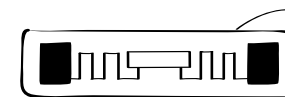
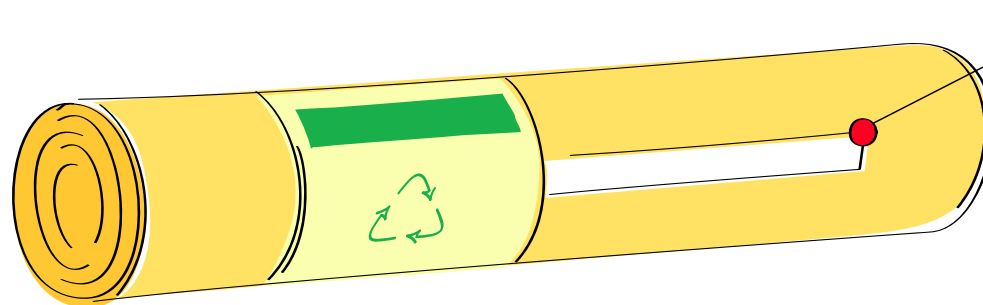







collector

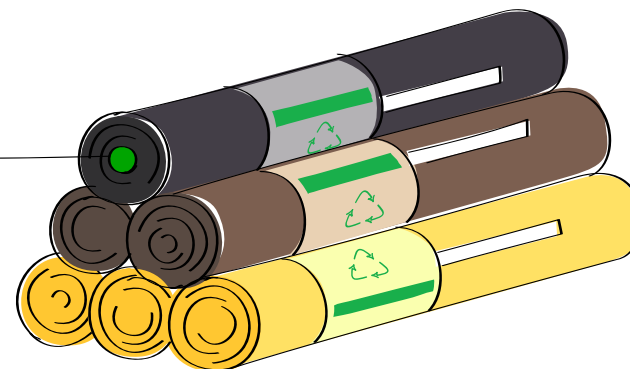
LESS WASTE -> MORE FUTURE

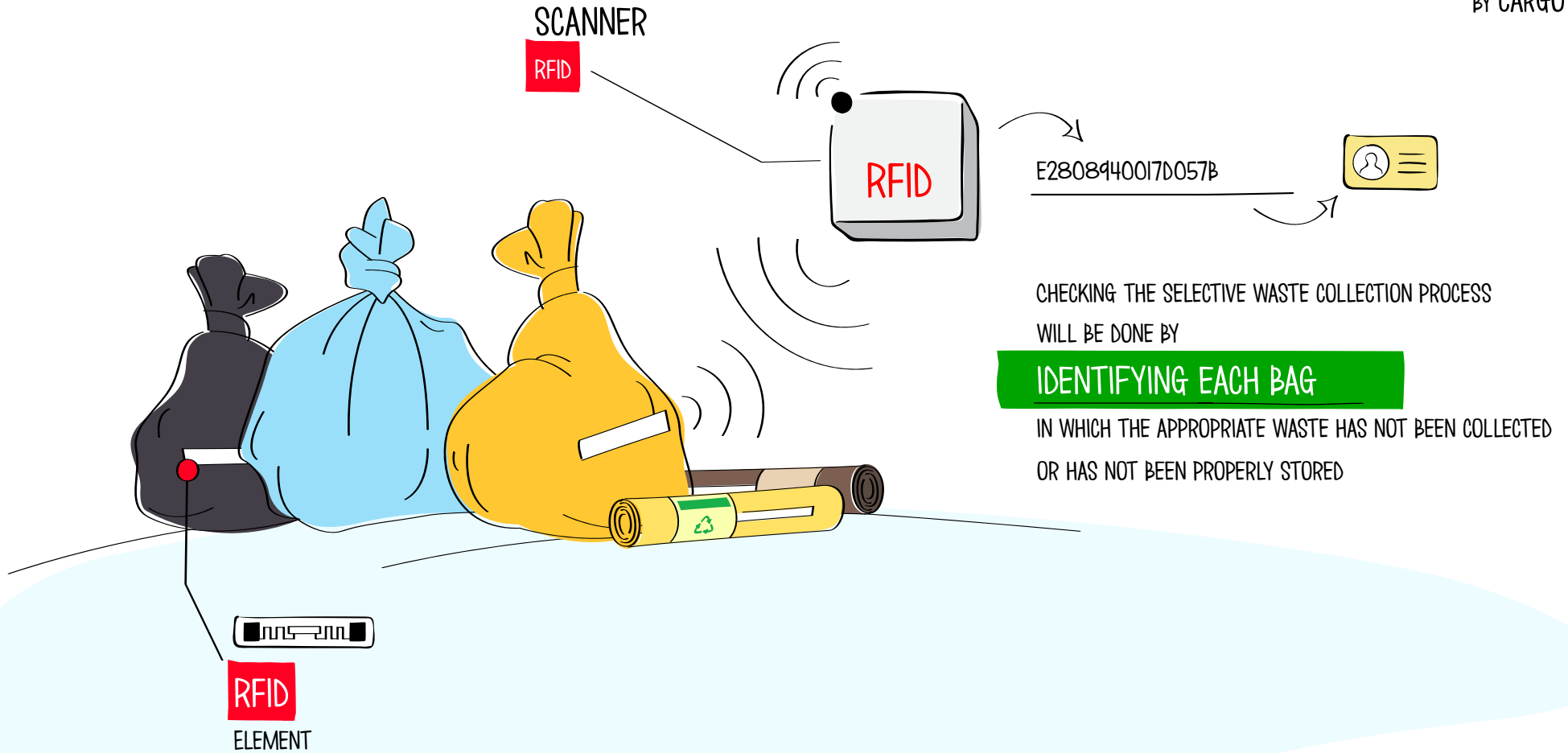


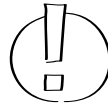
E2808940017D057B

WASTE BAGS
WITH **RFID ELEMENT**
DISTRIBUTED TO THE POPULATION
/ WASTE GENERATORS

HOUSEHOLD WASTE BAGS
RECYCLABLE (60L) 
BIODEGRADABLE (15L) 
RESIDUAL(35L) 







SURVEILLANCE CAMERA WITH

ARTIFICIAL INTELLIGENCE ALGORITHMS

AUTOMATICALLY CREATES AN INCIDENT WHEN IT DETECTS
IMPROPERLY STORED WASTE

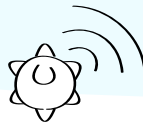
SENSOR FOR

ODOR/ AIR QUALITY

BIN

FILL-LEVEL

SENSOR



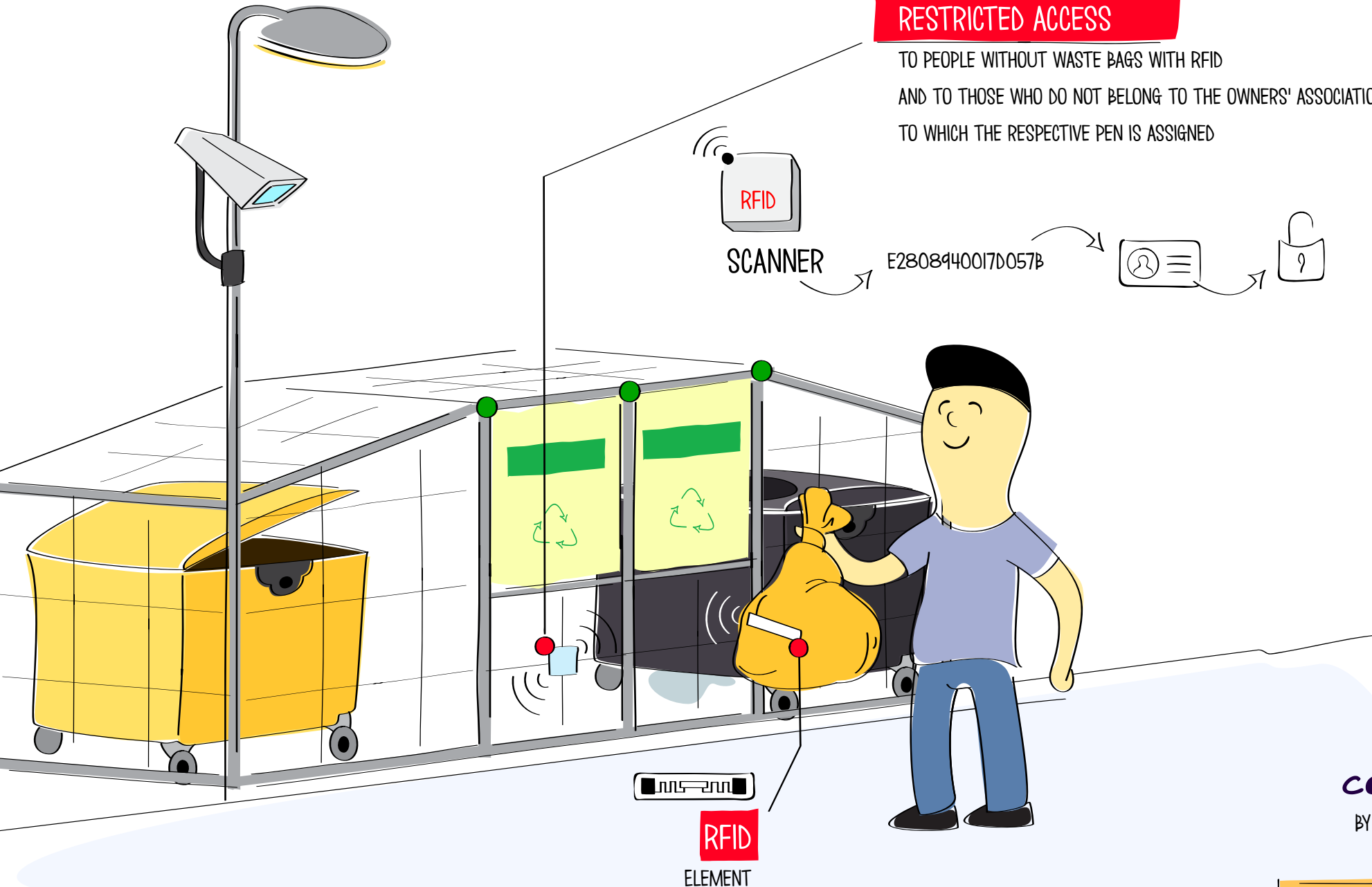
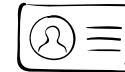
RESTRICTED ACCESS

TO PEOPLE WITHOUT WASTE BAGS WITH RFID
AND TO THOSE WHO DO NOT BELONG TO THE OWNERS' ASSOCIATION
TO WHICH THE RESPECTIVE PEN IS ASSIGNED

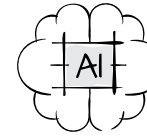


SCANNER

E2808940017D057B



collector
BY CARGOTRACK



THE VIDEO CAMERA WITH ARTIFICIAL INTELLIGENCE ALGORITHMS WHICH
FACILITATES THE IDENTIFICATION
OF PEOPLE THROWING WASTE WITH OR WITHOUT RFID BAGS

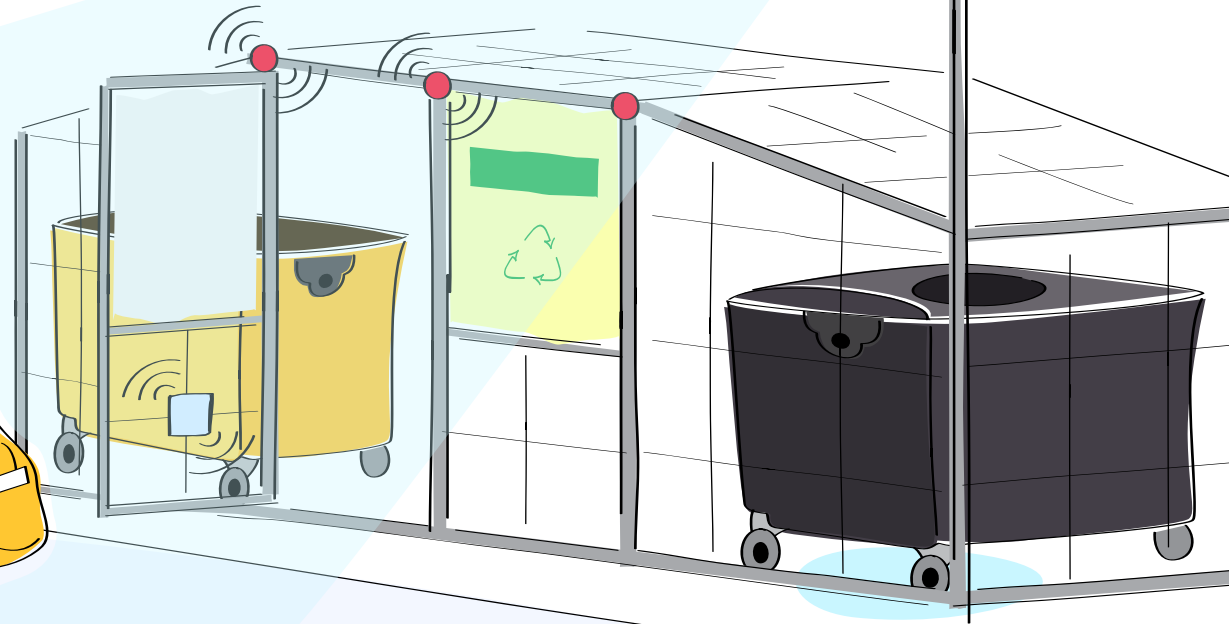
BAG
! WITHOUT IDENTIFICATION ELEMENT



WASTE BAG



WITH IDENTIFICATION ELEMENT





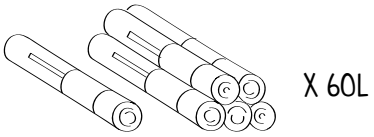
24/7 VIDEO **SURVEILLANCE**
WITH ARTIFICIAL INTELLIGENCE ALGORITHMS



SENSORS FOR REAL TIME **NOTIFICATION**
IF THE DOOR REMAINS OPEN FOR MORE THAN A PREDETERMINED PERIOD



ACCESS SYSTEM WITH **IDENTIFICATION**
OF THE PERSON RELATED TO THE RFID CODE OF EACH BAG



X 60L



collector
BY CARGOTRACK

% FILL-LEVEL

CALCULATED BY THE NUMBER OF BAGS SCANNED
RELATIVE TO THE VOLUME OF THE BINS



AUTOMATIC NOTIFICATION

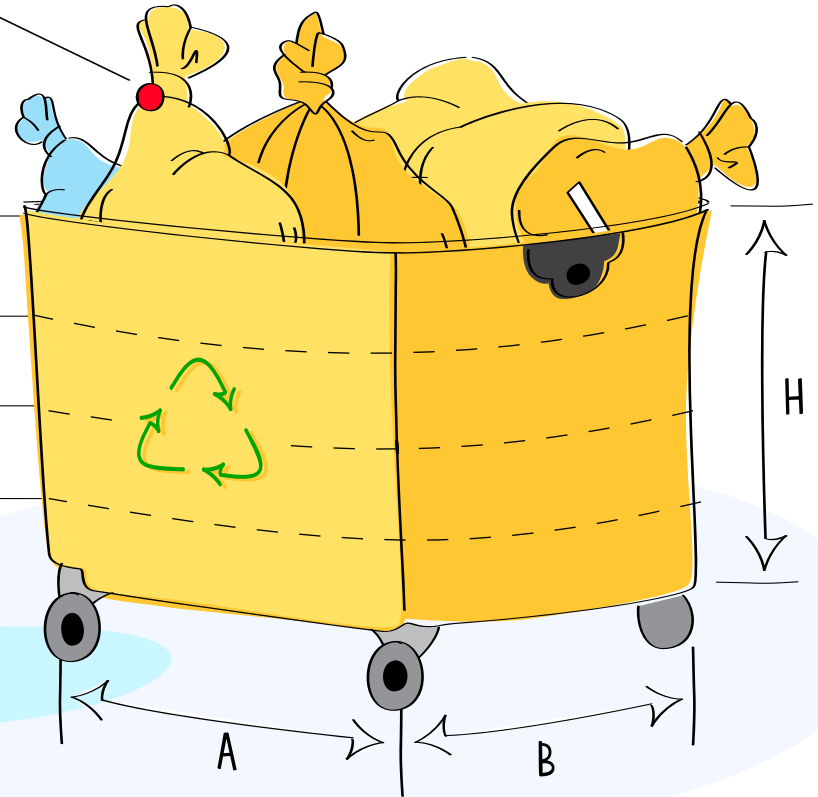
WHEN THE DEGREE OF FILLING REACHES
AN OPTIMALLY SET LEVEL

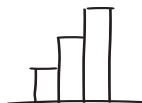
100%

75%

50%

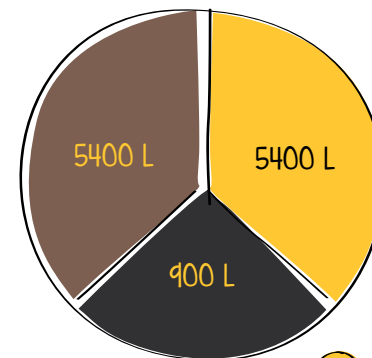
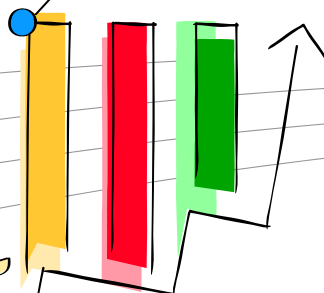
25%





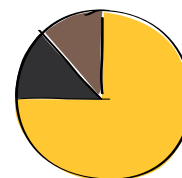
ACCURATE STATISTICS

OF THE QUANTITIES OF WASTE GENERATED, EXISTING AND COLLECTED
AT THE LEVEL OF TOWN, NEIGHBORHOOD, ASSOCIATION, PEN AND PERSON



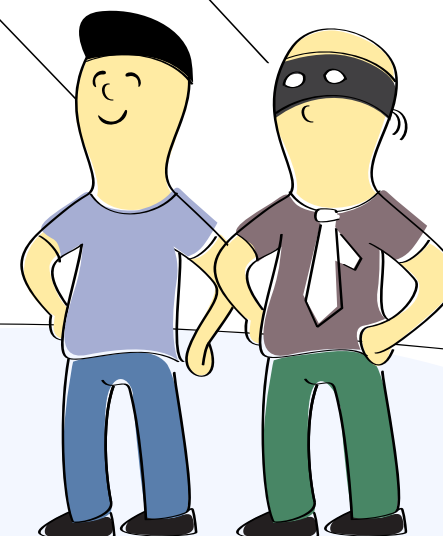
WASTE

- 90 BAGS (37.5%)
- 60 BAGS (25.0%)
- 90 BAGS (37.5%)



WASTE

- 40 BAGS (66.6%)
- 10 BAGS (16.6%)
- 10 BAGS (16.6%)



● RECYCLABLE
 ● BIODEGRADABLE
 ● RESIDUAL



SECURITY SYSTEM

TO PREVENT PEOPLE GETTING TRAPPED
INSIDE THE PEN



MOTION / PERIMETER

SENSORS



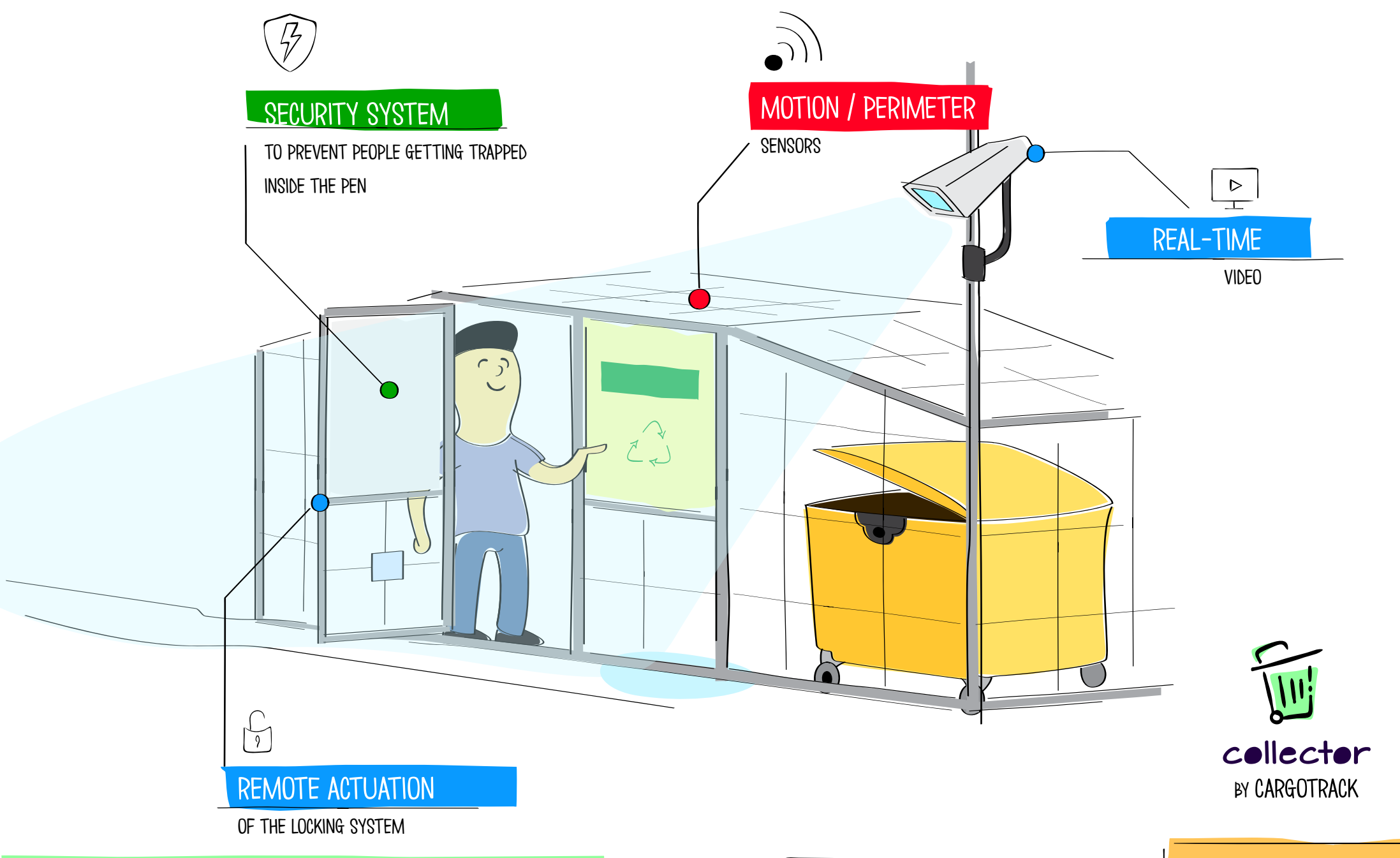
REAL-TIME

VIDEO

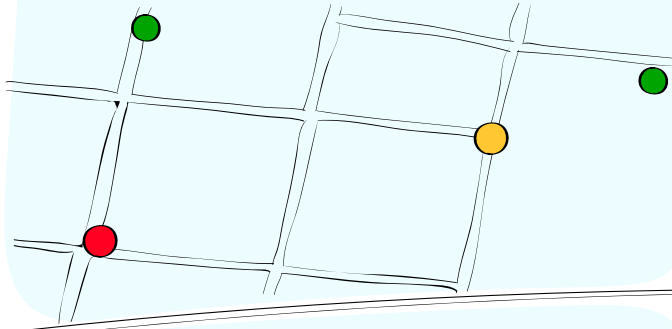
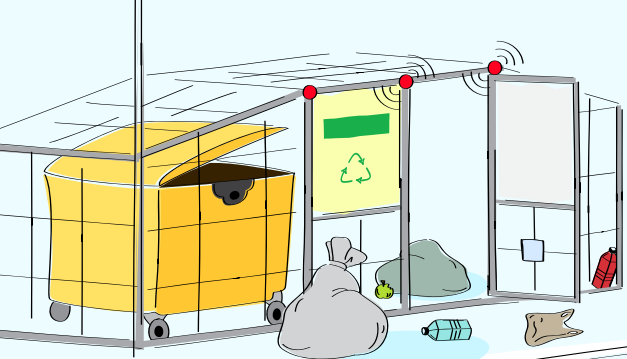


REMOTE ACTUATION

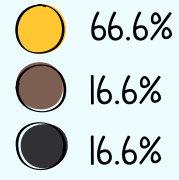
OF THE LOCKING SYSTEM



collector
BY CARGOTRACK



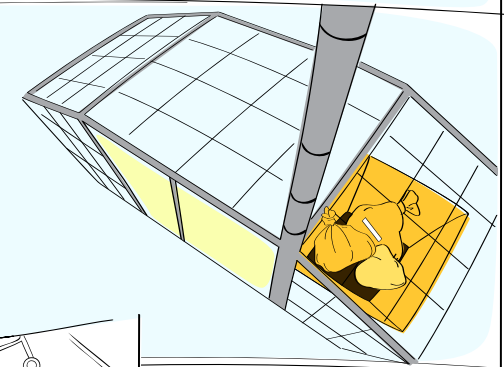
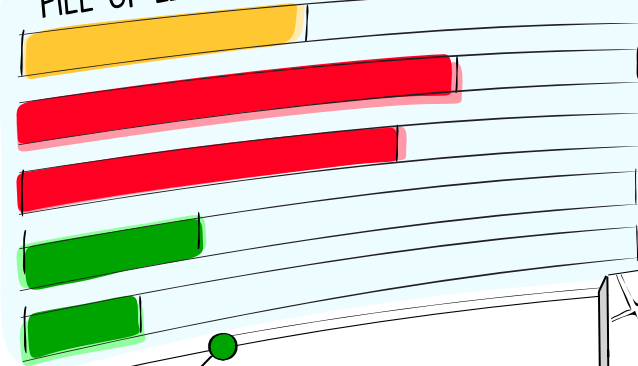
GENERATED WASTE 22-11-21



INCIDENTS

- A1 INCIDENT 22/11/21-4:20PM
- B2 INCIDENT 22/11/21-10:40AM
- C3 INCIDENT 22/11/21-9:57AM

FILL-UP LEVELS

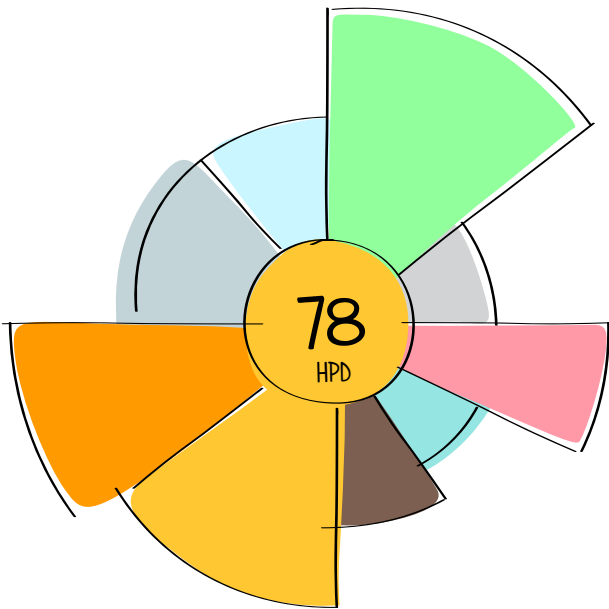


collector
BY CARGOTRACK



DISPATCHER

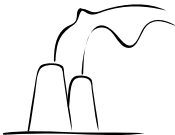
REAL-TIME MONITORING



22-11-2021
1:40PM

SMART CITY

MONITORING



2/10

AIR QUALITY



72DB

SOUND POLLUTION



7°C

TEMPERATURE



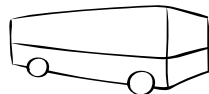
57%

TRASH BINS



+24.2L/H

WATER CONSUMPTION



87BUSES / 56TRAMS

PUBLIC TRANSPORTATION



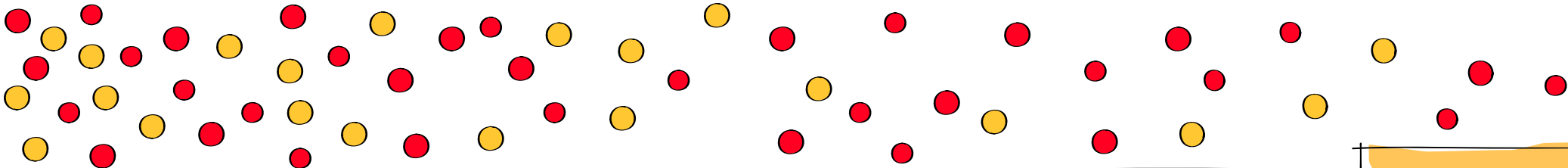
-3.8MWH

POWER USAGE

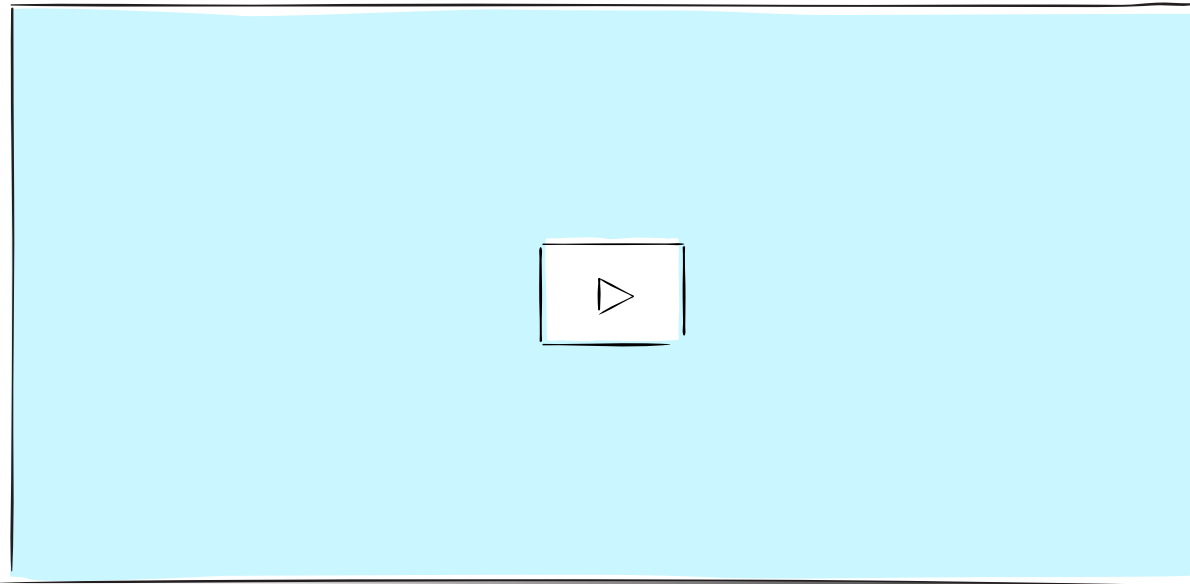


88/116

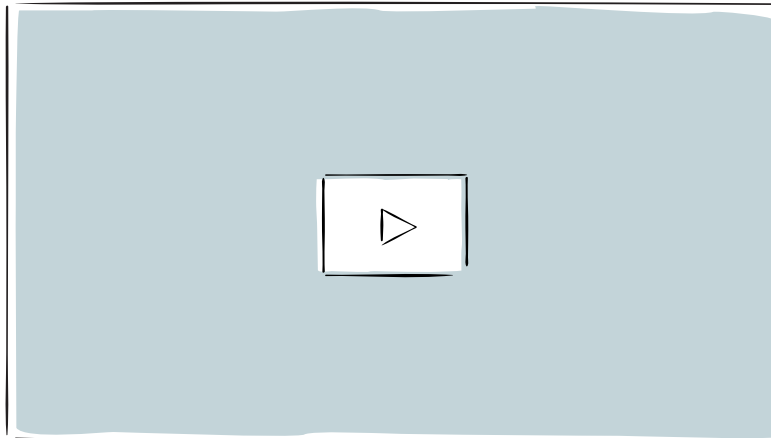
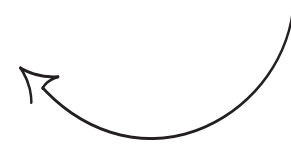
SMART WIFI



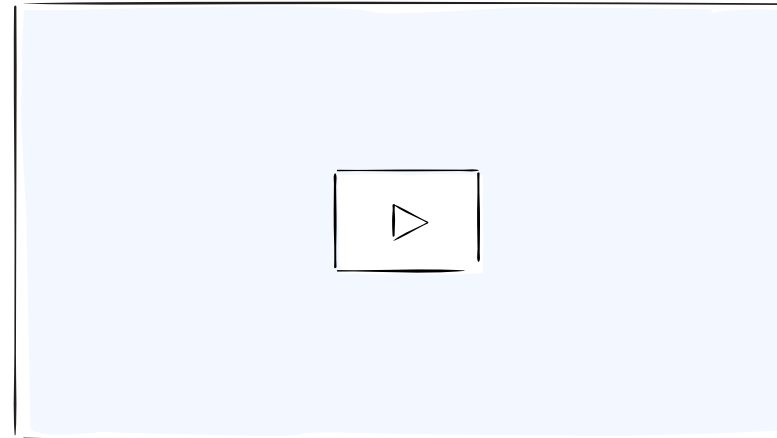
VIDEO EXAMPLE



ONLINE PLATFORM



VIDEO CAMERA
INSTALLED ON THE GARBAGE PEN

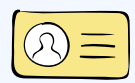
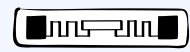
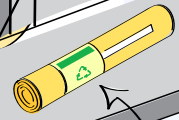
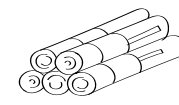


RFID WASTE BAG
OPERATION



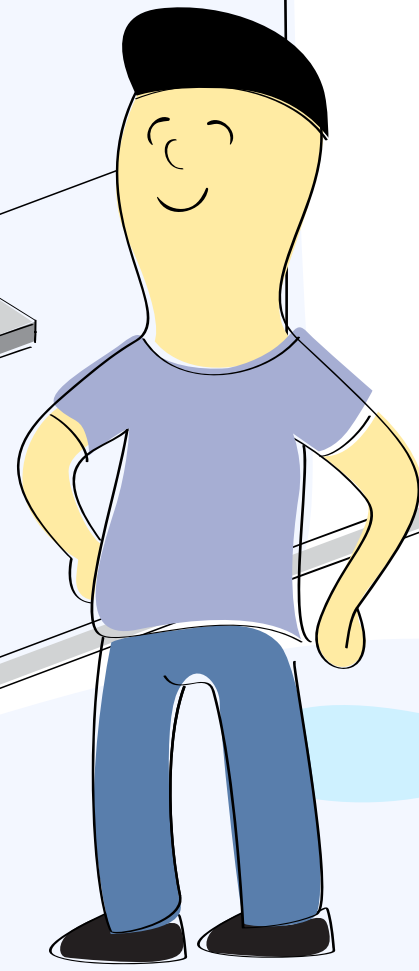
ASSOCIATION

DISTRIBUTION OF RFID WASTE BAGS
THROUGH
OWNERS' ASSOCIATIONS



ID CHECK

AND ASSIGNING OF RFID CODES
FOR THE BAGS DISTRIBUTED



collector
BY CARGOTRACK

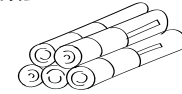


DISTRIBUTION OF RFID WASTE BAGS
THROUGH THE
SANITATION OPERATOR

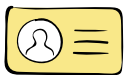
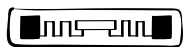
ID CHECK

AND ASSIGNING OF RFID CODES
FOR THE BAGS DISTRIBUTED

DISTRIBUTION OF RFID WASTE BAGS
THROUGH THE

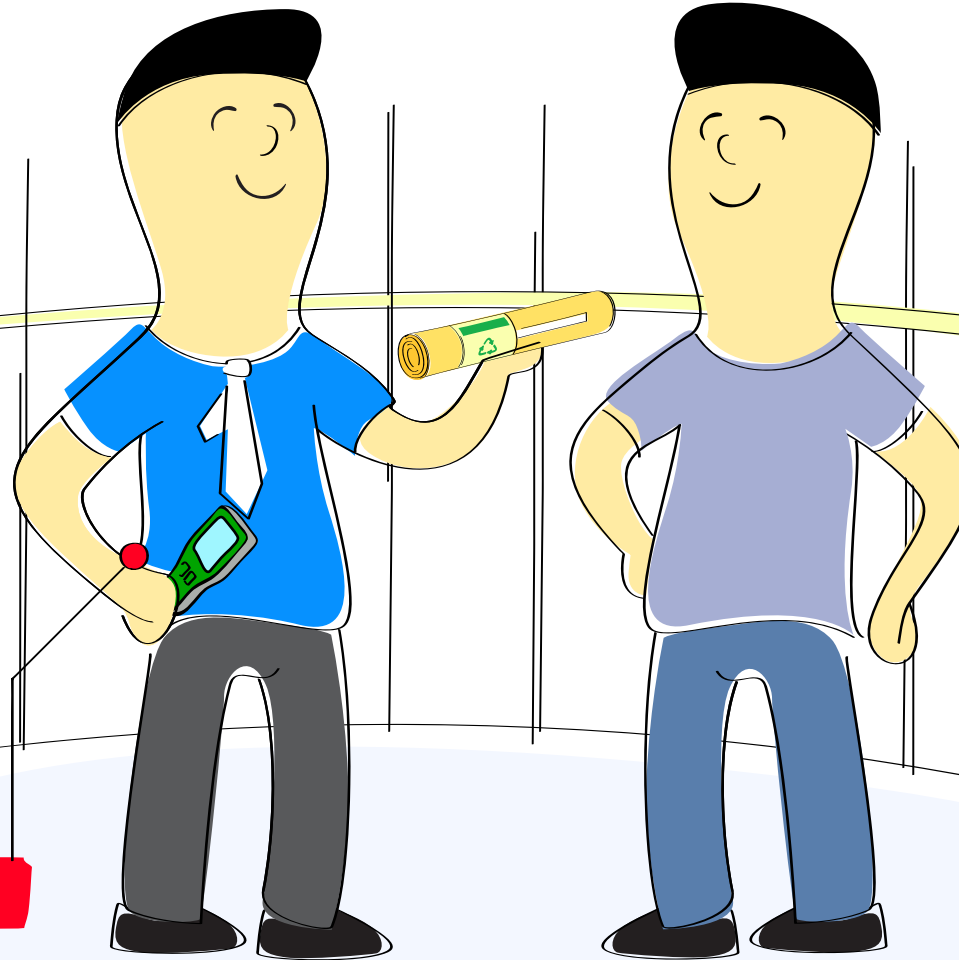


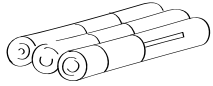
DISTRIBUTION OF RFID WASTE BAGS IN
FIXED POINTS WITH OPERATOR



ID CHECK

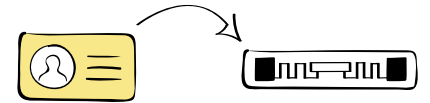
AND ASSIGNING OF RFID CODES
FOR THE BAGS DISTRIBUTED





RFID WASTE BAGS DISTRIBUTION

IN STRATEGIC LOCATIONS



ID CHECK

AND ASSIGNING OF RFID CODES
FOR THE BAGS DISTRIBUTED



collector
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COST ESTIMATION

« COLLECTOR » SYSTEM



HARDWARE

COMMAND AND DATA TRANSMISSION UNIT	€1500
RFID SCANNER	€300
PRESENCE AND DOOR FAULT SENSORS	€75
5MP 4G WIFI VIDEO CAMERA	€350
ELECTROMAGNETIC DOOR LOCK UNIT	€100
AUTOMATIC DOOR CLOSING UNIT	€100



SOFTWARE

SOFTWARE DEVELOPMENT	€40 / ORA
DATA TRANSMISSION SUBSCRIPTION (4G)	€25 / LUNA
DATA TRANSMISSION SUBSCRIPTION (CABLE)	€4 / LUNA



WASTE BAGS

BAGS WITH RFID ELEMENT	€0.11 - 0.16 / SAC
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DISTRIBUTION

EQUIPMENT FOR DISTRIBUTION / SALE OF HOUSEHOLD WASTE BAGS	€3600 / BUC
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collector

LESS WASTE -> MORE FUTURE

A PROJECT BY



2021

[HTTPS://CARGOTRACK.RO](https://cargotrack.ro) | 0374 430 060 | OFFICE@CARGOTRACK.RO

24P EPISCOP IGNATIE DARABANT SQUARE

410235 ORADEA