YUTO ECO

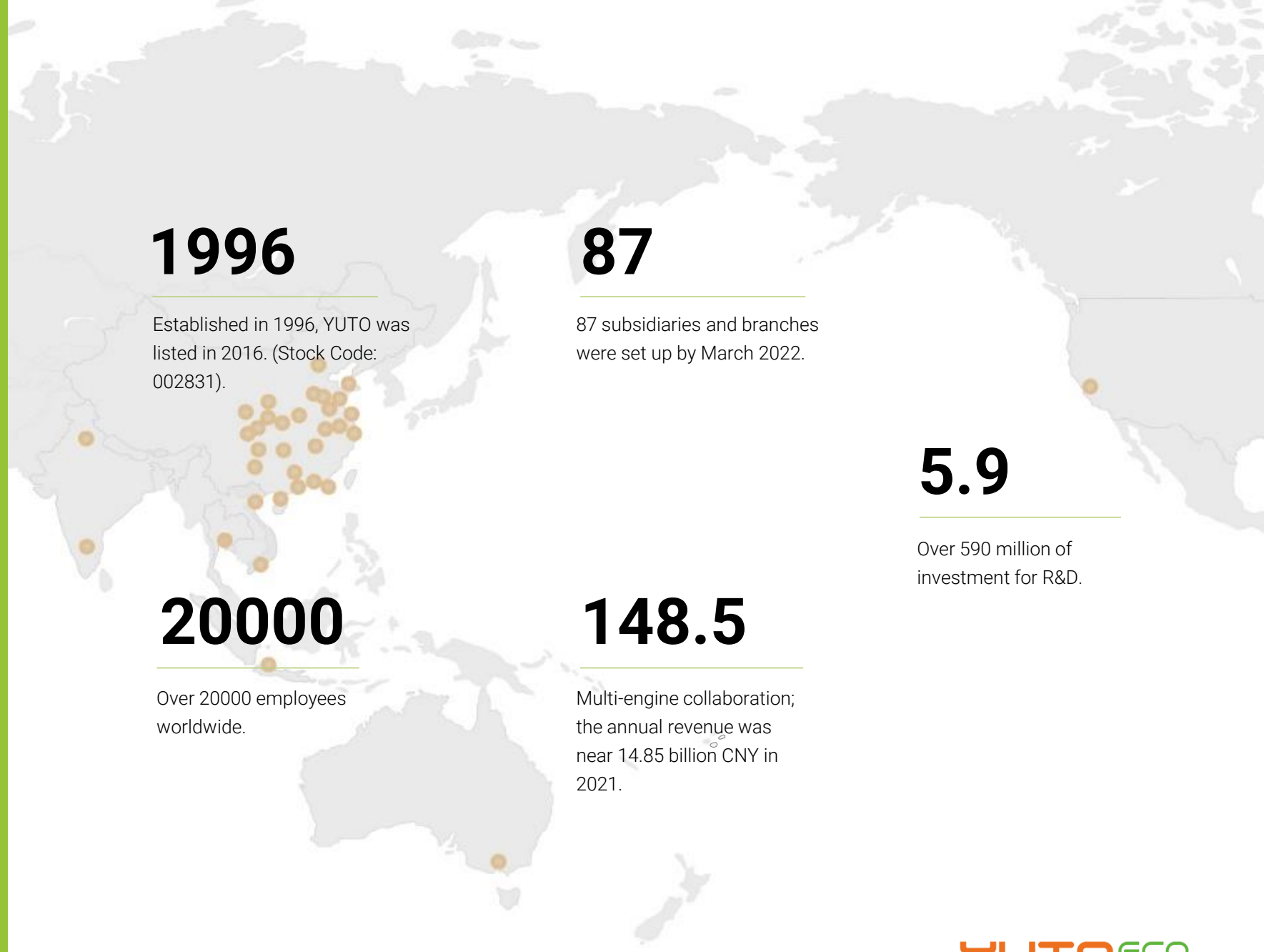
Sustainable Packaging Solution Provider

Part 1
About YUTO

YUTO

Shenzhen YUTO Packaging Technology Co., Ltd. (YUTO) was established in 2002, headquartered in Shenzhen, and listed in the Shenzhen Stock Exchange Market (stock code: 002831) in 2016.

YUTO is a leading provider of high-end brand packaging solutions, serving Fortune 500 customers and high-end brands, specializing in consumer electronics, cosmetics, food, Health, tobacco and other industries to provide competitive packaging products, solutions and services, and is committed to continuing to enhance brand value for customers.



1996

Established in 1996, YUTO was listed in 2016. (Stock Code: 002831).

87

87 subsidiaries and branches were set up by March 2022.

5.9

Over 590 million of investment for R&D.

20000

Over 20000 employees worldwide.

148.5

Multi-engine collaboration; the annual revenue was near 14.85 billion CNY in 2021.

*Established YUTO Print Factory in 1996

YUTOECO

Main Business

Consumer Electronics packaging

Cosmetics packaging

Food & Comprehensive Health packaging

Tobacco packaging

Alcohol packaging

Eco-packaging

Part 2

YUTOECO was Born for Green Life

Ocean Pollution

Plastic wastes cause serious pollution to the environment. About 8 million tons of plastic wastes were discharged into the ocean every year all over the world.

Ecological Damage

Over 700 sorts of ocean species have eaten plastic by mistake or were entangled by plastic wastes.

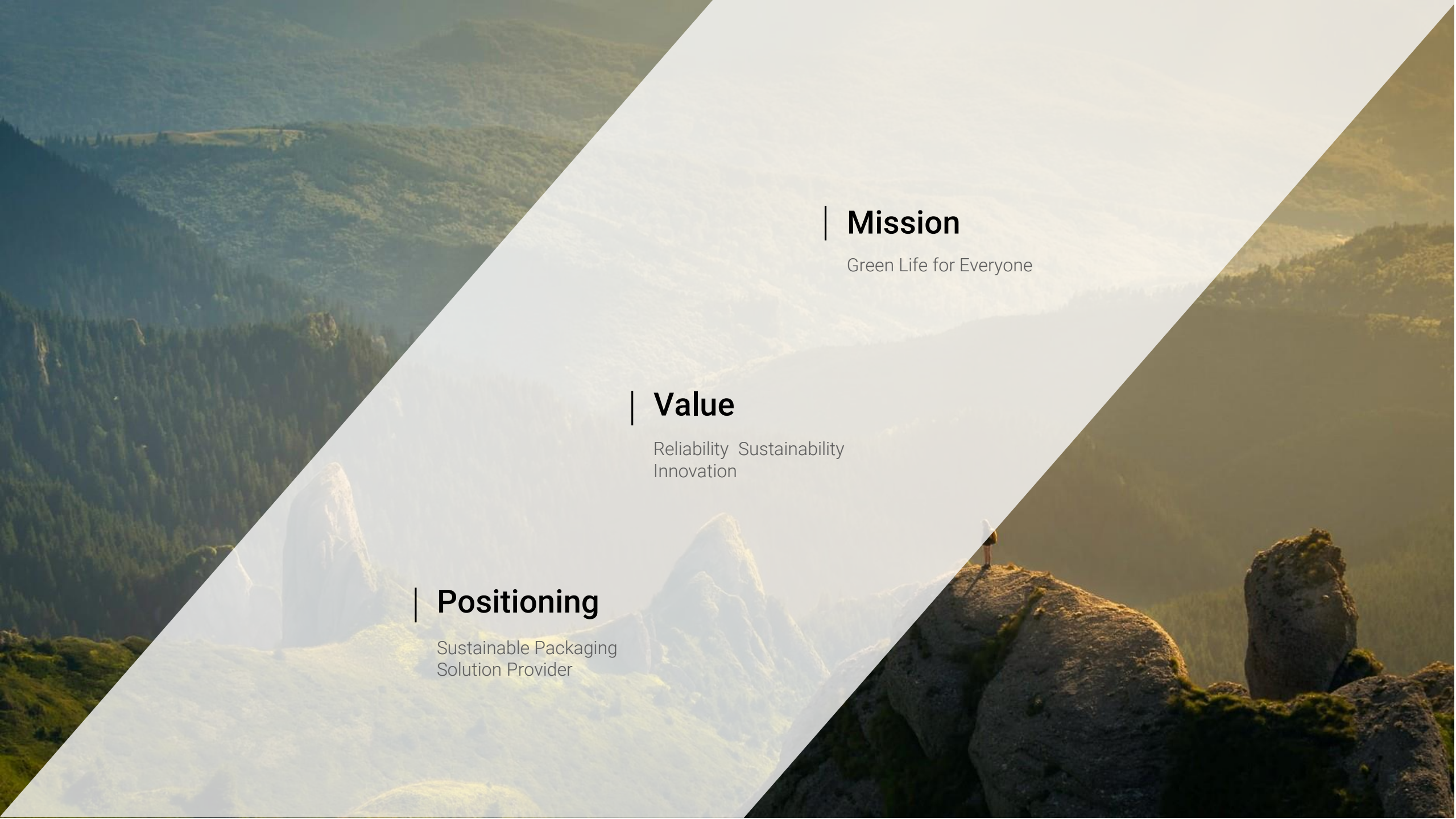
Climate Change

The ecological crisis characterized by global warming is becoming a severe challenge for mankind in the 21st century.

YUTOECO

YUTOECO

YUTOECO is a corporate brand of YUTO that focuses on environmentally friendly packaging and sustainable development. We continuously move forward on the research and development of ECO packaging and new sustainable materials, and provide clients with the best solutions in the field of ECO packaging, to realize the goal of creating green life for everyone.



Mission

Green Life for Everyone

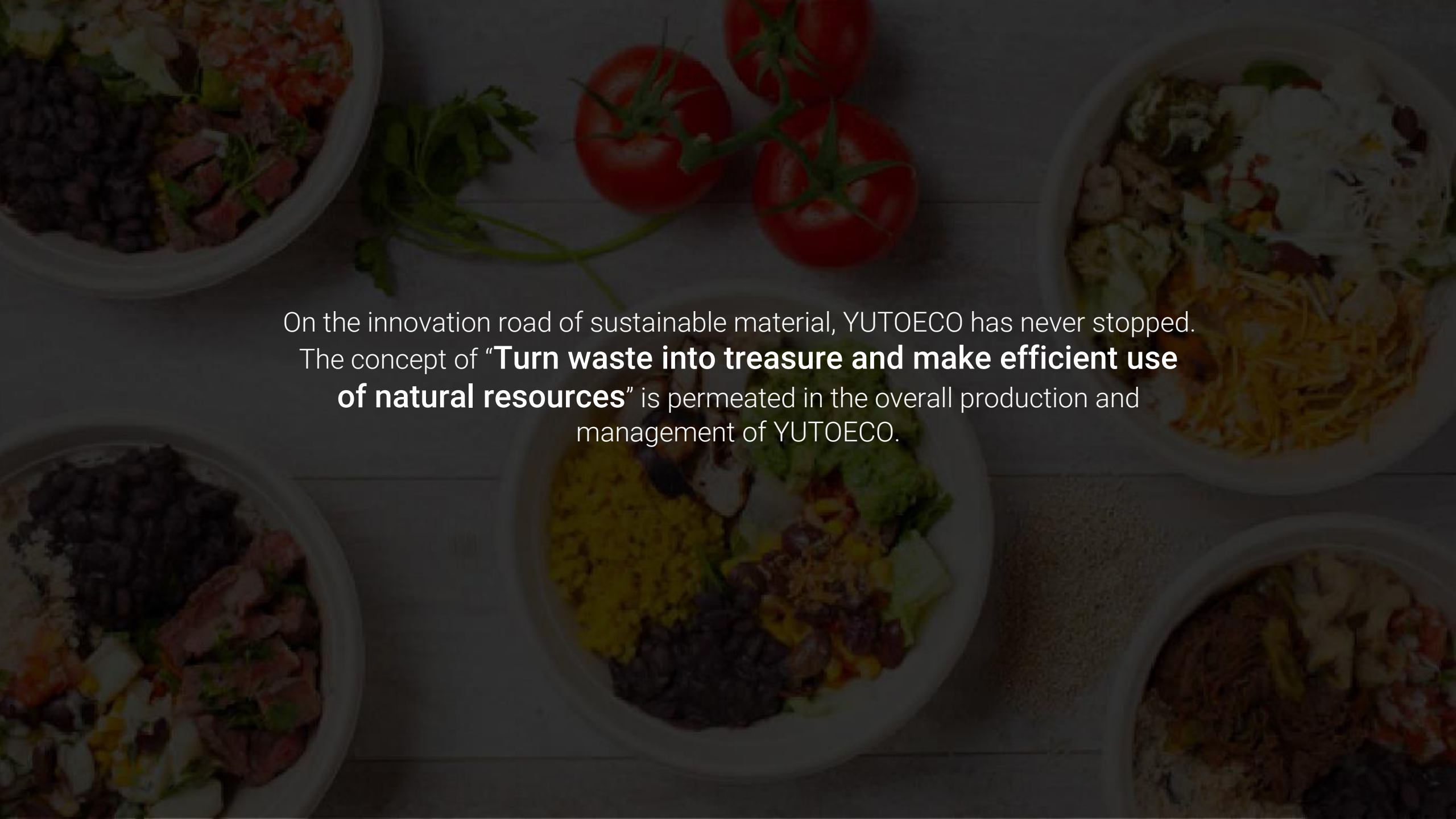
Value

Reliability Sustainability
Innovation

Positioning

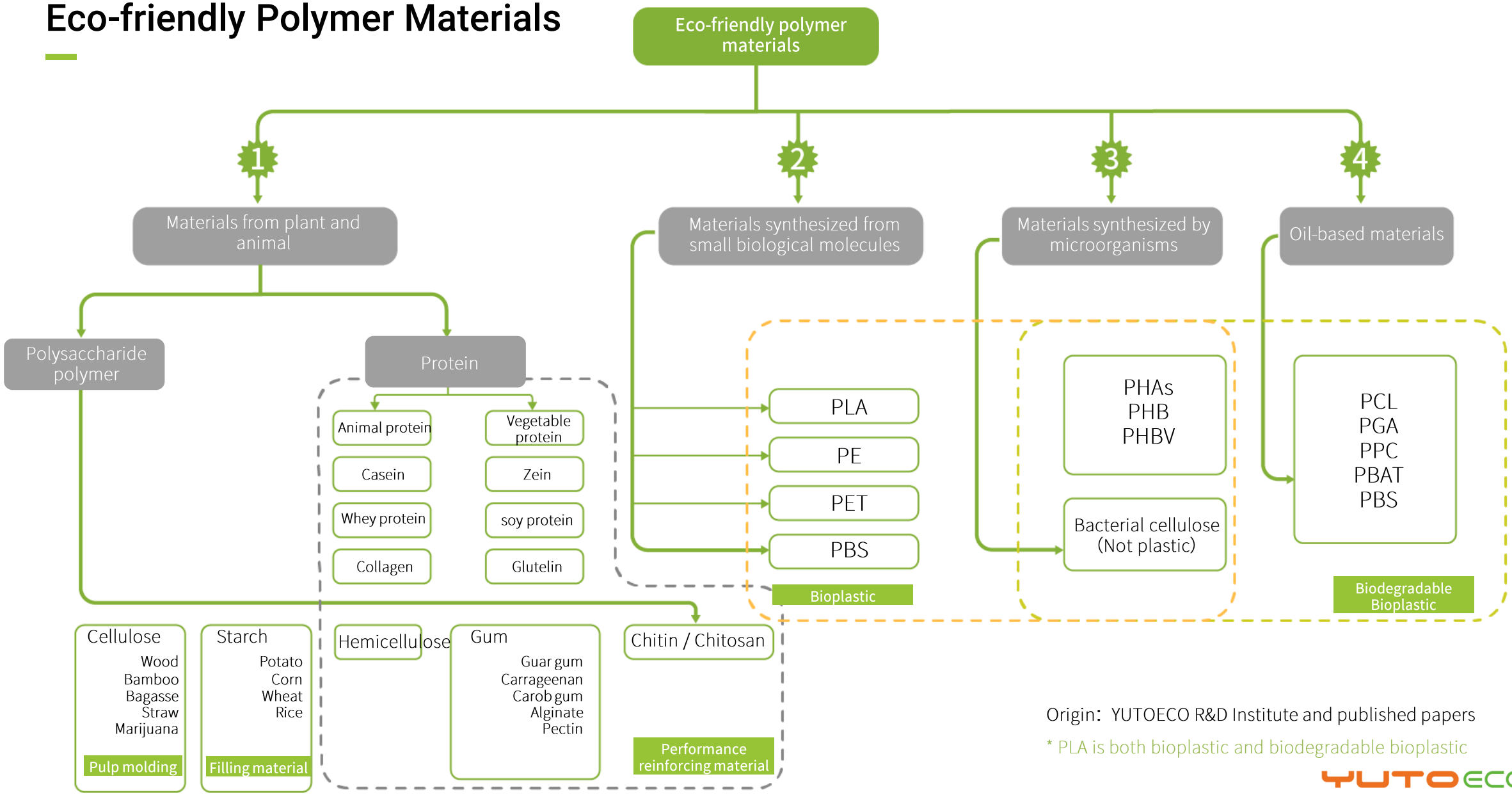
Sustainable Packaging
Solution Provider

Part 3
Biodegradable Eco-friendly Products



On the innovation road of sustainable material, YUTOECO has never stopped. The concept of “**Turn waste into treasure and make efficient use of natural resources**” is permeated in the overall production and management of YUTOECO.

Eco-friendly Polymer Materials



Origin: YUTOECO R&D Institute and published papers

* PLA is both bioplastic and biodegradable bioplastic

YUTOECO

Products

- Food packaging
- Skincare & health care packaging
- Tobacco & wine packaging
- Consumer electronics packaging











* Food Container: Focusing on producing plant fiber catering tableware.

* Industrial Packaging: Focusing on producing high class plant fiber industrial packaging, including skin-care & health care packaging, consumer electronics packaging, etc.

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Product Advantages – Food Container

Food Grade

- Meet the AP and FDA standards for food contact materials in Europe and America.
- Without fluorescent materials.
- Safe material, contact with food directly.

Excellent Performance

- Food grade water and oil proofing agents. No leakage, safe and reliable.
- Microwave and refrigerator safe, poison and odor-free.

Biodegradable

- Made from high quality bagasse and bamboo pulp, our sustainable packaging can be biodegraded into organic fertilizer within 90 days, which realizes “come from nature, return to nature!”.

Customization

- Able to customize laser logo, UV print patterns and so on according to the brand requirements.

YUTOECO

Product Design

Stacking design
Easy to take

leak-proof lids

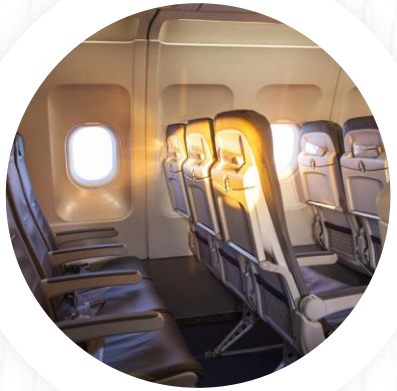
Adiabatic cup

YUTOECO

Applications

Supermarket & Retail

Takeaway



Aviation Catering

Coffee & Baking

Catering

Fresh Foods

Product Advantages – Industrial Packaging

Food packaging

Tobacco & wine packaging

Skin-care & health care packaging

Consumer electronics packaging

Solution:

Structure : Draft angle of 1° and depth of 10cm are available; the thickness of a single layer can reach 1.2mm.

Surface process : Hot stamping, jet printing, thermal transfer printing, UV printing, laser, flocking, oil spraying, film coating (PLA), screen, fiber texture.

Forming process : Dry pressing, wet pressing, semi-dry pressing, semi-wet pressing.

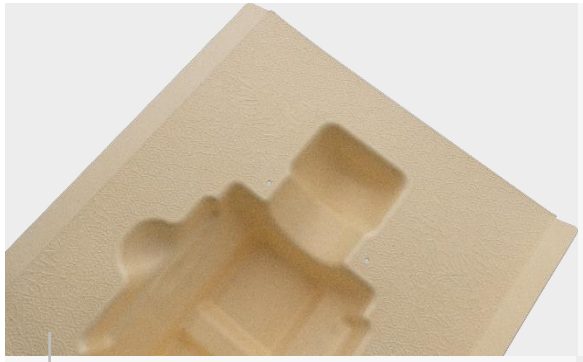
Function: Shockproof, breathable, degradable, high surface finish, waterproof, oil-proof, wear-resistant, etc.

Demand:

- Various customized categories
- Different surface processes
- Diverse structures
- Abundant colors
- Special functions

YUTO ECO

Product Design



- Various colors are available to coincide with the products.
- 10cm of depth can meet the needs of gift packaging.

- Shaped design, unique structure and gorgeous color.

- Anaglyph effect brings a better touch sense and aesthetic feeling.

- Gold stamping has the feature of clear printing, which provides a better visual effect for packaging

YUTOECO

Integrated Packaging Available

Outer packaging

Sleeve

User guide

Eco-friendly tray

YUTOECO

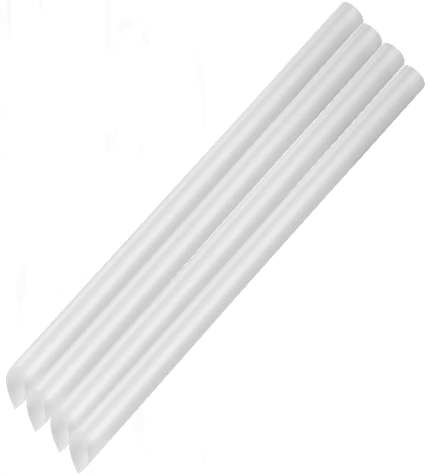
Biodegradable Products——Mate of Plant Fiber

- **Knife, fork, spoon, straw, filming container, bag, and cups together**

with pulp molded containers to meet catering customers' various needs

Features:

- Elements： PLA, PBS, Starch
- Well sealed, waterproof & oil proof, deli available
- Biodegradable, compostable, dry and wet separation
- Supports customized specification and style



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Part 4

Comprehensive Strength

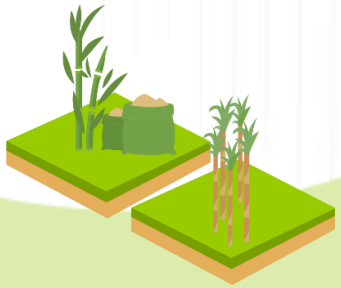
Quality Control

- YUTOECO strictly implements the ISO9001 Quality Management System, BRC global standard, and national standards.
- YUTOECO aims at the 100% product qualification rate and sets up the perfect quality management system.
- From the selection and production of raw materials to the test and packaging of finished products, YUTOECO has realized systematic management for the whole production processes, ensuring the quality safety of our products.

Process Control

Raw Material

- Pulp board
- Agent
- Material



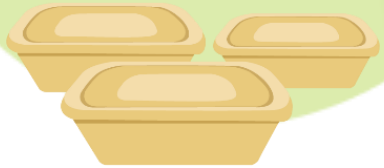
Pulping

- Pulp concentration additive
- Pulp freeness

Molding

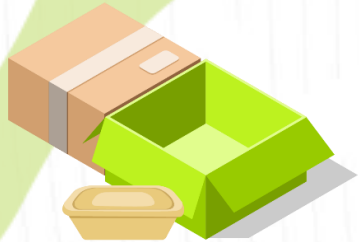
- Size
- Weight
- Performance
- Lids
- Color

Semi-finished Packaging



- Appearance

Final Packaging

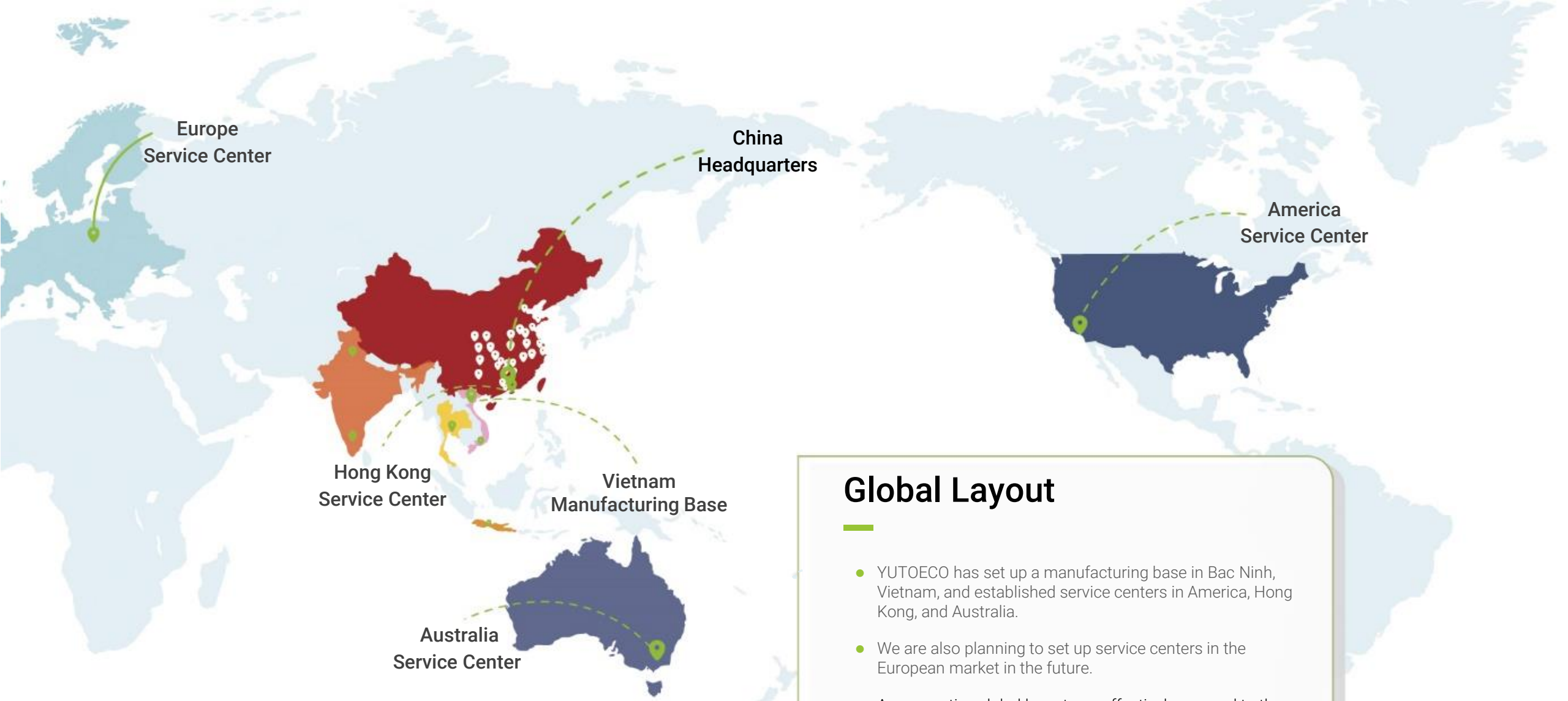


- Inner packaging
- Label
- Metal detection
- Microwave sterilization

Delivery

- Outer box
- Label
- Performance
- Appearance

YUTOECO



Global Layout

- YUTOECO has set up a manufacturing base in Bac Ninh, Vietnam, and established service centers in America, Hong Kong, and Australia.
- We are also planning to set up service centers in the European market in the future.
- A prospective global layout can effectively respond to the changing international trade situation.


Yibin, Sichuan
(Food Container & Industrial Packaging)


Haikou, Hainan
(Food Container)


Bac Ninh, Vietnam
(Food Container & Industrial Packaging)


Dongguan, Guangdong
（Industrial Packaging）


Kunshan, Jiangsu
（Industrial Packaging）


Laibin, Guangxi
（Raw Material）

Manufacturing Bases

YUTOECO has established 5 cutting-edge manufacturing bases located in Yibin Sichuan, Haikou Hainan, Bac Ninh Vietnam, Dongguan Guangdong, Kunshan Jiangsu. And set up a bagasse pulp board factory in Laibin Guangxi, ensuring the supply of raw materials.

* Food Container: Focusing on producing plant fiber catering tableware.
* Industrial Packaging: Focusing on producing high class plant fiber industrial packaging, including skin-care & health care packaging, consumer electronics packaging, etc.

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Yibin YUTOECO

Determine to establish a benchmark for the production of pulp molded food packaging in China

Yibin YUTOECO is near the raw material origin, which has abundant bamboo material

Advantages

- Full automatic pulping system
- Self-developed full automatic machines
- Integrated edge cutting machines
- ABB automatic robotic arm
- Modular mode

- Automatically control 2 parts of sand removing system, ensuring a sand removing rate up to 60%.

- Full automatic ABB control system; the production efficiency has increased by 30%

- 100% of metal detection and microwave sterilization

- Packaging

YUTOECO

YZVN (VIETNAM YUZHAN)

Overseas industrialized layout; undertake global orders

- 8 full automatic customizable products production machines

- 24 full automatic production machines

- 6 full automatic edge cutting machines

- 5 semi-automatic common products production machines

YUTOECO

Dongguan YUTO

Integrated industrial pulp molded packaging solution provider

- Pulp molding workshop

- Production lines of edge cutting and packaging

- 24 full automatic forming machines
  24 semi-automatic forming machines

- R&D laboratory

YUTOECO

Kunshan YUJIN

Sustainable industrial packaging solution provider

- 46 automatic pulp molding machine

- ISO9001 & ISO22000 certified workshop

- 15 hot-pressing forming machines

- National level of product performance testing laboratory

YUTOECO

Haikou YUTOECO

Sustainable catering packaging solution provider

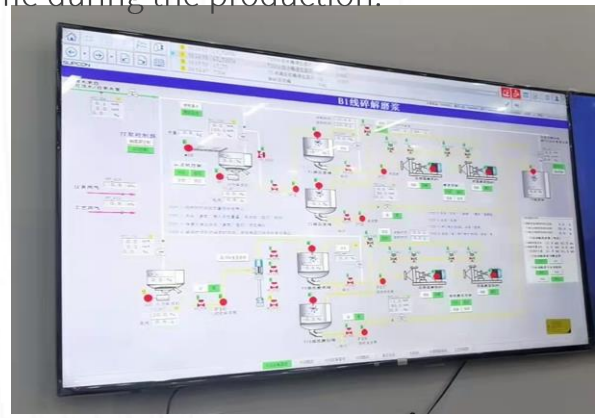
Advantages:

- Annual capacity: 36 thousand tons
- Self-developed full automatic forming machine
- Whole processes of automatic production workshop (feed in raw material, sorting and packing)
- Advanced integrated control center; monitoring the data real time during the production.

- 20 full automatic forming machines

- Whole processes of automatic production workshop

- Advanced testing laboratory

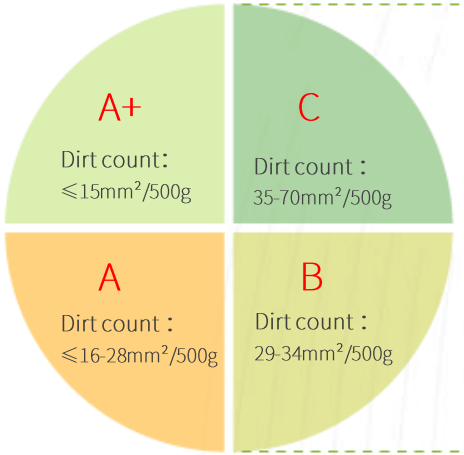


- Informationalized & integrated control center

YUTOECO

Guangxi YUTO

Food-grade eco-friendly dry bagasse pulp board provider



- **Best location**

Abundant bagasse material;
Cooperate with local bagasse company, reducing costs

- **Energy saving technology**

Full automatic pulp board production line;
Continuous cooking, ECF bleaching, alkali recovery and other processes

- **Productivity advantage**

Annual capability is up to 68 thousand tons

- **Whole Industrial chain layout**

From bagasse to pulp, and then to final product

- **Quality control**

Accord with ISO9001、ISO14001、IECQ, RoHS

YUTOECO

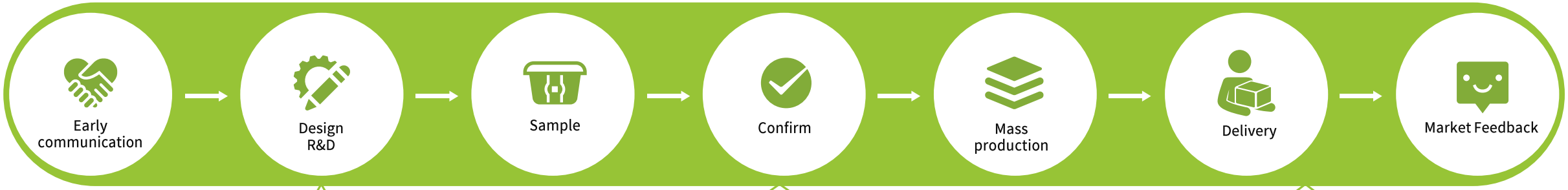
Solution
From concept to realization

- Design requirements
- Applications
- Professional analysis
- Rational suggestion

- Rationality
- Function
- Final details ……

- Production cycle
- Quality control
- Automatic production
- Front & back end coordination

- Collect feedbacks
- Analyze product advantages and disadvantages
- Upgrade for the next generation



- Market research
- Market trends
- Costs control
- Product function
- Product positioning
- Users

- Design
- Function
- Cost
- Delivery time

- Nearest delivery
- Transportation costs control
- Delivery in time

· New material institute
· Solution center (Industrial packaging & Food container)
· Creative center

6 green manufacturing bases, and 38 service centers and overseas warehouse

YUTOECO

Food Container Solution

Waterproof & Oil proof

Available for hotels, fast food shops, bakeries, eatery, healthcare products, convenience store, food service

- Good performance at -20°C to 180°C
- Non-permeable after filling with liquid

- Made from bamboo and bagasse
- Available for hot dogs and burgers without oil leakage

Catering solution

· Design various tableware to meet different needs in catering.

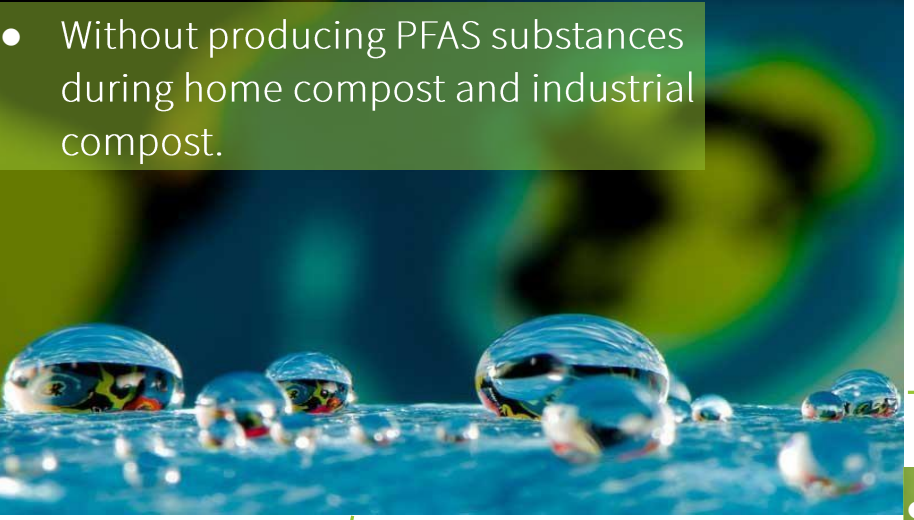
· Strong OEM strength

YUTOECO

Food Container Solution

PFAS free

Available for restaurants, bakeries, convenience stores, and take-out industry.



- Without producing PFAS substances during home compost and industrial compost.

- Available for -20-45℃
- Waterproof & Oil proof
- White & Nature

Physical performance

- Without oil leakage under 60℃ for 1 hour
- Biodegraded under natural conditions within 180 days

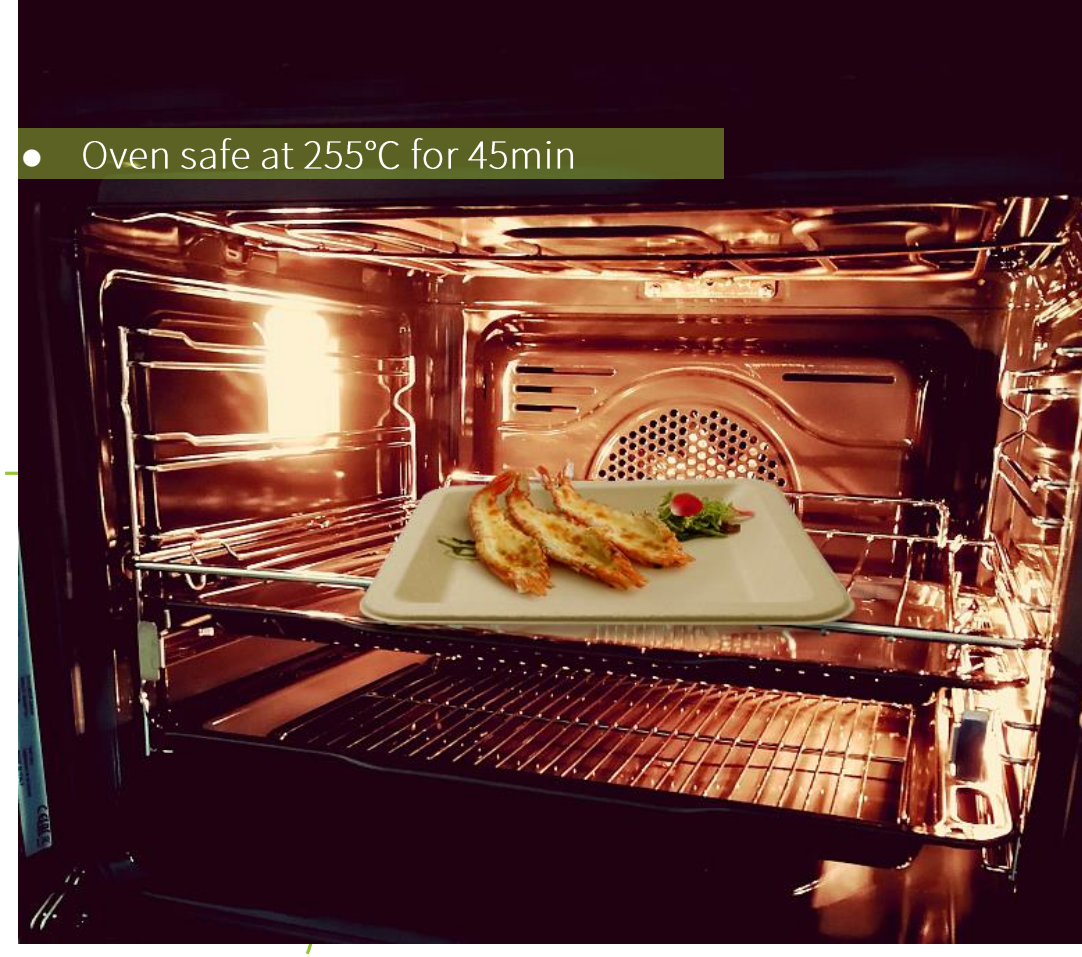
YUTOECO

Food Container Solution

Ultra high & low temperature resistant

Aviation, takeaway, bake, etc.

- Refrigerated at -40°C for 24h
- No change of hardness and performance under -20°C for 30 days



- Oven safe at 255°C for 45min

Catering solution

· Design various tableware to meet different needs in catering.

· Strong OEM strength

YUTOECO

EVOH/PBAT/CPET films are available for fresh food, plastic sealed, printing, leakage proof products, etc.

- Refrigerated at -40°C for 24h
- No change of the hardness and performance under -20°C for 30 days

- High barrier performance to ensure freshness of food
- High temperature resistance (-60-200°C)

Food Container Solution
Filming

- High tenacity & impact resistance
- Customizable (Logo)

YUTOECO

Pulp Molded Knife, Fork and Spoon

Biodegradable pulp molded knife, fork and spoon for catering

High Hardness

- PFAS free

No burrs

- Better experience without burrs
- Plastic free

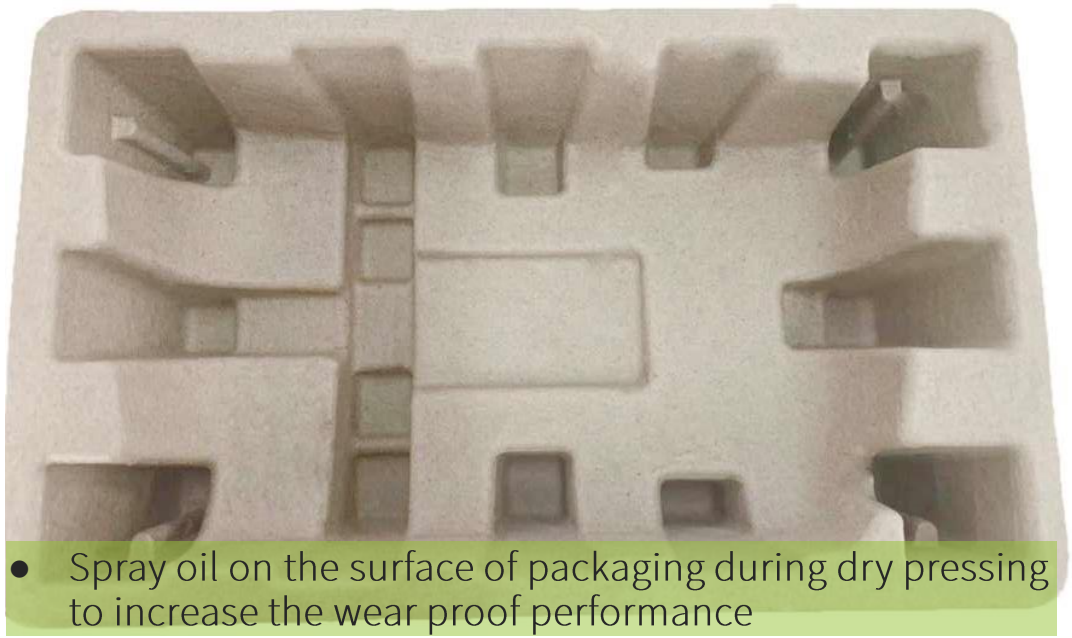
High Strength

- Unique structure strength
- Various styles for different applications

Industrial Packaging Solution

Wear proof & Waterproof

- Surface fogging during dry pressing (Wet) to form a protection layer, which can realize waterproof



- Spray oil on the surface of packaging during dry pressing to increase the wear proof performance

Available for products without other protection (such as film) that need to contact with packaging directly.

· Spray water-based varnish onto the surface of the product.

· Spray atomized water-based additive on the wet product, and then form by hot pressing

(Available for dry pressing, semi-dry pressing, wet pressing)

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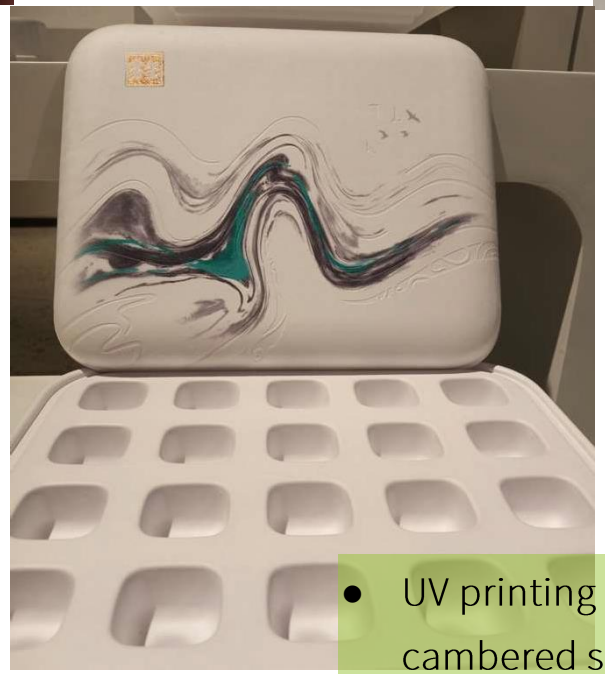
- Surface pad printing
- Gold stamping on the cambered surface

- Gold stamping with various colors



- UV printing for small cambered surface

Industrial Packaging Solution

Surface treatment

Supports gold stamping , jet printing, heat transfer printing, UV printing, laser, flocking, inkjet, film covering, screen printing, fiber texture

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- Unique surface fogging process makes packaging have better waterproof and oil proof performance.

Solution

Integrated container type of packaging

Available for column and shaped packaging, container type of packaging.

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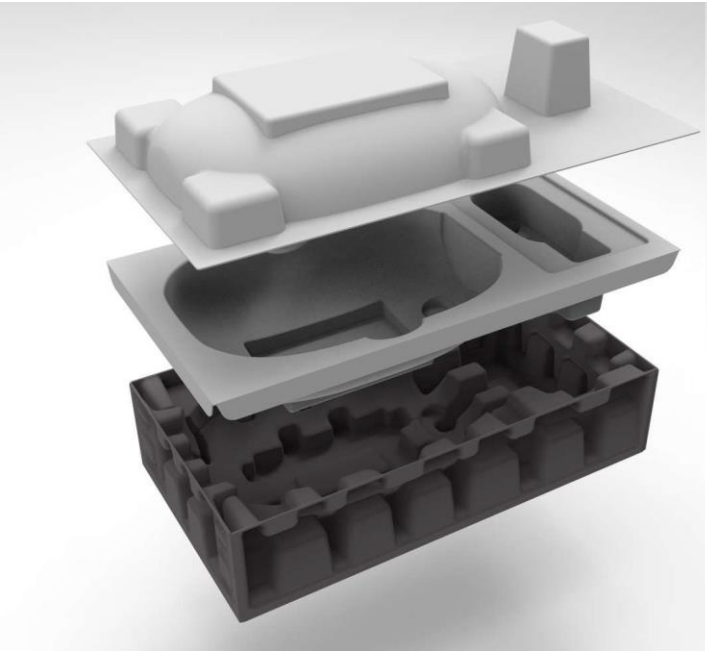
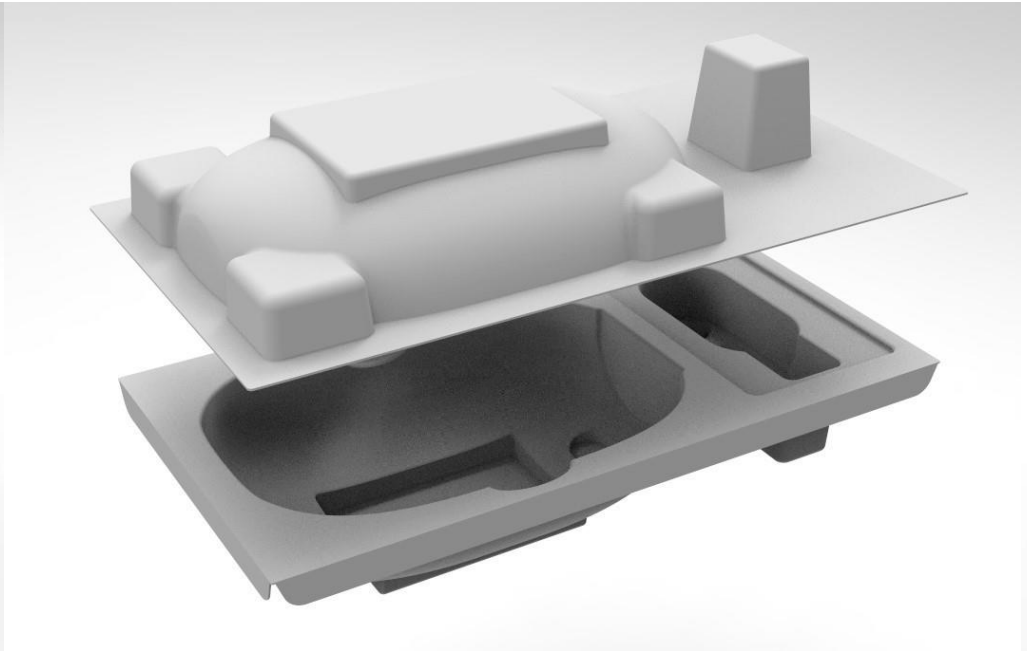
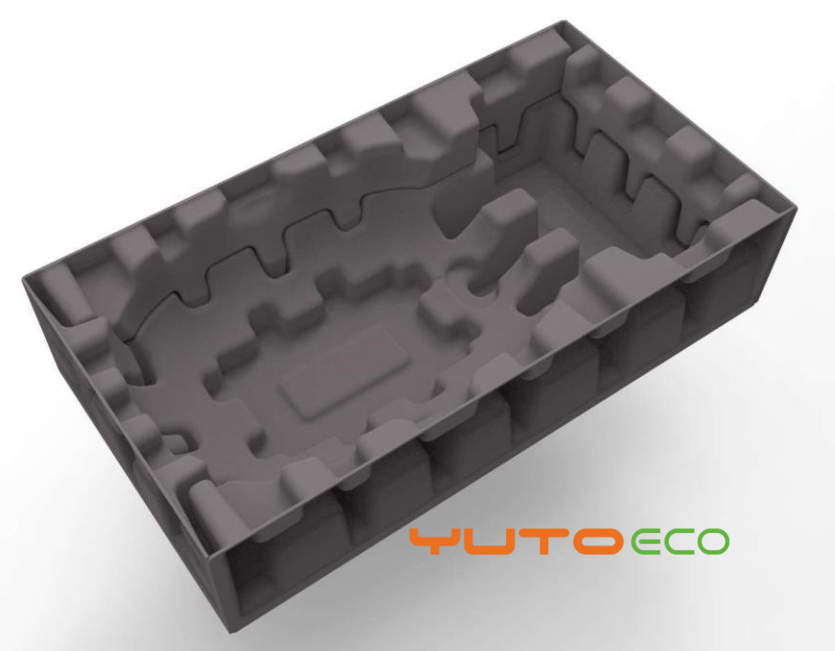
Industrial Packaging Solution

Integrated product design

- Integrated structure design
- The combination of multiple processes and materials can not only be beautiful, but also meet the test needs of customers





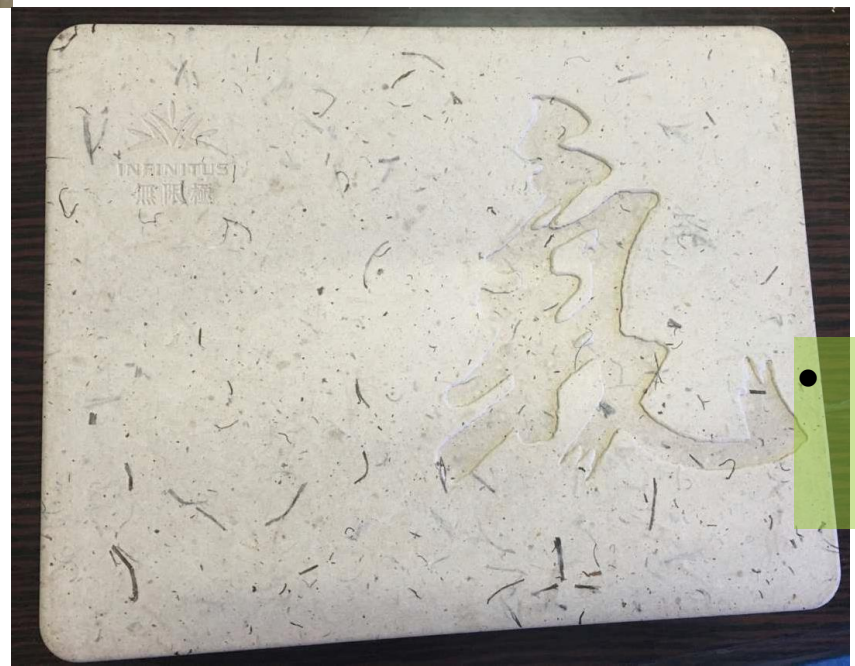


Industrial Packaging Solution

Diversity of materials

For stationery, creative and healthcare product, etc.

- Pulp mixing process, total plant fiber, without any chemical components.



- Towards different product elements, we can add various pulping materials to meet the needs of clients.

Certificates

YUTO was awarded as “National Green Factory” on Oct. 29, 2020

Company Certificates

Product Certificates

YUTOECO

Part 5
R&D Strength

R&D

1

Renewable

Renewable raw materials without burdening the environment

2

Biodegradable

Use plant fiber raw materials, which can be totally biodegraded into CO2 and water

3

Reduction

Reduce the use of packaging materials

R&D Direction

Plant fiber:

- Composite pulp material
- PFAS-free oil proof agent
- Water-based coated paper
- Pulp molded bottle
- Renewable paper product

New biodegradable materials:

- Biodegradable PLA bag
- Biodegradable heat-resistant material
- Biodegradable heat-resistant drinkware
- Biodegradable high barrier film
- Mature foaming molded pulp material

YUTO ECO

YUTOECO R&D Institute: Develop New Plant Fiber Materials (Developing)

PFAS-free waterproof & oil proof pulp molded products

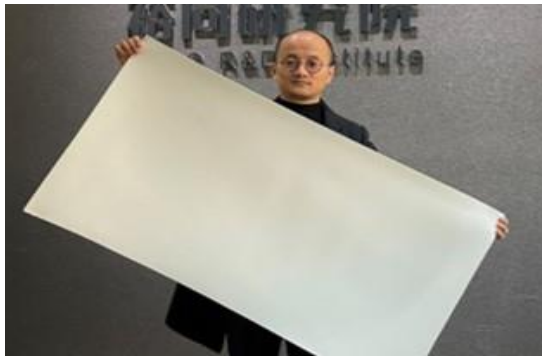
High barrier paper-based materials

Full paper-based bottle (Concept)

YUTOECO R&D Institute: Develop New Biodegradable Materials

Film bag type of modified materials and products

Starch-based Loose-fill



Polyester buffer material

Heat-resistant straw material

Anti-scratch protective film material

Filming materials for paper tableware

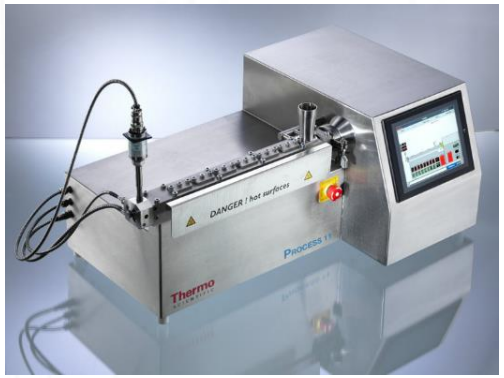
Heat-resistant injection molded tableware

Heat-resistant blister materials

R&D Equipment

Full automatic forming machine

- Bishuo FSP2-10080
- Maximum closing height 450mm
- Maximum size 200mm
- Used for new sample making of plant fiber product



Twin-screw extruder

- HAAKE Process11
- Table-top design，space saving，easy to move
- Maximum temperature≥350℃，Maximum RPM≥1000rpm
- The length of screw is adjustable
- Used for developing new biodegradable materials

Scanning electron microscope

- Phenom ProX
- The magnification is 150,000 times
- Observe the fiber raw materials, coatings and the surface morphology of product
- Available for qualitative and semi-quantitative analysis of surface elements

Torque rheometer

- HAAKE Polylab QC
- Maximum torque measurement＞300Nm
- Maximum temperature of mixed rheological measurement system ≥400℃
- Analyze the processability and rheology of high polymer materials

YUTOECO

R&D Equipment

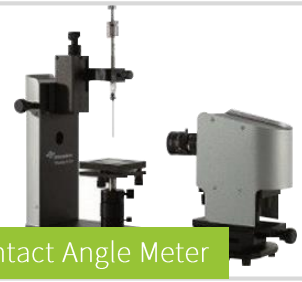

Injection machine


GBB-A


Impact resilience tester


Rod coater

Super Simplex SL


Contact Angle Meter


Transmittance meter


Fusion index instrument


Tensile machine

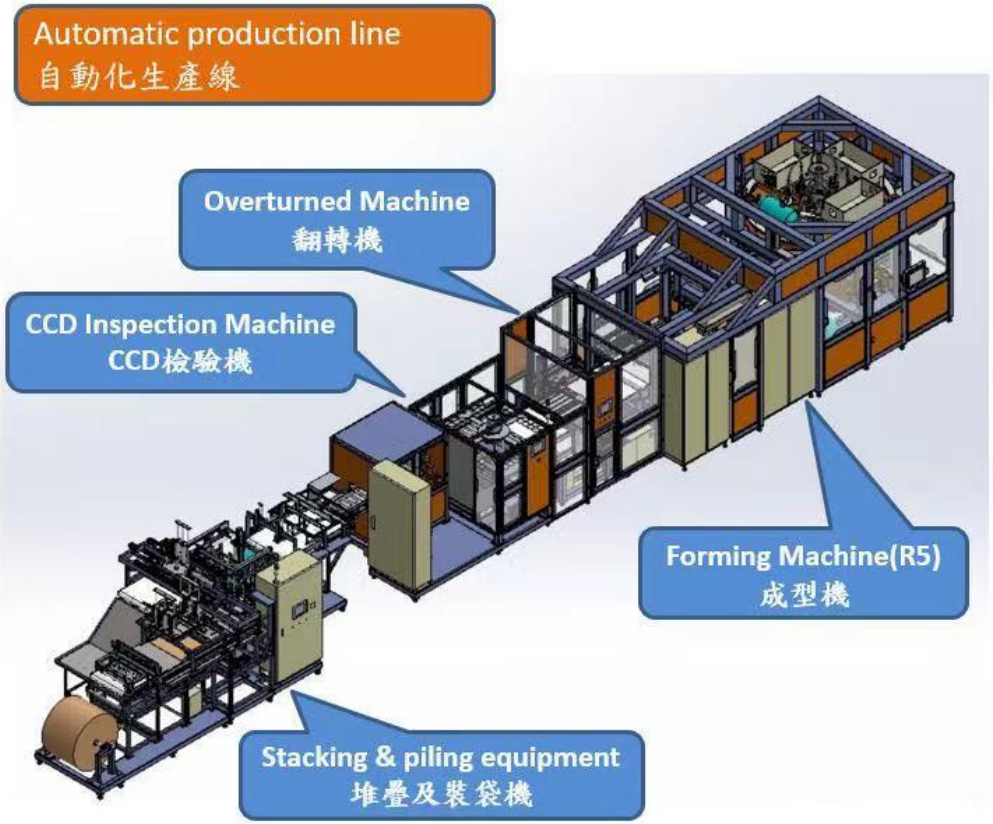

Gas transmittance meter


Moisture permeability meter


Falling dart impact instrument

YUTOECO

Self-developed Equipment



Full automatic production line:

Forming → Rolling over → Check → Pack

Innovative Team

Aaron Cheng

Dean of YUTOECO Institute; The first R&D expert of YUTO; Professional intelligent packaging engineer; Shenzhen excellent engineer; Led the development of multiple innovative technologies

Rae Guo

R&D Manager; Senior engineer; Special part-time teacher of Beijing Institute of Graphic Communication and Shenzhen Polytechnic; Focusing on eco-packaging and wisdom culture

Edison Han

R&D Manager, The master of State Key Laboratory of Pulp and Paper Engineering; Bachelor of business administration; Focusing on materials of eco-packaging and bio-composite

Alina Peng

Project manager; Master; Focusing on intelligent packaging, eco-packaging, and solution of cross-media

Frank Mu

Senior material engineer; Master of material science; Many years of experience on modified polymer composites; Good at the modification and research on biodegradable materials and composites.

★ YUTOECO gathered lots of experts from various industries covering material science, packaging project, intelligent packaging, etc.

Chen

Doctor of Materials Science from the Institute of Chemistry, Chinese Academy of Sciences, dedicated to the development and application of eco-friendly materials. He is experienced in the fields of natural polymer materials, pulp and paper, and advanced functional materials.

Saud Khalid

As the Doctor of Food Science and Engineering, and the Postdoctoral Fellow of Shenzhen Institute of Advanced Technology Chinese Academy of Sciences, Saud, under the guidance of Professor Yu Long, a famous starch expert, specializes in polymer modification and development of special starch. Now he is the head of the polymer project team of YUTOECO Research Institute.

Amanda Gong

Senior material R&D engineer, master of materials science, has many years of experience in varnish and coating R&D and application, and is good at eco-friendly waterborne materials.

Design and R&D

Innovation platform

- ECO R&D Institute
- Postdoctoral Innovation Practice Base
- Shenzhen Industrial Design Center

- Academician (expert) workstation

- National Paper Packaging and Printing Materials R&D Center
- Shenzhen Nano Intelligent Coating Material Engineering Lab
- Shenzhen New Green Packaging Materials Engineering Technology Research Center

Cooperation

Our R&D team gathered lots of senior experts engaged in packaging and new materials, and cooperate with academic institutes for “production-study-research” to continually develop new material, technology and processes.

CAS Chemistry

BIGC

Tsinghua University

Shenzhen Graduate School of Peking University

SUSTC

SCUT

R&D Achievements

- **Over 25 patents** about pulp molding and biodegradation

- 环保纸餐盒切边设备
- 环保礼盒切边设备
- 环保纸餐盒捞浆抬升机构
- 用于餐盒切边模具的吸附机构
- 用于捞浆机的负压形成机构
- 用于捞浆机的清洗装置
- 用于捞浆设备的配重装置
- 环保纸餐盒的转运装置
- 环保纸餐盒的裁切模具
- 环保纸餐盒码垛推料一体化装置
- 环保纸餐盒的码垛装置
- 茶叶盒外观专利
- 茶叶盒实用新型

- 一种酒糟聚乳酸全降解复合材料、制备方法及应用
- 一种纤维素基无氟防热油包装纸及其制备方法
- 一种可生物降解绿色印刷油墨连接料、油墨及其制备方法
- 一种生物可降解的绿色印刷油墨连接料及油墨
- 一种多单体接枝聚乳酸相容剂的制备方法
- 一种甘蔗渣纤维PHA完全可降解复合材料的制备方法
- 一种微晶纤维素和聚乳酸完全可降解复合材料的工艺方法
- 一种具有仿金属效果可降解树脂及其制备方法
- 一种仿金属抗菌生物降解材料、制备方法及应用
- 一种可降解纸基光学材料及其制备方法
- 一种具有特殊纹理的可降解片材及其制备方法

YUTOECO

Part 6
Sustainable Development

Sustainable Development

Carbon Reduction

Industry Standard

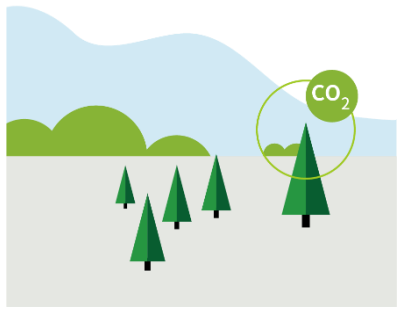
Recycling System

YUTOECO Sustainability

Carbon Reduction

Follow the carbon reduction standard certified by Chinese government, YUTOECO's carbon intensity is 0.388 in 2019. And the average annual reduction rate of carbon intensity is

2.64%



Wastewater Treatment

YUTO can treat hundreds of industrial waste water every day; the cycle rate is over

30%

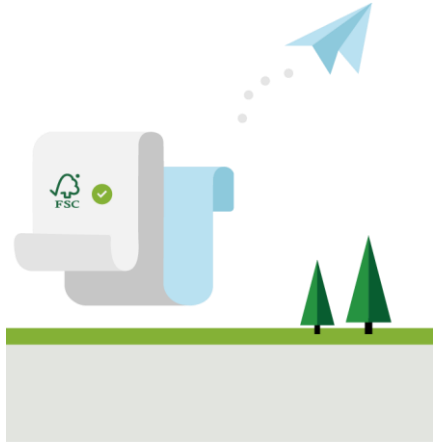
The production of pulp molded products has realized a water cycle rate over

95%

Waste Gas Treatment

Almost every branch has set up a whole set of waste gas treatment facilities; the maximum waste gas treatment capacity can reach

30000m³/h.



Green Inks & Paper

20%

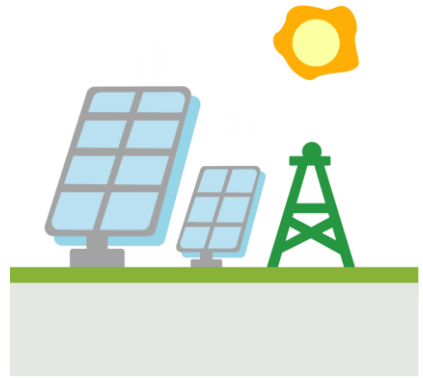
of the paper are green paper which is certified by FSC.
And it is increasing year by year; the recycling rate of waste paper has reached

100%

Solar Power Project

YUTO has 5 solar power generation bases, and can generate about

600000KWh of electricity in Shenzhen Park in 2020



YUTOECO

Public Welfare

- YUTOECO cooperated with Mr. Yang Xin (Green River) to protect the green Earth together

- Sustainable development event in the packaging industry

- YUTOECO cooperated with DIVEFORLOVE to clean ocean wastes in 99 giving day.

- YUTOECO cooperated with Unilever to protect the origin of three rivers

Partners


Dior
L'ORÉAL
SWAROVSKI
LANCÔME PARIS
SHISEIDO
Nestlé
奈雪の茶
PAGODA
中國東方航空 CHINA EASTERN
C&S 中顺洁柔
MULTIVAC
brother at your side
Panasonic 松下电器
同仁堂
MARS
西贝莜面村
五芳斋 WU FANG ZHAI
85°C
KRAFT
贵州茅台集团
STARFIELD 星期零
饿了么
盒马
中国烟草 CHINA TOBACCO
vivo
oppo
Lenovo
SONY

GREEN LIFE FOR EVERYONE

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