

A Role of Bio-based in Circular Economy of the Business Development

Nobuyuki Kawashima^a

^{a)}*Mitsui Chemicals, Inc.*

Bio-plastics market development, both biodegradable and bio-based, was tried in the 1990s and it is recently gaining increasing attention. This current trend is driven by the discussion on where plastics should move forward in a sustainable society taking resource conversion, after-use efficient utilization, and environmental protection into consideration. In order to clarify the role of bio-plastics, it would be meaningful to look back what we learned from the past experience. Industries have been contributing to the society as solution provider by providing materials. However, it will be necessary to have a coordinated approach throughout value chain to achieve a business model integrating application, after-use treatment and the efficient resource utilization including energy, in addition to the characteristics and functionalities of the materials. Reflecting from the lessons learnt, it is essential to collaborate with governments and collection and recycling systems as it is often the existing regulation and system implemented to realize environmentally sound society, that become obstacle to developing environmentally sound products. Under the concept of Circular Economy, the chemical industry will commit to tackle the innovation, collaboration with after-use efficient utilization and the infrastructure development, and education and awareness activities.

Corresponding author e-mail nobuyuki.kawashima@mitsuichemicals.com

Author Biography: (Should not contain more than 100 words.)

Nobuyuki Kawashima holds master's degree in chemistry from School of Science, Osaka University. After joining Mitsui Chemicals in 1979, he worked on biochemistry and molecular biology in the Central Research Lab and in City of Hope National Medical Center in California followed by a new product development manager in the NY office. He devoted himself in new business development including polylactic acid from 1990 to 2009. He served as Executive Director and Secretary General of the Chemicals Society of Japan. After returned to Mitsui Chemicals in 2016, he is serving as Chair of Energy and Climate Change Leadership Group, ICCA.