

# ESG & BLACKYAK

## - BYN Plastic Resource Circulation Project -



UN SDGs Consultant  
BYN BLACKYAK CEO Kang Tae-sun

BASECAMP IN YOUR NEW LIFE, BYN



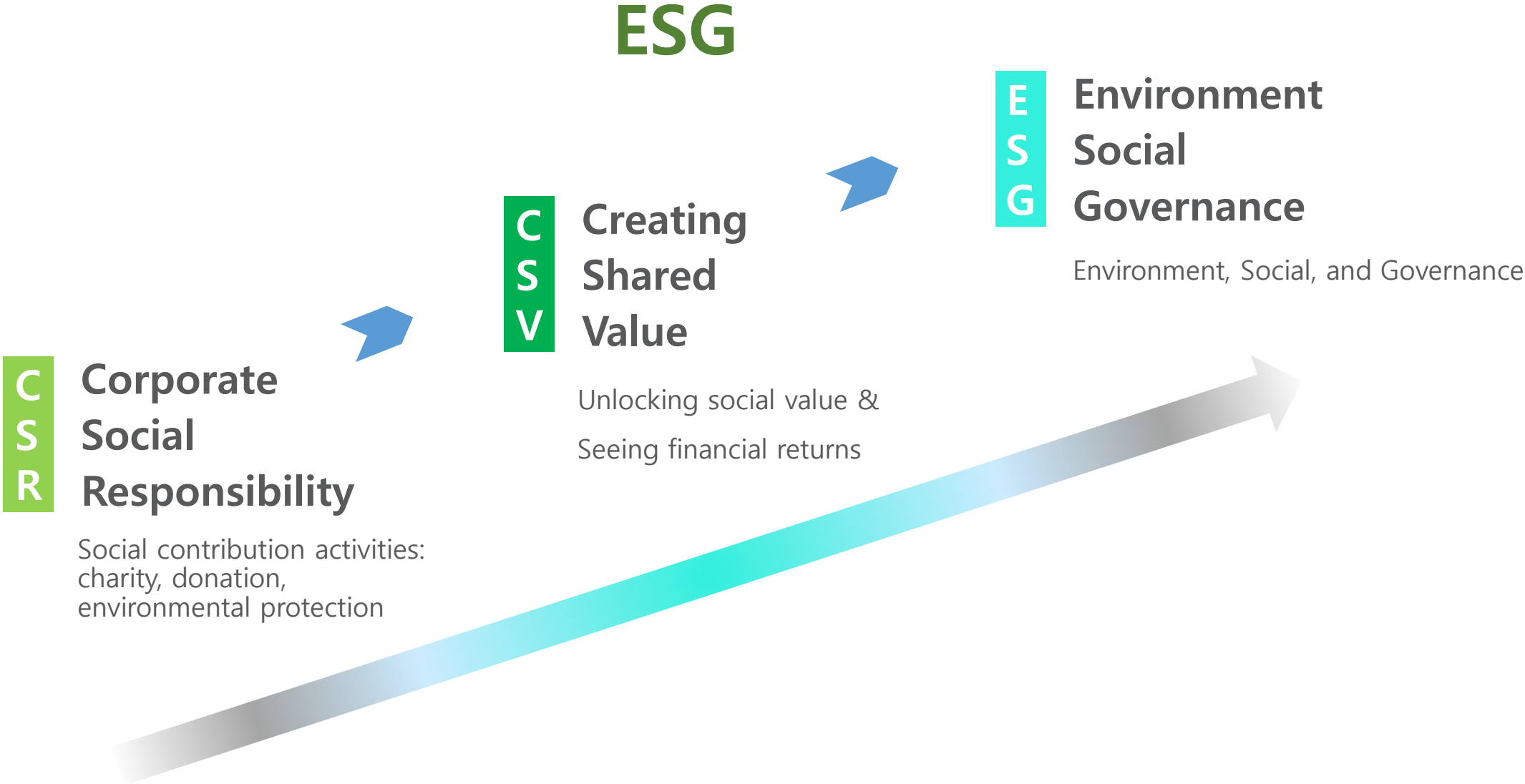
## What is **ESG**?

Environment

Social

Governance

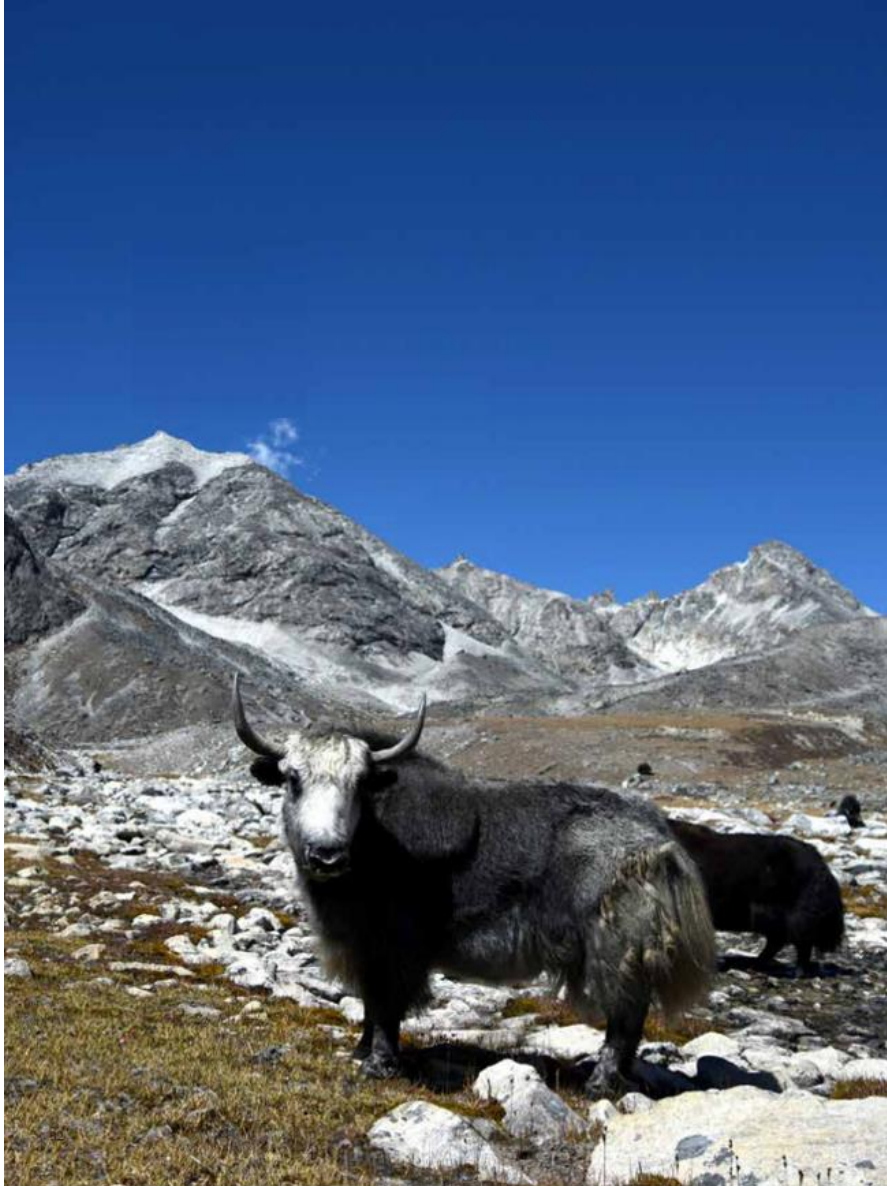
# The Rise of ESG



# The Rise of ESG







## **E** Environmental **S** Social **G** Governance

Yaks, the only animal that climbs Himalaya, provide us with eco-friendly warm wear made of their shed hair, and leave grass roots untouched and only eat branches and leaves, **presenting humans and Mother Nature with sustainable environment.**

They carry luggage over rugged hills with us, and their dung is a valuable natural resource to bald highlands, **attracting people around and keeping community interests up.**

After spending their whole lives in the Himalayas, the premium leather of yaks is reborn as luxury brand products, thus **ending its life in the form of social return.**

**BLACKYAK is ESG**

**Outdoor Spirit = Noncompetitive, pioneering, process**

We head to the mountains knowing how priceless the value of every moment of overcoming any hardship with nature is, rather than competing with others for the top.

The essence of mountaineering is not about ascending a peak but about climbing the more difficult route by pushing yourself beyond the limits of your mind and body.

*Mummerism, Albert Frederick Mummery (1855-1895)*



# **Domestic Plastic Bottles Recycling Project**



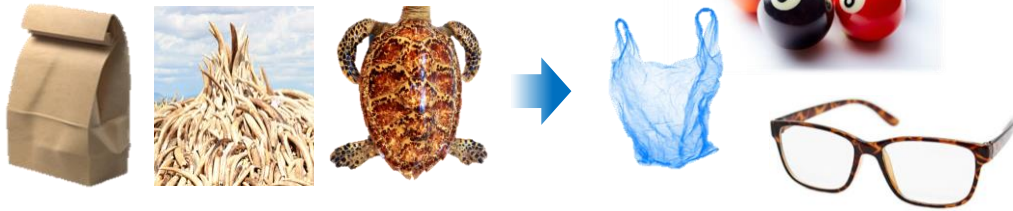
1520년 8월에 버려진 페트병이 있다면

# Environmental Pollution & Global Warming Caused by Plastics

## πλαστικός (→ PLASTIC)

In Greek, "capable of being molded"

### Past



A dream material that substituted products from animals

### Present



A pollutant threatening the coexistence of the human and Nature

## Greenhouse Effect

A warming of Earth when the heat produced from the sunlight is trapped close to Earth's surface because of greenhouse gases in the atmosphere.



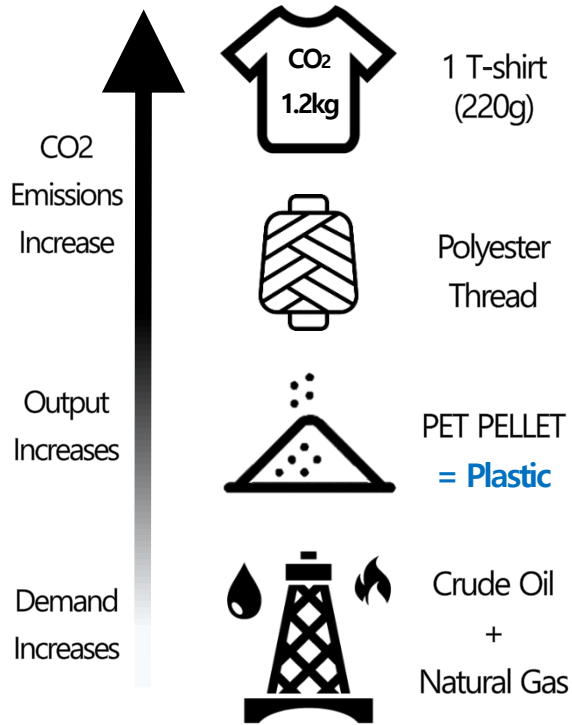
### Greenhouse effect by types of gases

|  |  |              |
|--|--|--------------|
| Vapor (60%)  | CO2 (25%)  | Others (15%) |
| Constant value regardless of human industrial activities (evaporation↔precipitation) | Increases according to industrial activity level |              |



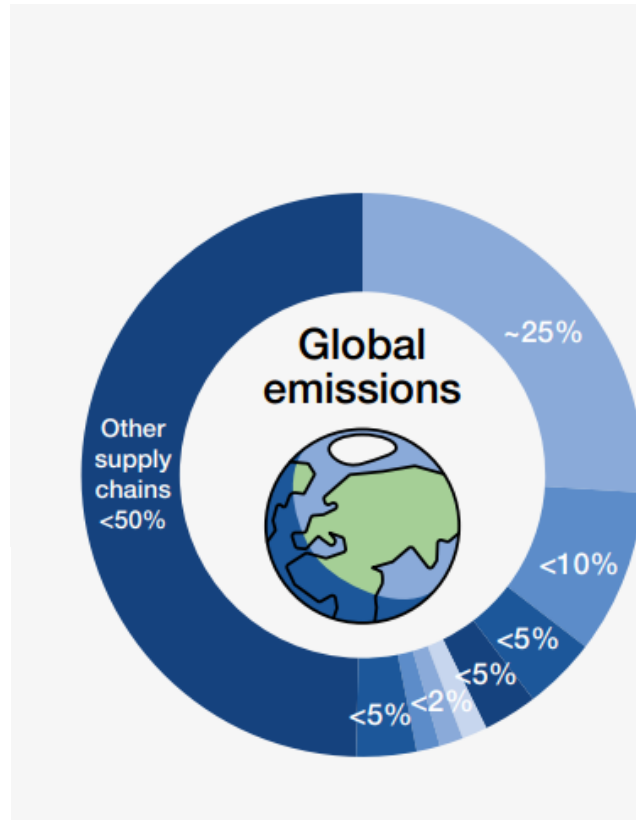
- Plastic production releases CO2 stored in fossil fuels into the atmosphere.
- Accelerates the global warming to the extent where the nature cannot handle.
- **Must achieve carbon neutrality by balancing carbon emissions and absorption.**

# Environmental Responsibility of Fashion



## (Linear Economy) Industrial Structure of Fashion

**Polyester**, the main raw material used in the **fashion industry**, is synthetic resins (plastics) produced by fossil fuels processing.



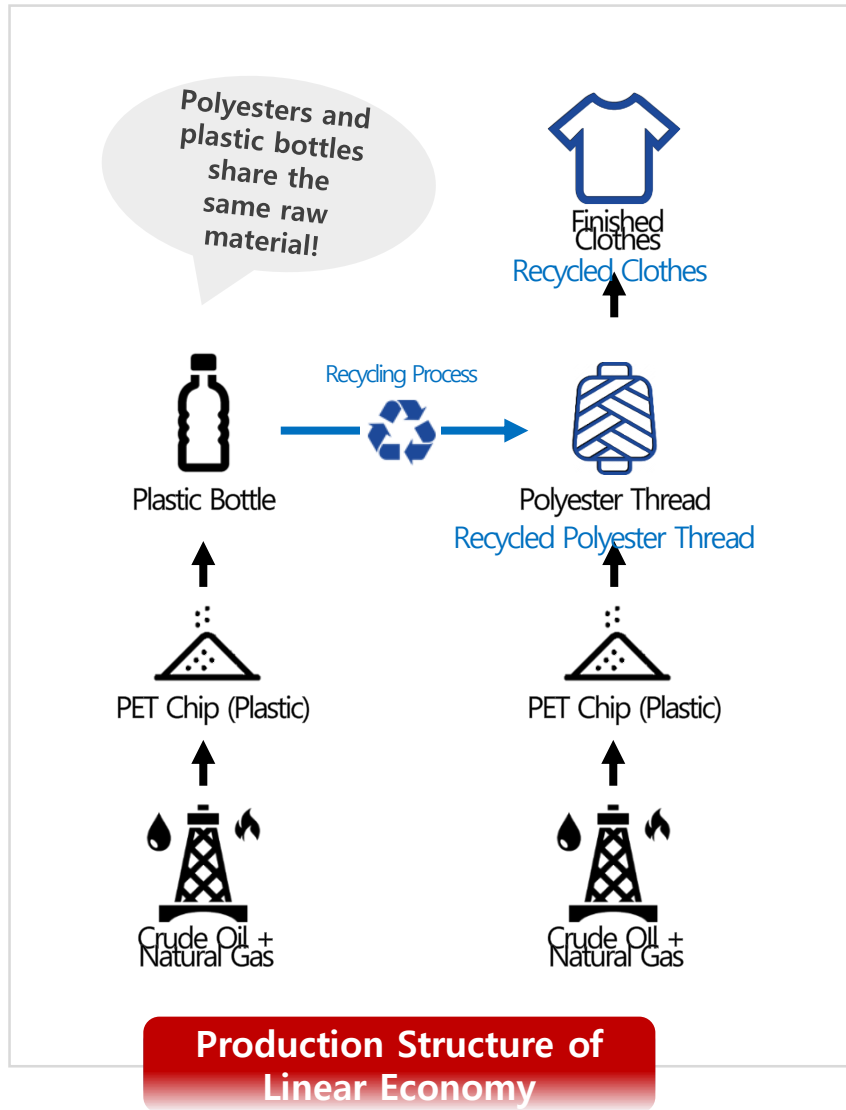
## Davos agenda

|                |                                     |          |               |
|----------------|-------------------------------------|----------|---------------|
| Food           | Agriculture                         | Freight  | Manufacturing |
| Construction   | Cement, steel, plastics, ...        | Freight  | Manufacturing |
| <b>Fashion</b> | 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 |

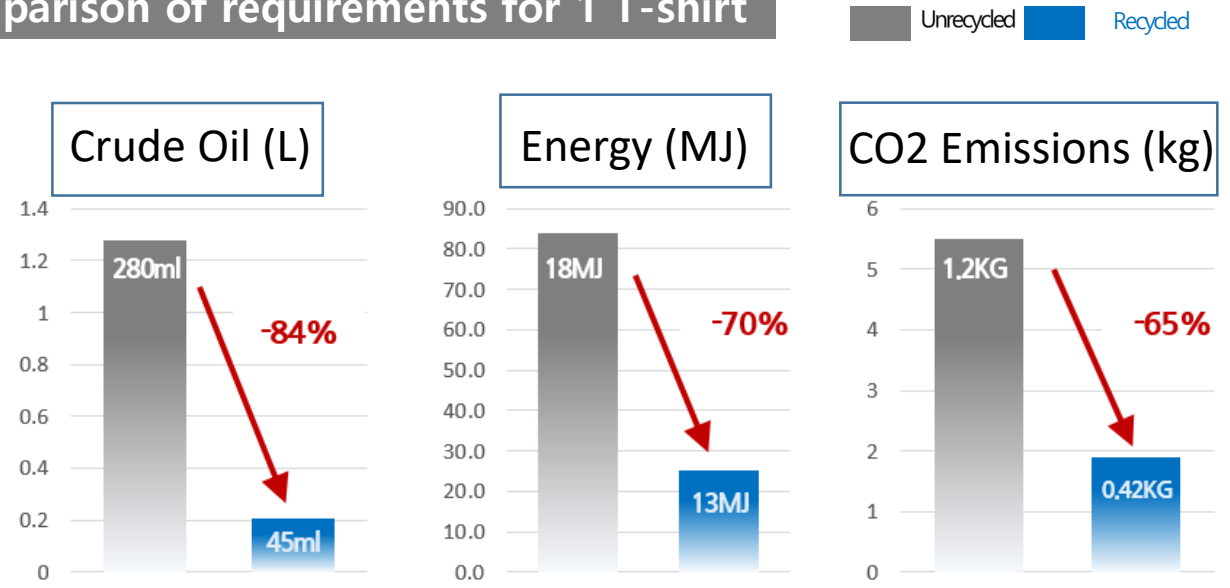
Davos 2021 Insight report. 2021.

Top Greenhouse Gas Emitting Industries  
(Food – Construction – **Fashion** – Chemicals...)

# Eco-friendly Effect of Using Recycled Polyester



## Comparison of requirements for 1 T-shirt



The use of crude oil in plastic making contributes to global warming. Bruno GERVET. 2007.  
The Stockholm Environment Institute. 2008.



*Polyesters made of recycled plastic bottles (rPET) is the solution!!*

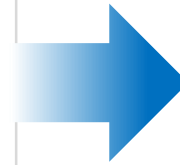
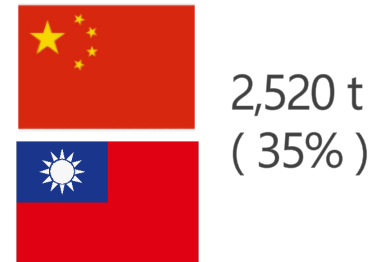
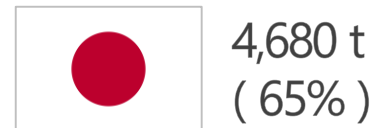


# Eco-friendly Fashion that Helps Reduce International Waste



The raw material  
of long fiber for  
clothing, PET

**7,200 t**  
**imported**



(Sparing other countries)

“Sustainable  
Fashion!”



# Plastic Consumption in Korea



Minderoo Foundation  
(a private philanthropic company in Australia)  
Report 2020

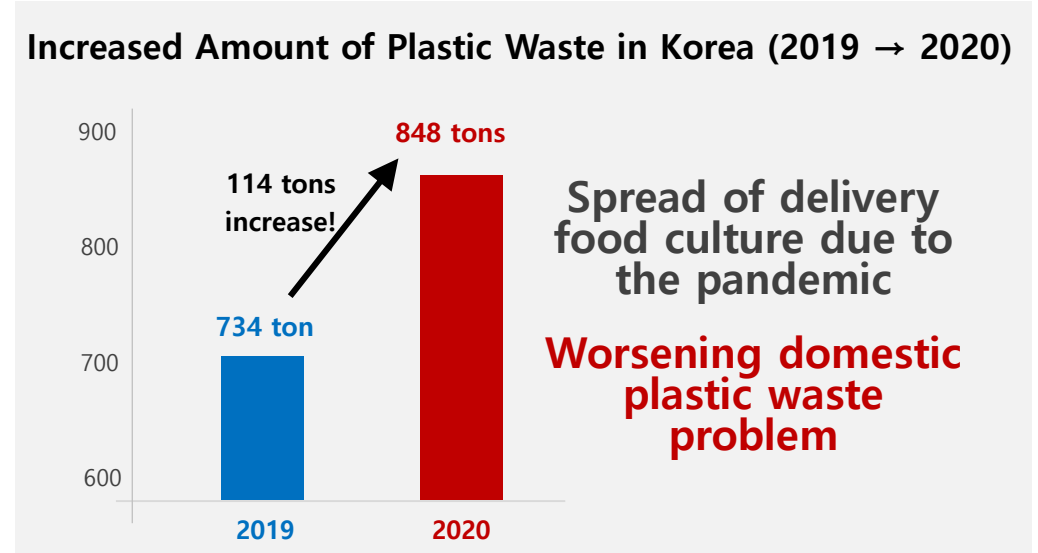
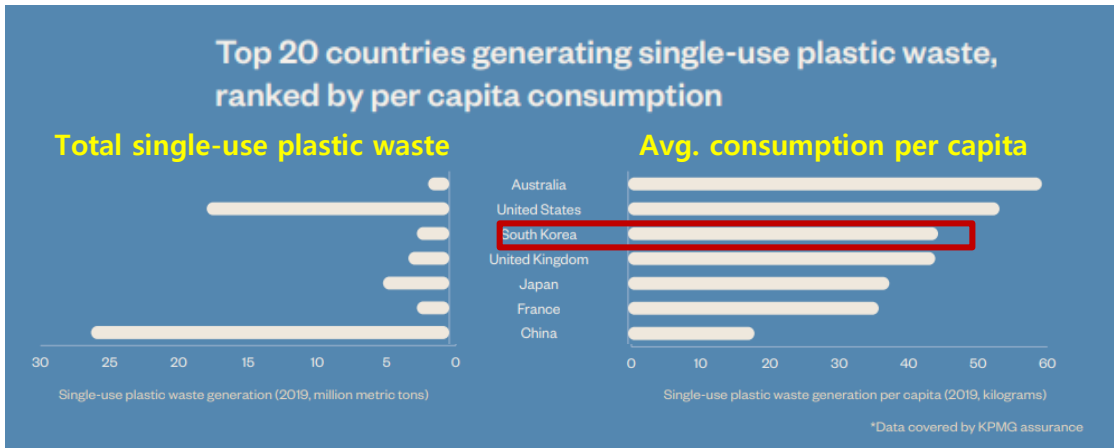
Annual Average Consumption of Single-use Plastic Waste per capita

**Korea, Top 3**

Based on 2019 Emissions



Chungnam National University/Greenpeace. <Plastic Korea>. 2019



# The First Stage of Recycling

## The Problem of Disposal/Collection

Disposal



Collection



Recycling

Fashion

# Problem of Resource Circulation by Stages



Citizens

"It's being recycled well, right?"

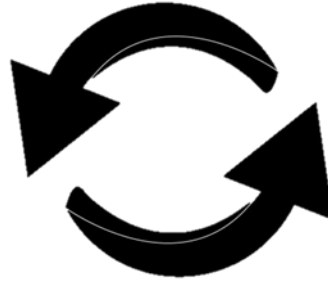
- Complex material structure by product
- A pollutant contaminates all
- Lack of education/awareness
- Distrust of recycled products



Waste Hauler

"Can't help with wastes mixed at drop-off depots"

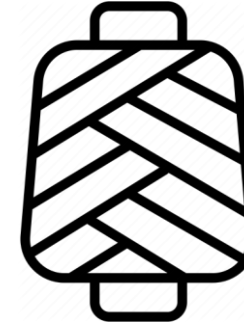
- Absence of separate collection method
- Bent on collection
- Most are on private consignment basis
- Does not feel the need for improvement



Recycling Company

"Low ROI"

- Absence of separate facility for transparent PET
- Cost-bearing of facility investment
- Low demand of transparent PET
- Does not feel the need for improvement



Thread Supplier

"Korean rPET quality is poor"

- K-rPET falls short of the quality standard
- High quality of imported rPET
- Price competitiveness of imported rPET
- Does not feel the need for improvement



Fashion Company

"Eco-friendly fashion!"  
(that helps reduce imported wastes)

- Limits a variety of choices of rPET
- Price competitiveness of imported rPET
- Uncertain marketability
- No motivation to change

# Waste Sorting

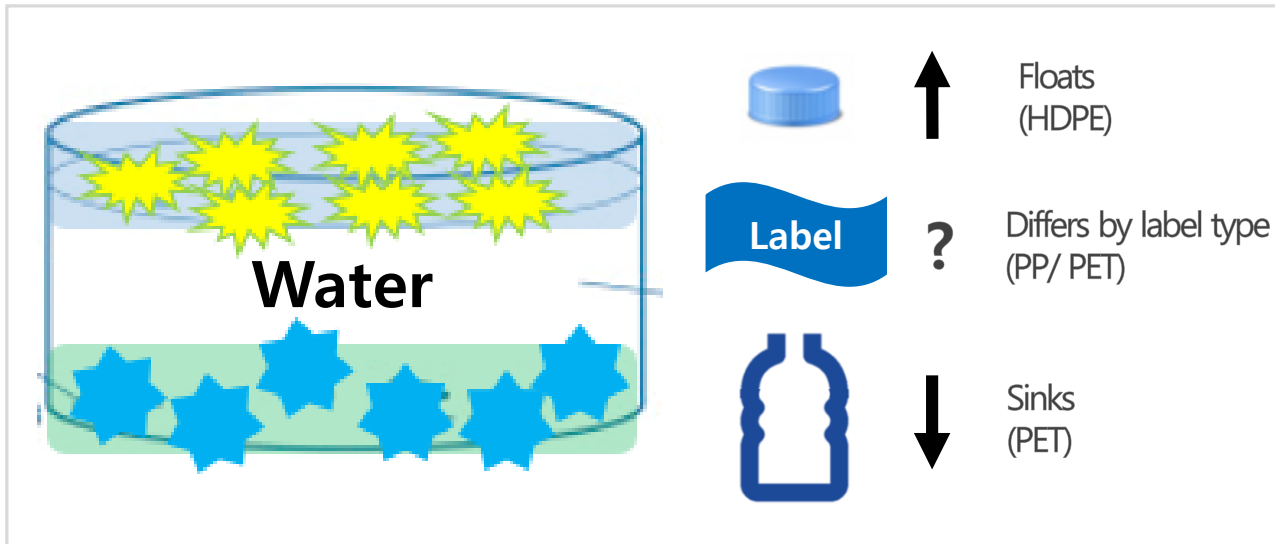
## > Inadequate waste sorting + removal of labels



Gravity separation method that makes flakes float

< Plastic bottle body vs cap > = separable, but

< Plastic bottle body vs label > = Impossible to separate completely



Jan. 2021



Jun. 2021



# Problem - polluted while collecting, separating, and recycling



Multiplex housing (Apartments) collection



Housing (Low-rise, single) collection



MBC News Today, Dec.13, 2019

- Mixed and polluted even if well sorted



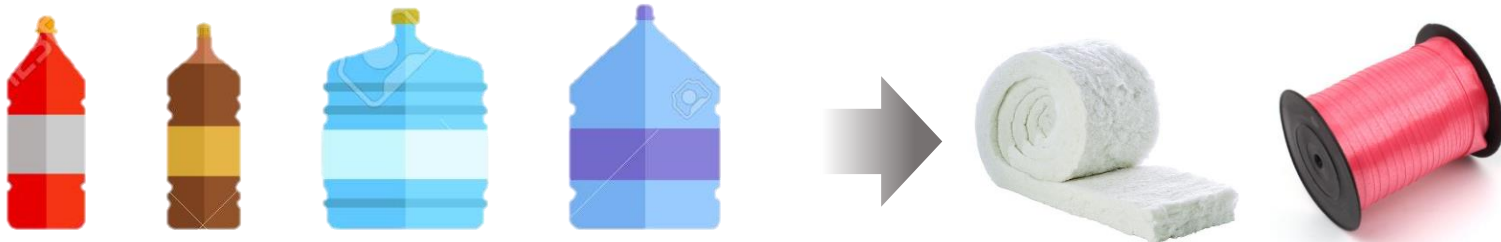
# Recycling Creates Low Added-value



MBC News Pre Desk. Dec. 22, 2021 <Best in delivery...but, in recycling?>



PET recycling company (flake factory) manual sorting



Domestic transparent plastic bottles are recycled into poor quality fillers, cords, and etc.

# Problem of Resource Circulation by Stages



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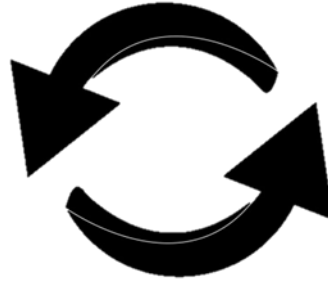
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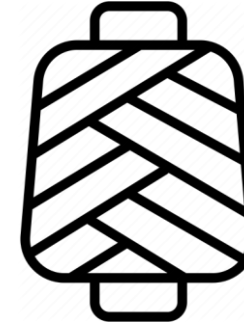
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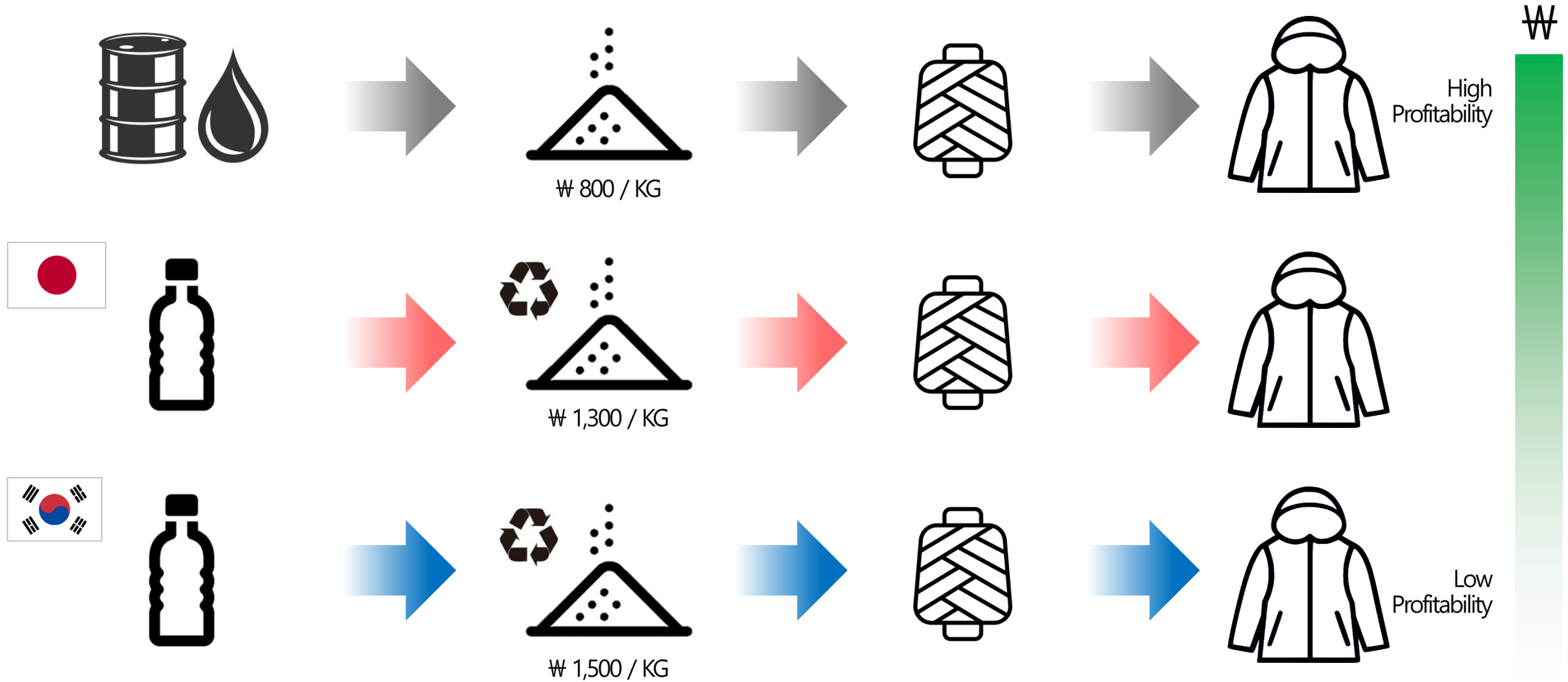


Fashion Company

"Eco-friendly fashion!"  
(that helps reduce imported wastes)

- Limits a variety of choices of rPET
- Price competitiveness of imported rPET
- Uncertain marketability
- No motivation to change

# Businesses are not determined enough to improve



Hard to improve due to the **low profitability** of Korean PET-recycled products



# Establishing Resource Circulation System of Plastic Bottles in Korea



**Citizens**

"It's being recycled well, right?"



**Waste Hauler**

"Can't help with wastes mixed at drop-off depots"



**Recycling Company**

"Low ROI"



**Thread Supplier**

"Korean rPET quality is poor"



**Fashion Company**

"Eco-friendly fashion!"  
(that helps reduce imported wastes)

# Establishing Resource Circulation System of Plastic Bottles in Korea

Recycling  
Plastic Bottles  
Collected by  
Companies



Separate  
Collection

"We manage direct deliveries to prevent wastes from mixing."



스파클  
SPARKLE



Plastic Bottles of  
Drinking Water

"Only collected clean PET."



두산이엔티  
DOOSAN ENT



Recycling  
Process

"Invested in separate facility for transparent PET."

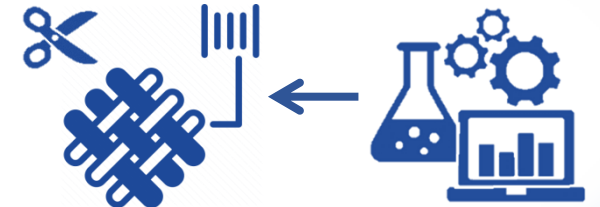
SM티케이케미칼



Thread  
Supplier

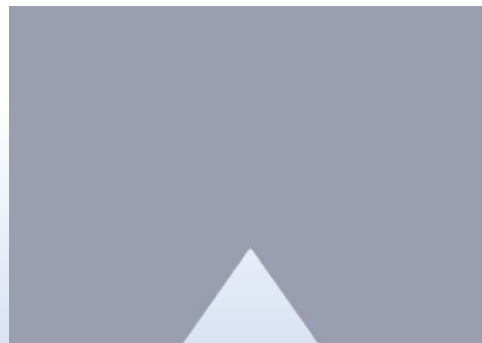
"The only K-rPET long fiber in Korea."

BLACKYAK



R&D + Material  
Development

"Serves outdoor functions."



BYN

# Establishing Resource Circulation System of Plastic Bottles in Korea

## Recycling Plastic Bottles Collected by Companies



**Separate Collection**

"We manage direct deliveries to prevent wastes from mixing."



**Bottles of Drinking**

"Only collected clean PET."



**Recycling Process**

"Invested in separate facility for transparent PET."

**SM** 티케이케미칼

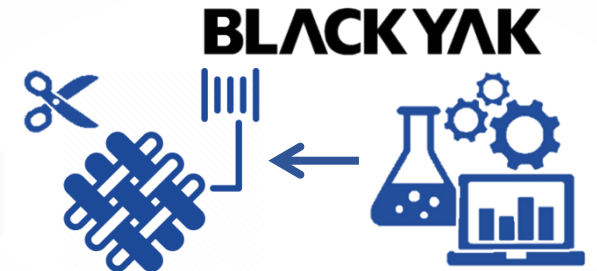


**Thread Supplier**

"The only K-rPET long fiber in Korea."



"Sustainable fashion items made up of our plastic bottles."



**R&D + Material Development**

"Serves outdoor functions."

# Establishing Resource Circulation System of Plastic Bottles in Korea

Recycling  
PET Bottles  
Produced  
by the  
Public



Separate  
Collection

"Delivery with NO mixture & pollution"



Recycling  
Process

"Invested in separate facility for  
transparent PET."

SM티케이케미칼



Thread  
Supplier

"The only K-rPET long fiber in Korea."

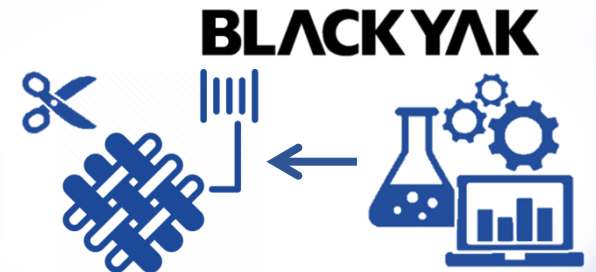


The people

"Transparent PET is sorted out!"



"Sustainable fashion items made up of  
our plastic bottles."



R&D +  
weaving/knitting

"Serves outdoor functions."

**Turning used and thrown away plastic bottles into plastics that serve as a plus factor to the Korean society!**

**BYN Resource Circulation System “PLUSTIC”**



# MOU & Partnership





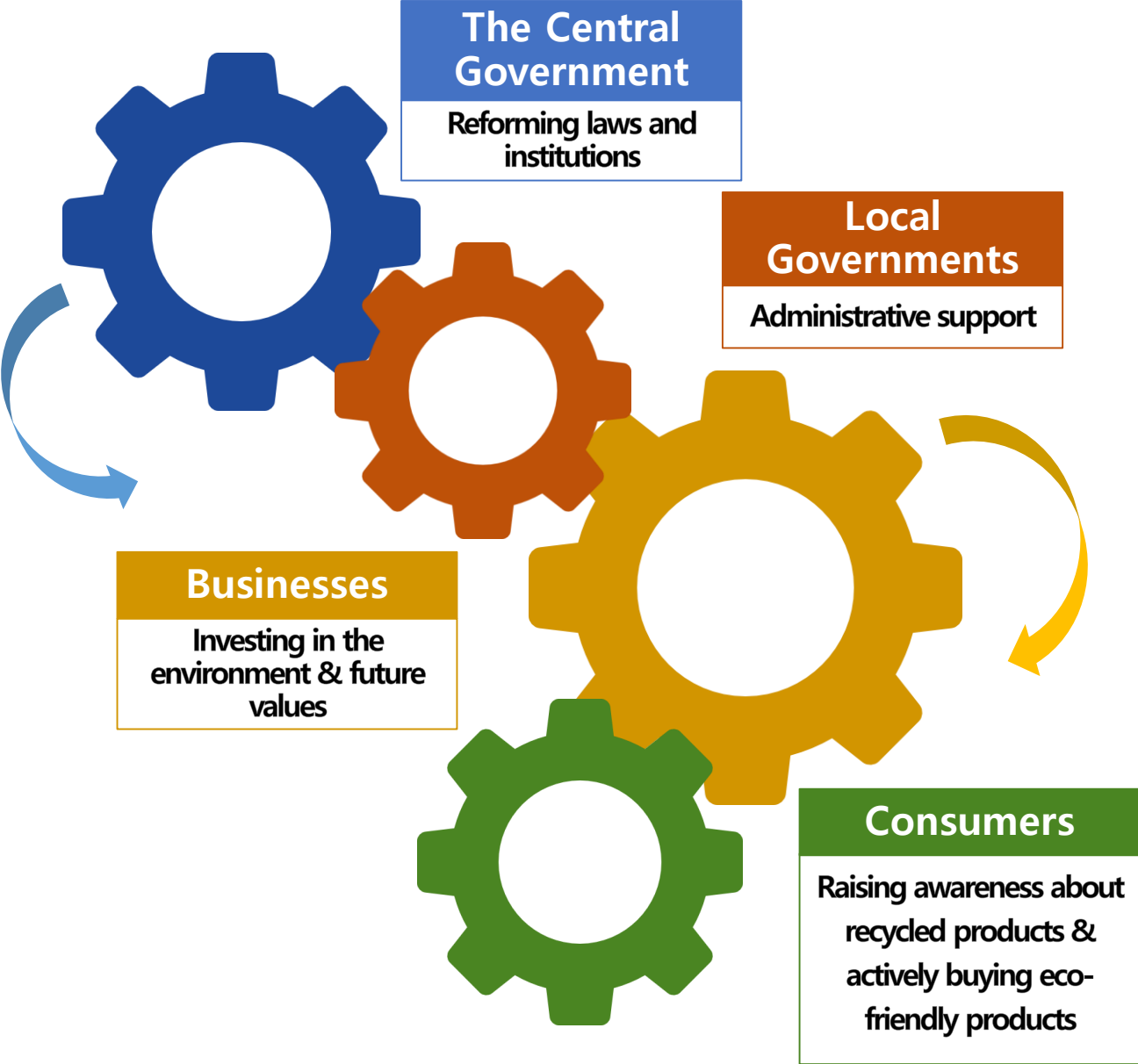
# Moving Towards Plastic Independence

**대한민국 페트병 완전독립운동**

1. PET 병 재활용 2. PET 병 파쇄 3. PET 병 과립 4. PET 병 과립 5. PET 병 과립

우리 삶의 지속가능성을 위해 국민과 지자체, 정부와 기업 다 함께 만들어 갑니다. 여러분의 참여를 기다립니다.

BLACKYAK NQU





# UN Climate Change Conference 2021(COP 26)



Participated in UN COP (Glasgow, the U.K.) and ran 'Korean Booth' – Introduced as Korea's circular economy & carbon neutrality case



Korean Booth. COP26.



Minister of Environment Han Jeong-ae giving a briefing on NDC 2030. COP26



# UN Climate Change Conference 2021(COP 26) - Glasgow, the U.K.

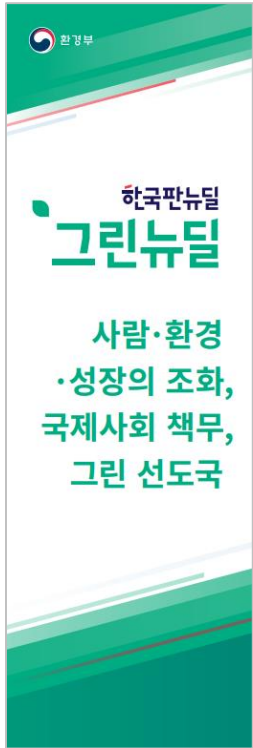


BYN displaying the resource circulation system, COP26.



Introducing K-rPET to global VIPs, COP26

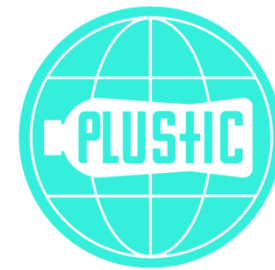
# Conclusion and Proposal



衣食住

Refers to the basic needs for the human to survive:

Clothing, Food, and Shelter





# Conclusion and Proposal

정하영

**ESG management is the right path.**

Rather than competing with others for the top,  
giving concerns about how we can coexist with the nature, both in environment- and business wise,  
is what sustainable ESG management truly is about.

**Just like the "black yaks" in Himalayas,  
we tenaciously walk the right path.**

**Thank you.**