

Foreword

In the field of science and technology, Japan has achieved glorious results that can be boasted to the world, through the constant efforts of researchers and all the other parties concerned. In FY2016, Dr. Yoshinori Ohsumi, an Honorary Professor of Tokyo Institute of Technology, was awarded the Nobel Prize in Physiology or Medicine for his discovery and elucidation of autophagy, which is a basic process for the degradation and reuse of intracellular molecules. In the 21st century, Japan has held the second rank in the world in terms of the number of Nobel laureates in natural science. This fact shows that creative ideas of Japanese researchers have been highly acclaimed by the world for their significant contribution to the search for truth and the development of human society.

In the age of the great revolution driven by the transformation of the industrial structure and globalization, innovation is the source of change. We should make innovation happen to create new values that we have never thought of before, create new industries, and solve social problems, and by doing so, achieve economic growth and realize new economic and social systems. Based on this recognition, with the aim of achieving the goal advocated by the Abe Administration, i.e. to make Japan the "world's most innovation-friendly country," the 5th Science and Technology Basic Plan states that the foundations of science, technology and innovation should be strengthened to respond flexibly to any change, and that open innovation should be promoted on a full scale to achieve knowledge implementation with a sense of speed into society.

The *Features* section of the 2017 White Paper reports the initiatives to enhance the basic science capability of Japan, with a focus on issues concerning academic research and basic research and young researchers who engage in these research activities, which have been actively discussed following Dr. Ohsumi's winning of the Nobel Prize in 2016. *Part I*, which is titled "Accelerating Open Innovation—Toward Sustainable Innovation Co-created by Industry, Academia, and Government," analyzes the current situation of open innovation, which has been gaining increasing importance along with the advancement of information and communication technology and the progress of globalization, and suggests the direction in which Japan should move in the future.

In order to open the way to the future amid the dynamic changes in economy and society, the government is determined to continue to strongly push forward initiatives in science, technology and innovation, and will make full efforts to enable all important actors in this process, namely universities, public research institutes, and industries, to play their respective roles to the fullest extent.

Finally, we hope this white paper will help all Japanese people to understand the current policies on science and technology promotion and be a reference for undertakings by all concerned.

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