Allbaro

Korea Environment Corporation

Ministry of Environment

LOTTE
EXTRA CACAO
Ghana
Milk Chocolate
가나밀크

Korea Environment Corporation

01

02

03

04

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01

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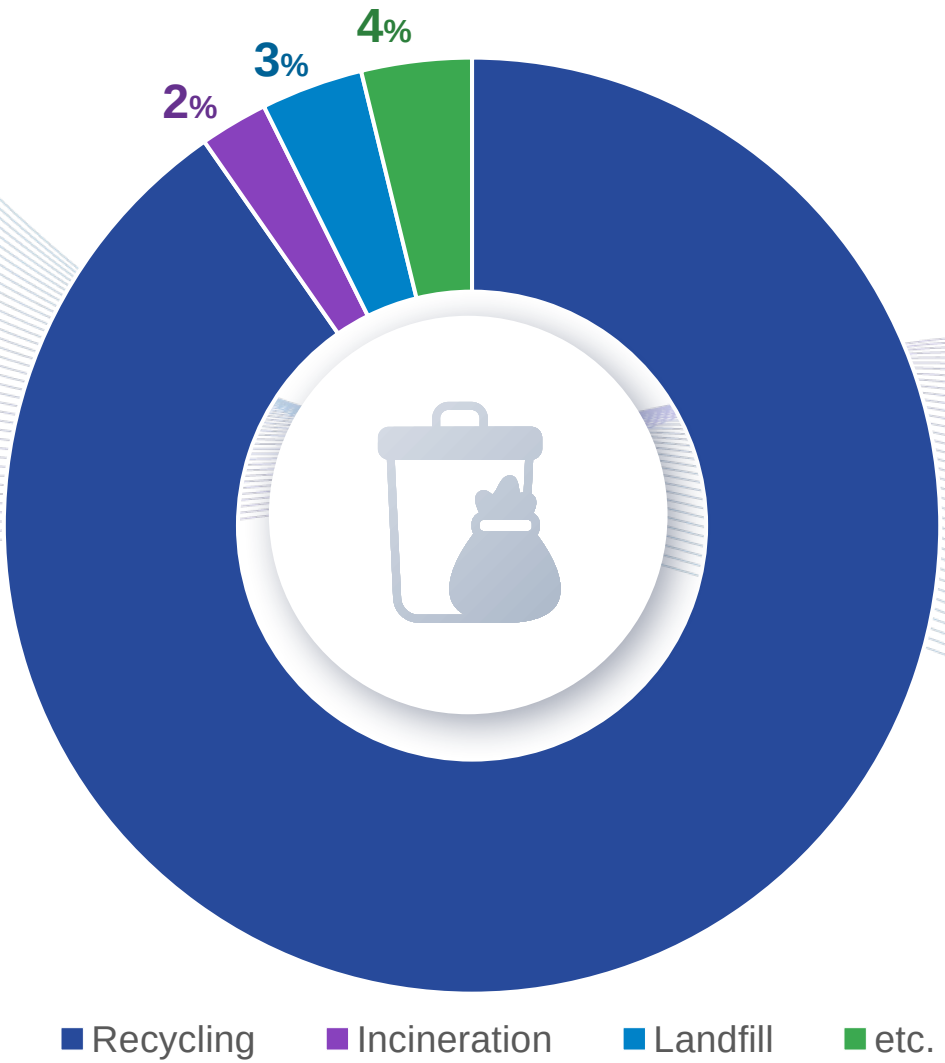
“Waste” is…

The term "wastes" means such materials as garbage, burn, refuse, sludge, waste oil,waste acid, waste alkali, and carcasses of animals,

which have become no longer useful for human life or business activities

- Just because it's recyclable doesn't mean it's not waste
- **"Waste"** in the case of recycling by re-inputting or taking out of the production process after going through the treatment process.
- However, products that are re-injected as raw materials without a separate treatment process or registered in the factory registration certificate and business place registration certificate are **“not waste”**
- **That is, when recycling is completed through recycling, waste properties are lost**

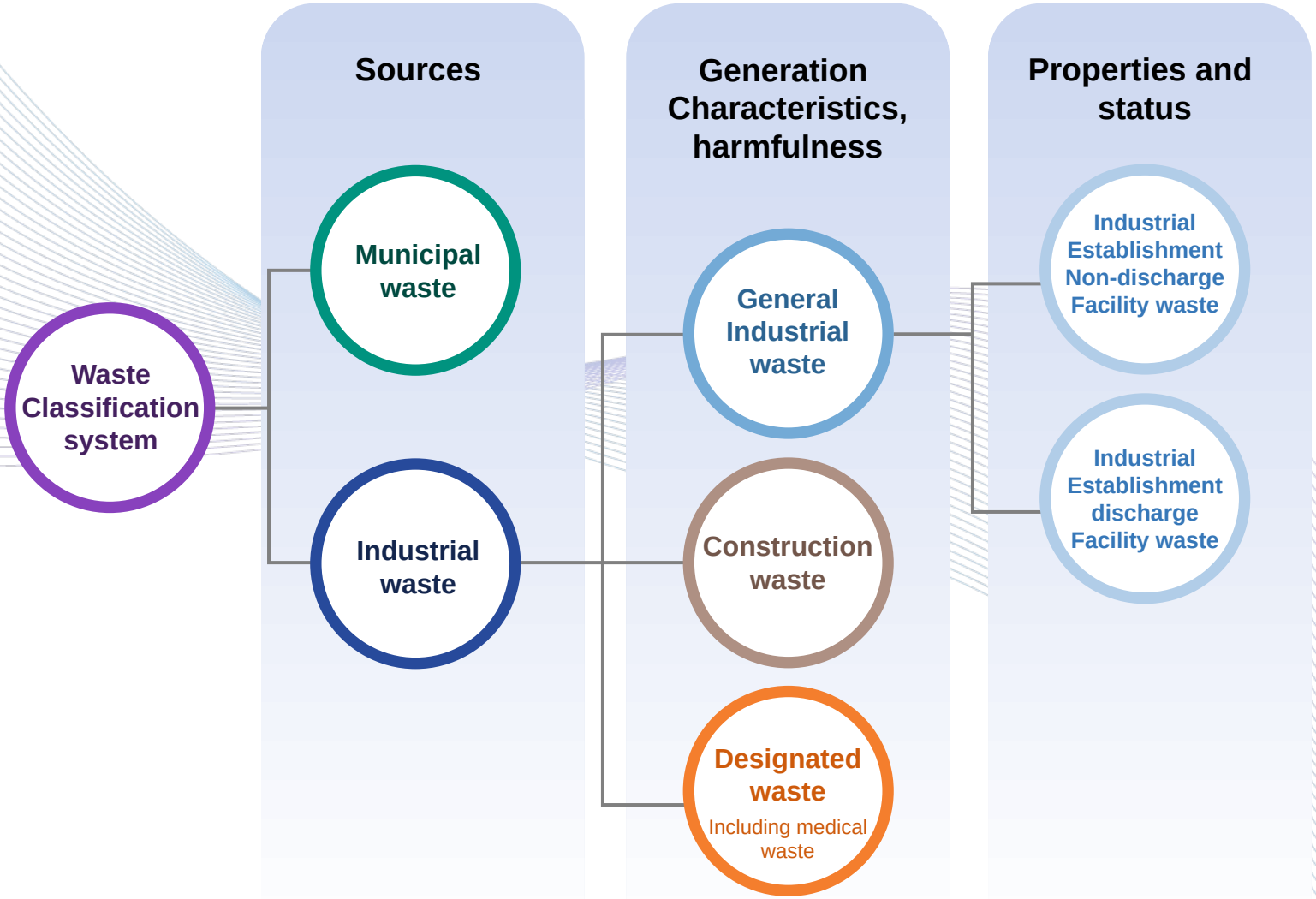
Waste is…



(2023y, unit: ton)

	138,308,868(91%)
	3,543,193(2%)
	5,164,421(3%)
	6,491,423(4%)

Waste is…



- **Responsible / Managed by** : Local governments

- **Responsible** : Industrial waste discharge companies
- **Managed by** : Local governments

- **Responsible** : Designated waste discharge companies
- **Managed by** : Local environmental offices

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02

연합뉴스

March 25. 1998

식수원 상류에 폐기물 수백t 불법매립

Illegal dumping of hundreds of tons of waste in the upper reaches of drinking water sources

다.

25일 양산시에 따르면 웅상읍 주민들로부터 지난해 우량농지 조성사업을 벌인 웅상읍 명곡리 朴모씨(47)의 논에 폐기물이 불법 매립됐다는 제보를 받고 확인한 결과 2만여㎡의 논바닥 4-5m 밑에서 폐콘크리트 수백t이 나왔다.

양산시는 지난해 우량농지
체들이 지주와 짜고 폐기물
사중이다.

한편 울산지검도 朴
밝혀지는대로 이들

연합뉴스 구독

April 24. 1998

탄천변에 건설폐기물 수백t 투기-강남구청도 묵인

Dumping hundreds of tons of construction waste along the Tancheon Stream

24일 서울 강남구 대치동 주민들에 따르면 수서IC~올림픽대로간 도시고속도로 건설공사를 맡은 한신공영㈜은 지난 2월 초부터 지금까지 공사과정에서 발생한 폐아스콘, 폐타이어 등의 건축폐기물 7백여t을 폐기물처리 용역회사를 통해 대치동 한국가스안전공사 서울사무소옆 탄천 둔치에 내다 버렸다.

이 때문에 비가 오는 날이면 아스콘 등에 묻어 있는 기름찌꺼기가 빗물에 섞여 탄천을 거쳐 한강으로 흘러들어 한강의 수질을 오염시키고 있다고 주민들은 반발하고 있다.

연합뉴스

Sep 29. 1999

지정폐기물 처리증명제 11월 9일부터 실시

Implementation of waste treatment certification system

지정폐기물의 부적정 처리를 방지하기 위한 것으로 폐기물의 배출자, 운반자, 처리자에 대해 배출-처리-연말정산 등 단계별로 적법처리를 증명하는 것이다.

이에 따라 폐기물의 최초 배출자는 최종처리자를 확인해 처리경로를 입증, 매년 말에 폐기물처리 정산서를 해당 지방환경관리청에 제출해야 한다.

또 지정폐기물을 위탁처리할 경우에는 최초 배출자가 폐기물의 인계.인수서로 처리과정을 입증하도록 했다.

환경부는 폐기물의 처리경로를 제대로 밝히지 않거나 폐기물의 인수.인계서를 허위로 작성하거나 연말에 정산서를 제출하지 않았을 경우 2년이하의 징역 또는 1천만원이하의 벌금에 처해지고 1천만원이하의 과태료 처분도 받을 수 있다고 설명했다.

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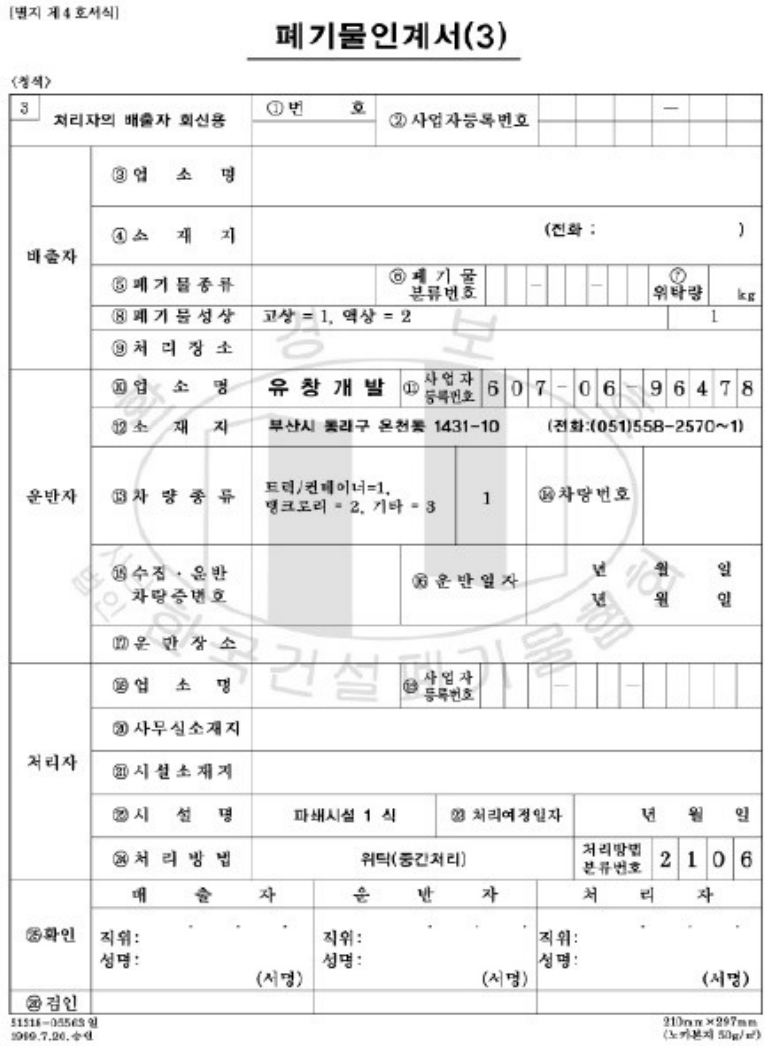
- Increase in illegal waste dumping and for waste
- Difficulty in supervising and controlling environmental pollution due to waste leakage, which poses a fatal threat to the human body



[별지 제 4 호서식]

폐기물인계서(3)

(정식)

| | | |

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paper handover document
hold 5

paper handover document
hold 1

The supervisory authority having jurisdiction over the disposer

Complexity of managing waste movement status

Transporter

6 sheet
① Send the statement

5 sheet
② Paper handover document

4 sheet
③ Paper handover document

2 sheet
④ Send the statement

1 sheet
⑤ Send the statement

Generator

1 sheet

Disposer

paper handover document
hold 3, 6

paper handover document
hold 4

The supervisory authority having jurisdiction over the discharger

paper handover document
hold 2

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- Unable to confirm millions of waste handover documents
- Existence of illegal disposal and neglected waste
- A complicated administrative procedure requires a lot of manpower/cost

it is practically impossible to manage

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A system that transparently manages the entire process from waste discharge to porterage,
final disposal through the Internet in real-time

- **Designated waste**
- **Medical waste**
- **General industrial waste**
- **Construction waste**
- **Exported/Imported waste**

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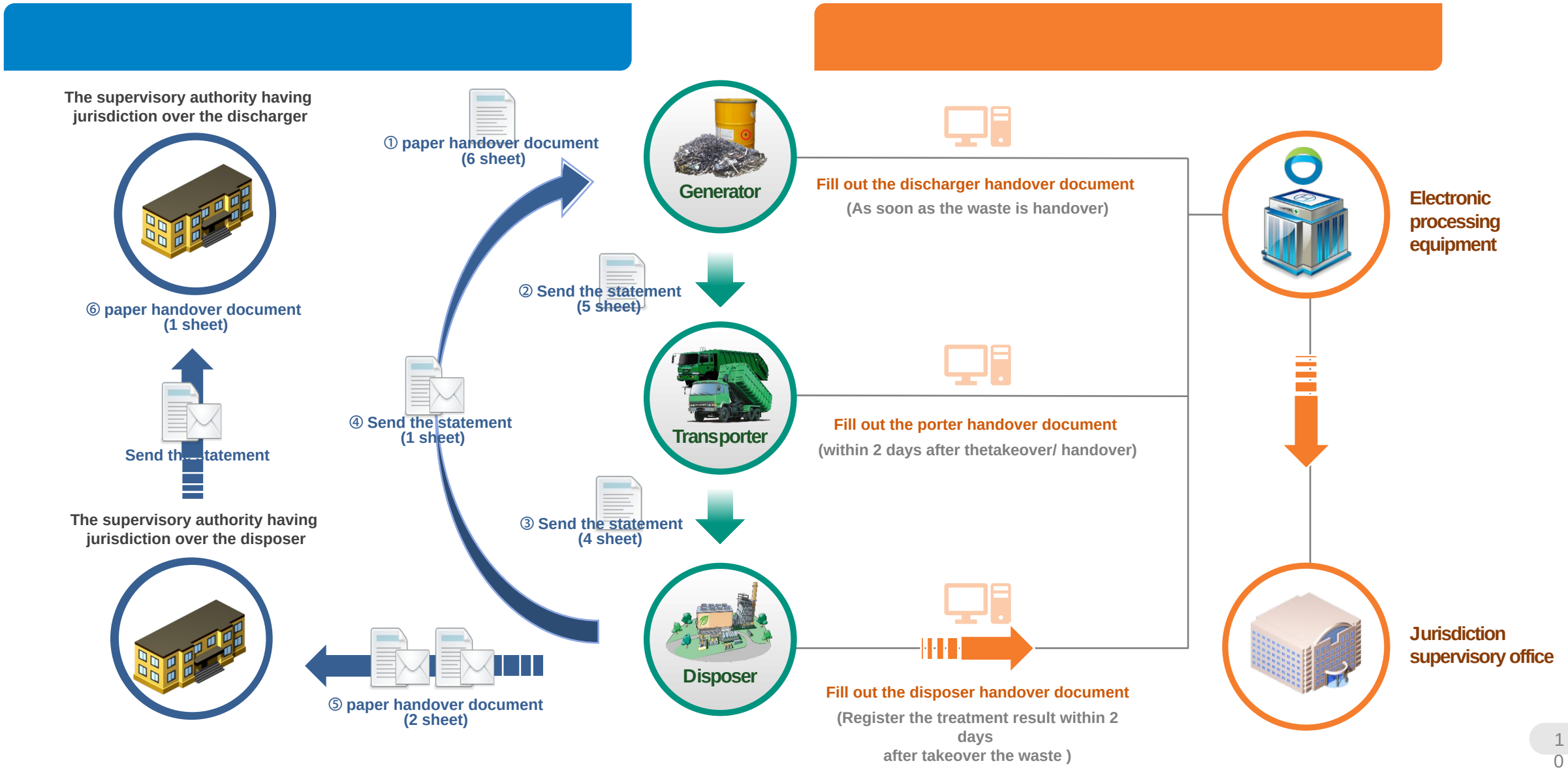
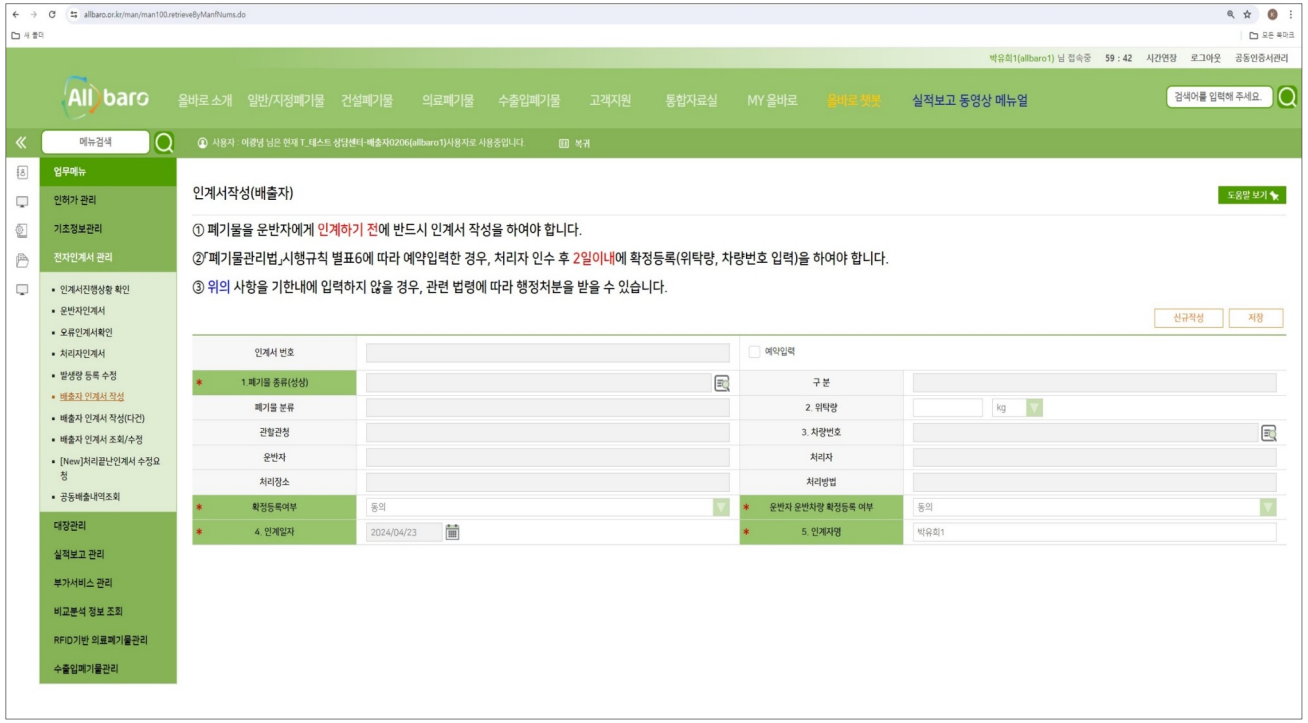


Allbaro system

Electronic Manifest



- **Real-time verification of electronic handover documents is possible**
- **Prevent illegal processing with real-time verification**
- **Reduce manpower and cost (Competitiveness improvement)**

Improvement of administrative efficiency and reliability

Integration of System

- Waste lawful processing system
- Construction Waste Information Management System
- Infectious Waste Management System

E-manifest for industrial wastes

E-manifest for construction waste

Implementation of the real-time waste processing information system

For medical waste, introduced the discharger authentication method using Beacon and the warehousing method per tag in the incnineration plant

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03

Allbaro Operation

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Report for apporoval and permission	Industrial waste discharger report sheet	Waste collection / Transportation permission	Waste treatment permission (Intermediate, Final, Comprehensive) Treatment business, recycling business
	Waste treatment plan		
	Construction waste treatment plan	Construction waste collection / Transportation permission	Construction waste intermediate treatment permission
Electronic delivery note (for discharge/transportation/ Treatment of waste)	Discharge delivery details	Receipt details	Receipt details
		Delivery details	Delivery details
Register (Daily)	Industrial waste management register	Waste collection / Transportation management register	Waste (Intermediate, Comprehensive) Treatment register Waste consignment recycling management register
Result report (Once a year)	Discharge result report	Transporter result report	Treater result report

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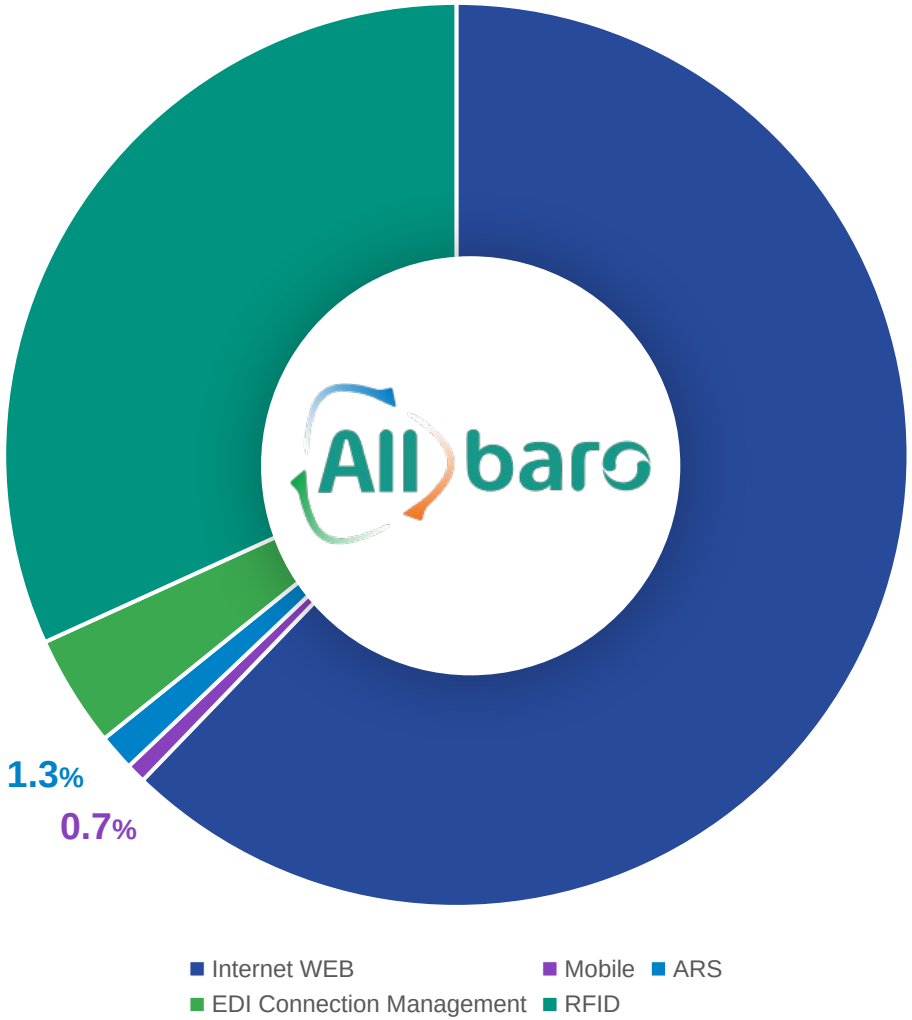

Industrial, designated, and construction waste

Regular users with an e-certificate can use this option.

Mobile app is used.

Users without access to the internet and mobile app can use this option.

This option was used for the logging of construction waste (58.5%), designated waste (31.2%), and general industrial waste (10.3%).

Used for the logging of large volumes of waste from large operators such as SK and POSCO

※ EDI(Electronic Data Interchange) connected with

– Large operators, such as POSCO, SK, and Samsung Electronics, who have in place their own waste management systems and generate e-logs in large numbers, and operators who transport and process waste discharge.
– Use of EDI was made mandatory for middle processors of construction waste with truck scales on January 1, 2017.
– EDI use was reserved for operators generating 50 or more e-logs per day, but that limit has been removed to promote EDI use.

Medical waste is logged using RFID technology.

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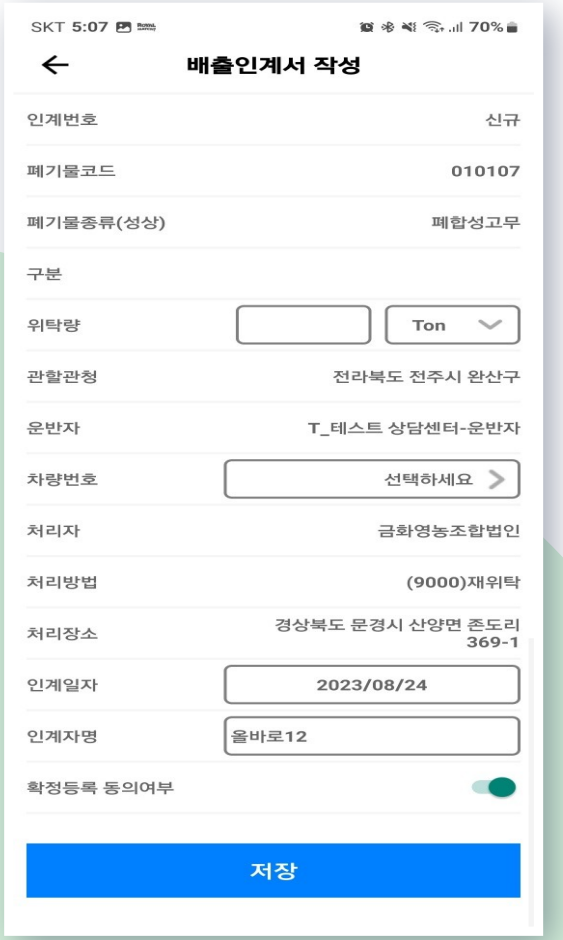


Accessibility and compatibility increase compared to existing applications

Preparation of the electronic handover documents (discharge, porterage, disposition) and Error certificate / Notice / Check the library

General Hospital
(About 370)

1

Attachment of the tag for each exclusive container, and weighting, and transmission

2

Release the exclusive containers before loading onto the transport vechicle

Transporter

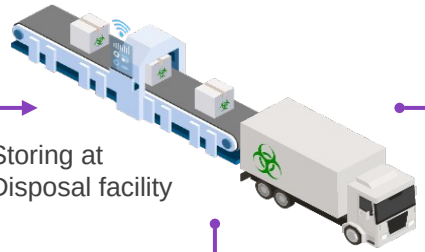
3

Transporter (About 250)

*** Vehicle : about 1,300**

4

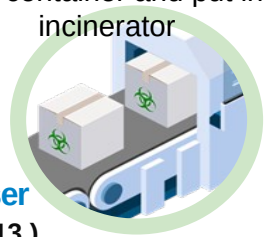
Warehousing per tag : Watehousing through tag identification on each exclusive container



Storing at Disposal facility

5

Identification each tag for each exclusive container and put into the incinerator



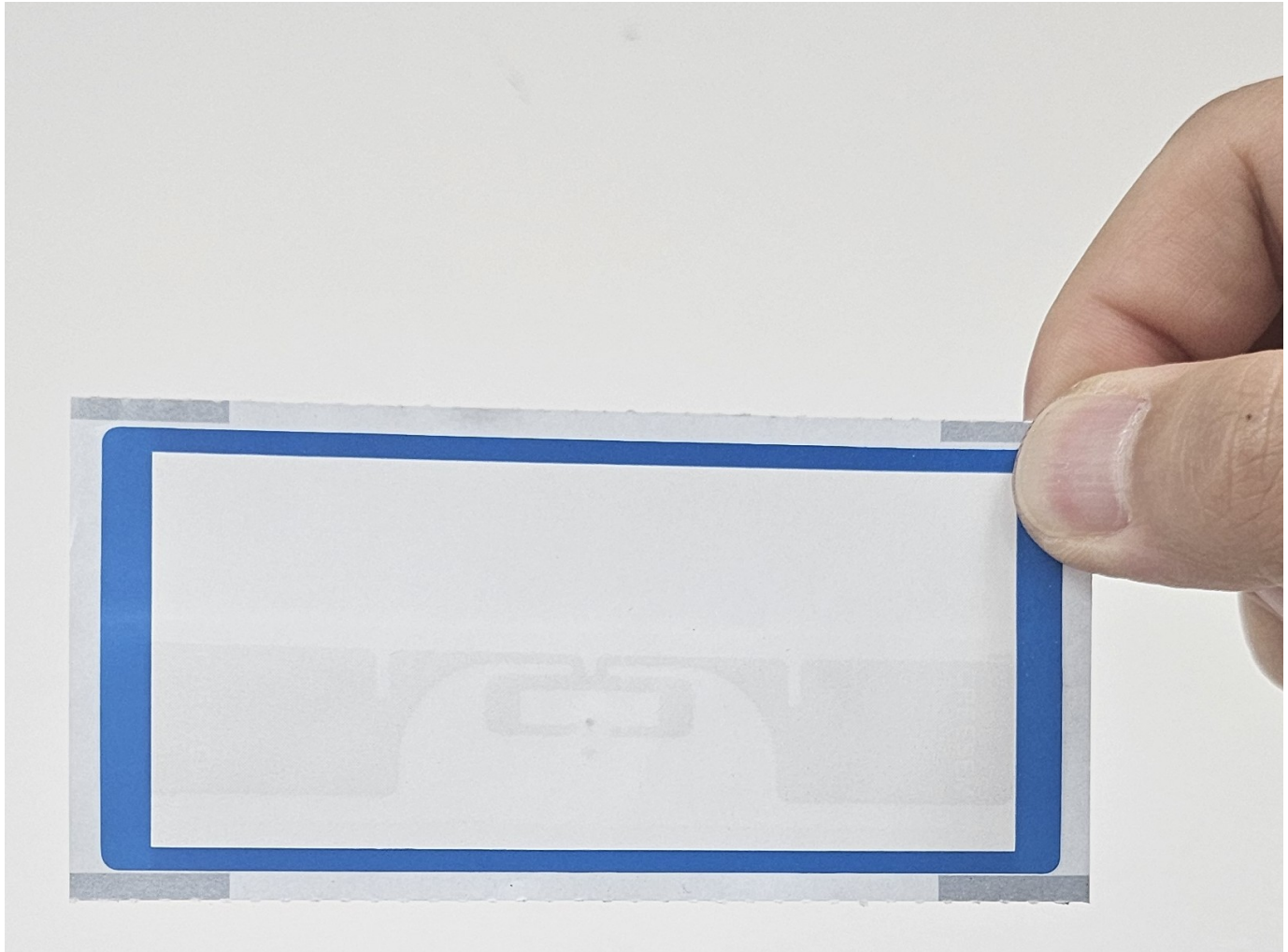
Disposer
(About 13)

6

- Real-time counting of waste information
- Error information extraction management
- Statistical analysis
- Correction of errors, etc.

Hospitals & clinics
(About 92,000)

Authenticate the generator by using the **Beacon**, and check and transmit the waste type, wight, and delivery details



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04

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source: Allbarosystem building·operation performance evaluation service(2022.9.)

Work efficiency	Decrease in work hour, business trip, etc.	90.6 billion KWR(69.7 million USD)
Cost-cutting	Document cost, Delivery cost, etc.	50 billion KWR(3.8 million USD)
Service	Decrease in Wating time,Number of visits	1 billion KWR(0.8 million USD)
Total		96.6 billion KWR(74.3 million USD)

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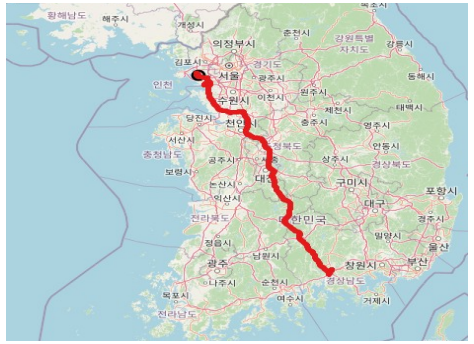
Automated collection and upload of **real-time waste processing information**

Vehicle GPS



Entrance CCTV

Weighbridge CCTV & Weight

Storage CCTV

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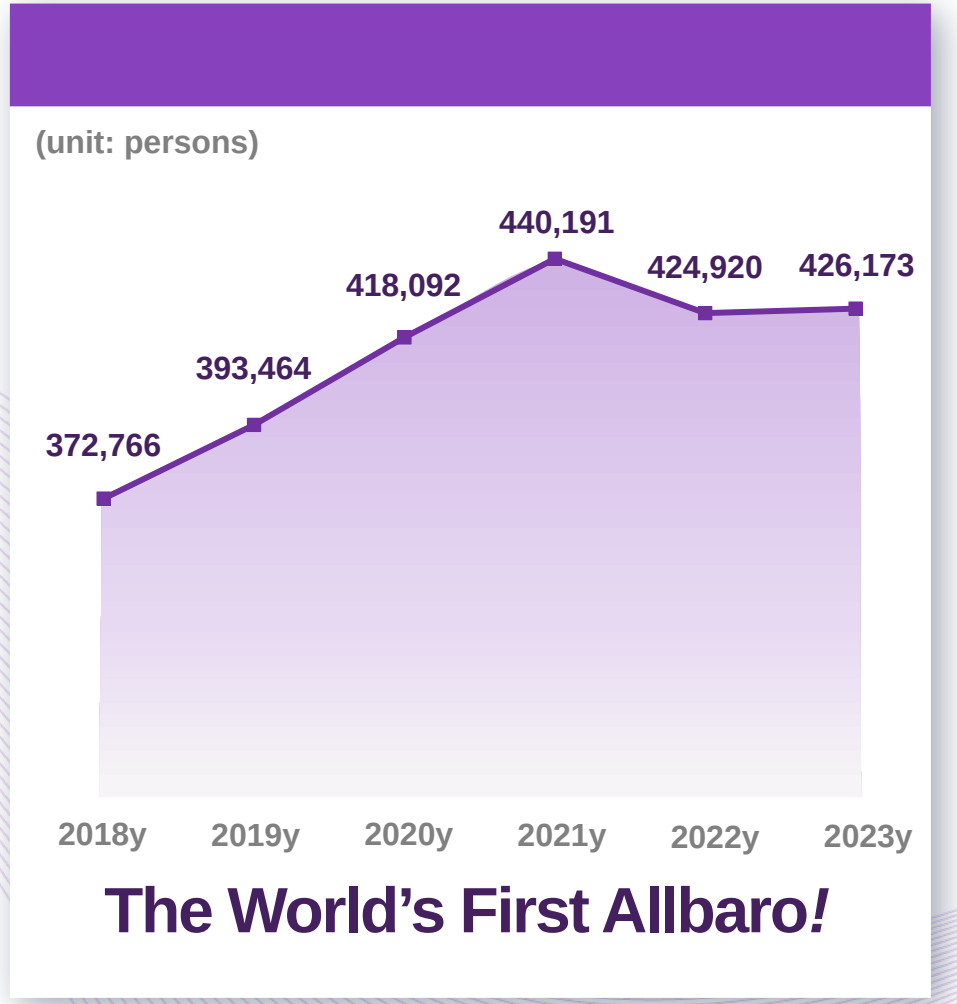
The World’s Best Digital Platform, Connecting All Data

Various Environmental Information & Statistics

Basic Reference of Waste-Related Environmental Policies

Preblocking and early action on illegal disposal of waste



The World’s First Allbaro*!*

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