



OFFICE OF THE PRIME MINISTER'S SCIENCE ADVISORY COMMITTEE

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Interpreting science

How society obtains and understands scientific and technical knowledge is critical to a well performing participatory democracy, says Sir Peter Gluckman, the Prime Minister's Chief Science Advisor. Because science now deals with very complex matters, many of which have high values content (for example climate change, the use of genetic modification), how science is presented and used can have major impacts on decision-making. Scientists and those who are active in science communication have crucial roles to play in allowing the public and the policy maker to better understand what they know, what they do not know, and what might be concluded from the evidence, but there are many challenges in the way that science is communicated and used.

The [discussion paper](#) released today is intended to help the public and policy makers to judge whether a piece of science is being appropriately interpreted or whether it is being misused or overstated. Something may be presented as established science when it is not, or it may not suit advocates to accept the science as established when it is. The paper gives examples of each of these and highlights the questions that should be asked when interpreting a scientific report. It also explains the scientific process and discusses how scientific conclusions can be established even when all the details may never be resolved or there is still debate over some specifics.

Sir Peter comments that he is particularly concerned by the trend for the complex nature of science to be ignored or misunderstood in societal debates, leading to the argument that you can find a scientist to support any given position. This, he says, totally misinterprets the way that scientific consensus is achieved and can engender serious mistrust in the scientific enterprise. Society will be better served when science is used appropriately.

The challenges of the twenty-first century will require society to have an understanding of the uses and limits of science and technology. This discussion paper is intended as a early step in promoting that understanding.

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