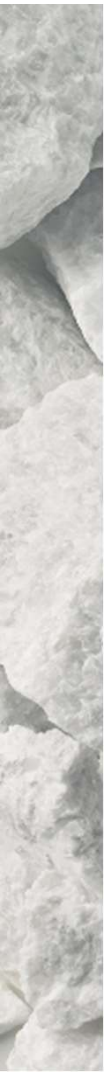
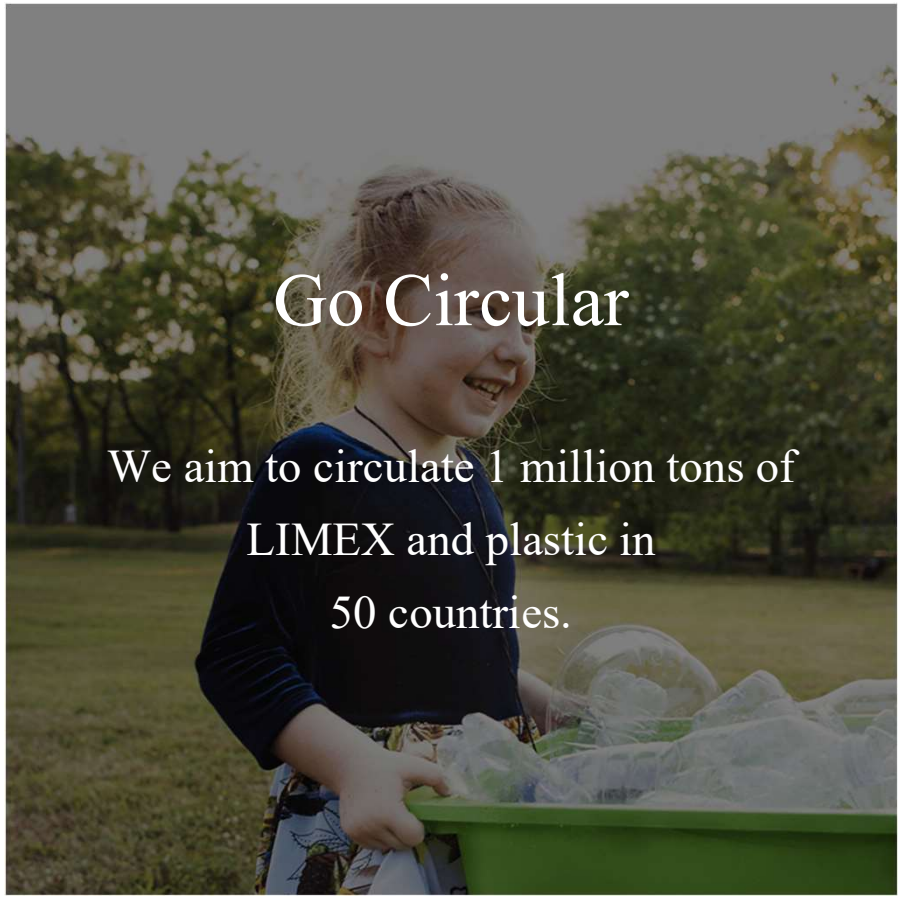


TBM Introduction

TBM Co., Ltd.
Daiki Sato（Regional Director）

Ambitious mid-term goal “TBM Pledge 2030”



From LCA by TBM Corporation (raw material procurement ~ disposal), subject to change depending on design and manufacturing conditions.


TBM
Times Bridge Management
We aim to be a top player in the sustainability field
as a company that will continue to take on challenges for hundreds of years
and serve as a bridge between the past, present and future.

Business Overview

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	340 (as of June 2023)
Capital Stock	Approx. $200 million (Including legal capital surplus)
Business	Develop, manufacture, and deliver ecological materials, and material circulation business

Major Shareholders

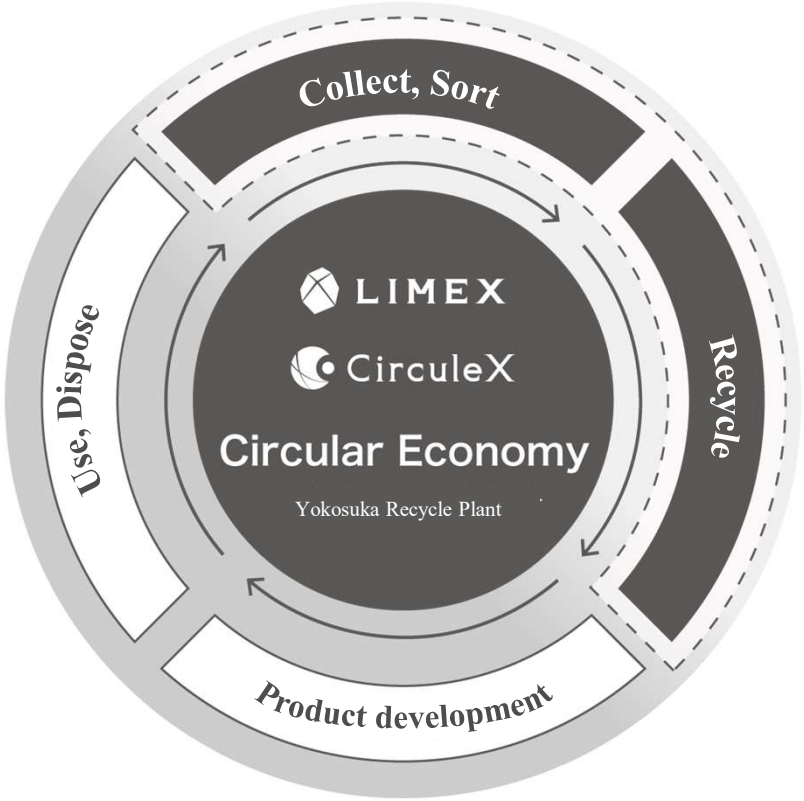
- Aderans Company Limited
- ITOCHU Corporation
- Goldman Sachs
- SK Japan Investment Inc.
- SBI Holdings, Inc.
- Sanyo Chemical Industries, Ltd.
- JR East Start Up Co., Ltd.
- SHIMA SEIKI MFG., LTD.
- Shinsei Corporate Investment Limited
- Spotlight 1
- SETTSU WAREHOUSE Co., Ltd.
- Dai Nippon Printing 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)

TBM Business Model

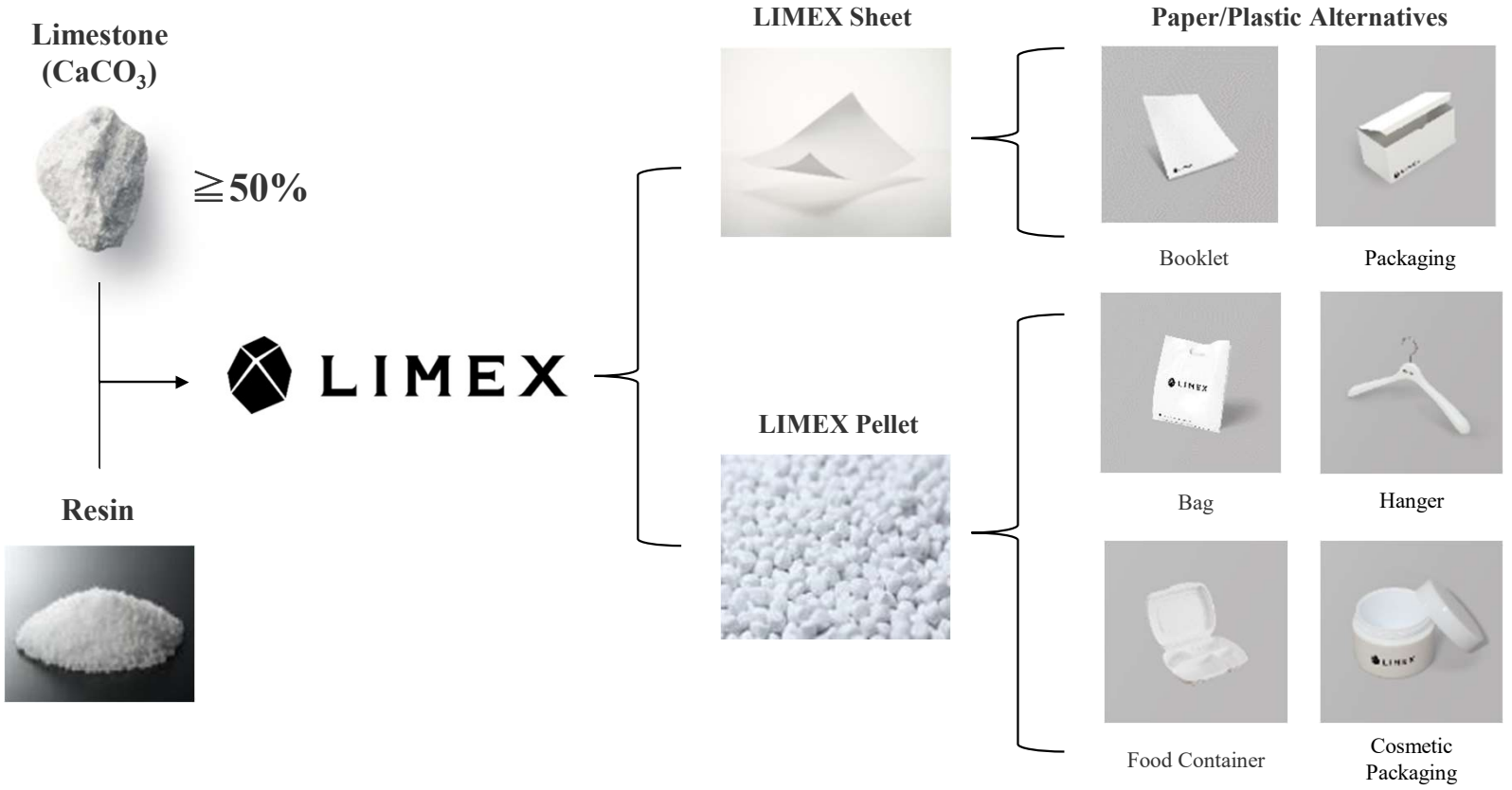
We realize a circular economy through the development of products and services based on environmentally friendly materials and resource-recycling system creations.




LIMEX

Our core product: LIMEX

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



Why limestone?

Abundant natural resource worldwide

Limestone

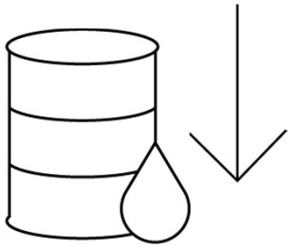
Advantages in CO_2 emissions

Economical and low volatility

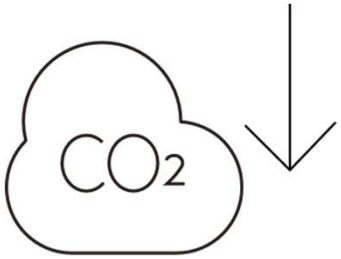
Ecological Advantages

Alternative to plastic

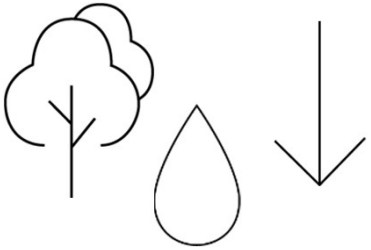
Alternative to paper



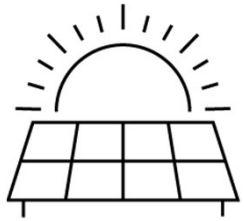
Reduce Plastic



Reduce Greenhouse Gas



Save
Tree & Water Resources



Manufactured using 100%
renewable energy

LIMEX

Massive range of lineups drives true sustainability

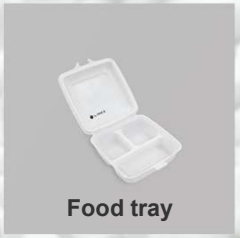
Plastic Reduction | CO_2 Reduction | No machinery change to mold*


Document Folder


Shopping Bag


Garbage Bag


Hanger


Food tray


Cups


Fan


Backlit Signage

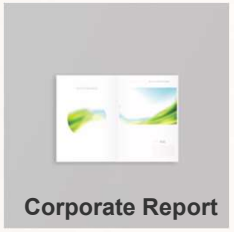

Sealant package

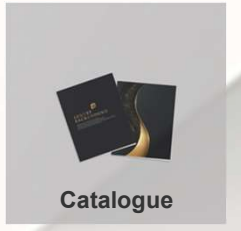

Pen


Cosmetic jar

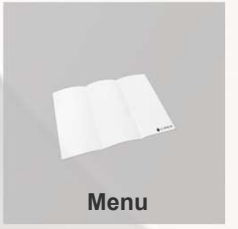

Construction Materials

Saves Water Resources | Saves Forests (No pulp used) | Water Resistant & Durable

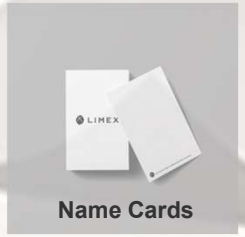

Corporate Report


Catalogue


Map


Menu


Booklets


Name Cards


Envelop & DM


POP


Pamphlet


Box Package

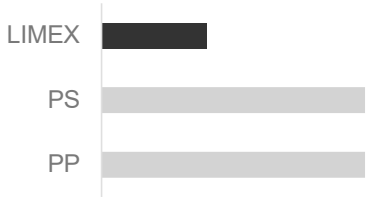

Poster


Label

LIMEX

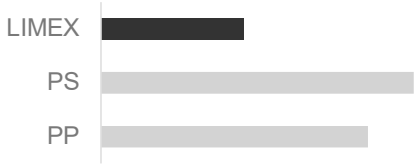
Reduce plastic consumption
- plastic alternative -

Plastic consumption



* Per kg (PS=100)

GHG emissions*1
Raw material sourcing ~ incineration
(production of final product is excluded)



*Functional Unit/System Boundary
1 kg pellets
Evaluation of raw material procurement (including pelletizing), material transportation, product transportation, and disposal process
Assumed that disposal process is incineration as general waste
Product manufacturing is omitted since it depends on molding processes

*1 Simplified LCA conducted by TBM Co., Ltd. (2020) | Calculation Method Life Cycle Inventory | Inventory Database: LCI Database IDEA version 2.3 (2019/12/27), National Institute of Advanced Industrial Science and Technology, Safety and Scientific Research Department and Society and Research Laboratory for IDEA, SuMPO (Sustainable Management Promotion Organization) | Impact Assessment Method: Climate change IPCC 2013 GWP 100a

From: Plastics Europe Market Research Group (PEMRG) and Conversio Market & Strategy GmbH, Plastics – the Facts 2019, World Economic Forum, Ellen Macarthur Foundation, McKinsey & Company, A New Plastics Economy: Rethinking the Future of Plastics (2016)

Cases

Overseas expansion of LIMEX

LVMH's cosmetic brand KENDO

CC stick packaging

Over 50% inorganic material

Big C

Shopping Basket

Below 50% inorganic material

Cases

Overseas expansion of LIMEX

Events and exhibitions

Printing Material

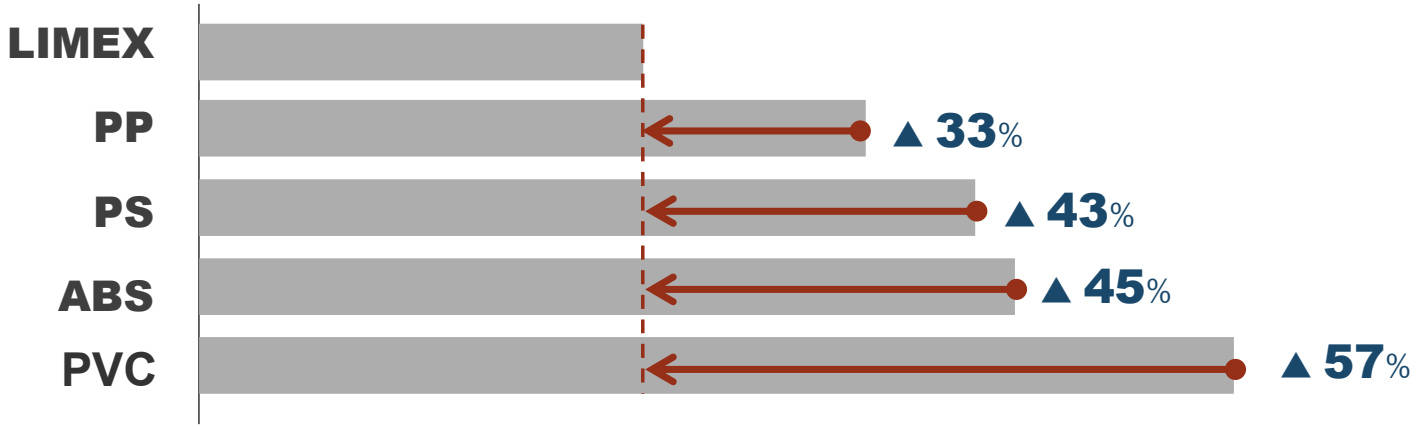
Over 50% inorganic material

Shopping Bags

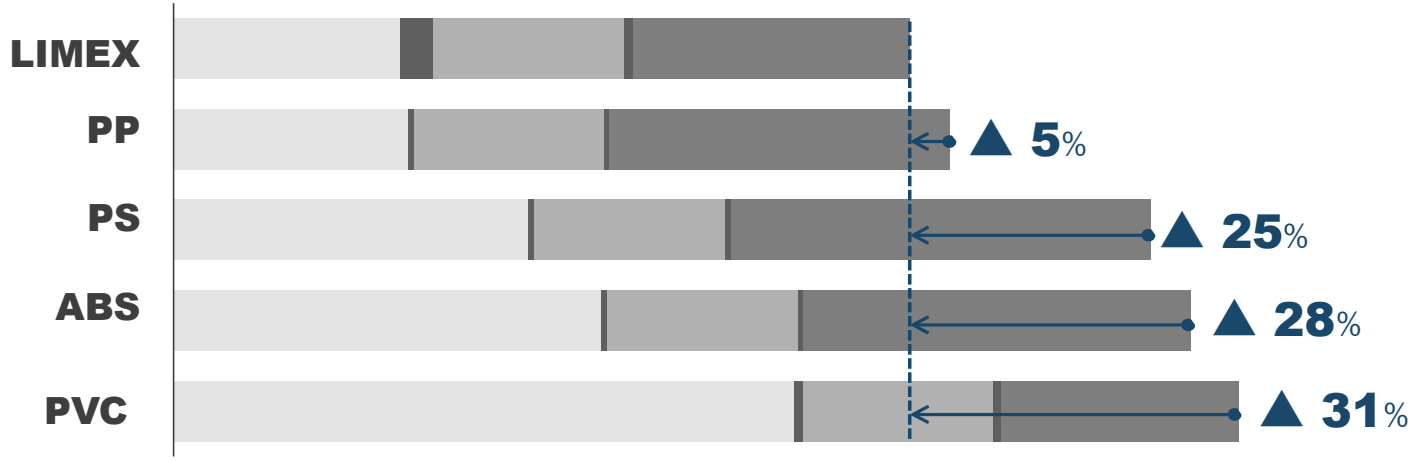
Over 50% inorganic material

Environmental comparison

Resin usage per 1,000㎤ pellet



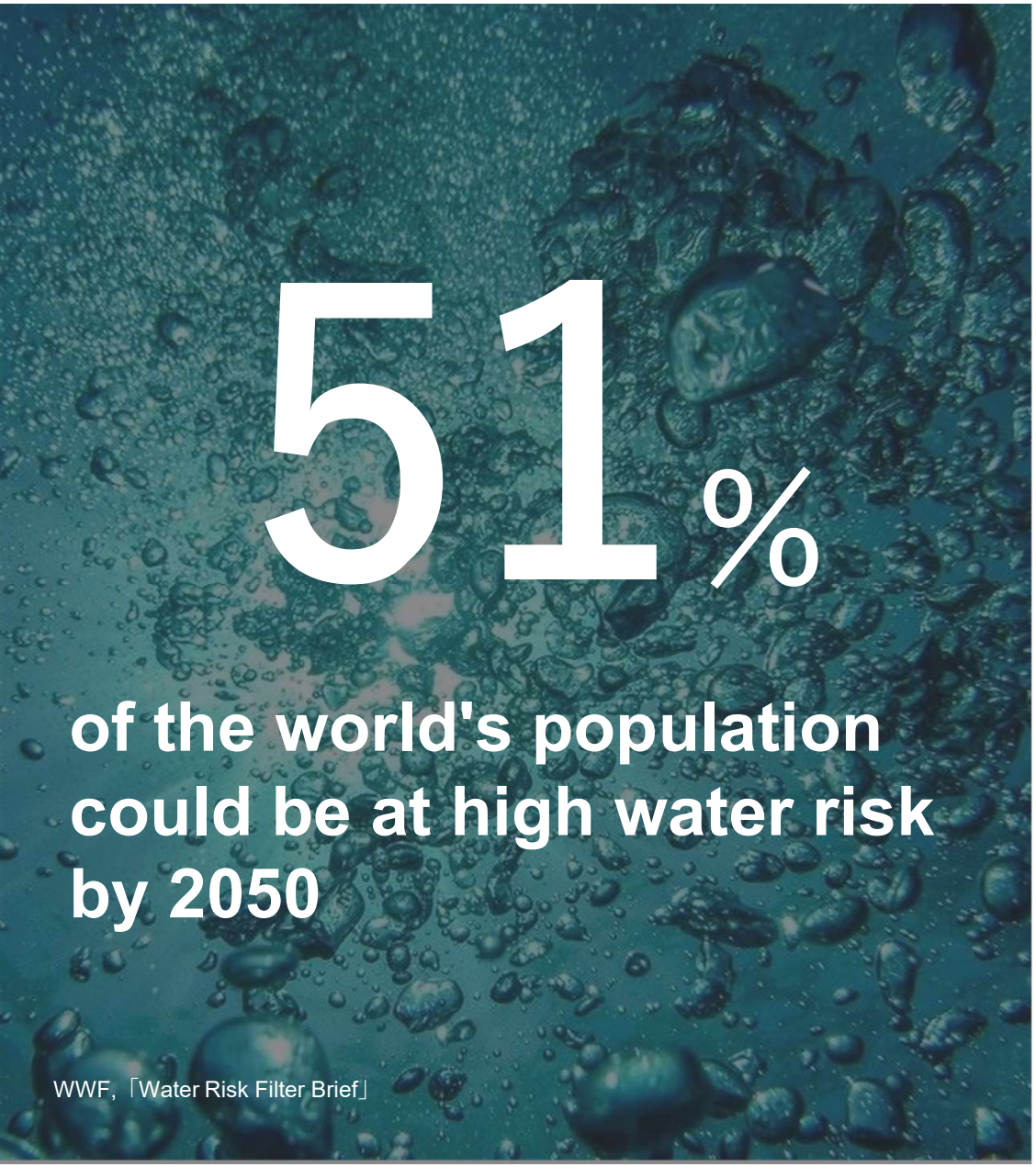
CO2 emission [kg-CO2e/1,000㎤ products]



* LIMEX virgin grade pellet made in Vietnam Ash ; 60%

* Calculation scheme
■ Source: Simple LCA by TBM Co., Ltd. (2020)

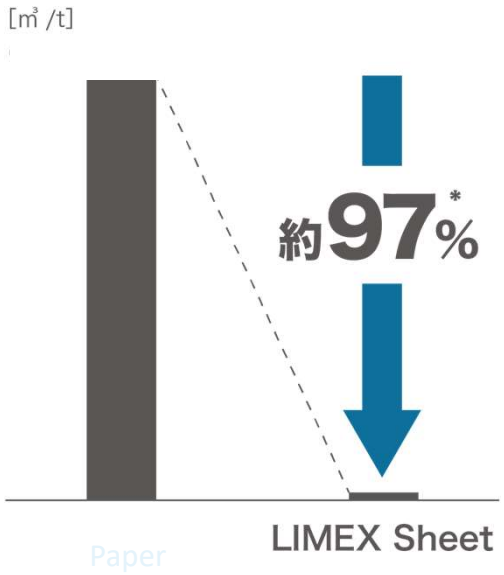
■ Calculation method: Life cycle inventory
■ Inventory database: LCI database IDEA version 2.2 (2018/01/18) ・ 2.3 (2019/12/27) Society and LCA Research Group, Safety Science Research Div.
■ Impact evaluation method： LIME2 (Life cycle Impact assessment Method based on Endpoint modeling)



TBM

LIMEX

Reduce water consumption - paper alternative -



- ✓ NO Trees used
- ✓ Reduces water consumption

*LIMEX Sheet is a calculated value for the amount of water used per ton of sheet produced in a factory, compared to paper and paperboard, and is provided for reference only, without guarantee. The actual values may vary depending on the formulation, manufacturing conditions, and data collection status for each product. This information is based on the transition of the freshwater usage per ton of paper and paperboard production unit provided by the Japan Paper Association, as well as the water usage per production equipment during the trial production at the Tagajo Plant in 2021 divided by the production volume during that period.

LIMEX is delivered to over 10,000 companies

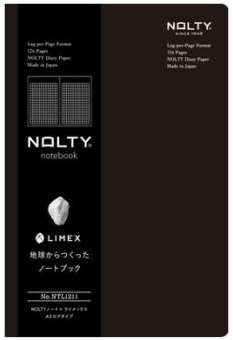
As an alternative to paper

SoftBank
（Store POP）

CDP
(report)

Yoshinoya
(Menu book)

Ishokudogen
(Packaging)



Nolty
(Notebook cover)

Shobunsha
(Map)

Watahan
(Stick in tag)

Backlit Signage
(MOS Burger)

CONFIDENTIAL

Backlit Film

Over 50% inorganic material

Backlit Film made with LIMEX is used in various industries

POLA

KOSÉ

SHISEIDO

MOS BURGER

はなまる

Why LIMEX?

- Light diffusion and opacity compared to PET, PVC, PP etc.
- Beautiful color expression
- Cost reduction

ENVIRONMENTAL IMPACT

- Reduce Plastic

LAUNCHED MARKET

- Japan, Korea

Material Circulation

Status of plastic product production, disposal, recycling, and treatment/disposal (2020)

Promoting resource recycling through 3 approaches

01

Trading

Purchase of waste plastics

Maximize the value of resources by matching establishments that do not need waste plastic with those that need recycled materials

02

Manufacturing

Manufacture and sale of recycled materials and products

Expanding the use of recycled materials through development, manufacturing, and sales of recycled materials and recycled products

03

Consulting

Establishment of Resource Recycling Platform

Fostering environmental awareness through establishing a resource recycling scheme for post-consumer materials

Material Circulation

Recycle Plant for LIMEX & Plastics

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

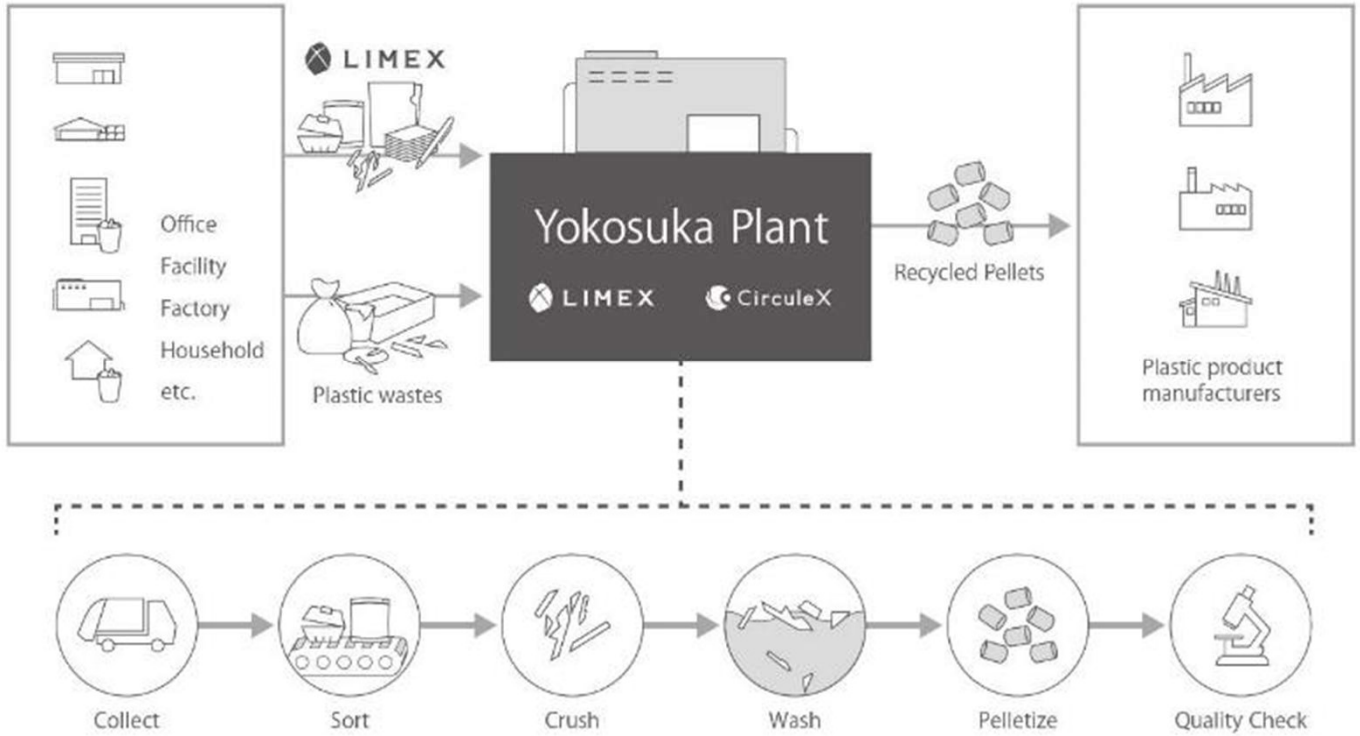
Annual processing capacity:
approx. **40,000** tons

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

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

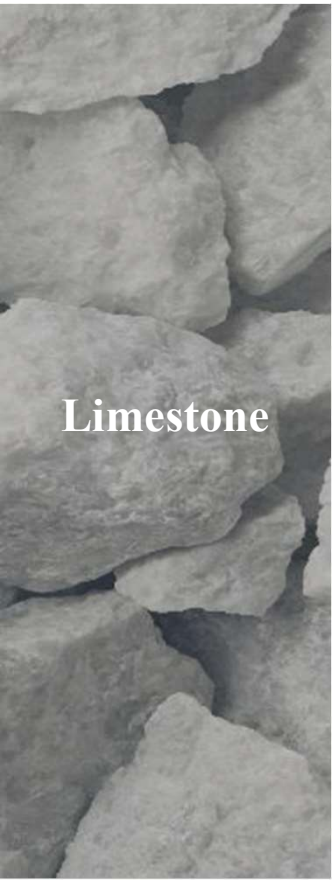
TBM's first LIMEX and plastic recycling plant

One of the largest mechanical recycling plants in Japan, Yokosuka city started operation in November 2022.



Material & Circular

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



Collection

Final Product

Production

LIMEX

Material Recycle

RECYCLE PLANT

Material Circulation

Rich Network

Collection

Final product

Material Recycle

CirculeX

Products made with recycled material “CirculeX”

Umbrella

Umbrellas made from CirculeX are delivered nationwide with cross-industrv collaboration.

Waste Bag

LAWSON switched waste bags from virgin plastic to CirculeX waste bags made from plastic waste collected from Southeast Asia.

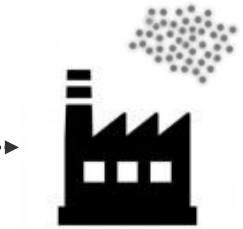
Material Circulation

Track Record of LIMEX Closed-loop Upcycling

Used LIMEX products (park guides and cups) were collected and recycled into trays for use in the park's bakery and employee cafeteria

USE	PELLETIZE	REMAKE	REUSE

Used LIMEX products are collected from custo
at Adventure World



Food Tray

Recycled LIMEX pellets are molded at our partner company in Wakayama and recycled.

1. Used as food trays in the park

2. Used as trays in the company cafeteria


Going Global

Our Global Strategy

Intellectual property strategy

- LIMEX is patented in over 40 countries worldwide
- Received “Intellectual Property Achievement Award 2022” from METI

Design for fabless

- LIMEX can be manufactured and processed with existing and major plastic compounding and molding equipment, no need for new investments
- Establishment of local subsidiary in Vietnam to provide technical supports towards OEM partners and providing a flexible supply chain

Collaboration with global partners

- SK Group agreed on a $123 million capital and business alliance to

accelerate the global expansion of LIMEX and the development of biodegradable LIMEX

Going Global

World-class recognition

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

TBM Joins World Economic Forum's
Unicorn Community

Introduced at G7
as a member of STePP

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Contact form