

**Speech at the Closing Plenary Session “Paving the Way for the Future”
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It is a great honor and a pleasure to be here for this Closing Plenary Session, so ably chaired by Professor Harriet Wallberg-Henriksson. And I am sure I speak for all of us in offering thanks and appreciation to Mr. Koji Omi, chairman of the STS Forum, and to his staff, for all they have done to assure the success of this forum. I think the last two days have seen useful discussions on many and important issues that are major sources of concern, including energy production and supply, the environment, the life sciences and food production. I hope we will be able to take another step forward, and that continued developments in science and technology will bring more benefits to society and our lives.

Introduction

I realize my responsibility in this session is to provide a perspective drawn from my experience in corporate management and to apply that to how we can look for a way to assure that science and technology develop in a desirable direction. The business environment changes very quickly, and corporate management has to constantly adapt. I hope that my observations could give some pointers for further progress in science and technology.

In the developed countries, many children tend to dislike studying science, a fact that suggests a serious future problem: a significant decline in the number of people to support advances in science and technology. An aging society with a low birth rate and fewer children is another problem. I think that efforts to secure the talented people necessary to achieve continued progress in science and technology have to take a long term view. It is people who stimulate and grow businesses, and the same holds true for progress in science and technology.

The Importance of Elementary Education

To cultivate capable human resources, elementary education is very important.

- Why do kids tend to dislike the sciences?
- Do we have appropriate methods to teach the many advances that have been made in science and technology?

Until now, the acquisition of knowledge has been at the heart of elementary education. I wonder whether it is possible to change that approach a little. If we allow students a more hands-on approach, if they can carry out experiments and learn from personal experience, it will help them to overcome negative perceptions of science. Let me take as examples energy and limited resources, issues that this forum has been discussing. Today, children in the advanced economies grow up accustomed to mass consumption, and regard fulfillment of their material desires as a given. If society were suddenly to shift toward a recycling orientation, they would have difficulty in changing their lifestyle. However, if their experience when they are young helps them to develop sensitivity to this problem, it would not only make it easier to realize a recycling- oriented society, but also help to lead science and technology in the right direction.

Business-Academia Collaboration in the Future

Some changes must also be made in higher education, starting with universities. With the continued progress toward an information society, corporations have brought the advances of science and technology to society through their products and services. In the process, it is becoming increasingly difficult to clearly separate and define the dividing line between academia and business. Furthermore, as science and technology becomes even more complex and complicated, companies will not only continue to need people who are adept at achieving results in specialized fields of study, but also people who can take a broad overview of things, including implications for and relations with society, another theme that was discussed here. We must not forget, science and technology are not themselves the solution, but the tools we use to find solutions that serve humanity. If we are to develop human resources able to advance science and technology in the future, we must devise mechanisms for alliances between business and academia, and for assuring that people working in both fields share the same vision. Through my activities at Toshiba and other business

organizations, I will seek to encourage this approach, and to promote more cross-fertilization between industry and academia.

Conclusion

Going forward, I would like to see everybody involved in science and education engaged in a deep discussion on how to develop superior human resources and, as a result, lead society to a better place. In that connection, I hope that this forum can act as a compass, pointing out the right direction.

I would like to conclude my comments with a single question: look 10 years into the future, and ask yourself if you, if all of us, have done enough to train your successors to deal with the issues we have discussed here today.

Thank you.