

ISCC Technical Stakeholder Meeting  
Circular Economy & Bioeconomy

# Japan's Policy for Bioplastics towards 2030 and 2050 and Position on Mass Balance Approach

28<sup>th</sup> November 2023

Hiroyuki Ueda  
Mitsubishi UFJ Research and Consulting Co., Ltd. Japan

# About MURC

Mitsubishi UFJ Research and Consulting Co., Ltd. Japan

A member of Japan's largest financial group

## Mitsubishi UFJ Research and Consulting (MURC)

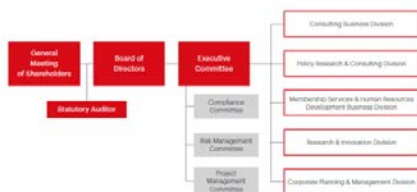
### Outline

Company	Mitsubishi UFJ Research and Consulting Co., Ltd.
Headquarters	5-11-2 Tatemachi, Minato-ku, Tokyo 106-6501, Japan
Established	October 1995
Paid-in Capital	2.06 billion yen
President	Masakazu Ikeda
Employees	Approximately 1,300 as of April 1, 2023
Stockholders	MUFJ Bank, Ltd., Mitsubishi UFJ Capital Co., Ltd., The Mitsubishi UFJ Factors Ltd., and other institutions
Directory	Tokyo (Headquarters), Nagoya, and Osaka
Representative Office	The Representative Office of Mitsubishi UFJ Research and Consulting Co., Ltd. in Ho Chi Minh City
Subsidiary	PT MU Research and Consulting Indonesia, MU Research and Consulting (Thailand) Co., Ltd.



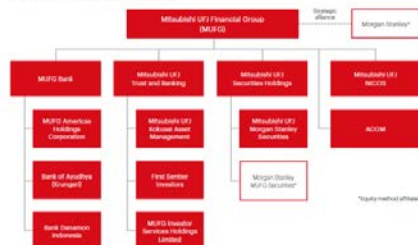
www.murc.jp/english

### Organizational Chart



## Mitsubishi UFJ Financial Group (MUFG)

### Group Comprehensive Strength



### Global Network



## Consulting

By taking on the many management issues that companies encounter, we have become a leading provider of consulting services. With over 400 consultants, we handle around 2,500 projects every year for clients ranging from small businesses up to large corporations. From this experience, we have gained the practical skills and professional know-how to provide support for effective and efficient project execution.

### Key fields

Management & business strategy (domestic and international), open innovation, organizational & personnel strategy, HR technology, IT strategy, ESG strategy, marketing strategy, business management, global operations support



## Policy Research

Through highly specialized research and analysis, we help national and local governments. We have over 200 researchers and analysts based in Tokyo, Nagoya and Osaka. Also, in the spirit of giving back to society, we are actively involved in holding seminars, publishing documents and media appearances to gain the understanding of the general public.

### Key fields

Environment and energy, healthcare and social welfare, economic, industry and labor, urban policy and rural revitalization, intellectual property



## Management Information Services

Our wide-ranging management information services, which include lectures, seminars and online services, enable us to comprehensively support the business growth of Japan-based client companies of MUFG Bank.



## Human Resources Development

As human resource development services, we are providing various education and training programs for our customers such as MUFG business seminars, business schools, video learning courses and distance education services. We also customize original in-house training program upon request.



## Social Impact Partnership

As digital transformation and globalization progress rapidly, we are collaborating with our domestic and global partners in order to produce new solutions and services in practical applications such as smart cities, government digital transformation (DX), digital health, and regional revitalization. Furthermore, we are actively involved in policy advocacy, lectures, and training seminars for sustainability and global health.



## Economic Research

With expertise spanning a wide range of fields in economics and finance, our economists conduct and publish the results of elaborate multidimensional studies and analyses. Through these efforts, we provide valuable economic and financial information to our clients and the public.



MURC supports plastic related policies in Japan around 10 years.

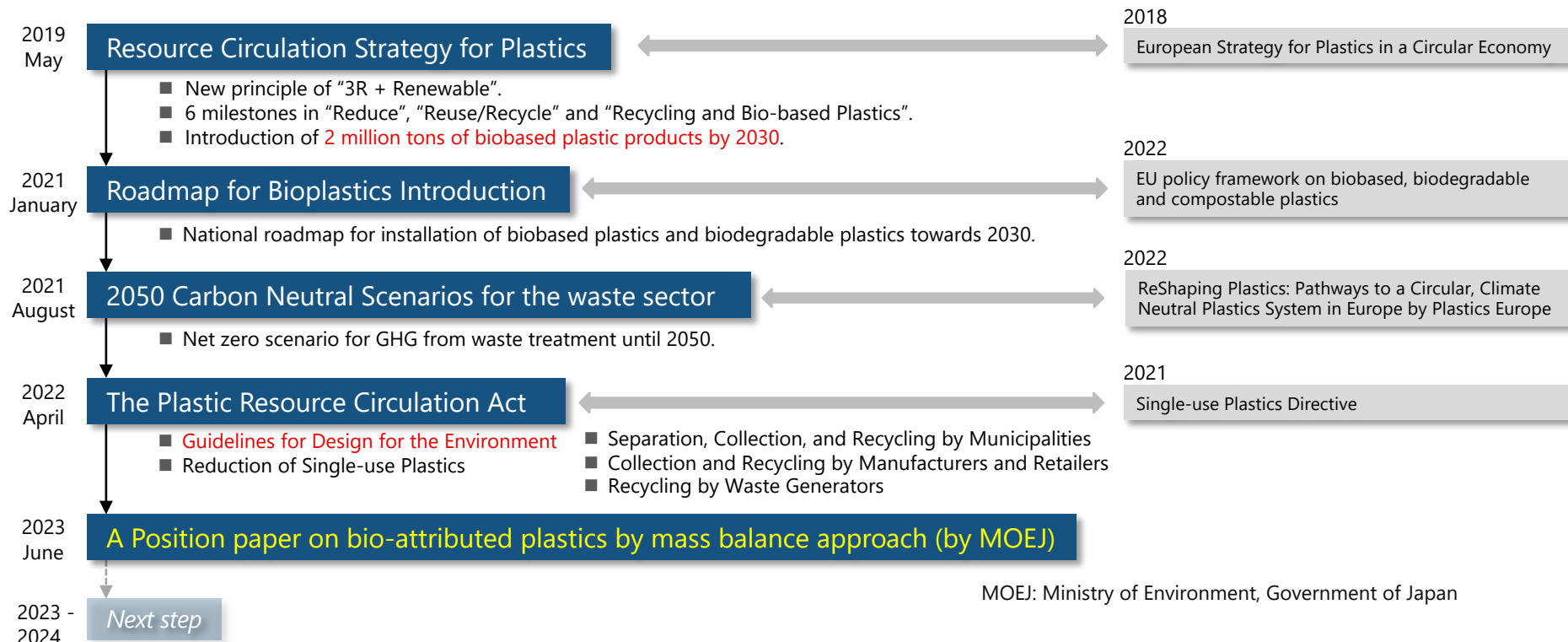
# Today's topics

- Policy development for plastics in Japan
- Position to bio-attributed plastics by MOEJ
- Background information
  - Waste plastics treatment in Japan
  - CO<sub>2</sub> emission trends from waste in Japan
  - Greenhouse gas reduction target of Japan
  - 2050 Carbon Neutral Scenario for plastics
- Challenges to bio-attributed plastics
- Next step
- Expectations to ISCC and participants

# Policy development for plastics in Japan

## Recent policies related with plastics in Japan

## Corresponding action in EU



# Position to bio-attributed plastics by MOEJ

June 2023

Position on  
bio-attributed  
plastics

By MOEJ

General  
position

Policy target

Future  
perspective

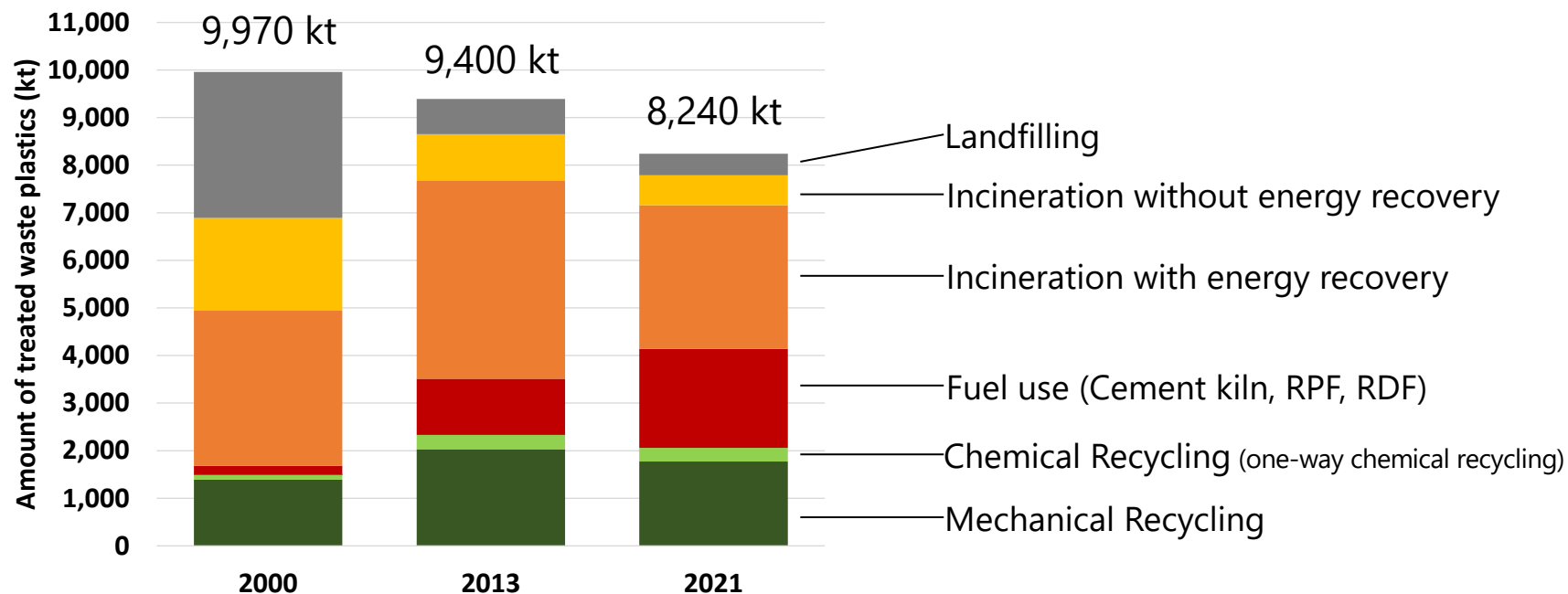
- **Introduction of bio-attributed plastics is effective** to increase the market value of plastics made from bio-naphtha and contribute to the promotion of biomass substitution for fossil-based plastics, as well as to the reduction of environmental impact caused by plastics in a global perspective.
- Consideration should be given to **including bio-attribute plastics in the 2030 milestone of 2 million tons of biobased plastic products** in the Resource Circulation Strategy for Plastics (May 2019).
- The use of bio-attributed plastics is a **transitional mechanism** to stimulate the innovation toward 2050. It may be necessary to review the mass balance approach in bio-attributed plastics when the actual biobased contents in bio-attributed plastics reach a certain level.

MOEJ: Ministry of Environment, Government of Japan

Source (Japanese only): [https://www.env.go.jp/recycle/plastic/related\\_information/workshop/workshop\\_00001.html](https://www.env.go.jp/recycle/plastic/related_information/workshop/workshop_00001.html)



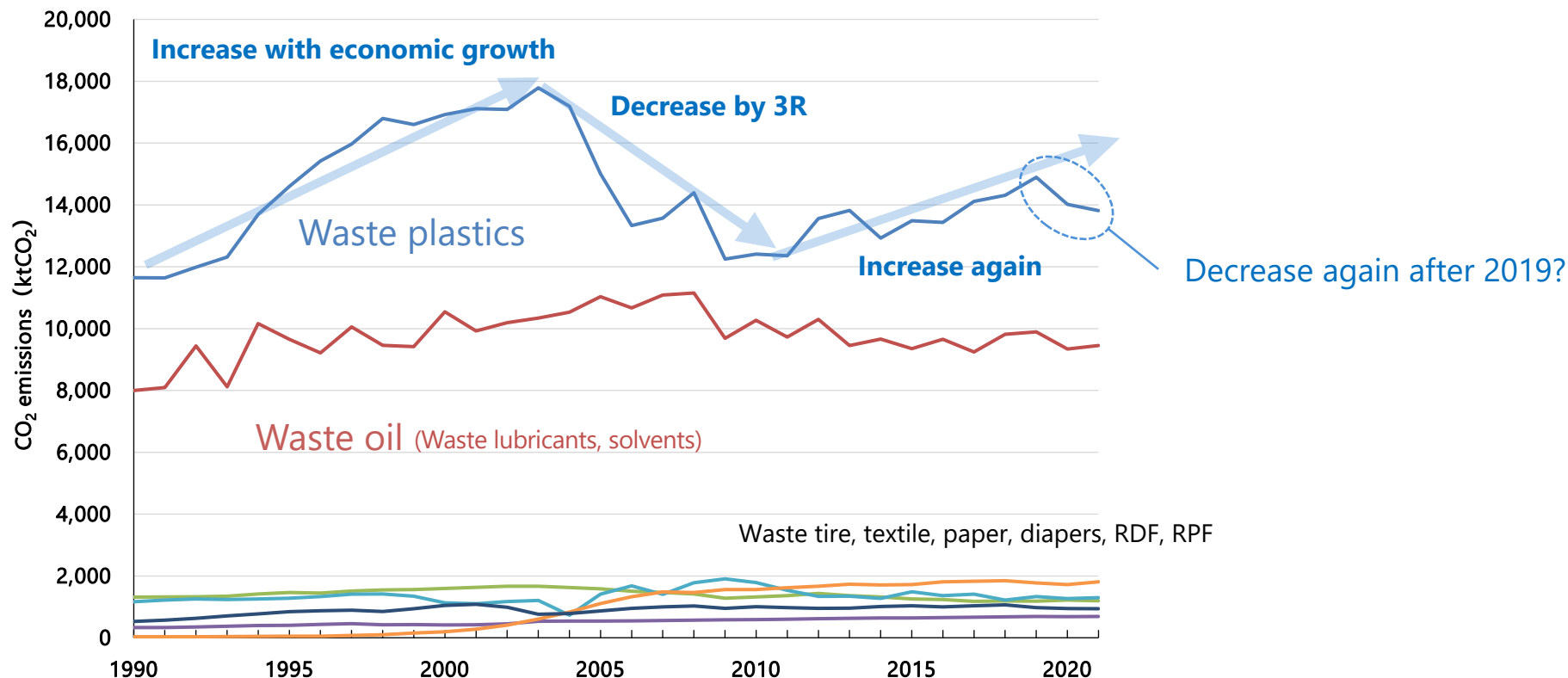
# Waste plastics treatment in Japan



## Amount of waste plastics by treatment methods in 2000, 2013, 2021

Source: Plastic waste management institute Japan (2022)

# CO<sub>2</sub> emission trends from waste in Japan



**CO<sub>2</sub> emissions from waste by type (1990 to 2021)**

Source: Greenhouse gas (GHG) Inventory of Japan (2023)

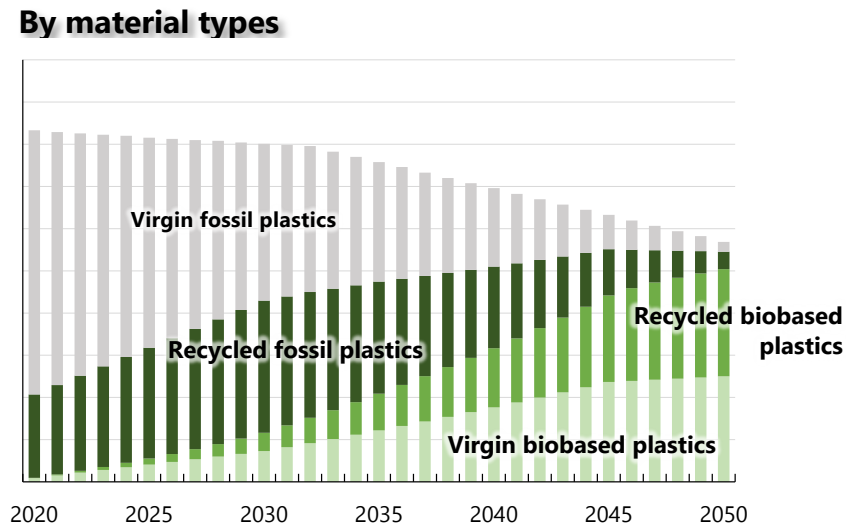
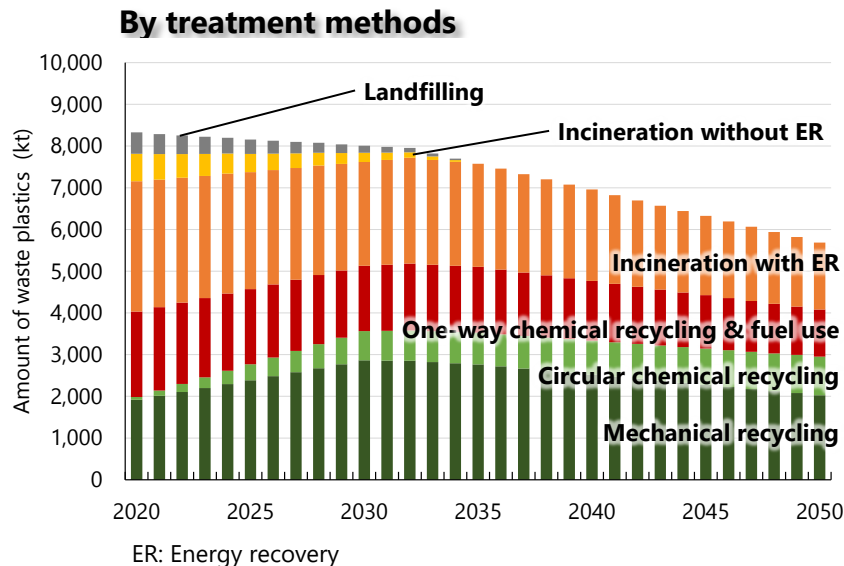
# Greenhouse gas reduction target of Japan



**National greenhouse gas emissions reduction commitment of Japan towards 2050**



# 2050 Carbon Neutral Scenario for plastics



0.7-0.8 million tons of virgin biobased plastic in 2030

2.5 million tons of virgin biobased plastic in 2050

## 2050 Carbon neutral scenario for plastics in Japan

(Amount of used plastics by treatment way towards 2050)

Source (Japanese only): MOEJ, "Sound Material-Cycle Society Committee (38th committee, held in 5th August 2021), Central Environment Council",

# Challenges to bio-attributed plastics

## 1. Reliability of the bio-attributed plastics

- To confirm the following items related to reliability assurance of the scheme
  - Mechanisms for traceability, concept of attribution, scope of supply chain, structure and system for auditing

## 2. Environmental impact of bio-attributed plastics

- To take up specific bio-attributed plastic products and present the concept of calculating GHG emissions over the life cycle as examples

## 3. Awareness among consumers and businesses

- The use of claims and labels that can mislead consumers should be avoided.
- To appropriately communicate the positioning of the bio-attributed plastics

## 4. Monitoring the introduction status of the bio-attributed plastics

- To develop a new data collection mechanism to determine the actual bio-based content in the bio-attributed plastic products and a system to measure the average bio-based content in waste plastics for GHG Inventory

## 5. Carry over of the bio-based characteristics by recycling

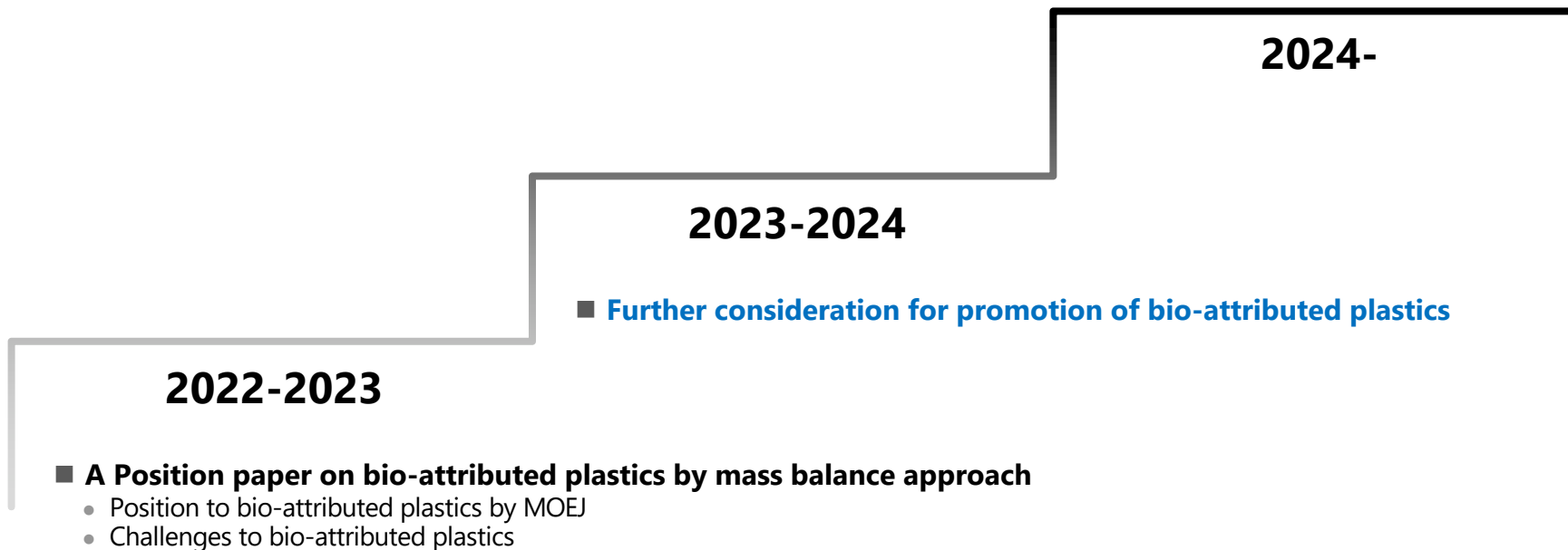
- Bio-based characteristics of the bio-attributed plastics should essentially be transferred to the recycled plastics when they are recycled through mechanical or chemical recycling.

## 6. Understanding the status of related studies

- Following issues in other fields are referential to handle bio-attributed plastics.
  - Priority order of biomass uses, concept of sustainability of biomass feedstock and environmental impact

Source (Japanese only): [https://www.env.go.jp/recycle/plastic/related\\_information/workshop/workshop\\_00001.html](https://www.env.go.jp/recycle/plastic/related_information/workshop/workshop_00001.html)

# Next step



# Expectations to ISCC and participants

- Closer and continuous communication with Japan
- Good practices and experience with bio-attributed / circular-attributed plastics with mass-balance approach



Mitsubishi UFJ Research and Consulting Co., Ltd. Japan

Hiroyuki UEDA  
hiroyuki.ueda@murc.jp