NANDO

WASTE IS MORE.

ISO 9001
BUREAU VERITAS
Certification

Measuring waste is a critical need for smart building

Tons of mandatory sustainability framework and certification requires waste data.

EED V5

TRUE

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

EMAS VERIFIED ENVIRONMENTAL MANAGEMENT

BREEAM®

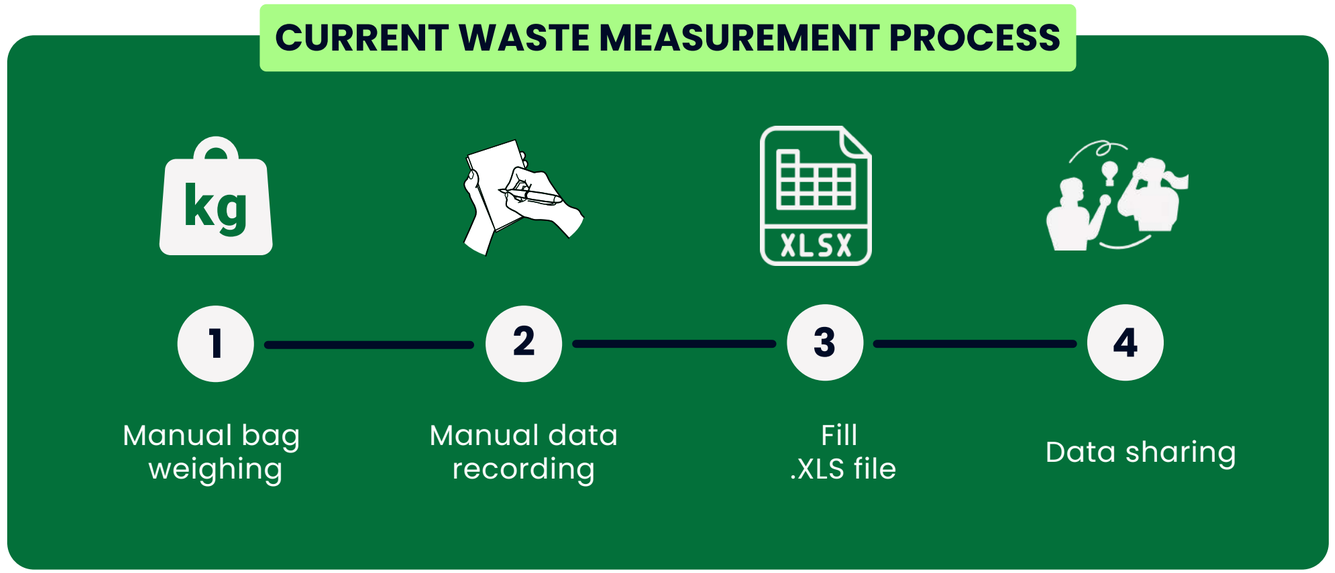
International Organization for Standardization ISO 14001:2015

CSR Corporate Sust Reporting Di

SO, **HOW DO YOU MEASURE YOUR WASTE?**

The current waste measurement process is obsolete

The most used way to get waste data is by weighing each waste bag.



The manual waste weighing is not efficient

High Cost

HIGH MANUAL WASTE MEASUREMENT COST.
Operator Cost of Labour per hour: **30$/h**
Time spent per month: **55 hour/month**

Manual Waste Measurement Cost

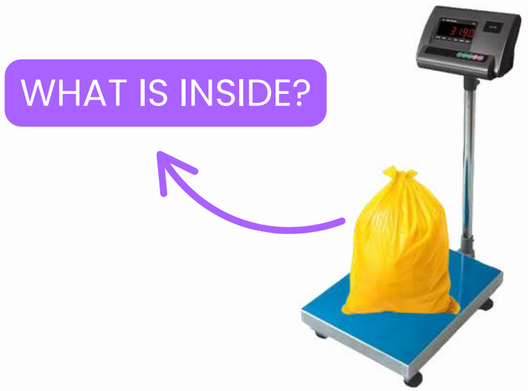
25.000 **$/year/site**

Low data granularity

NO POSSIBILITY OF OPERATIONS OPTIMIZATION.
Data refer to the whole building because waste are measured in the building basement.

No Segregation Quality Data

NO POSSIBILITY OF REDUCING DISPOSAL COST.
Data collected are only waste weight, nothing about waste type or disposal quality



Our Global Impact

More than 50 customers in the world chose NANDO

NANDO quantifies and qualifies waste production (weight, material, object, volume) using AI-powered Image recognition.

60%
Recycling Rate Improvement

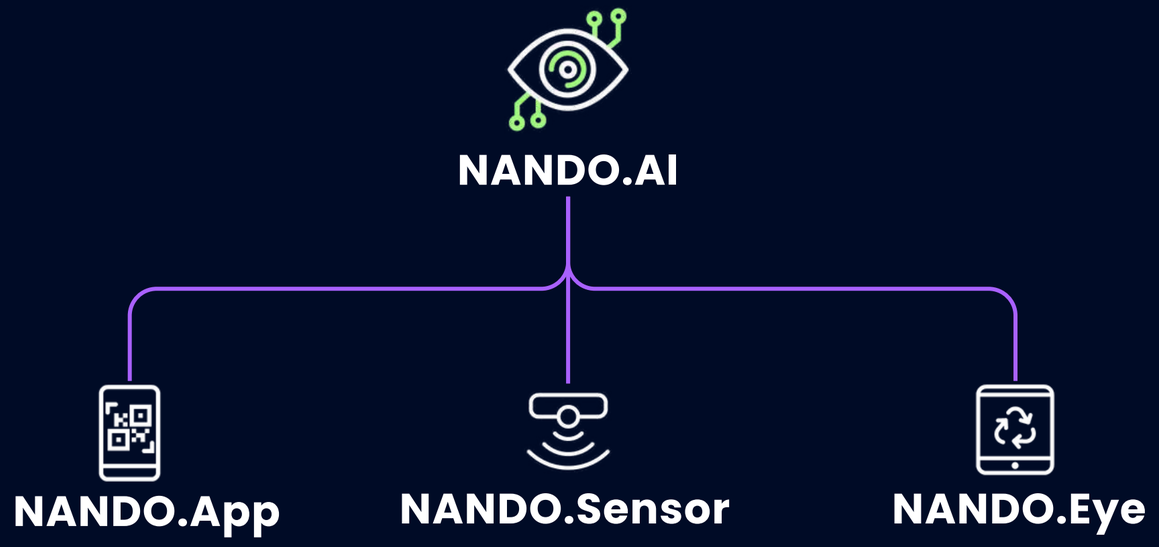
15
Countries

THE ONLY WASTE SUPPLIER, FOR EVERY WASTE SECTOR

JLL · CBRE · KPMG · ADR Aeroporti di Roma · SEA Milan Airports · GrandiStazioni Rail Gruppo Ferrovie dello Stato Italiane · citi · Hypertherm Associates · Narita Airport · Bocconi · Politecnico Milano 1863 · Università di Pisa · city green light · Sisal · Fraport · Deloitte. · Capgemini · HSBC · snam · FPT Powertrain Technologies · eni · L'Oréal Italia · Lavazza Group · Leonardo · tag Talent Garden · Colgate-Palmolive · OGR-CRT Società Consortile · Iveco Group · esa · University of Antwerp · TSB · Gigli Il luogo non comune · Ericsson · BAT · compes · LinkedIn · The Francis Crick Institute · LUISS Università Guido Carli · Schneider Electric · Takeda · Chiswick Park · HereEast · REC · ecoembes · a2a Life Company · rete di cooperative CAUTO · Bywaters recycling made easy · ama · Edison · iren · omnisyst · Recorra · first mile · ISS · sodexo · DOC Cleaning · CIRFOOD · Dussmann · Mazzocchia · ESA Waste Solutions · Aprica Gruppo a2a · Sharpsmart

NANDO Artificial Intelligence

NANDO.AI has been trained over 1 M real cases waste images. It uses the Imagine Recognition to monitor waste generation by recognising over 72 categories of waste with **an average accuracy of 92%.**

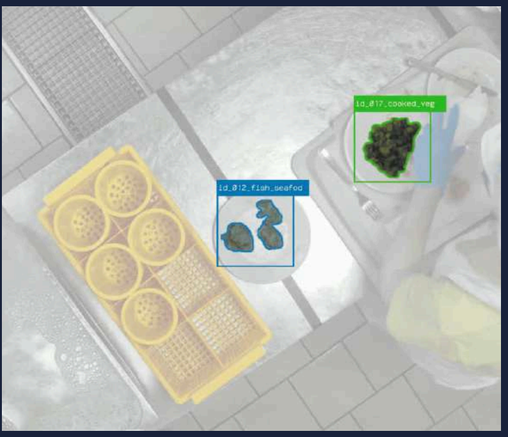


INDUSTRIAL

WASTE TRUCK

OFFICE BIN

FOOD WASTE



How NANDO.AI works

NANDO.AI

ISO 9001
BUREAU VERITAS
Certification

OBJECT RECOGNITION

Image segmentation is used to identify and count each object, ensuring that the correct disposal rule is applied.

OBJECT RECOGNITION

OBJECT NAME	COUNTING	MATERIAL	BIN REGULATION
dirty tissue	#1	paper	plastic ✗

MERCEOLOGICAL ANALYSIS

SEGREGATION QUALITY

How NANDO.AI works

NANDO.AI

ISO 9001
BUREAU VERITAS
Certification

OBJECT RECOGNITION

Image segmentation is used to identify and count each object, ensuring that the correct disposal rule is applied.

WEIGHT ASSOCIATION

Each object in our database is assigned a specific weight.

WEIGHT ASSOCIATION

OBJECT NAME	COUNTING	MATERIAL	BIN REGULATION	WEIGHT
dirty tissue	#1	paper	plastic ✗	0.01 kg

MERCEOLOGICAL ANALYSIS

SEGREGATION QUALITY

WASTE WEIGHT

How NANDO.AI works

NANDO.AI

ISO 9001
BUREAU VERITAS Certification

OBJECT RECOGNITION

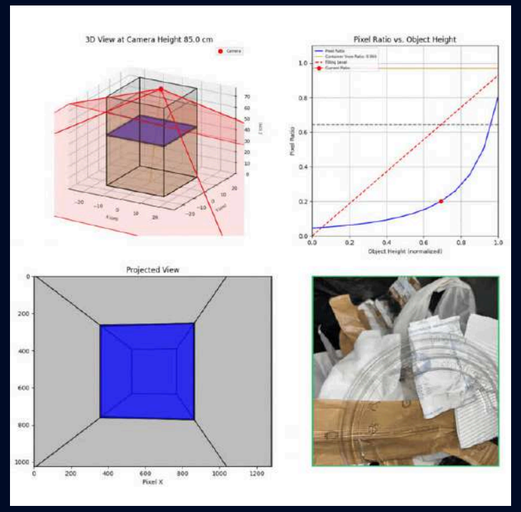
Image segmentation is used to identify and count each object, ensuring that the correct disposal rule is applied.

WEIGHT ASSOCIATION

Each object in our database is assigned a specific weight.

VOLUME COMPARISON

The waste volume is compared with the bin's volume to perform an additional check on the weight and filling level calculation.



MERCEOLOGICAL ANALYSIS

SEGREGATION QUALITY

WASTE WEIGHT

BINS FILLING LEVEL

NANDO.App

GET IT ON Google Play

Download on the App Store

Take a picture and that’s it!

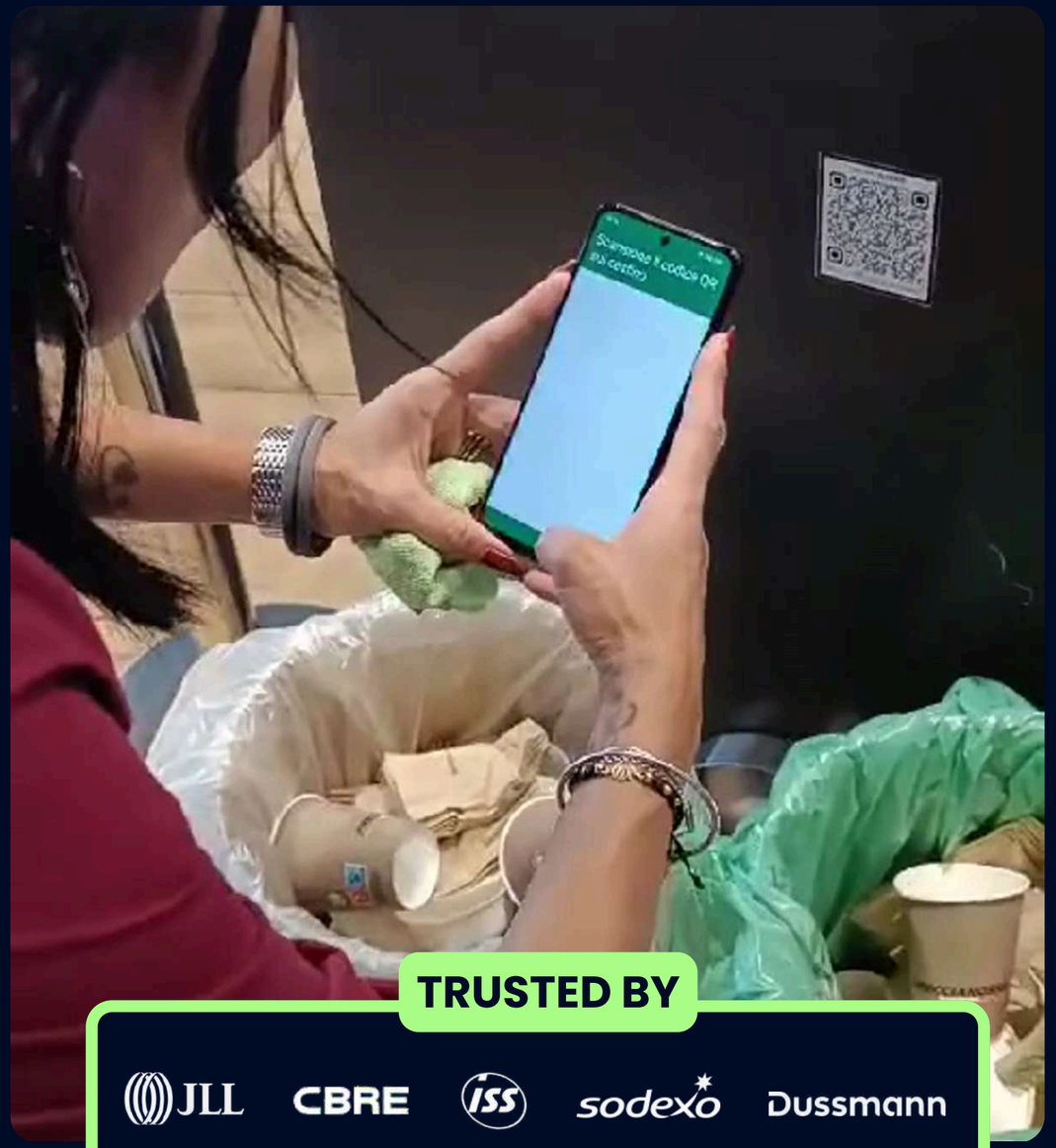
We provide NANDO.App to the cleaning operators that only have to take a picture of the content of the bin.

WASTE WEIGHT

BINS FILLING LEVEL

SINGLE WASTE ITEM COUNTING

CONTAMINANTS IDENTIFICATION



TRUSTED BY

JLL CBRE ISS sodexo Dussmann

CLICK FOR NANDO.APP USER MANUAL

NANDO.App

BEFORE NANDO

1. Mechanical scale
2. Manual registration
3. Data Sharing
4. .XLS Reporting

WITH NANDO

ISO 9001
BUREAU VERITAS Certification

1. One click

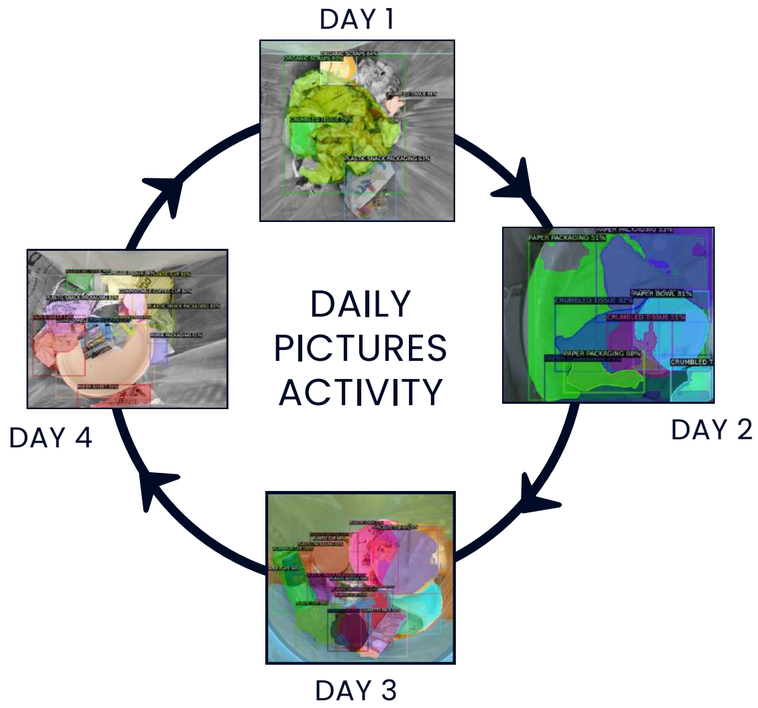
85% COST SAVINGS

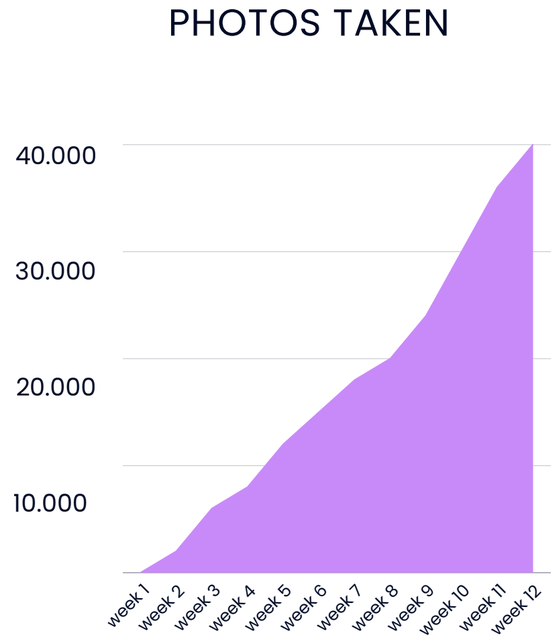
2. Automatic waste report

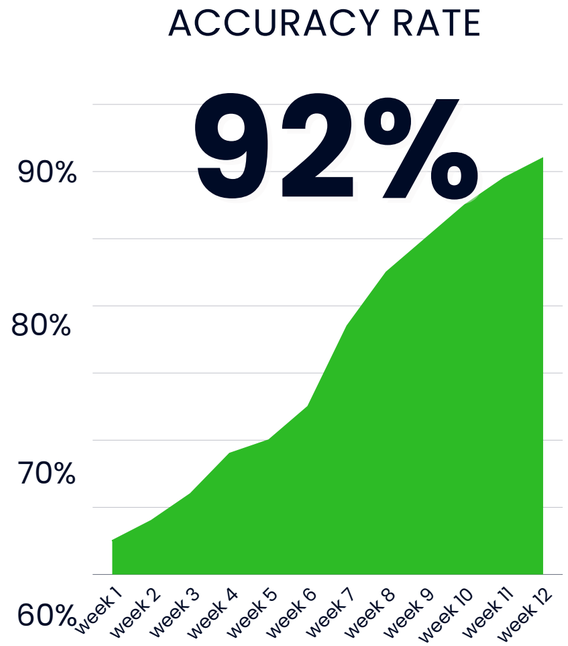
WASTE WEIGHT | BINS FILLING LEVEL | SINGLE WASTE ITEM COUNTING | SEGREGATION QUALITY

How can NANDO achieve 92% accuracy?

Continuous daily photos of each bin enhance our database, thanks to **generative AI** and a **dynamic statistical database** that updates in real time, ensuring a 92% accuracy rate.

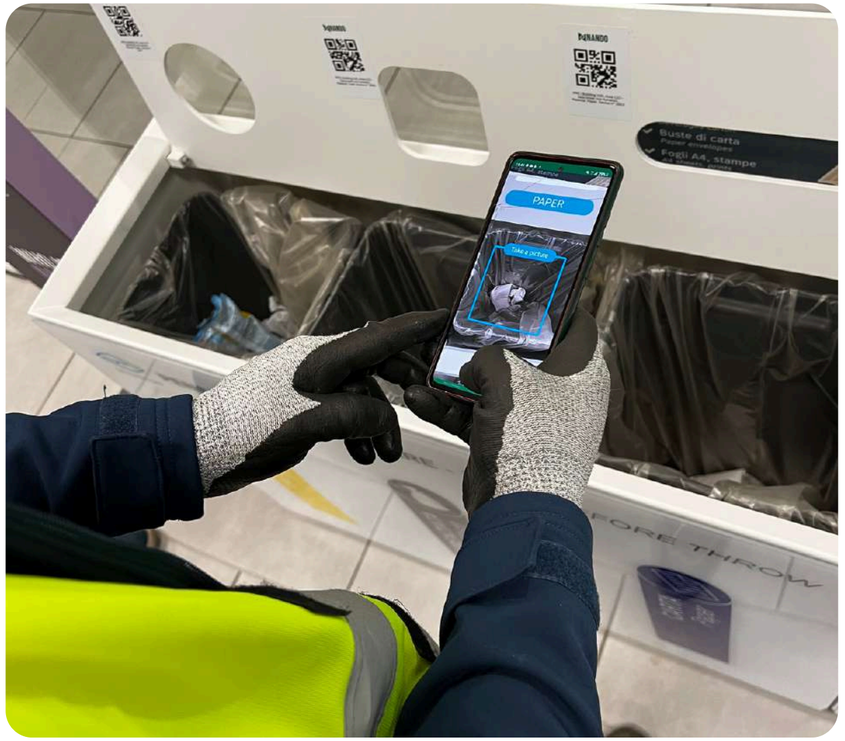






Labor cost saving to obtain waste data

WASTE MEASUREMENT ACTIVITIES	LABOUR COST WITHOUT NANDO.App	LABOUR COST WITH NANDO.App
Number of bins	300	300
Cost of Labour	30 $/h	30 $/h
Time spent per day per bin in Waste Measurement	1 min	0,1 min = 6 sec
Cost per bins to get waste data	0,5 $/bin	0,05 $/bin
Time spent per day in Waste Measurement	5 h/day	0,5 h/day
Yearly total cost of Labour to get waste data	**54.000,00 $/year**	**5.400,00 $/year**
Labour cost net Savings per year ($/year)	**---**	**48.600,00 $/year**



References

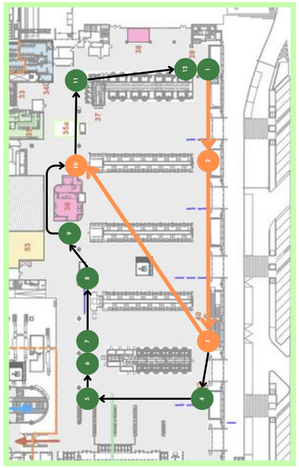
For our clients, we have increased the WDR by +70 to +92%.

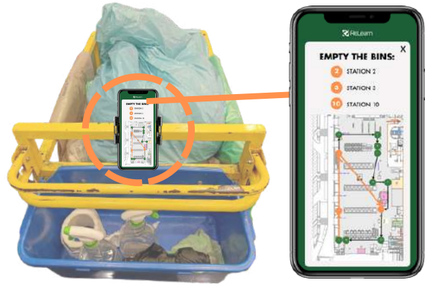
Capgemini LAVAZZA TORINO, ITALIA, 1895 EDISON

Reduce operations thanks to routing optimization

Thanks to the filling level monitoring, we design the best routes to optimize your operations

WASTE OPERATION OPTIMIZATION	No NANDO	WITH NANDO
Bin station	25	25
General waste produced per year	126 t/year	151 t/year
General waste disposal cost	**25.200 €/year**	**10.200 €/year**
Number of waste bags per year	162.000 bags/year	108.000 bags/year
Waste bags cost	**23.652 €/year**	**15.768 €/year**
Time spent per day in Waste Operation(h/day)	2,5 h/day	1,2 h/day
Yearly total cost of Labour	**27.375 €/year**	**13.140 €/year**
Total saving		**37.120 €/year**





★ References

For our clients, we have increased the operation efficiency by +27 to +50%.

ISS

ADR AEROPORTI DI ROMA

Different service data on a single NANDO Dashboard

All the data collected by NANDO Services are available in accordance with the leading international sustainability standards and provide you with various insights:

DATA FOR YOUR SUSTAINABILITY REPORTING

NEW OPTIMIZED ROUTE CALCULATION

INSIGHT TO IMPROVE SEGREGATION QUALITY

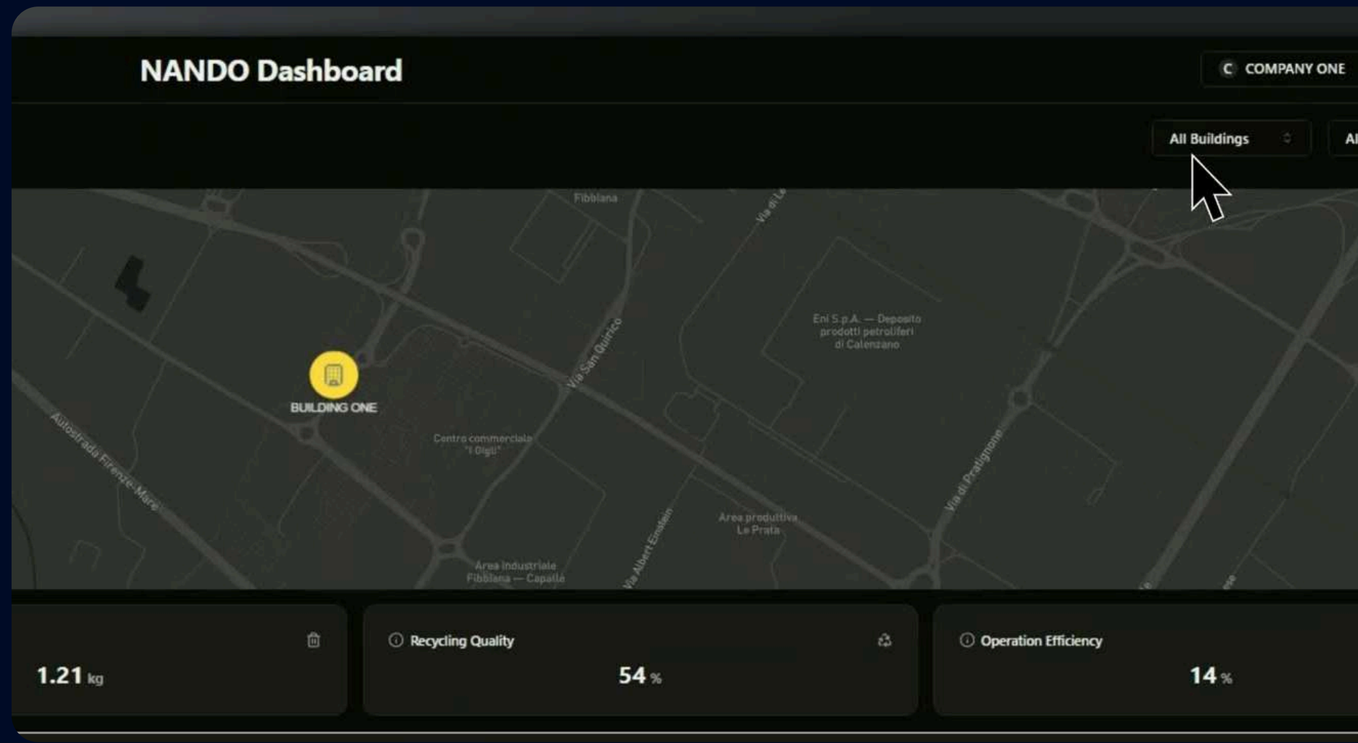
INSIGHT TO SETUP YOUR ZEROWASTE STRATEGY

INSIGHT TO REDUCE CO2 EMISSIONS

MENU OPTIMIZIATION TO REDUCE FOOD WASTE

WEBAPP: NO ACCESS TO THE PRIVATE NETWORK

API:INTEGRATE DATA WITH EXISTING DASHBOARD



commercial industrial truck urban food

Our Environmental Impact

Deloitte.

2
Countries

6
Buildings

5k
Users engaged

4 tonnes
of total waste monitored.

2.4 tonnes
of waste sent to recycling.

1.4 tonnes
of CO2e avoided.

NANDO

Fabrizio Custorella
Co-Founder & CFO
fabrizio.custorella@nandoai.com

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Respect the environment!