and prepare Australian firms well for the new industry.

NSW has an opportunity to support and lead this positioning, particularly with targeted initiatives in public awareness and debate, toxicology, education and regulation. Key institutions such as the University of Wollongong, University of Technology Sydney, The University of New South Wales, The University of Sydney, ANSTO and the CSIRO in NSW have the capabilities and intent. The Government could lead and coordinate this activity.

**7). Your submission considers that the existing regulatory framework, with a nanotechnology focussed review, is sufficient to supervise nanotechnology research and development in Australia. Is there a need for a labelling framework for products with nanotechnology components?**

Yes, there is a need for a labelling framework. Consumers who may have concerns about the presence of nanoparticles ought to be informed about their presence or otherwise. The Government can play a key role in mandating the development of labels, and supporting their design and adoption.

**8). Does industry look to Government to entirely fund and manage the health and safety assessment of nanomaterials? What role should industry play?**

Government should not entirely manage the process. There is a role for industry, but it has to be recognised that if industry plays a funding or supervisory role, such assessment could be viewed as compromised. The role of industry should probably be limited to providing open access, information, and materials.

**9). Your submission argues that the National Nanotechnology Strategy lacked support for industry. Do you think that the possible outcomes of the current review of Australia's National Innovation System will be able to address this? Do you think that the federal and State governments need to have a specific focus on nanotechnologies?**

Yes, we expect that the National Innovation Review will be important in determining approaches to emerging technologies. However, we believe a specific focus on nanotechnologies, as has been taken by many other jurisdictions, is important at Federal and State level.