HarvestEasy

IoT & 3D Intelligent Systems project
@ University of Modena and Reggio Emilia

Pitch

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1.36 kWh/ton

Average energy needed for Waste Retrieval & Transportation*

Let's do the math

Average-sized city population: 200'000 inhabitants

Average waste per capita in Italy in a year: 502 kg *

Average waste per capita per day in Italy: 1.38 kg

Average waste per average-sized city in a day in Italy: 276'000 kg

Average energy used for MSWM (Municipal Solid Waste Management):

(276'000 kg/day / 1000) ton/day * 1.36 kWh/ton = **375 kWh/day**

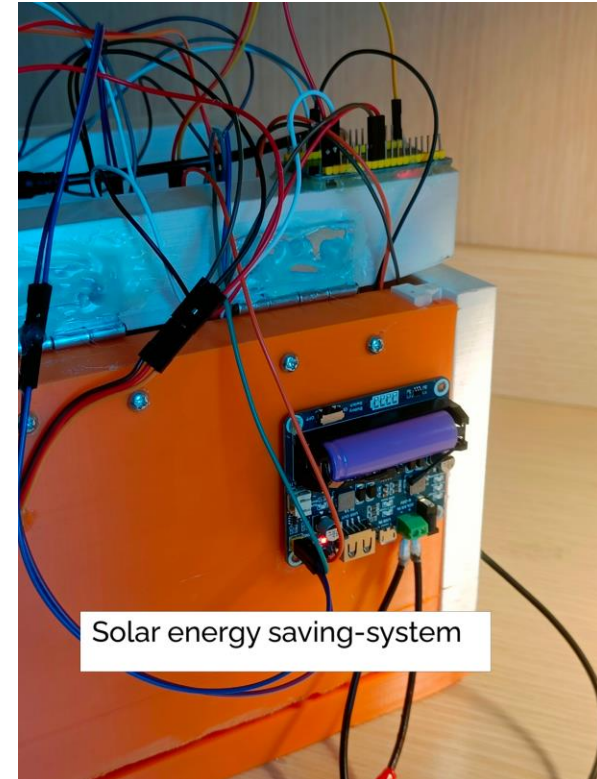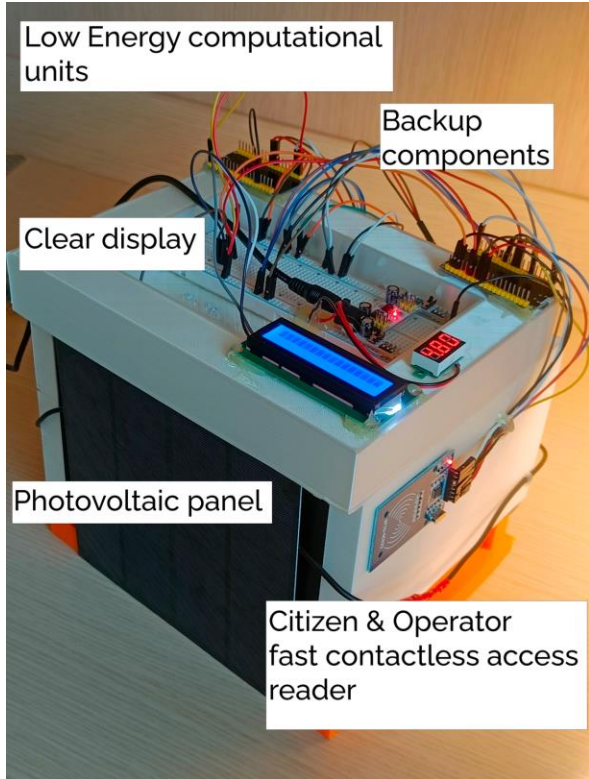# 40.3 average Italian households (energy daily usage)*
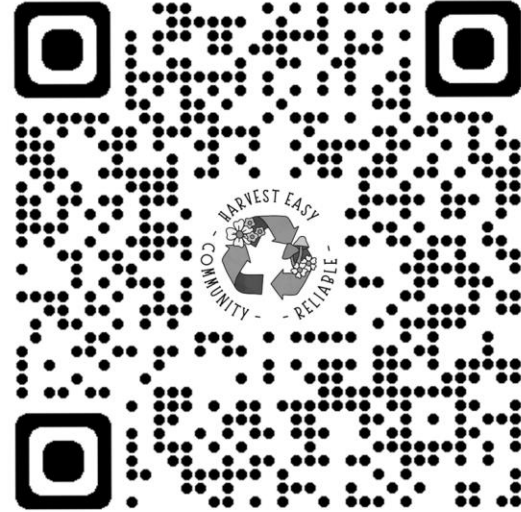
Is there a better way?

Solution: Harvest Easy

- Peeking into the future through an architecture based on autonomous driving
- Gamified community-based whistleblowing
- Sun powered
- Low maintenance
- Easily scalable
- Data harvesting & data filtering
- Sellable clean data
- Behaviour analysis
- Ready & pluggable into other solutions
- Pluggable into private security services
- Proprietary prototype-ready license-less design
- Powerful branding & motto

A quick look at the prototype

Low Energy computational units

Backup components

Clear display

Photovoltaic panel

Citizen & Operator fast contactless access reader
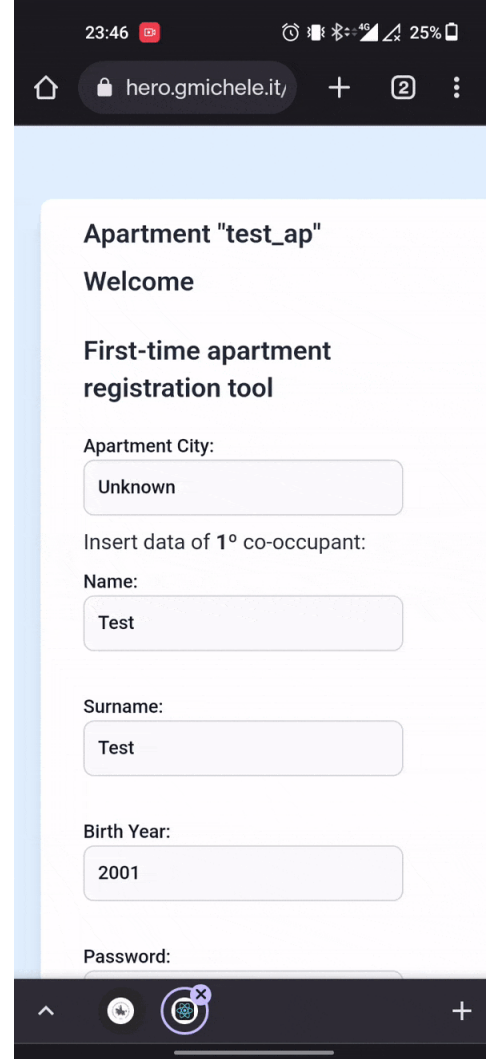

Solar energy saving-system

1 STEP: Apartment Initialization

Ap. Manager will initialize his apartment with ease through a ready to go QR Code

INIT. APARTMENT

2 STEP:
Will now be provided all the needed fields & infos from the manager through our rock-solid responsive website.

3 STEP: Apartment occupants are now registered & enabled to the platform
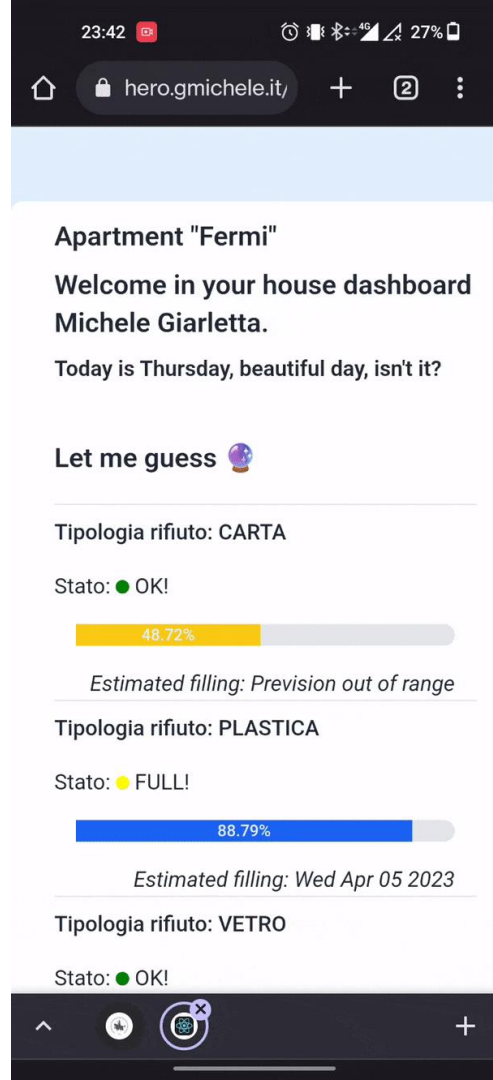
4 STEP:

They will now be able to check everything they wish to know: actual filling, status, AI-based Date Forecast, AI-based Just In Time crafted charts, just for you for each typology 🤍 .

STEP 4-BIS

FIRE ALERT
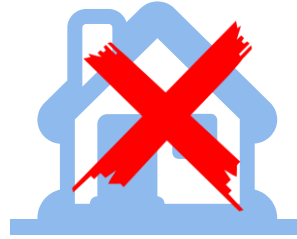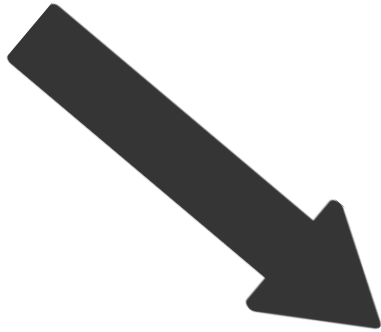
TAMPERING

ALERT

FULLNESS
WARNING

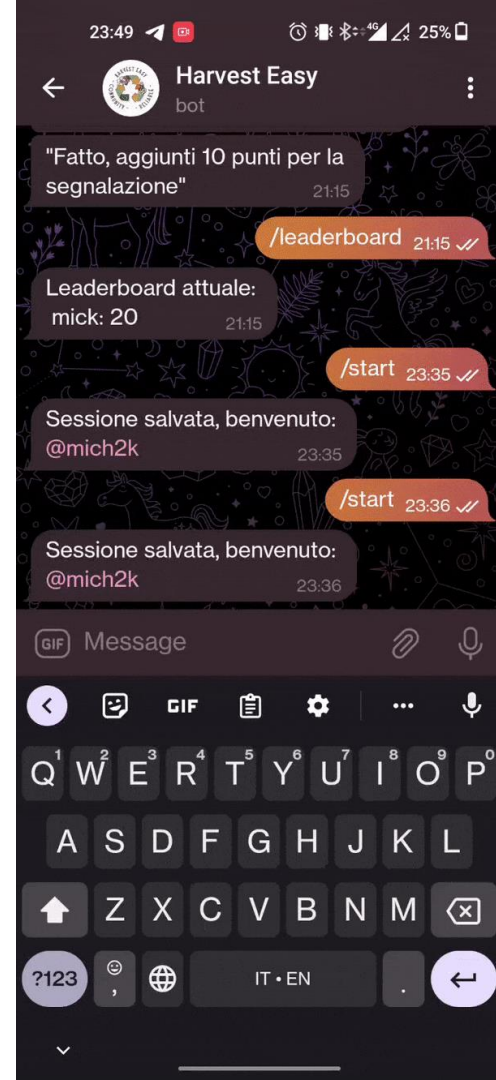What happens when dwellers do not have their recycling bins available ?
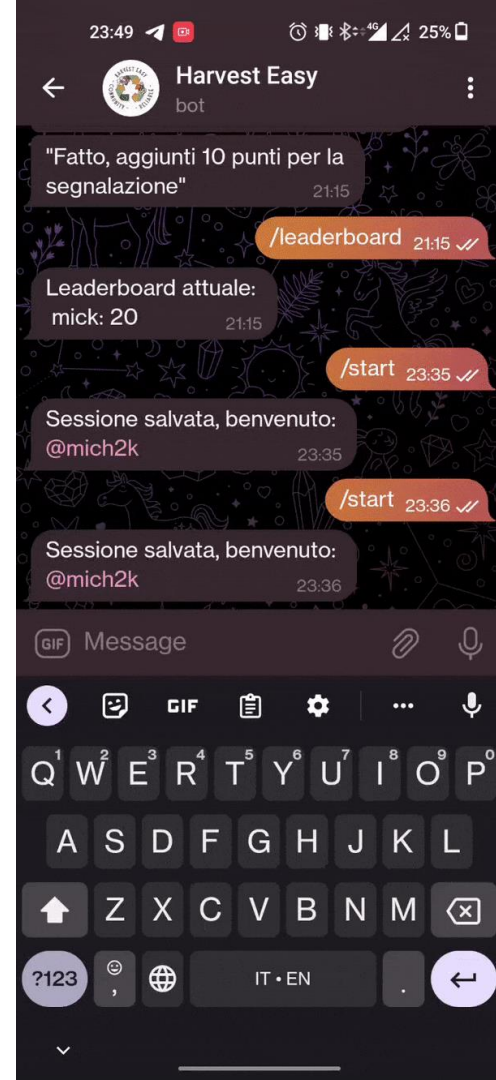
POLLUTION

SOLUTION

STEP 5:

Dwellers are notified through our telegram bot for every anomaly regarding their apartment.

STEP 5 BIS: COMMUNITY
Volunteers, policemen,
civil service can join our
whistleblower service in
order to flag (to WST
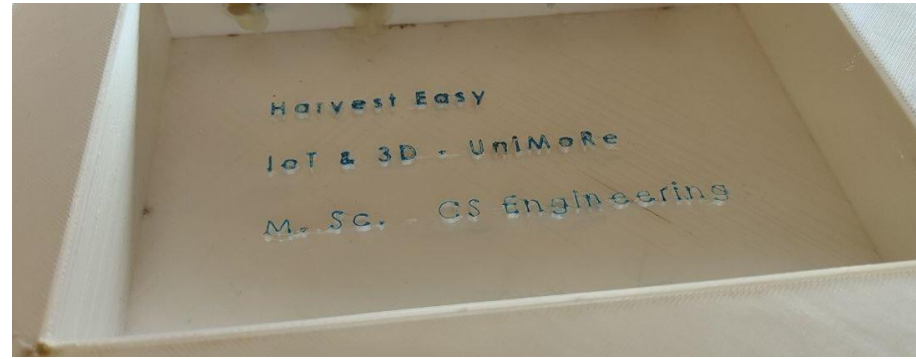company) OR fix the
tempered bin group
themselves.
We implemented a reward
based leaderboard:
gamification meets
community

STEP 6:

innovative prototype-ready made with organic corn based plastic

design

STEP 7:
made for <u>humans</u> & for <u>machines</u>

 > interactive always up-to-date dynamic maps
> automatic, plugged-in, e-harvest truck selection: <u>who passes, leaves</u>

Thank you for your attention