

The Fashion Business

in the Era of Carbon Neutrality, Circular Economy, and ESG

BASECAMP IN YOUR NEW LIFE, BYN

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A trigger for ESG - annual letter from BlackRock, a global investment company



Dear CEO,

As an asset manager, BlackRock invests on behalf of others, and I am writing to you as an advisor and fiduciary to these clients. The money we manage is not our own. It belongs to people in dozens of countries trying to finance long-term goals like retirement. And we have a deep responsibility to these institutions and individuals – who are shareholders in your company and thousands of others – to promote long-term value.

Climate Risk Is Investment Risk

As a fiduciary, our responsibility is to help clients navigate this transition. Our investment conviction is that sustainability- and climate-integrated portfolios can provide better risk – adjusted returns to investors. And with the impact of sustainability on investment returns increasing, we believe that sustainable investing is the strongest foundation for client portfolios going forward.

Sincerely,

A handwritten signature in black ink, which appears to be "Larry Fink".

Annual letter written by Larry Fink of Blackrock, the world's largest asset management company. January 14, 2020

Larry Fink's annual letter (2012–present)

2012

Highlighted long-term performance through value-focused engagements

2014

Highlighted investing in companies with a long-term focus



2020

“The climate crisis is an investment crisis.”
BlackRock will actively reflect ESG in asset management.

2021

“Please disclose a business plan that aligns with achieving carbon neutrality by 2050.”
Sustainability and close relationships with stakeholders will drive profits.

2022

Stakeholder capitalism is not about politics. It's not about pretending to be enlightened. It is driven by **mutually beneficial relationships** among **employees, partners, and the regions on which the company depends to thrive**, and this is the power of capitalism.



Transition to an ESG era

E(environment), why is it important?



We all face climate change, but does it have the same impact on everyone?

"Climate change is already having more severe impacts on low-income communities around the world..."

What matters is not the way we categorize environmental (E) and social (S) problems, but the way they affect each other. We have to identify and address these problems."

BLACKROCK Larry Fink. 2022 Annual letter



Two months of heavy rains have left 1/3 of Pakistan under water.

Great flood in Pakistan

- June to August in 2022 (2 months)
- More than 1,700 deaths
- 30 million flood victims
- Estimated economic loss of 42 trillion won
- Demanded damage compensation from developed countries



A semi-basement house in Sillim-dong was flooded by record-breaking heavy rain in August 8, 2022.

Heavy rain in the central region

- August 8, 2022
- 8 deaths
- Residents living in semi-basement houses and workers were electrocuted
- Related 2023 budget increased by 3.8% to 1.4 trillion won

E (environment) is a prerequisite for achieving S and G

Introduction of BYN Black Yak



- Korean fashion company (since 1973)
- Outdoor, golf, lifestyle clothing/goods

Major Brands



Global Business



> Technology



26 awards in 8 years
(the highest for a single brand)



“A product that maintains durability even when worn for a long time and demonstrates functionality in harsh outdoor environments”

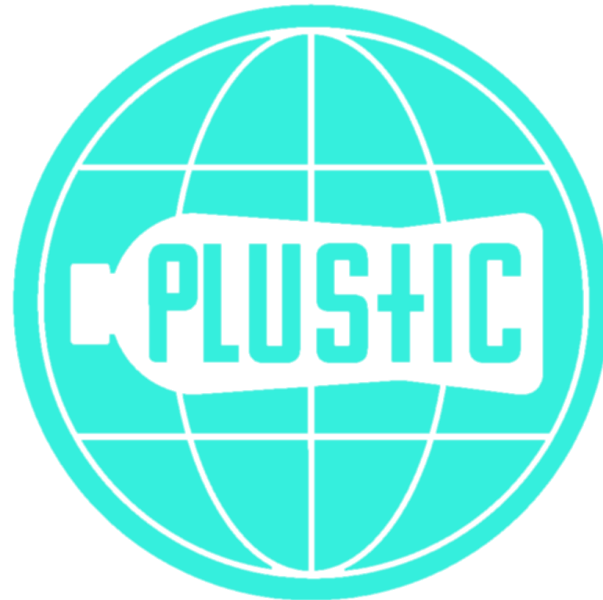
> Environment(E) = Sustainability



- Forestry activities to prevent desertification and improve yellow dust problems
- Clean Mountain, a voluntary and daily environmental cleanup activity using hiking platform BAC by 400,000 members
- **Plustic Project**, a project to establish a high-quality resource circulation system for waste PET bottles in Korea

Domestic PET Bottle Recycling Project

PET bottles we use and throw away
become plastic that benefits Korea!
Plustic Project



1520년 8월에 버려진 페트병이 있다면

PLASTIC



Waste if Discarded



Resource if Recycled

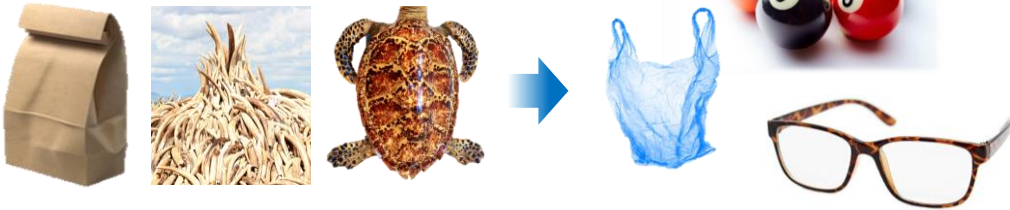


Environmental pollution and global warming caused by plastic

ΠΛΑΣΤΙΚΟΣ (→ PLASTIC)

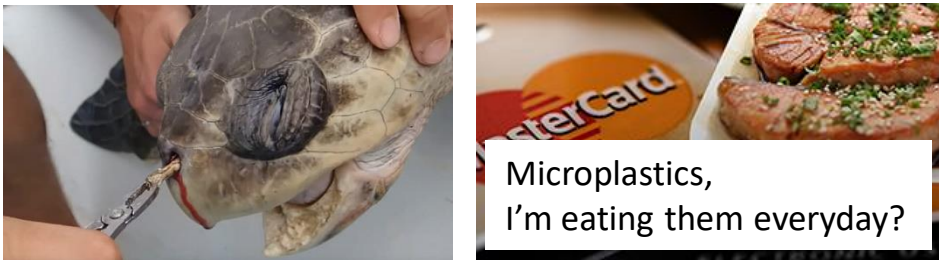
“Mouldable” in Greek

Previously



A dream material that replaced products made by processing animals and plants

Currently



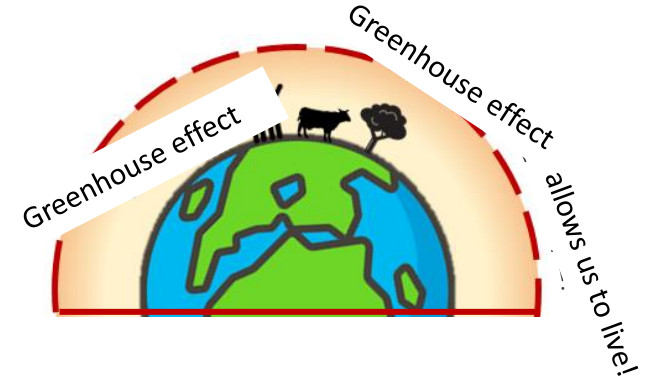
Pollutants that threaten the coexistence of nature and human beings

Greenhouse Effect

Heat generated by sunlight meets greenhouse gases in the atmosphere warming the earth

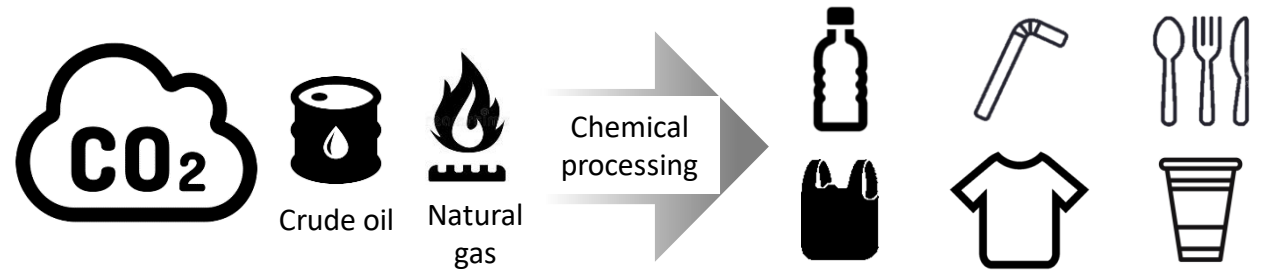
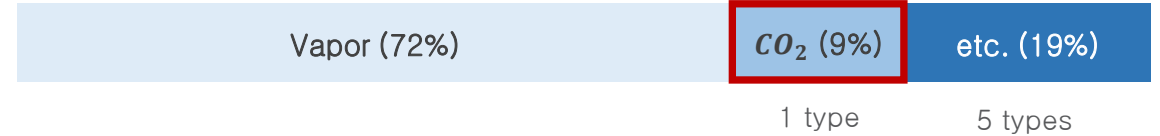


Sunray



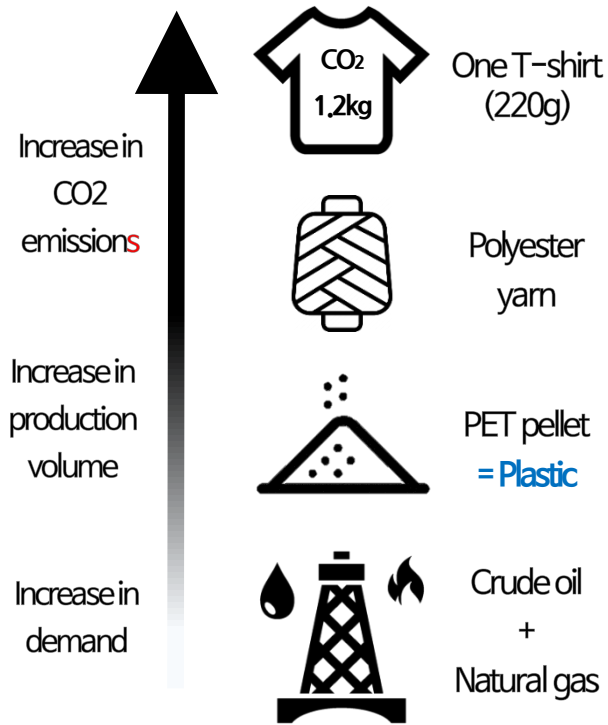
Contribution to greenhouse effect by gas type

“More man-made greenhouse gases are being emitted!”



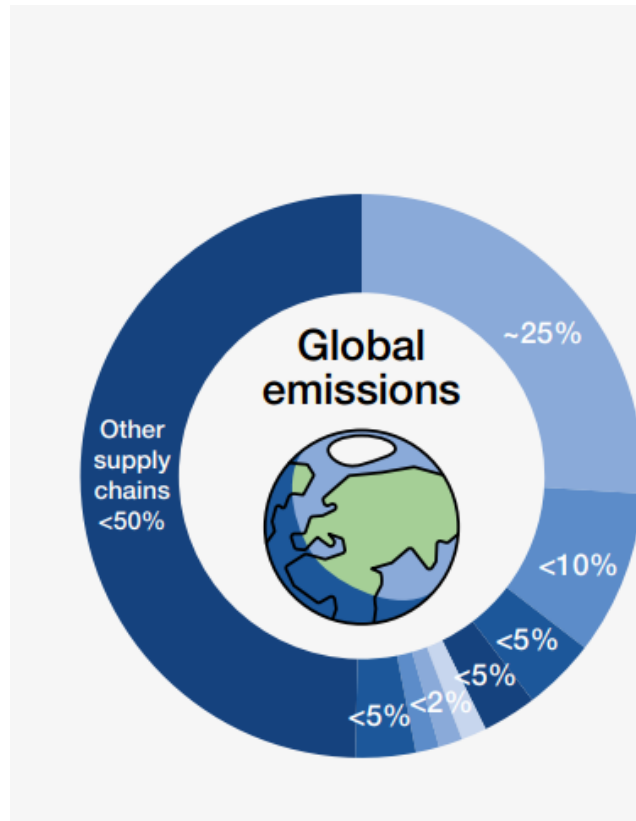
- Carbon dioxide stored in fossil fuels is released into the atmosphere during plastic production/disposal.

Correlation between plastic and fashion



Mutual aid in carbon emissions

Polyester, a major raw material in the fashion industry, is a synthetic resin (plastic) processed from fossil fuels.



Davos agenda

Food	Agriculture	Freight	Manufacturing
Construction	Cement, steel, plastics, ...	Freight	Manufacturing
Fashion	Synthetics, textiles, garments, ...	Freight	Manufacturing
FMCG	Chemicals, plastics, ...	Freight	Manufacturing
Electronics	Mined metals, ...	Freight	Manufacturing
Auto	Steel, aluminium, batteries, ...	Freight	Manufacturing
Prof. services	Business travel	Offices	
Other freight	Agriculture	Shipping	Rail
			Aviation

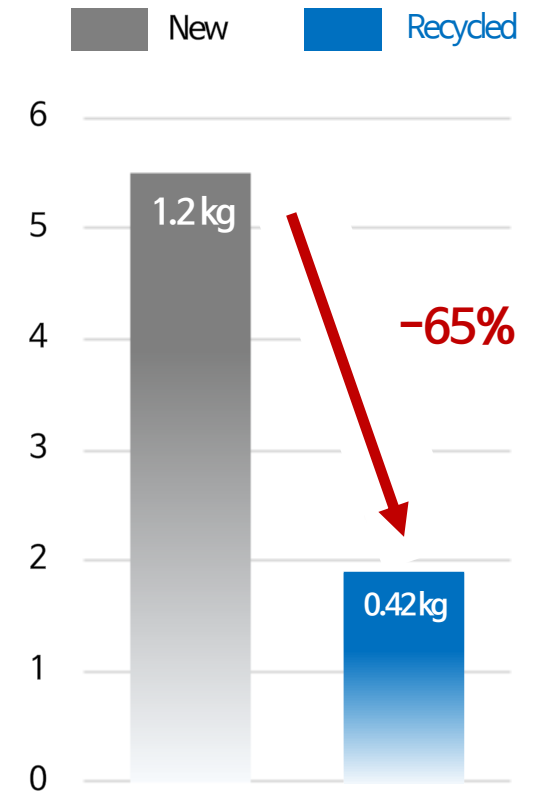
Davos Forum 2021 Insight report. 2021.

Ranking of industries by the amount of greenhouse gas emissions (Food - Construction - Fashion - Chemicals...)

Eco-friendly effect of recycled polyester



Comparison of CO_2 emissions (kg) (e.g. production of one T-shirt)




The use of crude oil in plastic making contributes to global warming. Bruno GERVET. 2007.



The Stockholm Environment Institute. 2008.

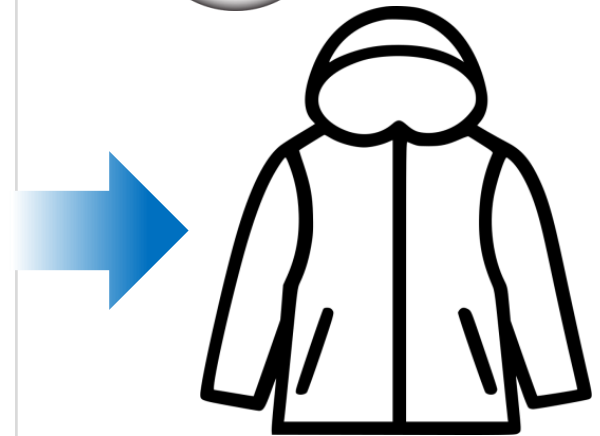
Eco-friendly fashion that reduces overseas waste



7,200 tons
of raw material PET
for long fibers for clothing
are **imported**

 4,680t
(65%)


 2,520t
(35%)



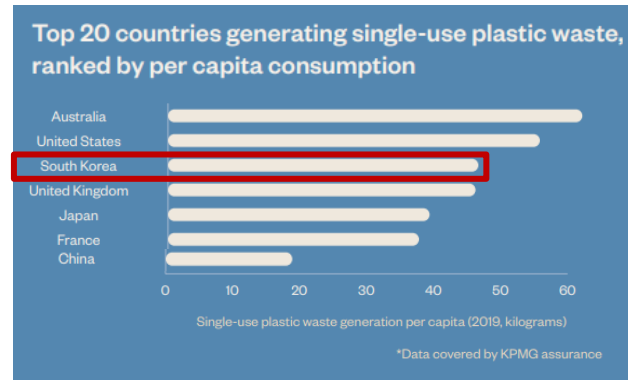
“Sustainable Fashion!”
(that saves other countries)

The amount of plastic used in Korea

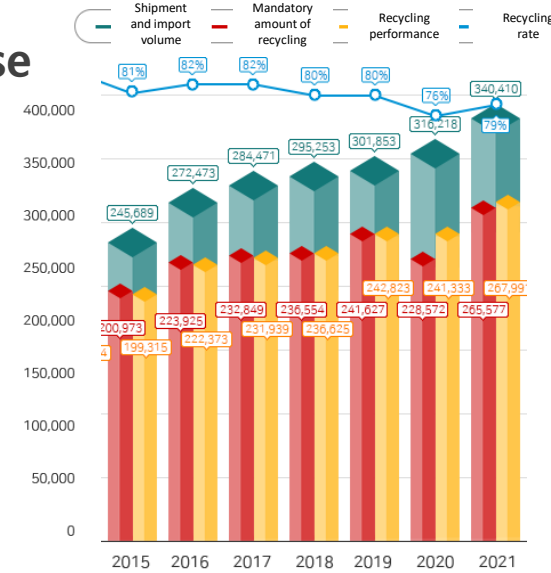


Korea ranked 3rd globally

in the annual average of single-use plastic waste generation.

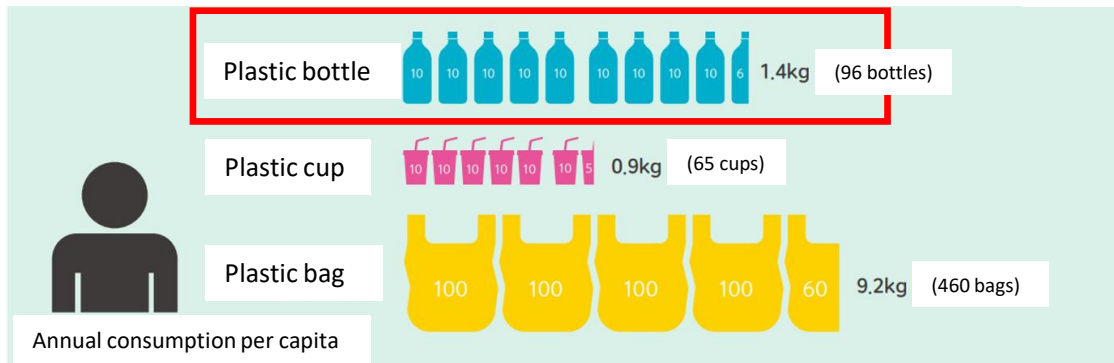


Australian NGO (Minderero foundation) report 2020



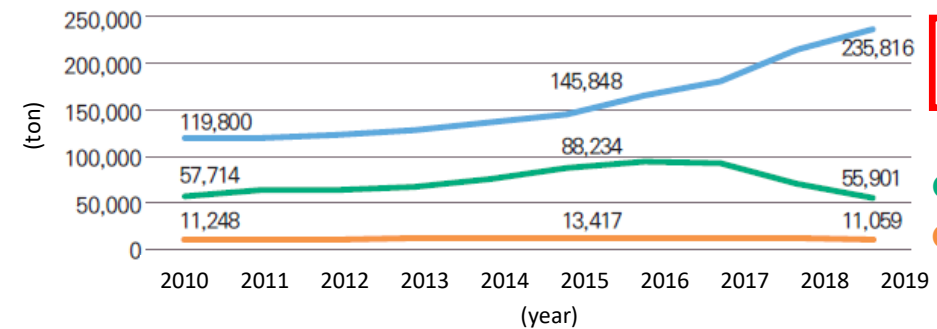
In 2021, **approximately 3.4 million tons** of PET bottles were produced in Korea.

About 261 tons (78%) of these are high-quality recyclable transparent PET bottles.



Chungnam National University/Greenpeace. Plastic Korea. 2019

Figure 2: Domestic PET bottle shipment and import volume



Proportion of production

Transparent (78%)

Colored (18%)

Composite (4%)

Korea Environment Corporation, Entire Process Management of Plastic for Circular Economy. 2020

Korea Resource Circulation Service Agency. Performance of Recycling Obligations. 31.12.2021

Disposal and collection, which are the first steps in recycling, are a problem

Disposal



Collection



Recycling

Fashion

Issues



Public

“Wasn’t it recycled?”

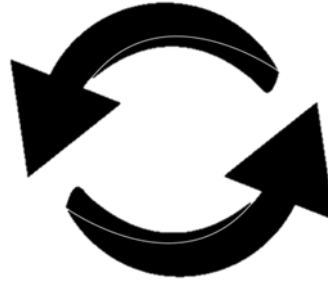
- Complex material structure for each product
- **Mixing just one thing contaminates everything**
- **Lack of education/awareness**
- Distrust of recycled products



Collector

“Everything gets mixed up anyway”

- **Absence of a separate collection method**
- Rush to pick up
- Most of the consignment completed by private companies
- Do not feel the need to improve



Recycling company

“The return on investment is low”

- **No separate facility for transparent PET**
- **Cost burden regarding facility investment**
- Low demand for transparent PET
- Do not feel the need to improve



Yarn maker

“K- rPET is poor quality”

- K-rPET quality is below standard
- High quality of imported rPET
- **Price competitiveness of imported rPET**
- Do not feel the need to improve



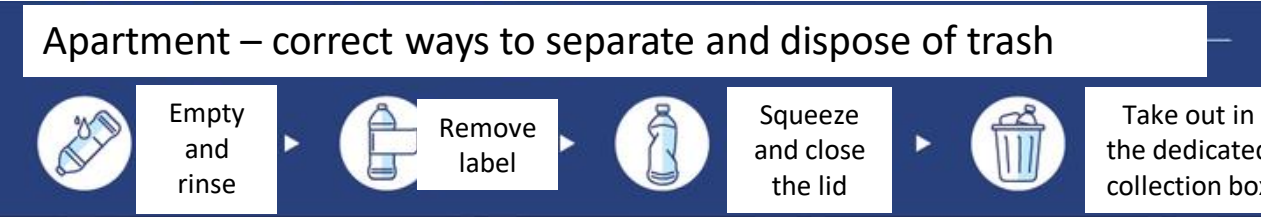
Fashion company

“This is eco-friendly fashion!”
(that reduces imported waste)

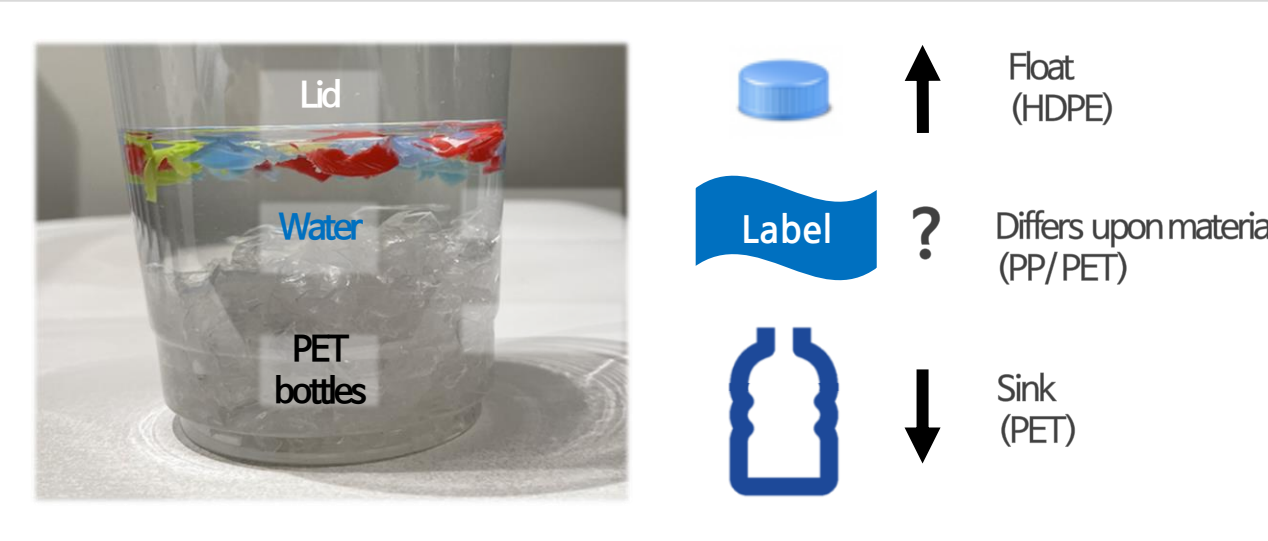
- **Limitation of rPET selection diversity**
- Price competitiveness of imported rPET
- **Opacity of marketability**
- No willingness to actively change

Issues - separation of trash

> Separation of trash + thorough label removal



Bottle caps and PET bottles can be separated through the process of **gravity separation** by floating flakes in water, but **labels can float or sink, so gravity separation is impossible.**



January 2021



June 2021



PET bottle with no label

Issues - contamination during collecting, sorting, and recycling



Collection at apartments



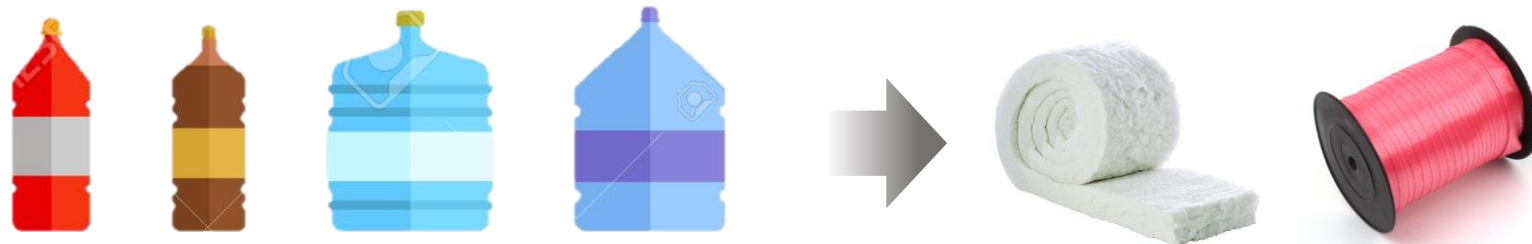
Collection at single-family houses and villas



MBC News Today, 13.12.2019

- Even if waste is well separated and put out, it is mixed and contaminated during **collection**.

Issues - contaminated domestic PET bottles are recycled into low-value products



Domestic transparent PET bottles are recycled into materials with low value for products such as fillers and twine.

Issues - reliance on overseas recycled PET raw materials



Public

“Wasn’t it recycled?”

- Complex material structure for each product
- **Mixing just one thing contaminates everything**
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Solution - recycling recollected PET



Public

“Wasn’t it recycled?”



Collector

“Everything gets mixed up anyway” “The return on investment is low”



Recycling company



Yarn maker

“K- rPET is poor quality”



Fashion company

“This is eco-friendly fashion!”
(that reduces imported waste)

Solution - recycling recollected PET (succeeded in marketization in July 2020)

Recollection of
Transparent
PET



Separate collection

“We ship directly to avoid mixing.”



Bottled water PET bottles

“Only clean PET was collected.”



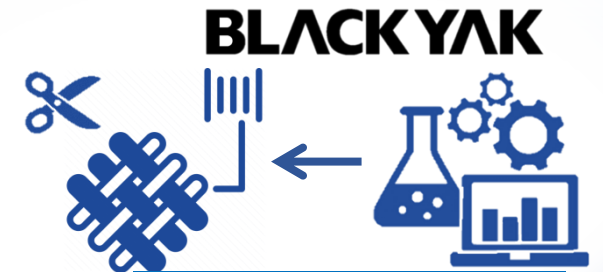
Recycling process

“We invested in separate facilities
for transparent PET.”



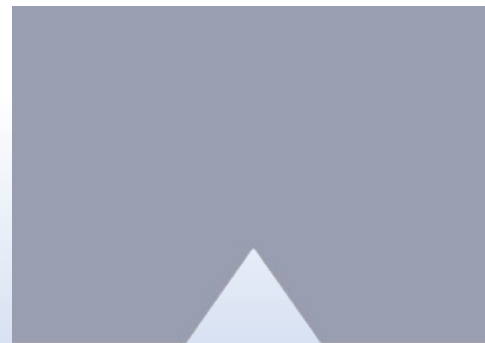
Yarn maker

“Korea’s one and only
K-rPET long fiber yarn”



**R&D + Material
development**

“We reflect outdoor functionality.”



BYN

Solution - recycling recollected PET (succeeded in marketization in July 2020)

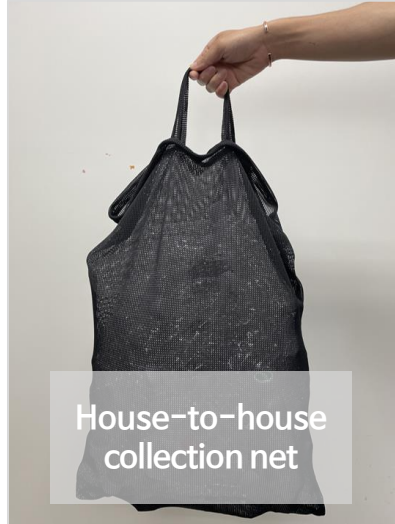
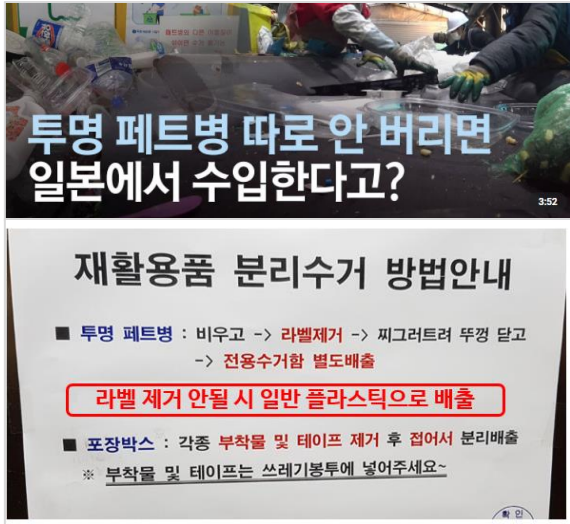


Recycling PET bottles that were separated by the public (succeeded in commercialization in the first half of 2021)

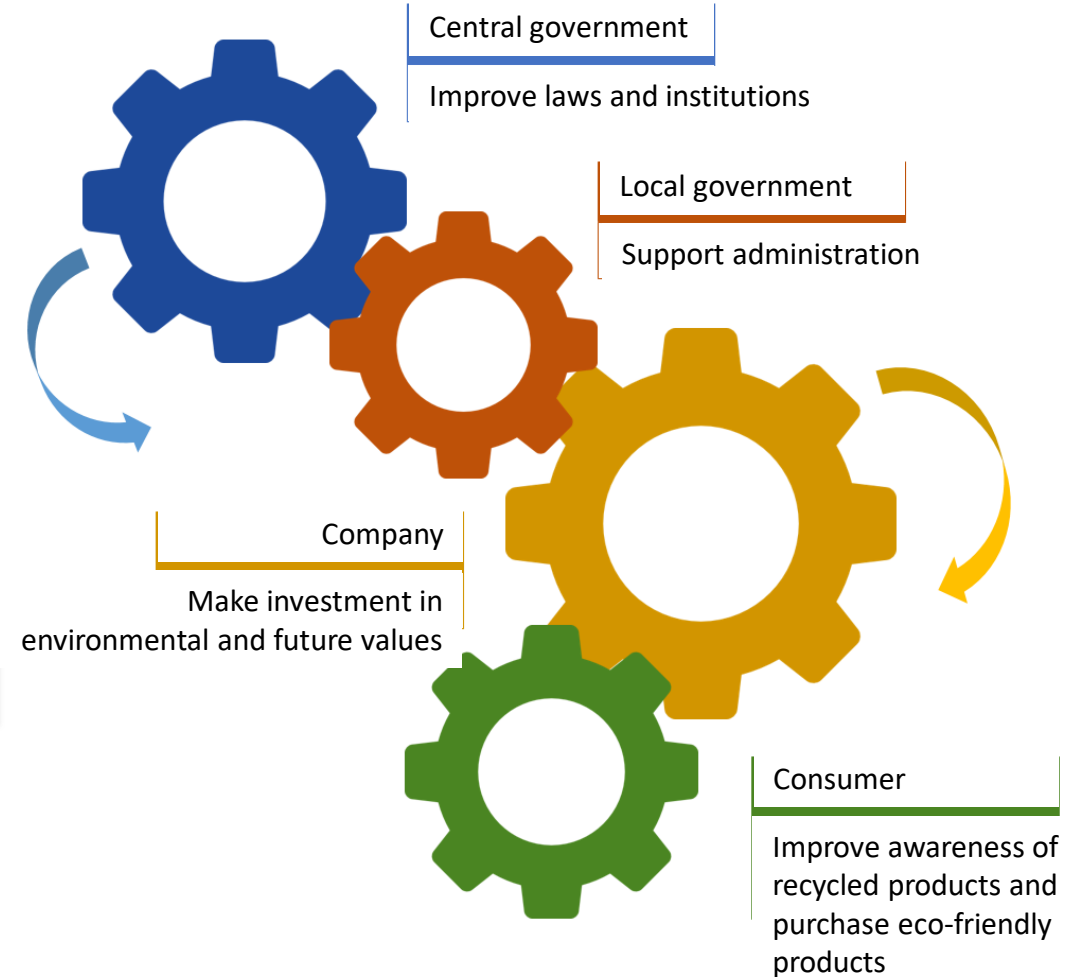


PET bottle recycling projects in Korea

Joint public relations for separation and disposal of transparent PET bottles
+ house-to-house encouragement of practices



Improving collection system + consulting ways to make waste into resources + proposing solutions



Small shredder for transparent PET

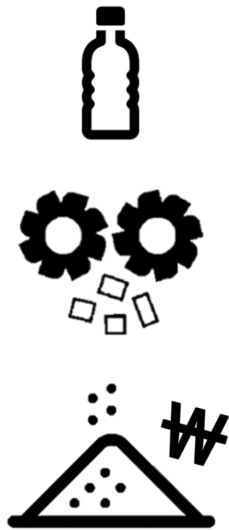
Make flakes out of transparent PET bottles that are separated and collected using a small shredder



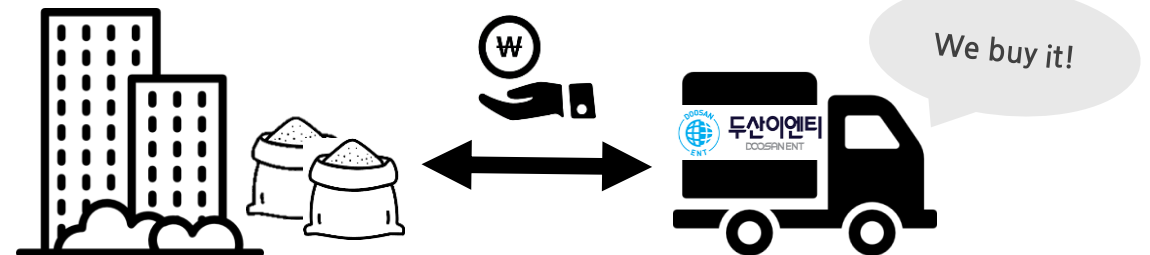
좌측면

정면

Skip compression!
Reduce volume
by 10%



- Shred transparent PET bottles separated in the complex
- Pleasant collection place by improving storage efficiency and securing free space
- Sell the shredded flakes and use them as income for apartments (or residents' associations)



PET bottle-recycled hangers, filling material

Domestic
PET bottle-recycled
hangers



Three PET bottles

500ml 500ml 500ml



Resource circulation
of single-use
takeaway cups



Diversification of plastic recycling into fashion

Achievements of BYN Black Yak and future direction

Achievements (as of July 2023)

Usage of recycled yarn

Used **717 tons** of domestic PET bottle-recycled yarn



Reduction in waste

Recycled **68 million** transparent PET bottles (500ml = 15g) which can connect Seoul and Florida with a straight line



Reduction in carbon emissions

2,670 tons of reduction in carbon footprint



Effect of planting trees

(Amount of carbon a tree absorbs per year)
About **350,000** 30-year-old pine trees

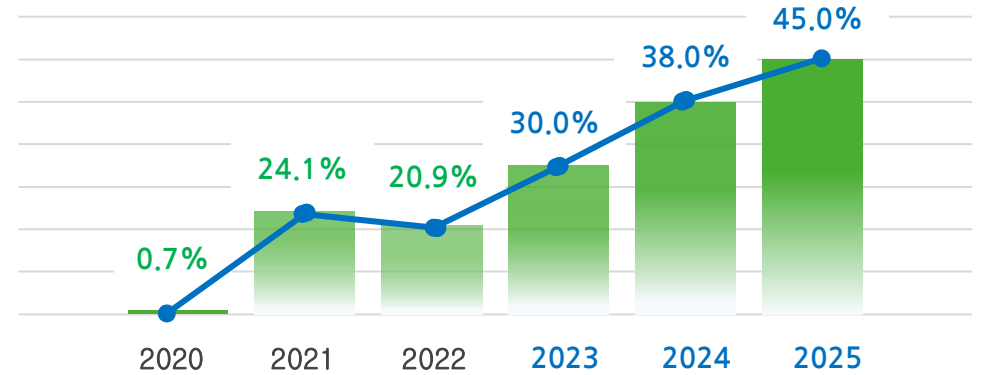


Securing reliability on resource circulation through national certification(-'23)



- Eco-labelling certification of KEITI (under MOE)
- Item: EL311 crops, knitted fabrics, fabrics/ EL314 clothing
- Third party certification for recycling of domestic waste resource

Proportion of BLACKYAK domestic PET recycling product (-'25)



I bought it because I liked the clothes, but they are eco-friendly!



High-volume products are made with eco-friendly materials!
Improved quality reliability by using recycled materials for top-notch functional products!

MOU and cooperation partners



UN Climate Change Conference 2021(COP 26)



- ▶ Joined Korean pavilion at the United Nations Climate Change Conference of Parties (Glasgow, UK)
- ▶ Introduced as an example of the carbon neutrality effort in Korea

31.10.2021-13.11.2021



Korean pavilion. COP26.



Exhibition of BYN Black Yak's resource circulation system



Introducing exhibition to a foreign VIP (Jeong-ae Han, a former minister of MOE)

Cooperation cases



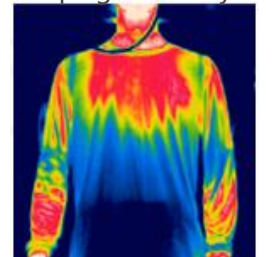
대한민국 국방부
Ministry of National Defense



- ▶ The Ministry of National Defense (Army, Navy, Air Force, Marine Corps), the Korean National Police Agency uniform supply (in progress in 2021 and 2022)
- ▶ Same design with the previous one but recycled and upgraded using functional material
- ▶ Use recycled material of domestic PET bottles
- ▶ Short-sleeved T-shirt (15-17 recycled PET bottles), long-sleeved zip-up (32 recycled PET bottles)
- ▶ Applied spring-type yarn (elasticity), cool feeling (Punggi rayon), antibacterial fabric for pockets



Excellent elasticity even without span thanks to a spring-structured yarn



Cooling function through blending yarn of Punggi rayon

Cooperation cases



Agreement of transparent PET bottle high-quality resource circulation (Changwon City, etc.) 28.09.2021



Operation of a small shredder, Eunpyeong-gu.



A bag for a tumbler, Mapo-gu.



Clothing for environmental workers, Changwon City, Gangnam-gu, etc.

- ▶ Cooperation with local governments for high-quality recycling of separated PET bottles
- ▶ Connecting PET bottles, which were recycled to low value-added products, to the 'Plustic' recycling chain
- ▶ Using PET bottle shredder and recycled PET bottle products in events regarding resource circulation and carbon neutrality
- ▶ Purchasing government officials' clothing (jackets, vests, T-shirts, shoes, etc.) made out of recycled domestic PET bottles

Cooperation cases



“원더플 피플은 세상을 바꾸고 있어요”

#함께해요_원더플피플
#원더플의_선한영향력
#원더플파워 #투명음료페트병
#고품질자원화

Coca-Cola BLACKYAK emart SSG.COM Gmarket AUCTION.

지속 가능한 지구 위해,
더욱 강력하게 돌아온 원더플 시즌 3
원더플 피플, 우리 함께 실천해요.

우리의 일상 생활 속에서 쉽게 사용되고 있는 투명 음료 페트병.
다 마시고 버려지는 이 페트병도 소중한 자원이라는 것을
소중한 자원으로써 페트병의 가치를 사람들에게 알리
페트병의 순환경제 활성화를 위해 원더플 피플이 다시 모였어요.

Reward for Black Yak off-line store participants



Reward for online participants



Cooperation with Coca-Cola: Wonderful Campaign 3

- Coca-cola's plastic recycling campaign: Wonderful Campaign
- Online and off-line participants recollected separated transparent PET bottles
- Operated with 3 cycles (recruitment – won – collect and submit bottles – get rewards)
- Products made out of recycled transparent PET bottles were provided as rewards

Cooperation cases



McDonald's



Outerwear made with recycled PET



**Making Delicious,
Feel-Good Moments
Easy for Everyone.**



- ▶ Korean McDonald's staff uniform (supplied in the first half of 2022)
- ▶ Uniforms were renewed reflecting McDonald's design motive of a delightful mood
- ▶ Proposed and developed all items with domestic PET bottle recycling materials
- ▶ Outerwear (outer material: 41 recycled PET bottles, filling material: 37 recycled disposable ice cups / PCS)

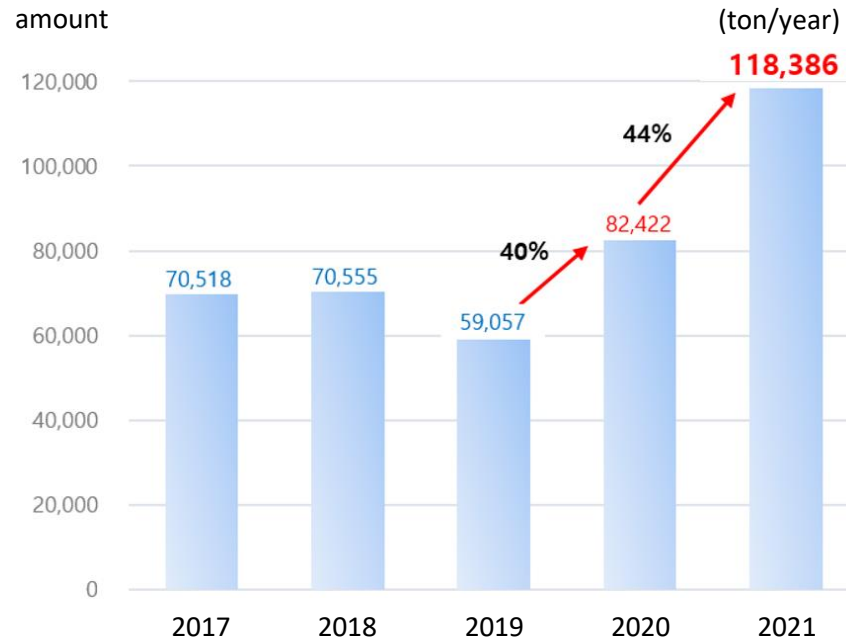
Next project - Fabric to Fabric

Status of clothing waste in Korea

NEXT STEP

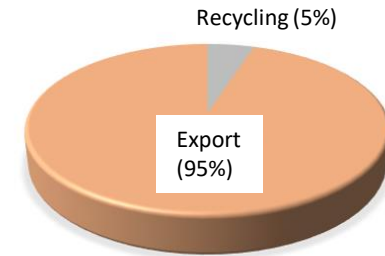


Amount of clothing waste generation



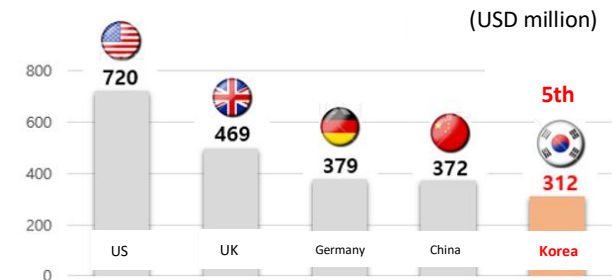
Source – the status of national waste generation and process / KECO

Proportion of clothing waste recycling



Source – KBS Environment Special Series 2: No Earth for Clothes, 01.07.2021.

Export volume of clothing waste by country



Source – BACI. Product trade by year and country 2019.

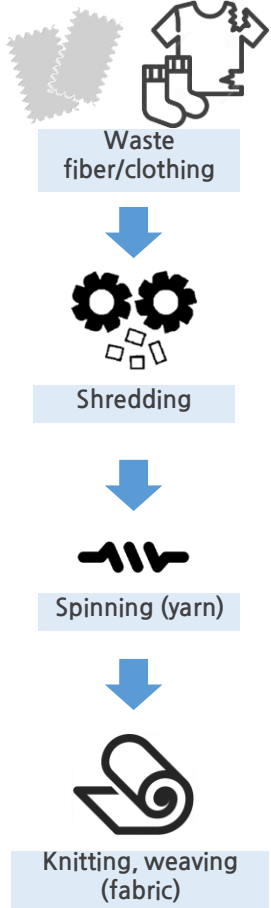
Establishing resource circulation system where unwanted clothes become new clothes!

Next project - Fabric to Fabric

Project #1: Physical Recycling of Waste Fiber



Garment
Supply
Chain

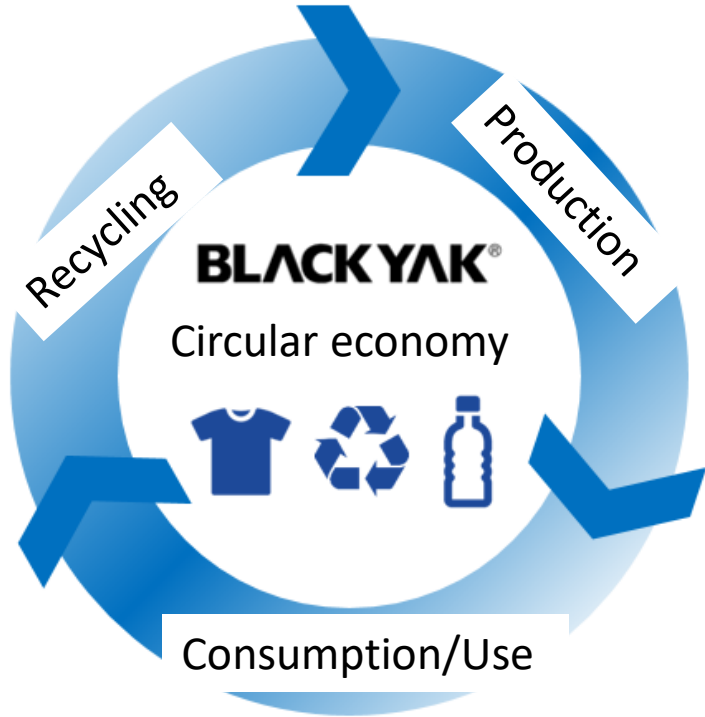


Black Yak waste fiber recycled T-shirt (23FW)



Coca-Cola, Wonderful Campaign 4
Reward - Recycled Denim Apron

Conclusion



타 2050 소중립

Restoring a healthy earth
Decreasing emissions and increasing absorption



衣食住

Sustainable life
where nature and humans co-exist



Thank you

BASECAMP IN YOUR NEW LIFE, BYN