



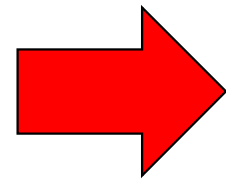
# **JICA “Road Maintenance” Training**

***Subject: Recycled Materials***

**Okinawa Construction Technology Center  
Recycling Section**

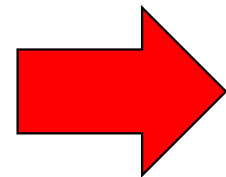


# ● “Okinawa Prefecture Recycling Materials Evaluation Certification System” (July 2004)



Known as **“Yuikuru”**

# ● “Prefectural Governor-Certified Recycling Materials”



**“Yuikuru materials”**

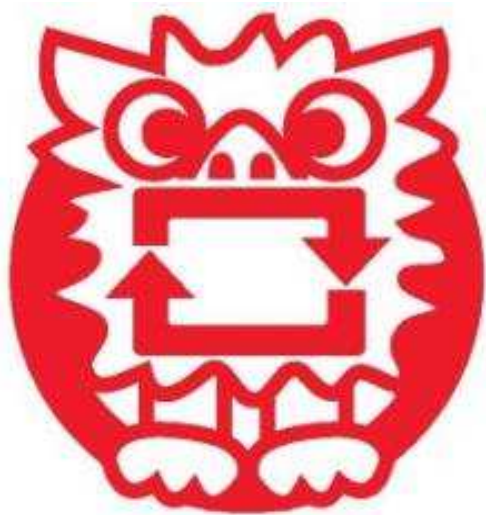
Number of materials: 473 materials in 14 categories

(Current as of November 1, 2025)



## **Yuikuru**

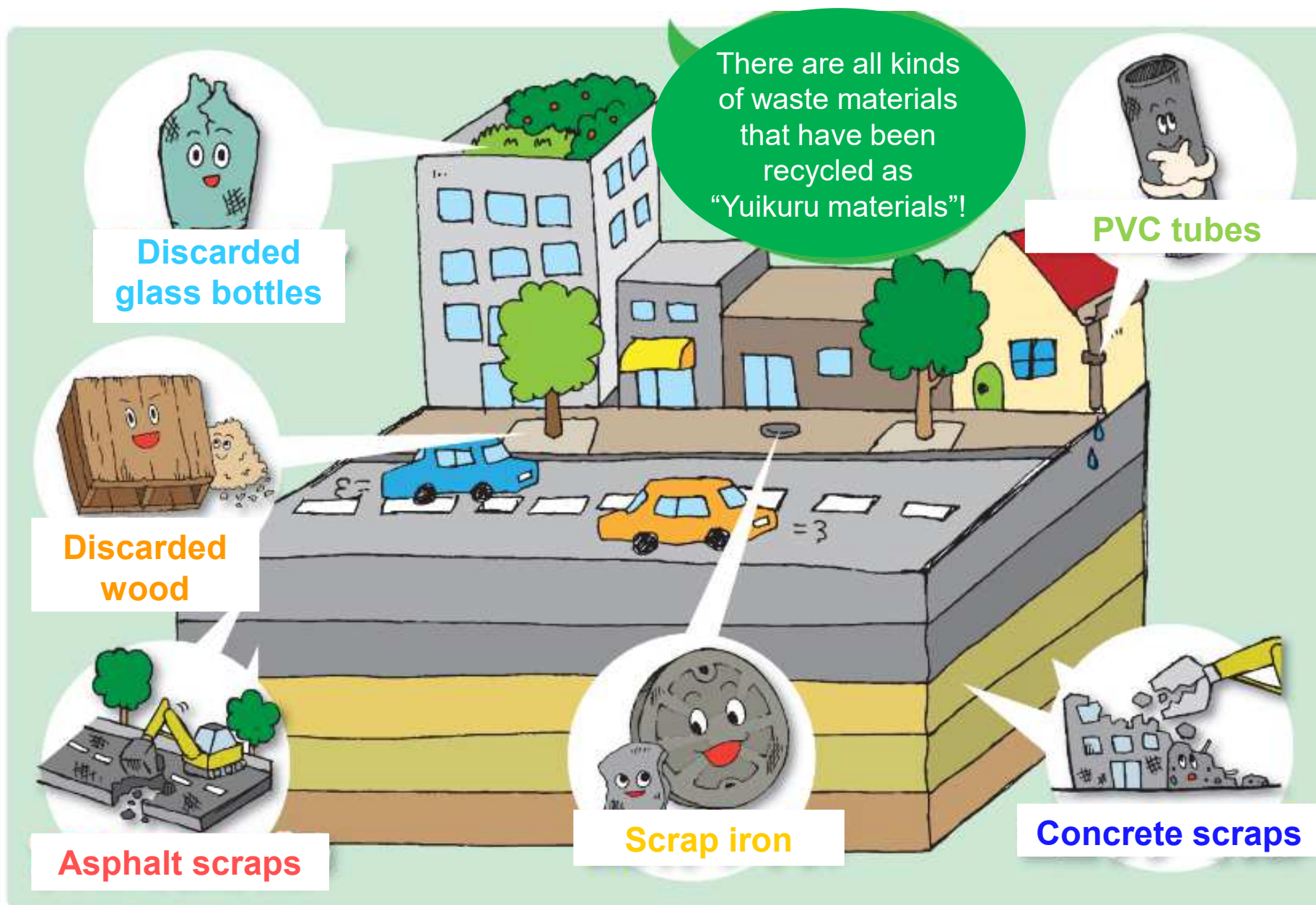
is a coined word derived from  
“**Yuimaru**” (Okinawa dialect) and  
“**recycling**.”



When a material is certified as a  
“yuikuru” material, **the Yuikuru  
logo mark** is allowed to be used for  
the certified material.



# Recycled materials (Yuikuru materials)





# Introduction of typical Yuikuru materials

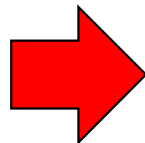
## Raw material



Demolition  
construction



Concrete scraps

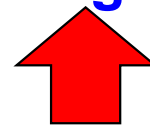


Recycled  
roadbed materials

## Product



Roadbed materials  
Paving work



Pipe laying work



Regenerated  
sand

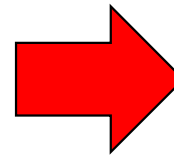


# Introduction of typical Yuikuru materials

## Raw material



Collecting asphalt  
lumps from road  
construction



## Product



Reuse on new roads

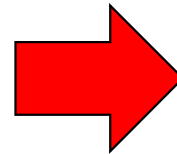


# Introduction of typical Yuikuru materials

## Raw material



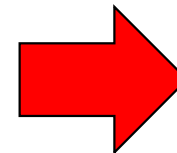
Scrap iron



## Product



Reinforcing bars  
(deformed steel bars)



Manhole cover



# Introduction of typical Yuikuru materials

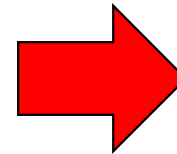
**Raw material**



**Felled trees**



**Cow dung**



**Products**



**Fertilizer**



# Introduction of typical Yuikuru materials

## Raw material



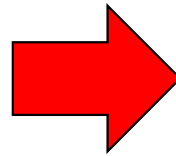
Polypropylene (car bumper)

## Raw material



Polypropylene (plastic container)

## Products

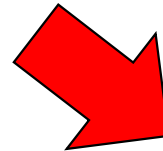


Cast iron manhole

Stand



Protective lid base



Donut spacer

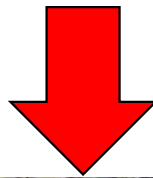


# Introduction of typical Yuikuru materials

**Raw  
material**

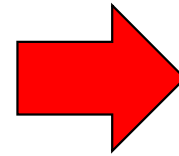


**Discarded glass  
bottles**

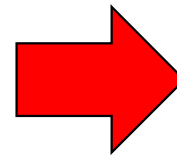


**Foaming facility**

**Products**



**Recycled sand (glass)**



**Lightweight embankment material**



# Introduction of typical Yuikuru materials

**Raw material**



**Garbage incineration facility**

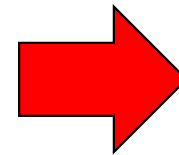
**Product**



**Cement**



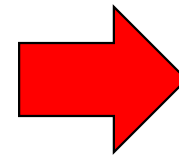
**Incinerated ash**



In addition, melting at a high temperature of 1200°C



**Recycled sand (molten slag)**



**Concrete as secondary product**

# Background



- ① **Extending life of waste disposal site**  
→ Final waste disposal site is full



**Naha Marine Final Disposal Site  
(Inanse District, Urasoe City)**



**Publicly Involved Disposal Site  
(Awa District, Nago City)**

## ② Reduced environmental burden

→ Limiting consumption of natural resources





# **Established in July 2004**

## **The role of Yuikuru**

**Promoting the use of recycled materials**



- 1. Reducing waste generation and extending the life of final disposal sites**
- 2. Reducing consumption of natural resources and protecting the environment**



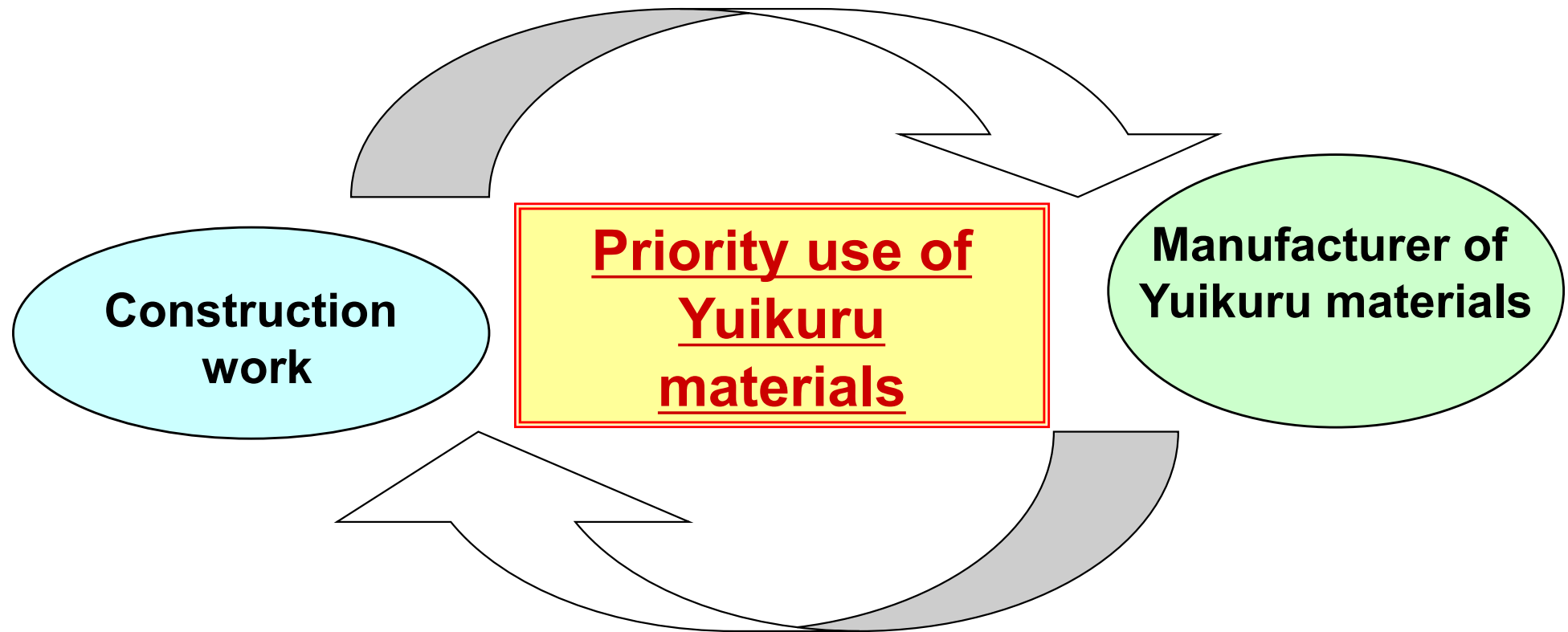
**Building a resource-recycling society**



# Yuikuru System



Construction waste (scrap asphalt, concrete and fell trees, etc.) generated by construction work is carried out certified Yuikuru contractors, etc. (→securing raw materials for Yuikuru materials)



## Effect

Reduction in  
final disposal  
amount



Extending  
life of final  
disposal sites

Reducing  
consumption  
of natural  
resources



Conservation  
of the natural  
environment



**Document inspection**



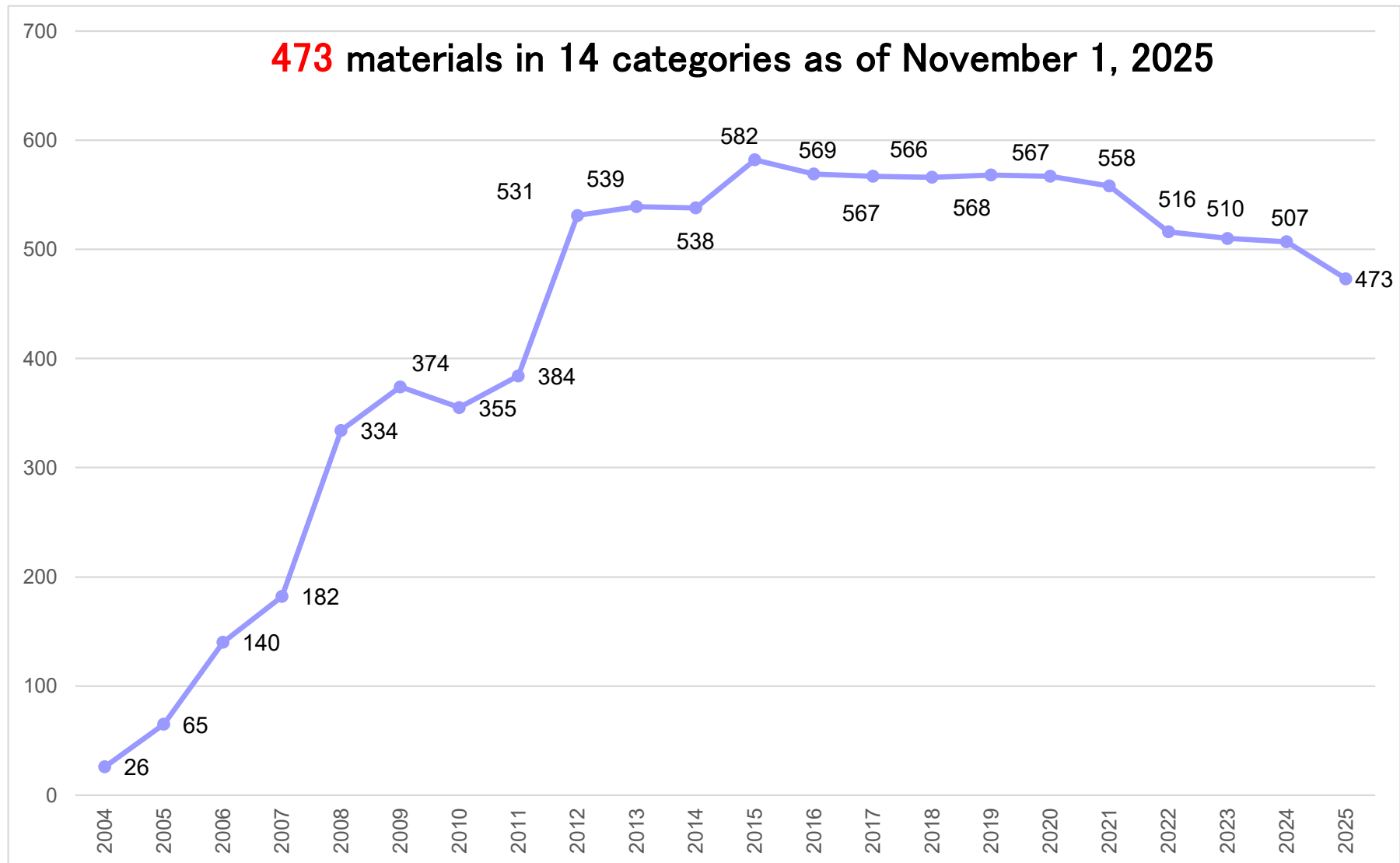
**Factory inspection**



**Evaluation Committee**

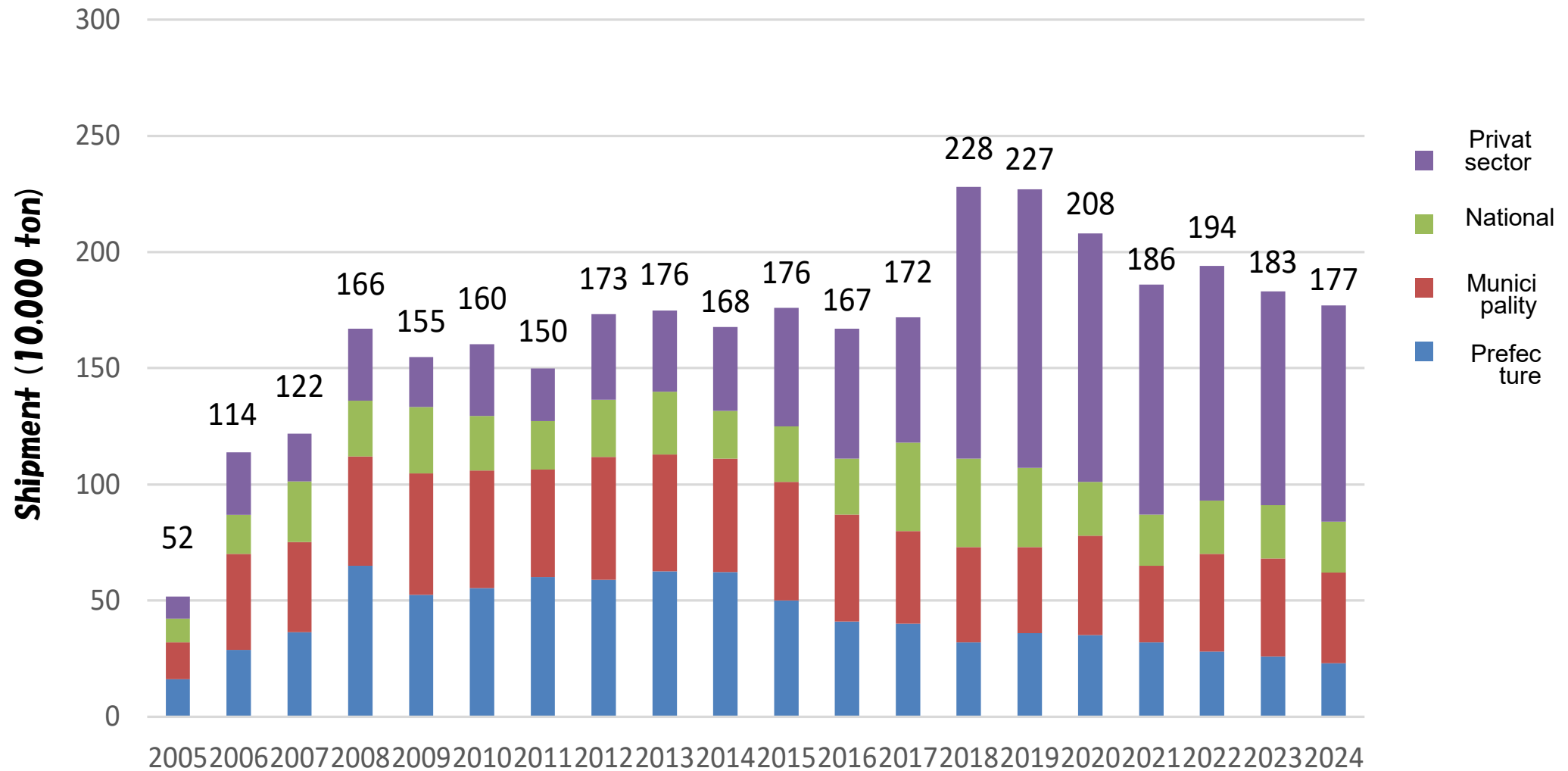


# Changes in number of certified Yuikuru materials





# Changes in shipment volume of Yuikuru Materials



thank  
you for  
listening

Okinawa Prefecture Recycled Materials Evaluation  
Certification System

Yuikuru

