
Report on breakfast seminar at the 2005 ASTC conference

Introduction

On 18 October 2005, 23 people—from 18 organisations in 8 APEC economies—attended a breakfast seminar on the APEC Science Centre Impact Project ('the APEC Project'). The group included four of the nine members of the project's International Steering Group. (See Appendix A for a list of participants.)

Ilze Groves (Project Officer and Researcher, based at Questacon – Australia's National Science and Technology Centre) presented a progress report on project activities to date. Key items from this report are at Appendix B.

Graham Durant (Director, Questacon) began the session with a short keynote address, referring to the increasing focus on impact research in the science centre / museum sector round the world. He pointed out that such research is used in two main ways: to improve what science centres do and how they do it, and to contribute when 'making the case' for support to governments and other stakeholders. The APEC Project is part of this worldwide effort, with a particular focus on how science centres can contribute to relevant government priorities. Its focus is in the economies round the Asia-Pacific rim, and the support of the three science centre network organisations—ASPAC, ASTC and Red-POP—is vital and highly valued.

Discussion during the session

- Several speakers commented on the importance and relevance of the project to the science centre / museum sector, and on the usefulness of the material collected on the website so far.
- Discussion of the financial support base for the project confirmed that individual science centres and museums are not likely to be able to contribute significant funds to the project, and the original plan of pursuing funding through government channels in the APEC economies should be pursued. It was acknowledged that this is challenging, in terms of finding appropriate avenues for this. Ilze Groves pointed out that the need for funding to support new research would be raised at a meeting of the APEC Industrial Science and Technology Working Group (which approved the project last year) later in October, with the potential for follow-up with individual delegates attending that meeting.
- The APEC Project was considered to be valuable in the same way as the ASTC-Science Museum of Virginia's 'Changing Lives' project, which tells the stories of individuals whose lives have been affected by their experiences with science centres / museums. The case study material gathered for the APEC Project so far has similar value—demonstrating how individual science centres are changing the lives of some of the people or groups interacting with them.
- Several speakers indicated their support for a set of common questions, relevant to the APEC Project, being incorporated with research carried out by individual science centres or, for example, by researchers in the Visitor Studies Association network. This would be one way to gather new data for the project, from different countries, without significant resource outlay. Several centres indicated their willingness to participate in such an approach.
- Encouraging researchers (e.g. Masters or PhD students) from local universities to take on research relevant to the project was suggested as another avenue for gathering new information.
- The group agreed that combining results from different countries might not always be appropriate because of differences in cultural and economic factors, and different approaches to science communication by governments. Cross-cultural impact studies would require serious academic involvement!

Focus for future research

A list of possible research topics, based on discussions at the project scoping meeting in Hong Kong in December 2004, was circulated to all participants, so that they could indicate what their current priorities are: what are the burning questions to which their organisations or relevant stakeholders would like answers (see Appendix C for the list of questions).

The group agreed that the project's current themes¹ are central to many science centre / museum activities, and should continue to be pursued.

Several people used the form to provide immediate input on their research priorities; others will respond after returning to their institutions following the conference. The collated responses will be considered by the project's International Steering Group.

Actions arising from the meeting

The project secretariat will:

- continue to pursue funding opportunities to allow broader, in-depth research to be commissioned
- continue to seek out examples of successful science centre / museum activities in the three theme areas which have been its focus during 2005
- explore options for a common set of questions—relevant to the APEC Project—that could be added to existing or planned research activities in the science centre / museum sector and allied research bodies
- consider responses to the 'priorities for research' list when proposing future activities for the International Steering Group to consider.



¹ Providing increased access for audiences that are traditionally hard to involve in science centre / museum activities; engaging with audiences on difficult / controversial / rapidly changing areas of science; partnerships with other organisations.

APPENDIX A: LIST OF PARTICIPANTS

The meeting was hosted by:

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| Graham DURANT | Director, Questacon – The National Science and Technology Centre Canberra, Australia |
| Ilze GROVES | Project Officer and Researcher – APEC Science Centre Impact Project; Questacon – The National Science and Technology Centre Canberra, Australia Member, ASTC Analyses and Trends Committee |

Members of the APEC Project's International Steering Group:

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|------------------|--|
| CHEW Tuan Chiong | Chief Executive, Singapore Science Centre |
| Lesley LEWIS | Chief Executive Officer, Ontario Science Centre Toronto ON, Canada |
| Julia TAGUENA | Executive Director, Red-POP Director General, Universum, Ciudad Universitaria México |
| Bonnie VANDORN | Executive Director, ASTC |

Other participants:

| | |
|-------------------------|--|
| Ron BARNES | Senior Vice President of Learning, Oregon Museum of Science and Industry Portland OR, USA |
| Rieza BUJANG | Head, Visitor Services, Petrosains – The Discovery Centre Kuala Lumpur, Malaysia |
| Alan FRIEDMAN | Director, New York Hall of Science Queens NY, USA President-Elect, Visitor Studies Association |
| Aphiya HATHAYATHAM | Director, Information Technology Museum, National Science Museum Pathum Thani, Thailand |
| Tengku Nasariah IBRAHIM | General Manager / CEO, Petrosains – The Discovery Centre Kuala Lumpur, Malaysia (also representing ASPAC) |
| Yumiko KINOSHITA | Group Leader, Project Leader, International Development Group, Strategy Development Group, Miraikan – National Museum of Emerging Science and Innovation Tokyo, Japan |
| Yukihisa KITAMURA | Trustee – Deputy Director General, The National Science Museum Tokyo, Japan |
| David LEVERTON | Chief Executive Officer, Science Alive! – The New Zealand Science Centre Christchurch, New Zealand |
| John MALLOZZI | Vice President / Chief Financial Officer, Orlando Science Center Orlando FL, USA |
| Jim MARCHBANK | Chief Executive Officer, Science North Sudbury ON, Canada |
| Pichai SONCHAENG | President, National Science Museum Pathum Thani, Thailand |
| Tracy ROSS | Canadian Association of Science Centres Sudbury ON, Canada |

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|-------------------------------|---|
| Maria del Carmen SÁNCHEZ MORA | Deputy Director, Informal Education, Universum, Ciudad Universitaria México |
| Dennis SCHATZ | Vice President for Education, Pacific Science Centre Seattle WA, USA |
| Sean SMITH | Director, Government and Public Relations, ASTC |
| Caroline SUTTERFIELD | Editor, ASTC |
| Bryan TISDALL | CEO and President, Science World British Columbia Vancouver BC, Canada |

Apologies were received from:

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|-------------------|---|
| Brenton HONEYMAN | Project Coordinator, APEC Science Centre Impact Project Questacon – The National Science and Technology Centre (Australia) |
| Iskandar ALIAS | Oil & Gas Discovery Centre (Brunei) |
| Wen-Hao CHOU | National Museum of Natural Science (Chinese Taipei) |
| Haydee DOMIC | Museo Interactivo Mirador (Chile) Member of the project's International Steering Group |
| Annette HEWARD | Otago Museum (New Zealand) |
| Duane KOCIK | Science Museum of Minnesota (USA) Member, ASTC Analyses and Trends Committee |
| Emlyn KOSTER | Liberty Science Center (USA) Member, ASTC Analyses and Trends Committee |
| May M PAGESINOHIN | Philippine Science Centrum (Philippines) |
| Per-Edvin PERSSON | Immediate Past President, ASTC |
| Wendy POLLOCK | Director, Research, Publications and Exhibitions, ASTC Member, ASTC Analyses and Trends Committee |
| Jeanie STAHL | White Oak Associates (USA) Member, ASTC Analyses and Trends Committee |
| Walter STAVELOZ | Executive Director, ecsite |
| Chee-Kuen YIP | Hong Kong Science Museum Member of the project's International Steering Group |

APPENDIX B: SUMMARY OF PROJECT PROGRESS REPORT

Achievements to date – summary of activities

Since the project scoping meeting in Hong Kong in December 2005, the project team has

- established an International Steering Group
- reworked the website (hosted on the ASPAC site) to better suit the needs of the project
- negotiated for publication on the website of various reports, case studies etc, including some of the papers presented at the 2005 PCST Working Symposium in Beijing, China
- set up an electronic newsletter system that allows tracking of how many are opened and which links are followed
- begun an online survey of how science centres and museums tackle challenging topics
- arranged for one day of the 6th ASPAC conference in May 2006 to be devoted to the project
- commenced discussions with the National Museum of Natural Science in Chinese Taipei about a possible meeting or seminar in 2006
- publicised the project at the 2006 *ecsite* conference in Helsinki, Finland, in June 2005, in the context of presenting an invited paper on the economic impact of science centres and museums; and also at the 4th Science Centre World congress in Brazil in April 2005 and at the 2005 conference of the Australian Science and Technology Exhibitors' Network in New Zealand in July.
- collected government policy documents from 11 of the 21 APEC economies (in areas such as science and technology, education, innovation) for analysis of how science centres and museums can best contribute to government agendas.

Achievements to date – statistics to 24 September 2005

The following tables give an indication of topics of greatest interest to project audiences so far, and of the extent of this interest.

Website

| Website page | Number of visits |
|---|------------------|
| Home page | 1723 |
| Project history | 1115 |
| Groves study of economic impact (whole report)* | 802 |
| Garnett study of science centre impacts* | 223 |
| Lewis paper on partnerships | 153 |
| Archived newsletters (total for 4 issues) | 168 |

** These two reports have also been accessed directly through the websites of ASPAC, ASTC and ebsite.*

Newsletter

| | |
|--|---------|
| Number of issues (3 versions of each) | 4* |
| Total number of recipients on all mailing lists | 465 |
| Percentage opened per issue | 30%–34% |
| Percentage of recipients who have opened at least one issue | 53% |
| Most popular items: Cheung's APEC policy summary; Johnson's 'education' review; Lewis's partnership paper; Garnett + Groves studies; Scott's 'museum impact' papers; Biotechnology Australia's PCST paper. | |

** Also 1 special bulletin for participating institutions*

APPENDIX C: POSSIBLE FUTURE RESEARCH TOPICS

Please use the numbers 1–5 in the boxes at the left to indicate your top three priorities. Please tick the boxes at right if your institution might be able to contribute information to any of these questions.

You can also suggest other areas of interest.

| | | |
|--|--|--|
| | What is the impact of science centres on the professional development of teachers? | |
| | What are the long-term impacts of touring exhibitions? | |
| | What is the effectiveness of an outreach program—in terms of cost and learning—compared with a visit to the centre itself? | |
| | How does an unguided visit compare with a guided visit in terms of best value for the visitor and most long-term impact? | |
| | Do 'take home' materials increase follow-up activity by families after a visit to a science centre? | |
| | Is there an increase in scientific literacy in the community? | |
| | Are more people taking up careers in science and technology or in relevant teaching areas? | |
| | What is the connection between micro activities and macro impacts, e.g. between learning and societal impact? | |
| | How do we involve families in science centre visits—especially in developing countries? | |
| | What performance indicators should science centres use to demonstrate their effectiveness? | |
| | What is the impact of a science centre in the business sector? | |
| | What is the impact of a science centre in the research community? | |
| | What would be useful for benchmarking science centre performance, and how could this be done across different countries? | |
| | What are the best strategies for developing good media communications? | |
| | What works well for professional development of science centre staff (including funding schemes and staff exchanges)? | |
| | How are tax incentives used to encourage investment in science centres? | |
| | What are best practice approaches to the use of volunteers, and what roles can they play? | |

Any other areas of interest? Any general comments?
