ABSTRACT

Science and the World’s Future
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The world badly needs the innovation that comes from continual scientific and technical advances. More than ever before, it is critical that we work together to constantly improve our institutions and our structures for science—so that we can make maximum use of our intellectual and financial resources. This requires that we reward risk-taking and that we support vigorous mechanisms for creating a random, cross-disciplinary collision of different scientific approaches and ideas.

The knowledge and the problem-solving skills of scientists are critical for every nation—no matter how rich or poor. Every society also needs what Indian Prime Minister Jawaharlal Nehru called a “scientific temper”—the type of rationality and tolerance that stems from the central values of science: honesty, generosity, an insistence on logic and evidence, and a respect for all ideas and opinions regardless of their source of origin. These values also make possible a strong international community of scientists, whose members can build strong bridges of trust between nations with very different cultures and values.

From my 12 years as president of the US National Academy of Sciences, I came to recognize that, for the long run success of science, we will need talented people from the scientific community in a wide variety of different professions. This will require that our university science departments greatly enlarge their view of their mission, and that we create new pathways to move scientists into positions where they can make a difference in public policy, industry, government, journalism, law, commerce, and our public school systems.