

UNITED NATIONS COMMISSION
ON SCIENCE AND TECHNOLOGY
FOR DEVELOPMENT (CSTD), twenty-fourth session
Geneva, 17-21 May 2021

“High-level round table on the role of science, technology, and innovation in a sustainable and resilient recovery from the COVID-19 pandemic”

Statement by Prof. Yoichiro MATSUMOTO
Science and Technology Adviser to the Minister for Foreign Affairs

Japan

Thank you, Mr. Chair,
Excellencies,
Ladies and Gentlemen,

I am Yoichiro MATSUMOTO, Science and Technology Adviser to the Minister for Foreign Affairs of Japan. It is my honour to attend the CSTD annual meeting and have an opportunity to speak in this important session.

I took up my present position in April 2020 at the height of the first wave of COVID-19. Over one year on, the end of the pandemic is still nowhere in sight.

COVID-19 has had significant negative impacts on human security and the achievement of the SDGs. To overcome this enormous challenge, Science, Technology and Innovation (STI) will play a critical role.

In response to COVID-19, it is certainly important to have “Plan A”. That is, namely, research and development in the medical field for solutions such as vaccines and therapeutic agents. On the other hand, in order to make a sustainable and resilient recovery, it is necessary

to realize a society where people can move freely, gather together, and engage in economic activities without restrictions, while living with the virus. For that purpose, I cannot emphasize enough the importance of adopting a “Plan B”—that is taking measures in non-medical fields.

I would like to introduce some examples of “Plan B” measures in Japan towards achieving a resilient recovery. In terms of detection, technologies are being developed to enable ultrasensitive detection of the virus, utilizing photonic crystal sensing sheets and digital detection methods. From the perspective of disinfection/cleansing, Deep-UV LEDs can deactivate viruses and purify air and water. This technology is currently in the early stage of practical application. Regarding protecting people’s health, a remote medical examination system has already been put to practical use.

The Japan Science and Technology Agency (JST), a research funding agency in Japan, has been supporting various “Plan B” projects for international research collaboration. In collaboration mainly with G7 countries, JST supported 11 projects under its J-RAPID program. These include a project to develop new methods for detecting and monitoring the novel-coronavirus in wastewater. In addition, as part of a program called e-ASIA JRP, which aims to solve problems common to Asian countries, JST has been supporting research projects such as mathematical modelling of heterogeneous contact and movement patterns for preventing COVID-19.

It is also essential to take preventive measures and focus on health care so that people do not get ill in the first place, or can prevent severe symptoms in the case that they do contract COVID-19 or other diseases. Now that various mutations of the virus have emerged, it is effective to develop a strategy, by gathering and analyzing genomic information. For this purpose, collection, analysis, and accumulation of genomic data are essential. As an advanced example of genomic medicine in Japan, the National Cancer Center has been working on cancer genomic medicine and building a system to use genomic

information connected to clinical information.

The data accumulated in the cancer genomic data repository is used as a knowledge database, and is expected to be used for finding new methods of diagnosis and treatment, for checking the availability of medicines, and for medical AI development. At the National Cancer Center, several international collaborative research projects with Asian countries such as those to develop new cancer medicines, are being conducted simultaneously. Genomic medicine utilizing genomic information should be further promoted as one of the health care methods contributing to sustainable and resilient recovery from the COVID-19 pandemic.

I am convinced that further promotion of international cooperation in the fields I mentioned today will help international society to make a sustainable and resilient recovery. I look forward with great interest to following the discussions at this meeting.

Thank you for your attention.