IPPTA

紙パルプ技術協会
JAPAN TAPPI

Technical exchange meeting with IPPTA

Collaboration with Government, Industry, Institutions, and Society

7th March 2024

Director JAPAN TAPPI

Prof. Dr. Masayoshi WATANABE

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Who am I ? (Self Introduction) Prof.Dr. Masayoshi WATANABE

- I have been working for METI (Ministry of Economy, Trade and Industry) more than 30 years.
- I was responsible for Japan Paper Industry as a director in METI from 2013 to 2016.
- I retired from METI in 2022.
- I have been elected to the board of JTAPPI since 2023.
- I am also a professor at Kyoto University and Tokyo Institute of Technology.

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Who is the main player of collaboration?

[Government]

METI (Ministry of Economy, Trade and Industry)

MOE (Ministry of the Environment)

MASF (Ministry of Agriculture, Forestry and Fisheries)

[Industry]

Paper manufacturers, Household paper manufacturers, Corrugated board manufacturers, Waste paper wholesaler

[Institutions]

Japan Paper Association, JAPAN TAPPI

[Society]

Paper recycling promotion center

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In which areas do we cooperate?

1. Paper industry promotion policy (strengthening industrial competitiveness)

2. Environmental policy (Recycling, DX: Green Transformation)

3. Innovation(Cellulose Nano Fiber)

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Collaboration Topics
1.Paper industry promotion policy (strengthening industrial competitiveness)

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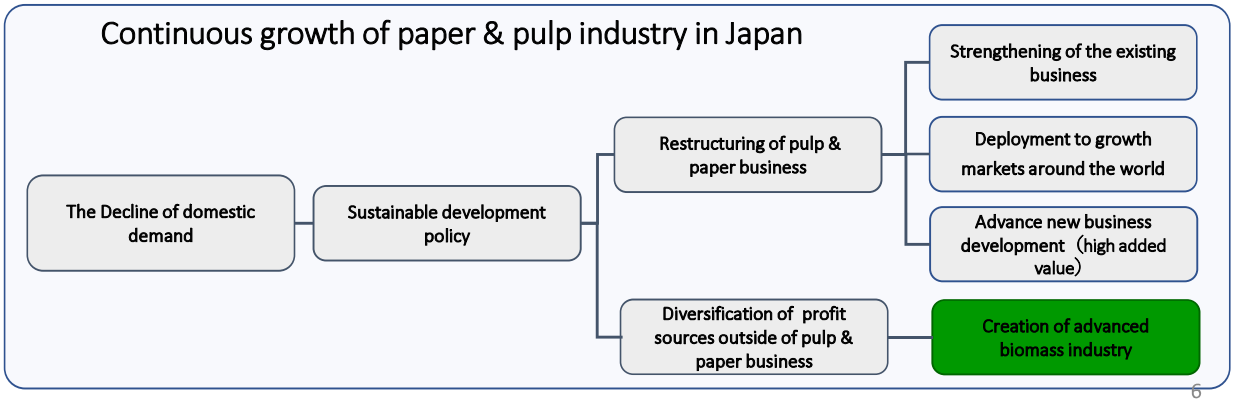
Pulp & paper industry policy for sustainable development

The pulp & paper industry needs to redesign its business structure in order to ensure sustainable development in the future.

1. Restructuring of the pulp & paper industry includes:
   (1) Strengthening of existing business: Global competitive strength through cost reduction
   (2) Deployment to growth markets: Export expansion to growth countries
   (3) New business development: Creation of new opportunities using high-value-added production

2. Diversification of revenue and profit sources other than pulp & paper business: Creation of advanced biomass industry utilizing forest biomass



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(1) Transformation of business structure (Direction of industrial policy in response to environmental changes)

①Due to the digitalization of society, demand for the paper business has decreased significantly

② On the other hand, climate change and ocean pollution have become major social issues, and sustainability and ESG are attracting attention.

③ In line with these changes in the external environment, it is essential to make a full-fledged business structure transformation with the aim of transforming into a new growth business.

④Main player in the era of biomass economy is going to be emerging into an "Advanced biomass industry" by merging the paper industry and chemical industry)

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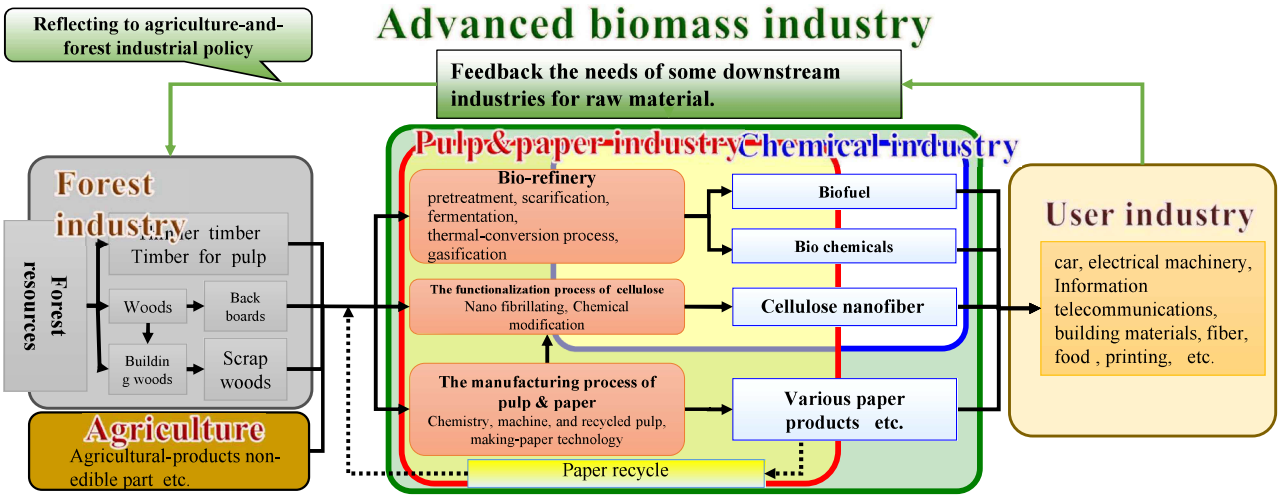

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Collaboration Topics
2.Environmental policy (Recycling, DX: Green Transformation)

(1) Promotion of paper recycling

①Paper recycling rate

In 2022, the total waste paper usage rate for paper and paperboard is 66.3%, and the recovery rate is 79.5%.

②Paper recycling target

The period covered by the current 65% waste paper usage rate target established in 2015 will end at the end of March 2021. The plan period is 2025, which is a five-year period, and the next target level for waste paper utilization is set at 65%, the same as last time.

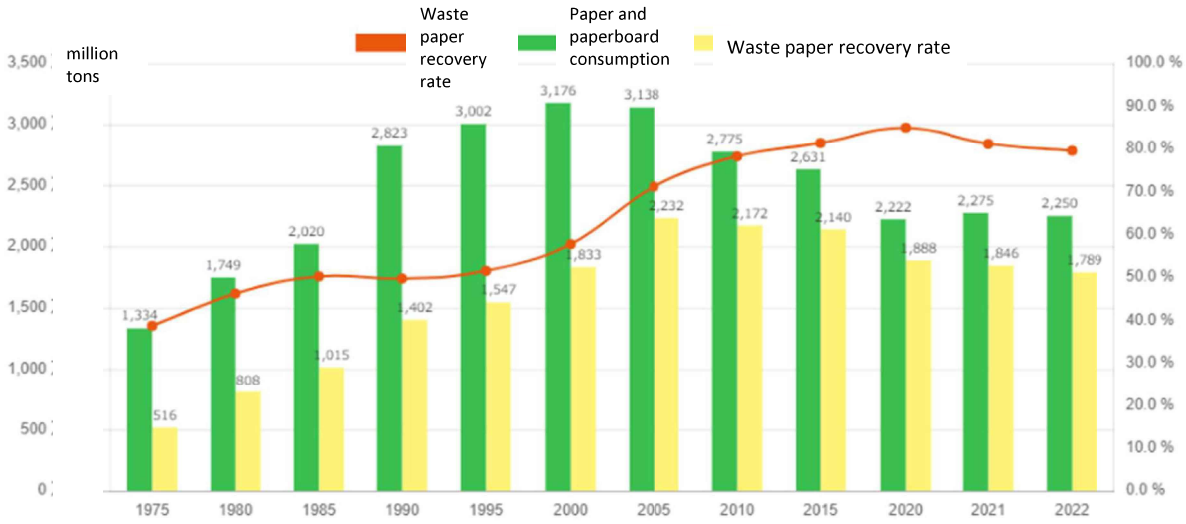
③Used paper recycling activities

Japan has a well-established waste paper collection system thanks to the efforts of local governments, local activities, and waste paper collection companies, and its utilization and collection rates are among the highest in the world.

Japan's waste paper recovery rate

79.5%

※2022年



(Source: Ministry of Economy, Trade and Industry statistics)

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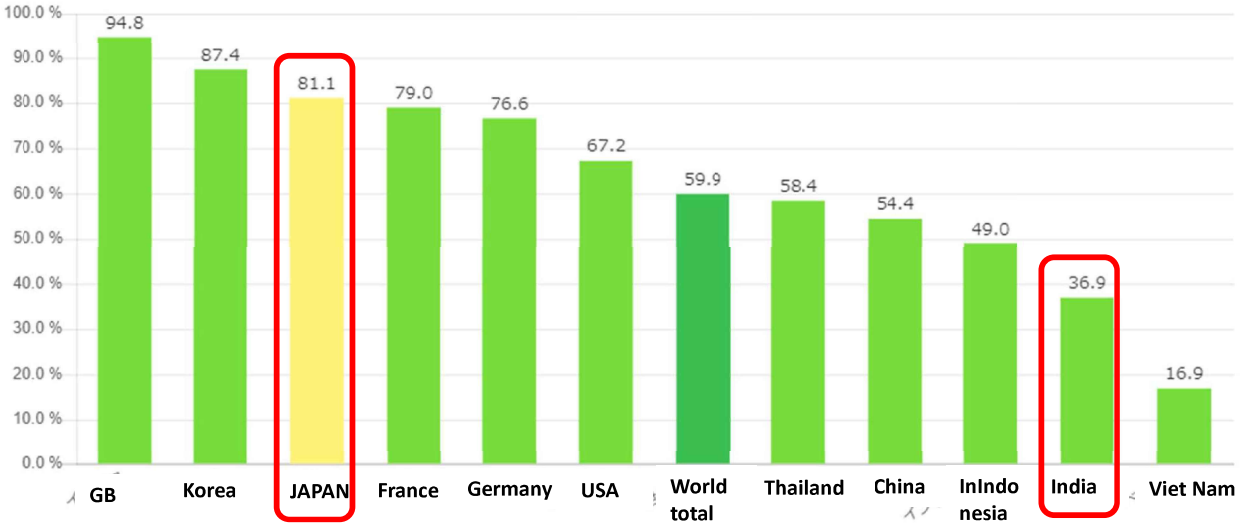
Waste paper recovery rate in each country



(Source: Ministry of Economy, Trade and Industry statistics)

RISI「Annual review of global pulp & paper statistics, 2021」

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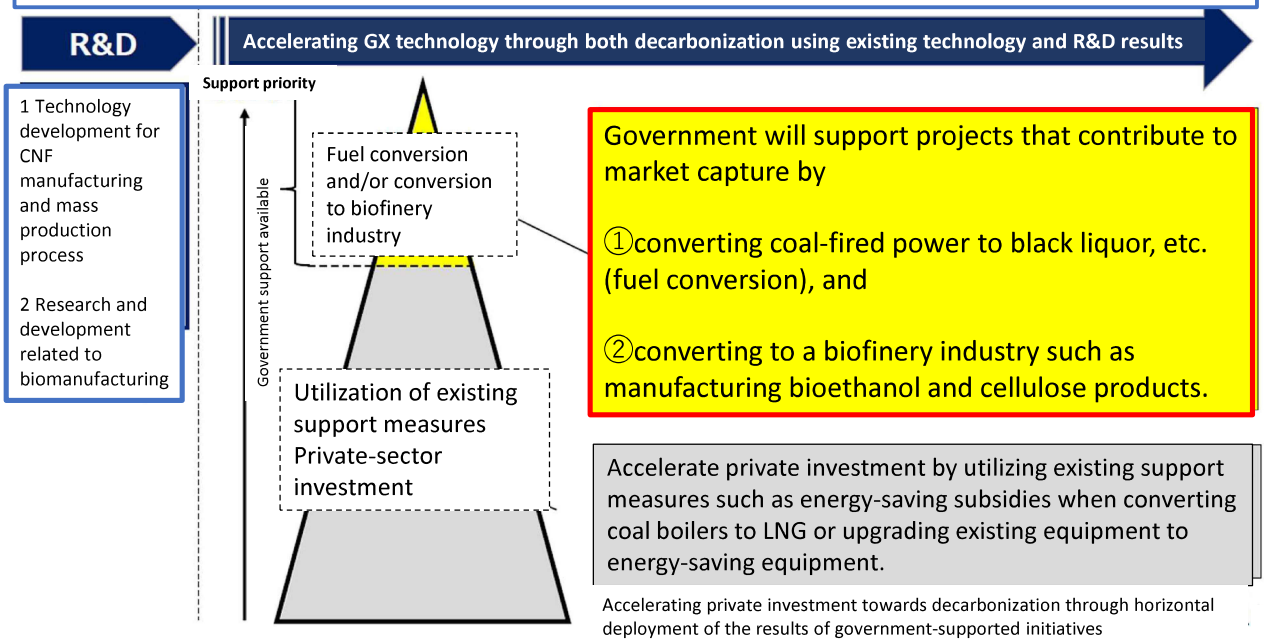
(2) Transition to a decarbonized society (GX)

Image of GX support in the pulp and paper field

The challenges to achieving carbon neutrality in 2050 are ① switching fuels such as coal-fired power, and ② optimizing excess supply capacity due to declining paper demand.
By providing support from the government to front-runner projects that will lead to solving these issues, Government will encourage the shift to GX in the paper and pulp industry, provide a stable supply of paper in Japan, and transform the industry into a biofinery industry through decarbonization. This will lead to stronger international competitiveness as an industry.



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(Source: Ministry of Economy, Trade and Industry)

Collaboration Topics
Innovation
(Cellulose Nano Fiber)

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(1) CNF technology development support

① Nanocellulose Japan, a collaboration promotion system between industry, academia, and government

② NEDO National R&D Project

③ Ministry of the Environment NCV（Nano cellulose viechle project）

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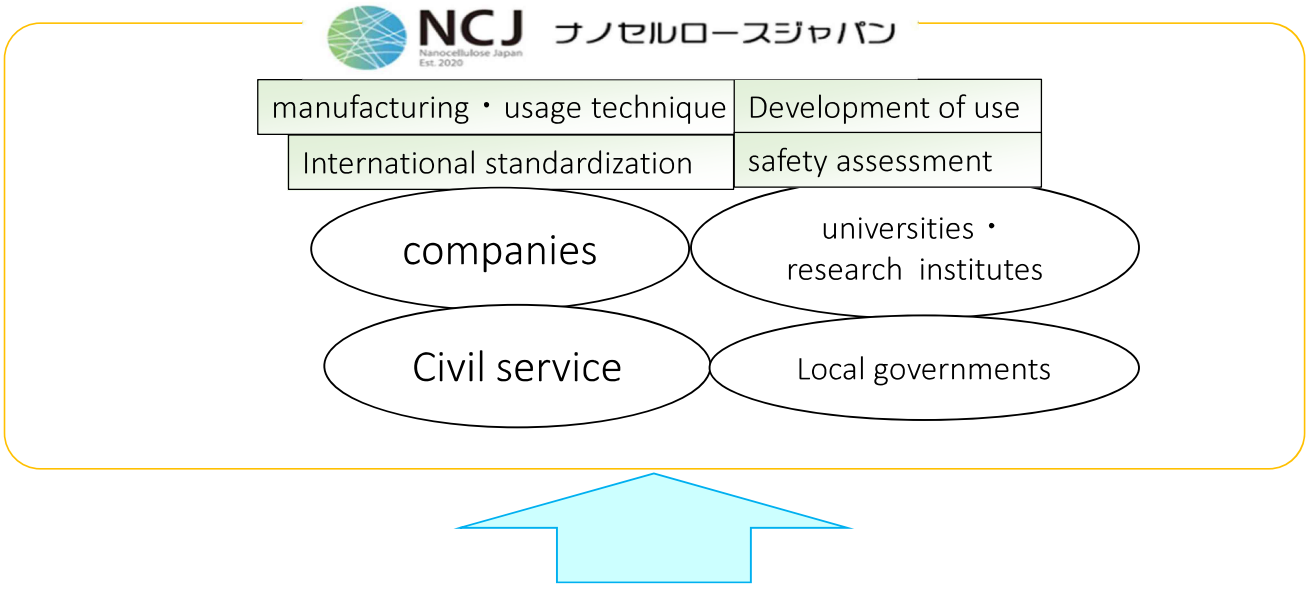
Industry-university-government cooperation frame work for promotion of CNF



Liaison Committee among Ministries and Agencies on Nano cellulose

METI	MAFF	MEXT	MOE	MILT (observer)

The Ministries concerned regularly utilize the Liaison Committee to share information about particular projects in order to coordinate policies between institutions.

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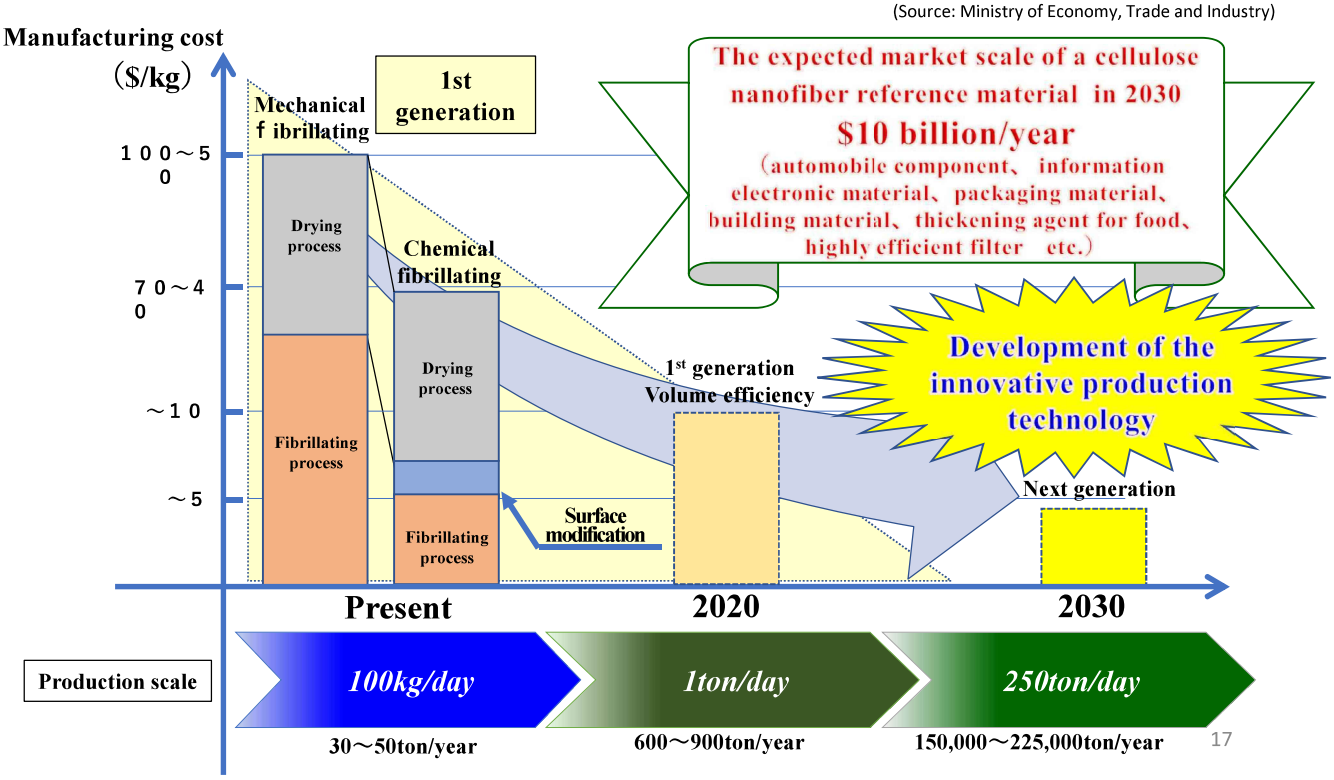
(Source: Ministry of Economy, Trade and Industry)

The new market creation strategy of cellulose nanofiber industries

The cellulose nanofiber market requires low equipment and production cost with developing the innovative production technology in order to expand their market.

(Source: Ministry of Economy, Trade and Industry)



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NCV Nano Cellulose Vehicle Project 2016-2019

Introduction demonstration, evaluation, and verification for social implementation of CNF materials in the automobile field

Project Leader Prof. Usuki (Kyoto Univ.)

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(Source: Kyoto Univ.)