



Australian Academy of Science

A submission to

A Review of Questacon – The National Science and Technology Centre

**Questacon Review Secretariat
Canberra**

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A submission by the Australian Academy of Science

The Australian Academy of Science's Research and Innovation in Australia Policy Statement from September 2007 notes that "an informed citizenry that can take personal responsibility for informed decision-making needs a fundamental understanding of science and technology."¹ However, trends in science and technology tertiary graduations, in research, and in science education, indicate that the nation is falling behind in terms of quantity, quality and output in these areas. Without urgent attention to education, especially in science and technology, Australia may find its current competitive advantages in the international market-place rapidly eroded.

Nationally and internationally, Questacon – The National Science and Technology Centre is regarded as a leader in the field of science communication and awareness. Questacon's activities – its exhibitions, in-house science programs and outreach programs – raise national awareness, foster understanding and instill positive attitudes to science and technology. As such, Questacon plays a fundamental role in supporting Australia's future in science, technology and innovation.

The Academy of Science recognises that a number of Questacon's activities, such as Questacon Smart Moves and professional development workshops for teachers, meet a key recommendation of the Academy's Research and Innovation in Australia Policy Statement, "That Australia further addresses the critical lack of suitably qualified science and mathematics teachers, and expands programs to encourage high school students to study science and mathematics."²

Questacon's programs contribute to several government objectives, including raising interest and awareness of mathematics, science and technology in young children and school students, including indigenous children. The programs also include professional development in science for Australian teachers. Questacon's programs should be viewed as crucial to Australia's science and innovation future, especially as the outreach programs target regional, rural and remote areas of Australia, in which communities may not typically have access to the hands-on and experimental approach to science as presented by these programs.

Questacon's activities are viewed as relevant, informative and motivating. Researchers from Australia and overseas are commonly interested in the promotion of science and technology to a wider audience, and the Academy of Science frequently includes Questacon as a site visit when hosting international guests.

Questacon currently operates most of its programs in partnership with external stakeholders who contribute significantly to the funding of a particular program. In an Australian environment, which in comparison to countries such as the United States lacks a culture of benevolence and bequests, Questacon has been very successful in securing funding from external sources. While in the United States science centres such as The

¹ Australian Academy of Science, *Research and innovation in Australia: a policy statement*, September 2007: p7 www.science.org.au/reports/aas-policy-2007.pdf

² *ibid.*

Exploratorium in San Francisco receive millions of dollars per year through private contributions of individuals, foundations, funds and companies, Questacon's revenue relies heavily on funds from partnerships. As external stakeholders gain significant influence over program content and direction, further scope for securing external funds is limited if integrity and independent management of Questacon programs are to be retained.

Where Questacon's exhibitions have travelled internationally, they have been very popular and well-visited, especially in Asia. While the exhibitions showcase Questacon as an international leader in promoting science awareness, the programs also reflect positively on Australia and Australian science. Questacon exhibitions may be strong promotion tools for raising an awareness of Australia to audiences overseas, and should be viewed as such by the Australian government. A strong science councillor network would have the potential to promote Questacon activities globally and seek partners for financial support for particular projects.

As the protector of public goods, the Government has a responsibility to ensure that Questacon remains a respected and modern Australian landmark. It should view Questacon as a high-profile national symbol of science education and innovation, and needs to strengthen this symbol rather than shy away from it.

The Australian Government has a critical role in supporting public education, and particularly in science and technology in a time when Australia requires an increase in researchers, science educators and a scientifically literate society to remain competitive in the world. The Government should view Questacon in a wide context, contributing to a number of government objectives such as scientific awareness and literacy in schools, professional development for science teachers, science education in indigenous communities, international potential in science awareness, and a well informed citizenry.