



REPORT

POST-COMS CONFERENCE SITE VISIT PROGRAM 6 & 7 SEPTEMBER 2007

**12th Annual International MANCEF Commercialisation of
Micro & Nanotechnology Systems Conference (COMS 2007)
Sofitel Hotel Melbourne, Australia
2 – 5 September, 2007**

Prepared for:

COMS2007 Joint Organising Committee &
Department of Innovation, Industry & Regional Development (DIIRD)
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EXECUTIVE SUMMARY:

The 12th international Commercialisation of Micro and Nano Systems Conference (COMS 2007) was held at the Sofitel Hotel, Melbourne from 2 to 5 September, 2007. The Conference attracted over 420 delegates and was the first time COMS had been held in the Asia Pacific region. Conference participants included; international leaders of high tech companies, research organisations, regional development and government agencies, investment and consulting groups, market researchers, educationalists and students.

The Australian Nano Business Forum (ANBF) was appointed by the COMS 2007 Organising Committee to develop and manage the post-COMS Site Visit Program for international delegations as identified by the Organising Committee and to involve DIIRD officers in the process.

The aim of the post-COMS 2007 site visit program was to create a 'value-add' benefit for potential international COMS Conference Delegations; ensure maximum exposure of Australian micro and nanotechnology organisations to international delegates attending COMS and to facilitate potential business opportunities.

International Delegations identified by the COMS 2007 Organising Committee included the UK, Mexico, USA and Japan.

The ANBF worked closely with Victorian Government Officers to create and implement an effective site visit program. The COMS 2007 Site Visit Program offered to International Delegations included 24 Australian micro and nanotechnology organisations based in Victoria, NSW, ACT and Queensland. Due to travel and time restrictions only Victorian site visits were undertaken by the Delegations.

Questionnaire feedback from Delegation members, Site Hosts and Government escorts has been collated with a view to monitoring business outcomes and improving future site visit programs. Feedback from international Delegates regarding the post-COMS 2007 site visit program and organisations visited has been very positive. An overview of the questionnaire feedback, including a list of the business opportunities identified, lessons learned and ANBF recommendations to improve future site visit programs are detailed in this Report.

In conclusion, the ANBF managed, post-COMS 2007 site visit program was successful in attracting international Delegates to COMS 2007; promoting Australian nanotechnology capabilities internationally; and facilitating potential business opportunities for the Australian nanotechnology industry.

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ATTACHMENTS

- A.** COMS 2007 Conference Overview Brochure.
- B.** International Delegation Participants in Post-COMS2007 Site Visit Program.
- C.** Post-COMS Potential Site Visit Options.
- D.** Potential Collaborations/Business Opportunities identified during the Post-COMS 2007 Site Visits

COMMERCIAL IN CONFIDENCE

1. AIM

The aim of the post-COMS 2007 site visit program was to create a 'value-add' benefit for potential international COMS Conference Delegations; ensure maximum exposure of Australian micro and nanotechnology organisations to international delegates attending COMS and to facilitate potential business opportunities.

2. BACKGROUND – MANCEF COMS CONFERENCE

The COMS Conference auspicing body, MANCEF (the Micro and Nano Commercialisation Education Foundation), is a US based, not-for-profit education foundation with over 600 international members. The MANCEF COMS Conference is recognized as the leading international conference on the commercialization of micro and nanotechnologies. The COMS Conference held over 4 days addresses the issues of opportunity realization from research, technology transfer, manufacturing processes, facilities, infrastructure, investment, applications and markets, regulatory issues, social implications, education and workforce development for the micro and nanotechnology community.

3. COMS 2007 CONFERENCE

The 12th international COMS Conference (COMS 2007) was held at the Sofitel Hotel, Melbourne, 2 to 5 September, 2007. COMS 2007 was the first time this international conference had been held in the Asia Pacific region attracting over 430 delegates. Conference participants included international leaders of high tech companies, research organisations, regional development and government agencies, investment and consulting groups, market researchers, educationalists and students.

Organising Committee:

- Mr Clive Davenport - CEO Small Technologies Cluster & President MANCEF;
- Prof Erol Harvey – Director MiniFAB Australia & MANCEF Asia Pacific GAC Member;
- Ms Trish Vardon – Manager International Networks – The State Government of Victoria (DIIRD).

Host: The State Government of Victoria – Department of Industry & Regional Development (DIIRD).

Major Sponsors: EVG / Realtek Technologies Australia

Further event background information is outlined in the attached COMS 2007 promotional brochure.
COMS 2007 Brochure - Attachment A.

4. OVERVIEW - POST-COMS 2007 SITE VISIT PROGRAM

The Australian Nano Business Forum (ANBF) was appointed by the COMS 2007 Organising Committee to develop and manage the post-COMS Site Visit Program for Delegations as identified by the Committee and include DIIRD officers in the process.

International Delegations identified by the Committee included: UK, Mexico, Japan and USA. Attached are lists of the international delegation members. **International Delegation Members – Attachment B.**

With input from Clive Davenport and Victorian Government Officers (OST & OMSI), the ANBF identified a list of potential micro and nanotechnology site visits and the relevant Government Project Officers to escort delegates.

Program Implementation:

Sites and Government Project Officers were approached to confirm their availability to participate. A primary site contact was identified as the point person responsible for finalising meeting arrangements at each site.

A list of potential sites (including brief overview and website) was circulated to international delegations for them to indicate visit preferences by 17 Aug. **Post-COMS 2007 Site Visit Options - Attachment C.**

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The Potential Site Visit options offered to Delegates included 24 Australian organisations from the following states:

VIC	18
NSW	3
ACT	1
QLD	2

Delegates expressed an interest in visiting interstate sites, however due to time constraints and travel difficulties associated with the APEC Summit being held in Sydney, Delegates did not elect to visit the interstate site options.

Site Visit Confirmation:

Once feedback on site visit preferences was received from Delegation members assessment was made regarding timing of meetings and combining of Delegation groups.

Visits were confirmed by Leanne Bolton, ANBF or Catherine Williams, DIIRD by phone and email. In the cases where a site visit request could not be arranged, a one-on-one meeting was arranged for the Delegates during the COMS Conference.

Each site contact was provided with the visiting Delegate(s) name, title, organisation, a brief background and key area of nanotechnology interest. Despite best efforts it was not possible to source a basic biography and confirmation of nanotechnology interest from all Delegation members prior to their arrival.

DIIRD Officer, Catherine Williams also arranged additional government meetings for some international delegation members – these meetings are not reflected in this report.

Victorian Sites Visited by the COMS 2007 International Delegates on 6 & 7 September:

- **BIO21**, hosts Dick Wettenhall & Paul Mulvaney
- **Centre for Nanoscience & Nanotechnology (CNST)**, host Prof Frank Caruso
- **Quantum Communications Victoria (QCV)**, host Dr Shane Huntington
- **Ludwig Institute for Cancer Research**, host Dr Edward Nice
- **Monash Institute of Nanosciences**, host Mr Noel Dunlop on behalf of Dr Abid Khan
- **Australian Synchrotron**, host Prof Robert Lamb
- **CSIRO**, host Vicki Tutungi
- **MiniFAB**, hosts Mr Michael Wilkinson & Prof Erol Harvey
- **Small Technology Cluster (STC)**, host Mr Clive Davenport
- **CRC-Polymers**, hosts Mr Ian Dagley & Julie-Anne White
- **Invetech**, host Dr Colin White
- **Ceramic Fuel Cells**, host Mr Trent Rowe on behalf of Dr Karl Foger

The following government officers escorted international Delegates to the abovementioned sites:

- Dr Vincent Conrad – EPP, DIIRD
- Dr Allan Davey – OST, DIIRD
- Dr Russell Walker – OST, DIIRD
- Mr Brian Waters – OMSI, DIIRD
- Ms Catherine Williams – OSMI, DIIRD
- Ms Suanne Hackett, Invest Australia ACT
- Mr Damien Dunstan, Invest Australia ACT

The following organisations agreed to host a COMS 2007 Delegation site visit, however, were either not selected by the Delegates or the travel time and delegate availability did not make it possible for a visit to take place.

- Australian Stem Cell Centre, Vic (*although not initially selected as a site visit preference, UK Delegates visited ASC following their visit to Monash Institute of Nanosciences*).
- CRC – ACS (Advanced Composite Structures), Vic
- i-Glass, Vic
- La Trobe University, Vic
- Siemens VDO – Automotive, Vic
- CSIRO, NSW
- ANSTO – Australian Nuclear Science and Technology Organisation, NSW
- UTS – Institute for Nanoscale Technology, NSW
- Australian National University - Nanofabrication Centre, ACT
- University of Queensland – Australian Institute for Bioengineering and Nanotechnology (AIBN), Qld
- Griffith University – Queensland Microtechnology Facility (QMF), Qld.

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The following organisations advised they were not available to host a post-COMS site visit:

Toyota Technical Centre, Holden Innovation, Solar Systems, NanoVic, Defence Science & Technology Organisation (DSTO), VCAMM, CRC-CAST, BASF and Robert Bosch.

Reasons for declining the opportunity to host a site visit included the following: Appropriate staff not available at that time, lack of suitable facilities and intellectual property security concerns.

5. OUTCOMES - POST COMS2007 SITE VISIT PROGRAM

Post Visit Questionnaire Feedback:

A brief Questionnaire was circulated to participating Delegates, Site Hosts and the Government Escorts following the visits, with a view to identifying and monitoring potential collaborations/business opportunities and improving future site visit programs.

Feedback from international Delegates regarding the post-COMS 2007 site visit program and organisations visited has been extremely positive. A list of the business opportunities identified, Delegate quotes and ANBF recommendations to improve future site visit programs are detailed in this Report.

Potential Collaborations/Business Opportunities Identified - Attachment D.

International Delegate Questionnaire Quotes:

Mr Mike Pitkethly, CEO Cenamps and Nanotechnology KTN, UK:

"There were a good number of initial contacts made which I am sure will be useful, but immediate opportunities will be followed up with: CSIRO, Invetech, Melbourne University, Monash University and ANBF.

Dr Malcolm Gower MBE – CEO Nanophoton Technologies, UK:

"Quantum Communications Victoria's work is truly world class – to see a live demonstration of single photon anti-bunching in daylight in a stable mode.....was a complete revelation to me.....Excellent work and please convey my congratulations and thanks to the QCV team."

"The site visits went like clock-work, all meetings were on time and worthwhile".

Dr Nadeem Rizvi, Laser Micromachining Ltd, UK:

"Thank you for all the hard work you've done in making everything go so smoothly for us, I really appreciate it. The escorts were very friendly and proactive during the visits, ironing out any small issues and making sure everyone was aware of the sites. It's been a very enjoyable and worthwhile trip to Melbourne and I hope to visit again soon".

"Further visits may benefit from a two-way set of presentations, with both sides saying something about their work....overall the organisation and manner of the COMS visits was just right for the time available and the needs of the Delegations".

Prof Tim Ryan, Epigem, UK:

"The program emphasised mainly public funded organisations. This was entirely appropriate to those members of the UK Delegation like myself who were visiting Australia as a representative of the MNT Network. From the Epigem doing business point of view, more company visits like those to Invetech and MiniFAB would be helpful".

Guillermina Avendano, FUMEC, Mexico:

"The organisation was excellent". "The site visits were the best way to identify opportunities of collaboration".

Dr Gil Herrera, SANDIA National Laboratories, USA:

"I am very impressed with the professionalism and cleanliness of Victorian laboratories. The procedure, risk assessment and documentation systems are world class. As the manager of a major research facility it is clear to me that significant effort has been put into establishing correct behavioural patterns in your laboratories here. The promotion of such a culture ensures innovation flourishes within a safe working environment. You have in place a number of systems that address areas of concern I have had regarding the Sandia Laboratory, and I am taking back a copy of the BIO21 laboratory notebook specifically to show to my team an excellent example of the way in which our procedures should be managed".

6. ANBF RECOMMENDATIONS FOR FUTURE SITE VISIT PROGRAMS

ANBF recommends implementation of future site visit programs to Australian nanotechnology sites could be improved by the following actions:

- **1.5 hrs minimum** should be allocated to each site visit.
- **Delegate involvement in a site visit program should be made dependent on delegates providing their background details**, including a brief bio, full contact details and key area of nanotechnology interest and expertise.
- It needs to be stressed, not only in the itinerary documentation but also by escorts that, **it is not appropriate for Delegates to cancel a site visit on the day.**
- Given the many changes to the site visit participants (delegates and hosts) in the days prior to the visits it is **vital dedicated resourcing is allocated to future site visit programs**, to ensure these changes are communicated to all parties as soon as possible.
- **Delegate free time** should be factored into future visit programs to enable Delegates to gain a better understanding of local culture and amenities.
- **The site visit program manager would benefit from personally visiting sites** in order to gain a true understand of logistics.
- Some Delegates were 'conference fatigued' which impacted on their ability to attend all scheduled visits. **Consideration should be given to holding future site visit programs pre-conference.**
- **Site Visit options should be confirmed and circulated to the potential participants a minimum of 3 months prior to visits taking place** to allow Delegates time to confirm preferences, supply bios and book flights. Some international Delegates had already confirmed their flights before they received the detailed site visit program options (circulated 1 month prior to the COMS07 Conference).
- It has proved time consuming to gain delegate feedback required to create the list of potential collaborations/business opportunities. In future, ANBF recommends **escorts should check with Delegates on departure from each site to ascertain outcomes and advise the site visit coordinator** the following day.

7. CONCLUSION

Overall, the post-COMS 2007 site visit program was successful in attracting international participation to COMS and promoting Australian nanotechnology capabilities internationally. Future business opportunities resulting from the post-COMS 2007 site visits have been reviewed and a detailed list of these opportunities submitted to the COMS Organising Committee and The Department of Innovation, Industry & Regional Development (DIIRD).

8. ANBF ACKNOWLEDGEMENTS

The ANBF wishes to acknowledge and thank the following Government and MANCEF individuals for their support and assistance in the planning and implementation of the Post-COMS2007 site visit program:

MANCEF:

Clive Davenport, CEO STC & President MANCEF

Erol Harvey, Director MiniFAB & MANCEF GAC Asia Pacific Board Member

Business Development – DIIRD:

Jane Niall, Deputy Secretary Business Development, DIIRD & MANCEF Asia Pacific

Faye Burton, Executive Director - Office of Science & Technology, DIIRD

Ray Doyle, Executive Director - Office of Manufacturing and Service Industries, DIIRD

Trish Vardon, Manager International Networks - OST, DIIRD

Catherine Williams – OMSI, DIIRD - escort

COMMERCIAL IN CONFIDENCE

Vincent Conrad – EPP, DIIRD - escort
Allan Davey – OST, DIIRD - escort
Russell Walker – OST, DIIRD - escort
Brian Waters – OMSI, DIIRD - escort
Harry Buskes - Business Development, DIIRD
Bob McCulloch – OMSI, DIIRD

Invest Australia – DITR:

Suane Hackett, Invest Australia ACT - escort
Damien Dunstan, Invest Australia ACT - escort