

Foreword

Our thoughts are with all those affected by the 2016 Kumamoto Earthquake disaster on April 14. We pray for those who lost their lives and offer our condolences to the families who lost loved one. The Japanese government is determined to support the disaster victims.

This fiscal year, we have launched the 5th Science and Technology Basic Plan. The tireless efforts of researchers in Japan have achieved glorious results. In 2015, Dr. Satoshi Omura, a distinguished emeritus professor at Kitasato University, was awarded the Nobel Prize in Physiology or Medicine, and Dr. Takaaki Kajita, the Director of the Institute for Cosmic Ray Research University of Tokyo, was awarded the Nobel Prize in Physics. The excellence of Japanese research in various fields has gained global recognition.

Meanwhile, the socioeconomic structure of Japan has been drastically changing day by day.

The Internet of Things (IoT), big data and artificial intelligence (AI) are not only making our lives affluent, but are also affecting the domestic and international economy and people's lifestyles. Already many countries around the world have been endeavoring to introduce innovations that will change the structure of manufacturing and other industries through public-private cooperation. Under the 5th Science and Technology Basic Plan, Japan is aiming to realize a "super smart society" ahead of the world.

The *Features* section of the 2016 White Paper reports the research outlines of Japanese Nobel laureates and discusses the background of the research activities that led to their achievements. By analyzing the background of their successes, we seek inspiration for the direction of Japanese policies on science, technology and innovation.

Part I outlines a scenario for future society, about 20 years from now. That scenario describes how our lives will change as a result of progress in science and technology innovation. We describe a "super smart society" in

terms of the lifestyle of an imaginary family, and we clarify the directions of necessary undertakings to realize such a society.

All of Japan needs to share the super smart society vision of our future and needs to conduct R&D, environmental improvement and human resource development projects. We are determined to implement such projects through the concerted efforts of the entire government. We will work to maintain safety and security, and to improve quality of life.

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

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