

# Case Study ~TBM Co., Ltd.~

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TBM Co., Ltd.

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T B M



Times Bridge Management

# We will realize the “Sustainability Revolution”

Our future we want doesn't just come.  
No matter how we predict the future, the future  
we want will not come.  
Only when we take on a challenge with strong  
will to create the future, we can reach the future  
we want.

We have experienced the agricultural revolution,  
industrial revolution, and digital information  
revolution. The AI revolution is coming next.  
So, what is coming after these?  
We believe, the “Sustainability Revolution” is  
coming ... moreover, we have to make it happen.  
It is our mission to lead the next coming  
revolution.

Nobuyoshi Yamasaki,  
Representative director, CEO

# Company Overview

Company Name TBM Co., Ltd.

Established August 2011

Address 15F Toho Hibiya Building, 1-2-2,  
Yurakucho, Chiyoda-ku, Tokyo, JAPAN

CEO Nobuyoshi Yamasaki

# of employees 271 (as of August 2022)

Capital Stock Approx. \$200 million  
(Including legal capital surplus)

Business Develop, manufacture, and deliver ecological  
materials, and material circulation business

## Major Shareholders

- Aderans Company Limited
- ITOCHU Corporation
- Goldman Sachs
- SK Japan Investment Inc.
- SBI Holdings, Inc.
- Sanyo Chemical Industries, Ltd.
- JR East Start Up Co., Ltd.
- SHIMA SEIKI MFG., LTD.
- Shinsei Corporate Investment Limited
- Spotlight 1
- SETTSU WAREHOUSE Co., Ltd.
- Dai Nippon Printing Co., Ltd.
- DCM Holdings Co., Ltd.
- DIP Corporation
- Dentsu Group Inc.
- Toppan Inc.
- Nihon Kolmar Co., Ltd.
- FRANCE BED HOLDINGS CO.,LTD.
- MITSUBISHI PENCIL CO., LTD.
- Musashi Paint Holdings Co., Ltd.
- YAKUODO Co. Ltd.
- Yodobashi Holdings Co.,Ltd.

## Awards

- Plug and Play 2016 “New materials and package” (US)
- Stevie Awards Asia Pacific 2017 (ASIA REGION)
- COOL JAPAN AWARD 2017 (JAPAN)
- US Japan Innovation Award 2017 ” Innovation Showcase company “ (US)
- Red Dot Design Award 2018 (GERMANY)
- EY Entrepreneur Of The Year 2019 Japan (JAPAN)
- Good Design Award 2020 “Bio LIMEX Bag” (JAPAN)
- 100 Best Industrial Innovations for International Technology Transfer (CHINA)
- Golden Pin Design Award 金點設計獎 2021 (TAIWAN)
- “Award for Excellent Companies Utilizing the Intellectual Property Rights System”, the METI Minister's Awards for Intellectual Property Achievement 2022 (JAPAN)



# Business area - Material & Circular

Development and manufacturing of ecological new material LIMEX.

Develop the material circulation platform to collect and recycle used materials.

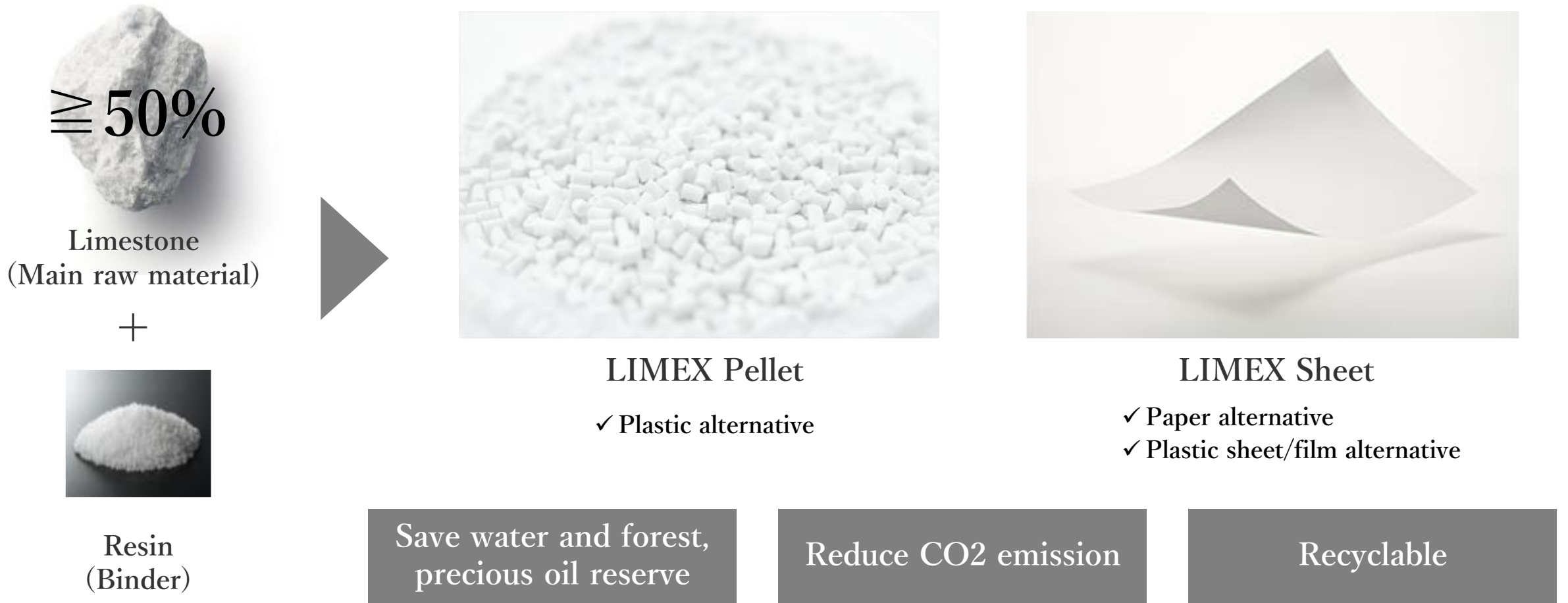




**LIMEX**

# What is LIMEX?

LIMEX is an inorganic filler composite material. It can be used as plastic and paper alternatives.



# Why limestone?

Abundant natural  
resource worldwide



Limestone

Advantages in  
CO<sub>2</sub> emissions

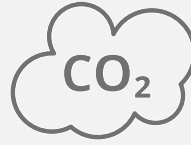
Economical and  
low volatility

# Features of LIMEX

LIMEX provides ecological and economical benefits.



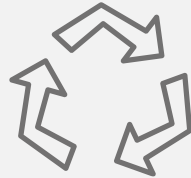
Saves  
Resources



Reduce  
GHG emissions



Stable Price



Recyclable



World-class  
Recognition



# Applicable to various molding methods

LIMEX can be processed with existing plastic molding machinery.

## Blown Film Molding

- ✓ Shopping Bag
- ✓ Packaging Film



## Thermoforming

- ✓ Food Container
- ✓ Cup



## Injection Molding

- ✓ Stationary
- ✓ Hotel Amenity
- ✓ Industrial Goods



## Extrusion Molding

- ✓ Building Materials
- ✓ Sheet
- ✓ Film



## Blow Molding

- ✓ Bottle
- ✓ Tube



## Span bond Molding

- ✓ non-woven (fabric)



# Delivered to over 8,000 companies

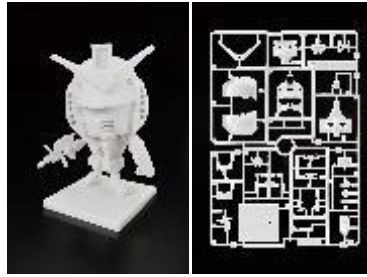
## As alternative to plastic



Rock Field  
(Food Container)



Haneda International  
Airport  
(shopping bag)



BANDAI SPIRITS  
(Hobby Goods)



IRIS Ohyama  
(Construction Material)



MITSUBISHI PENCIL  
(stationary)



MOS Burger  
(backlit signage)

## As an alternative to paper



WDI group  
(menu book)



CDP  
(report)



Ishokudogen  
(Packaging)



Shobunsha  
(Map)



Watahan  
(Stick in tag)



SoftBank  
(Store POP)

# Case Study: Cosmetic packaging

@KEMAS, Indonesia



## ABS → LIMEX

- Reducing CO2 emission for **40%** and Resin usage reduction for **44%** compared to ABS
- Cosmetic containers made from limestone as branding story
- Cool, matt, and Luxury feeling

# Case Study: Food tray

@Rock Field, a major Japanese deli brand



## A-PET → LIMEX

- Reduce plastic by approx. **38%** per year
- Greenhouse gas emissions by approx. **22%** per year
- Can be microwaved



# Case Study: LimeAir Bag

@DCM, a major Japanese retail chain



**Bio plastic 25% bag (A-PET)**  
→ **Bio LimeAir Bag**  
(limestone 25% + bio plastic + plastic)

- Reduce plastic by approx. **41%** per year
- Reduce greenhouse gas emissions by approx. **27%** per year
- Light Weight

# World-class recognition

@DCM, a major Japanese retail chain



Registered in “STePP”  
the sustainable technology  
dissemination platform by UNIDO



Introduced at COP  
as a member of the Japanese  
government delegation



Participated at  
the G20 Innovation Exhibition



# Material Circulation



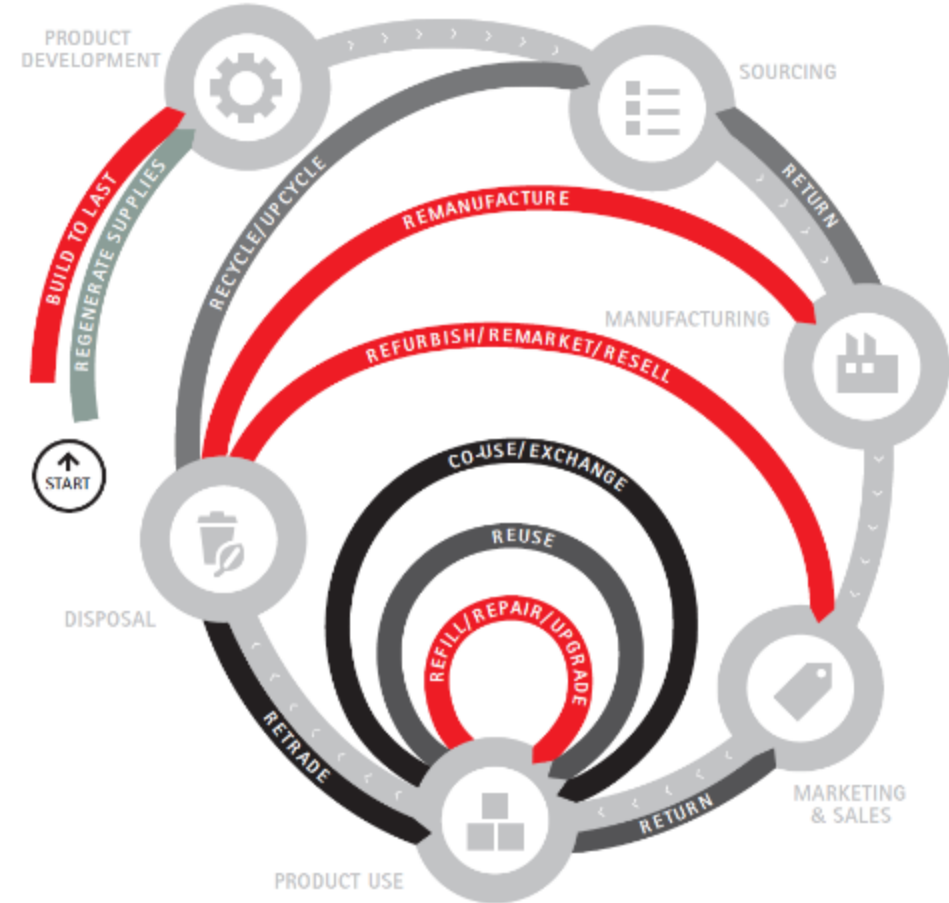
# Expanding Market

By circulating natural resources, the economic value of Circular Economy is expected to reach US\$ 4.5trillion by 2030.

# US\$ 4.5 trillion

If the mass production and mass consumption business model continues, the world will run short of natural resources by about 80 billion tons by 2030.

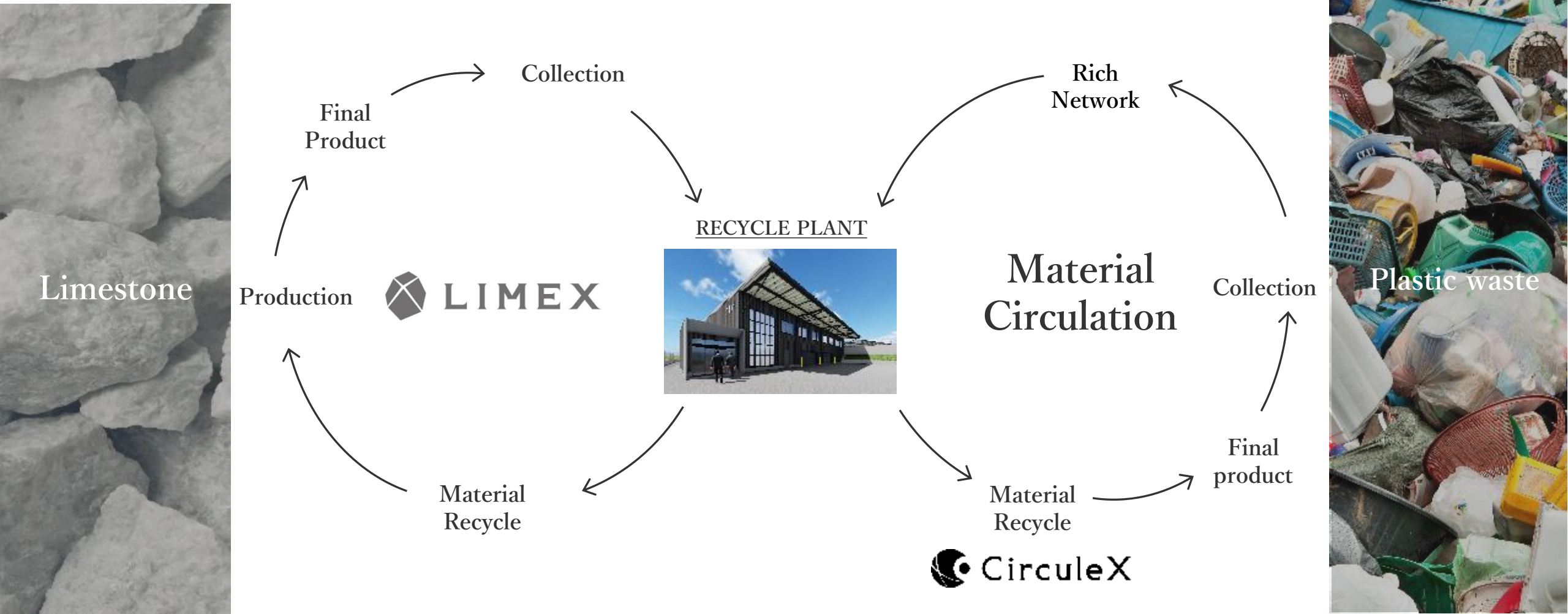
This supply-demand gap is equivalent to all the resources consumed in North America in 2014, and the economic loss is estimated to reach US\$ 4.5 trillion by 2030 and US\$ 25 trillion by 2050. (Accenture)





# Material & Circular

TBM will develop the circulation model of ecological materials using abundant limestone and plastic waste.



# Launching LIMEX & plastic recycling plant

TBM is launching a LIMEX & plastic recycling plant in Yokosuka City, Japan, to meet the growing demand of recycling.



Annual processing capacity: approx. 40,000 tons

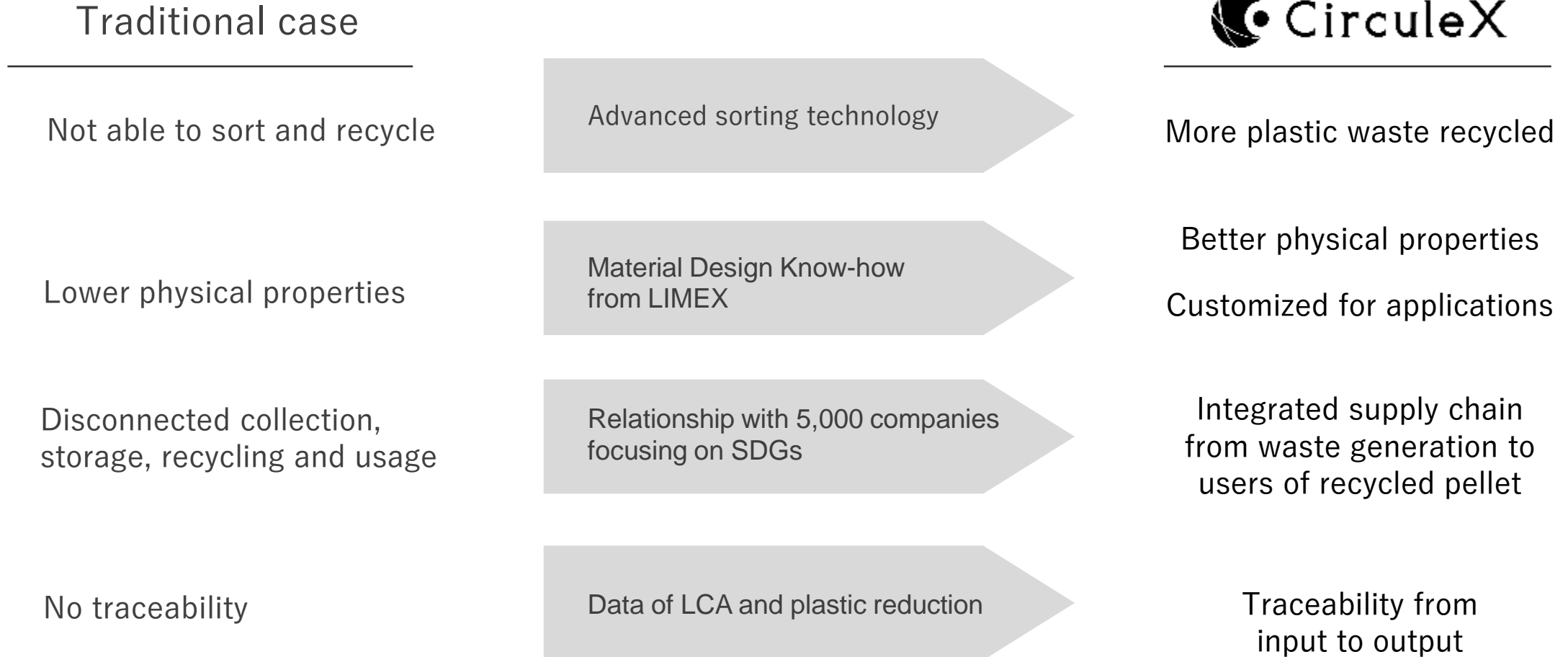
Production capacity: approx. 24,000 tons of recycled pellets

Starting operation from fall 2022

1. The world's first plant to automatically sort and recycle LIMEX and plastic wastes
2. One of the largest plastic recycling plants in Japan
3. Advanced ability to recycle plastic waste discarded from offices and factories
4. Pioneering the recycling of household plastic

# Recycled Material “CirculeX”

TBM launched CirculeX, a new and high added value material brand consist of over 50% of recycled material.



# Case Study: Trash bag

@Lawson, a major convenience store chain



- Consist of over 50% of recycled plastic from Thailand
- Sold at 13,897 Lawson shops, one of the major convenience store brand in Japan
- Reduce the use of virgin plastics and GHG emissions compared with normal trash bags
- Secured traceability
- Certified by “Eco Mark”, a Japanese certification for eco-friendly products





# Case Study: Apparel package

@Mizuno, a major sports apparel brand



- Consist of 98% of recycled plastic (pet bottle caps and stretch films) from Japan
- Reduce greenhouse gas emissions by approx. **41%**
- Can be recycled repeatedly

# Ambitious mid-term goal “TBM Pledge 2030”



## Go Carbon Negative by 2030

We aim for more greenhouse gas emissions reduction than the amount we emit throughout our value chain.



## Go Circular

We aim to circulate 1 million tons of LIMEX and plastic in 50 countries.

# Intellectual Property Strategy of TBM

# Intellectual Property Strategy



① Establishment of IP function in the Business Administration Division



② Close communication with the R&D Department &



Patent applications based on prior art searches



③ Promote strategic global patent applications for technology export



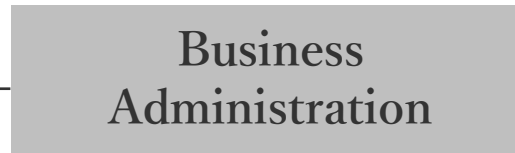
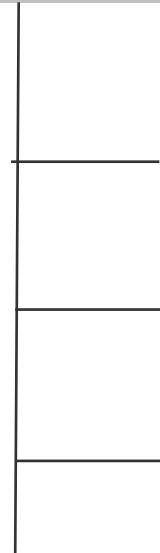
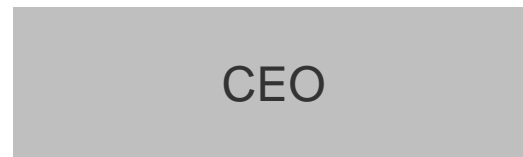
④ Promote global trademark registration in support of the brand strategy



# Intellectual Property Strategy No. 1



## Establishment of IP function in the Business Administration Division



Intellectual property and technical legal affairs, development planning, business management, MI promotion

# Intellectual Property Strategy No. 2



Close communication with the R&D Department

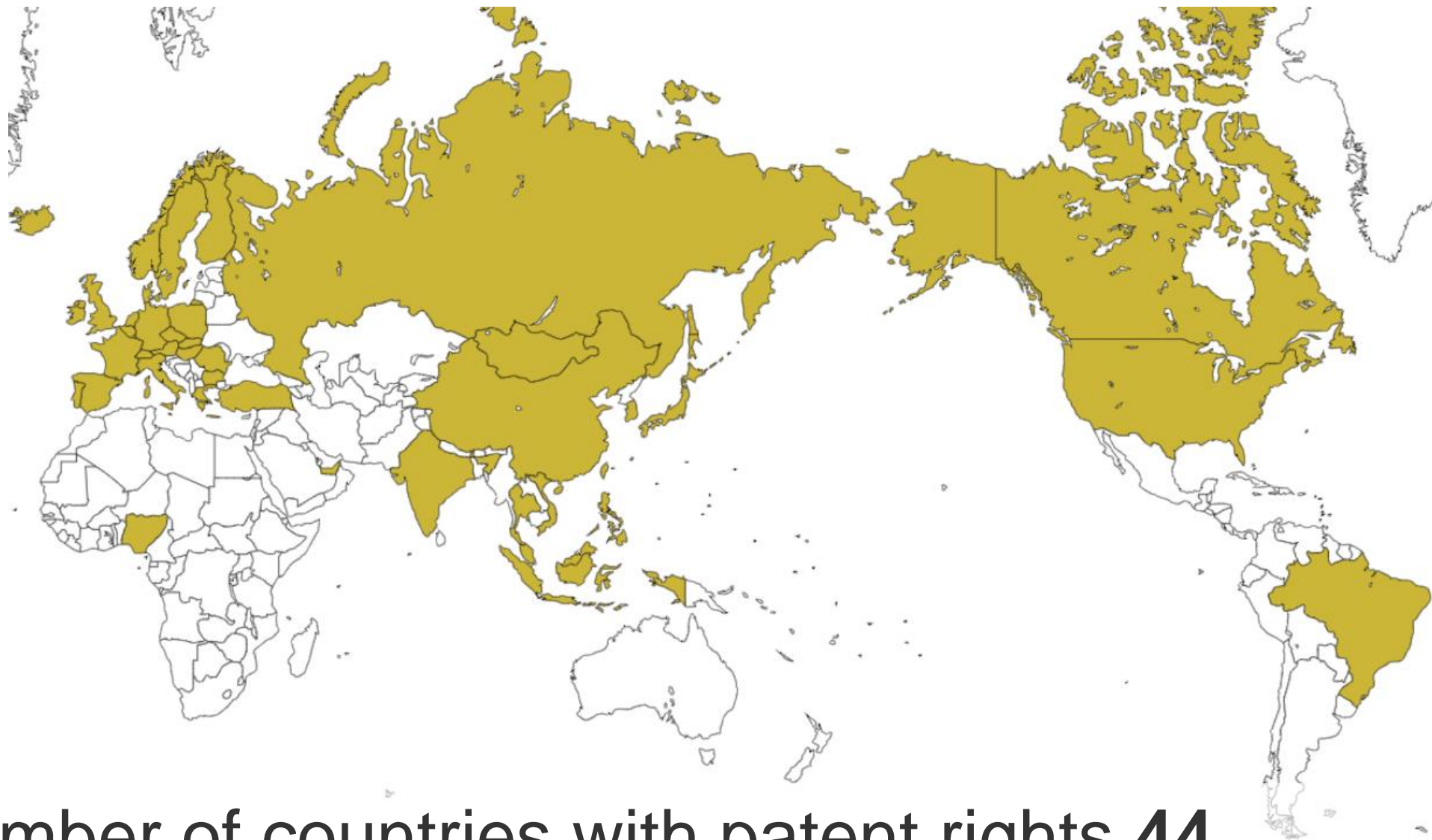


Patent applications based on prior art searches

# Intellectual Property Strategy No. 3



Promote strategic global patent applications for technology export





# Intellectual Property Strategy No. 4



Promote global trademark registration in support of the brand strategy

**L I M E X**



**T B M**



Number of countries with trademark rights **53**

Total number of trademark rights **154**

Thank you for listening

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