



## Opening Article

# Let us discuss the future of chemistry and our dreams for chemistry!

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The Chemical Society of Japan (CSJ) recently produced a vision for chemistry which looks into the foreseeable future in response to a request from the Science Council of Japan. The process was led by each division of the CSJ and conducted with the full cooperation of CSJ members. This type of vision has been presented to the public in the past. However, it is not enough any more to just produce a report or to present a report in public such as at an academic conference in a way which can only be understood by experts. We need to talk about our future vision and dreams presented in such reports in a way that is more easily understood by the general public with enthusiasm and sincerity, in order to promote understanding and obtain the support of the general public. In particular, it will be increasingly important for universities, etc. to conduct research and development by aiming at fulfilling responsibilities for the future on behalf of the nation based on the support from the general public, because taxpayers' money is used for the R&D as an investment in the future.

Chemistry is an academic field which forms a foundation for society and it has created new materials, etc. which have changed society. However, its essence is in the atomic and molecular world which is difficult to understand. Chemistry has the potential to create new and unknown substances, but this potential inevitably involves risk. For example, nanomaterials are extremely promising materials, but their use also involves uncertainty because sufficient research has not necessarily been conducted into the risks involved for ecosystems and also the implications are difficult for the general public to understand. Even scientists who are involved in research and development may find it difficult to understand the consequences of the results of the R&D, because the fields of academic research are highly specialized and narrow these days.

The recent "the scrutinizing of public projects" conducted by the government highlighted the need for individual researchers and technical experts of the next generation to explain to society the significance of the research and technical development that they are engaged in on a regular basis. Those who are involved in

research and development and human resource development at ordinary times should perhaps recognize that there are many norms and practices that they need to review.

The new government of Japan recognizes that science and technology are essential foundations for the development of the country. I am hoping that the "New Growth Strategy," which will be compiled in June this year, will show the importance of the development of science and technology through constant "innovation" and the importance of developing personnel who will become the new leaders of society in order for our nation to continue to develop sustainably. The CSJ, as a group of experts, is required more than ever to present broadly a vision for chemistry to the general public as well as to the new government of Japan.

The times are changing rapidly. The days when scientists only needed to work hard are behind us. Scientists are now expected to create new values on their own accord while questioning the meaning of what they do and considering their potential risks. What has not changed all through the ages is the fact that society is developed by us, the people, particularly young people who will shape the future. What "society" wants is exactly what the people want, and exploring what we wish to have is the process for creating values for the future.

Following the CSJ members' charter, the member chemists should have "pride and awareness" and discuss the future of chemistry and their dreams for chemistry more than ever, in a way which allows them to be respected and recognized by society. I also hope that more young people will aim to become chemists and strive to create a future for chemistry and make their dreams a reality.

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