

# MARKETING OF SCIENCE FOR PUBLIC UNDERSTANDING

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*It is well accepted that sincere efforts need to be made to enhance public understanding of science. This is necessary not only for intellectual fulfillment but also for positive gains for individuals and society and national prosperity. There must be planned programs to achieve this. This article discusses the subject in some detail. It explains the meanings of the key words in the title of this write-up and outlines how different segments of the society need to be approached for better marketing of science. There is also a discussion of various recommendations that have been made by scientific bodies and some individual scientists who want better public understanding of science.*

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## Introduction

*'We live in a society exquisitely dependent on science and technology in which hardly any body knows anything about science and technology'*

– Carl Sagan

The author has previously published in this journal an article which discussed alienation of scientists in society<sup>1</sup>. The main conclusion of the article was that there was a gap between scientists and the public and it was the responsibility of the scientists to bridge the gap. The subject of public understanding of science and technology has been of much interest in academic circles for several decades now. To know how remedial measures can be taken one has to first know how the public feels and knows about science in general.

Public Awareness of Science (PAS), Public Understanding of Science (PUS) and Public Engagement with Science and Technology (PEST) are terms that relate to attitude, behaviour, opinions and activities of the general public or by the society and a whole, *vis-à-vis* scientific knowledge, scientists and scientific organizations. It is well known that exposure leads to interest and interest to desire to know and awareness. Finally, this awareness may lead

to the actual action of knowing and understanding under motivating circumstances. Motivation may be created by employing principles of marketing of products to potential customers.

Market is a place where there is demand for a particular product or service. This demand may exist already or it can be created. Bhaumik<sup>2</sup>, famous for his CO laser that found signature application in corneal sculpting (the corrective eye surgery best known as LASIK), writes that initially the real world applications of lasers were not immediately apparent. For a while 'it was characterized as a solution in search of a problem'. Scientists had to create the demand for lasers by demonstrating the benefits of their inventions. The demand for understanding science amongst the public has to be similarly stimulated by scientists themselves through their lectures and demonstrations.

The general public may be indifferent towards scientific questions in astrophysics, gravity waves, quantum mechanics, genomics and so on but they do generally have interest in subjects such as climate change, use of vaccinations, water and air pollution and their harmful effects, agricultural topics and the etc. The awareness results from exposure to the media and scientific debates on the subject. A recent issue of National Geographic magazine (March 2017, Editorial) says that two thirds of Americans now accept that the threat of climate change and global

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