



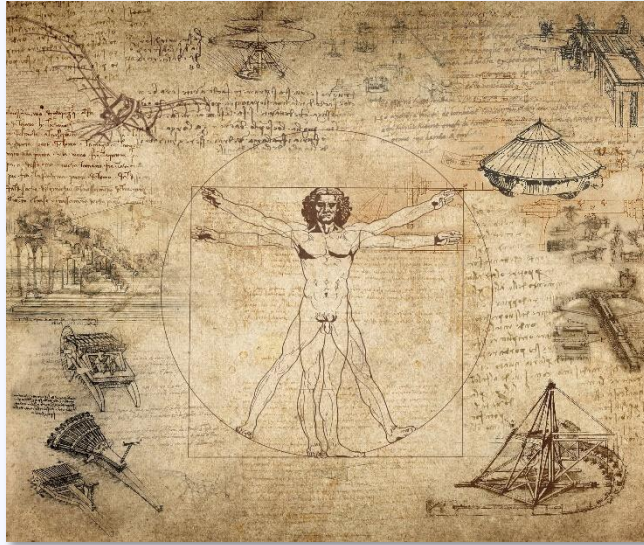
From Renaissance to the Digital Era

Features and characteristics

Roberto Marseglia
Domenico Scamardella

Data contained in this document constitute proprietary and privileged information belonging to Alia Servizi Ambientali Spa and to the addressee of the document. This information is strictly connected to the oral information that accompanied it, and it can only be used by the persons who attended the presentation. Copying, publishing and distributing the material contained in this document is forbidden and it may be illegal.

If Leonardo da Vinci had been asked whether he was **artist or an engineer**, he probably wouldn't have been able to choose: **beauty completed technique**, and technique was in the service of beauty.



With Da Vinci in mind, we are building the multiutility of the future

On January 26, 2023, we brought to life the **multiutility of local public services**, creating an integrated player in the fields of environment, energy, and water: a project in full development thanks to the involvement of ever more new regional and beyond entities.

For this reason, we are able to pursue synergistic strategies for **ecological and energy transition** for the benefit of our territories



GROUP OVERVIEW

Thanks to our main subsidiaries and controlled companies, we are active in the following sectors:



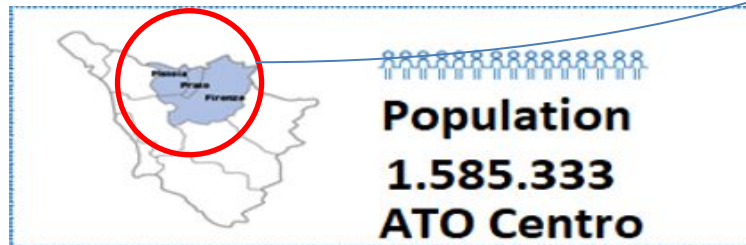
Alia Servizi Ambientali S.p.A. manages the integrated waste cycle in Central Tuscany across 65 municipalities in the provinces of Florence, Prato, and Pistoia, serving about 1,5 million residents.

Estra S.p.A. operates nationwide. It is active in the supply of natural gas, LPG, and electricity, the distribution of natural gas, as well as telecommunications and energy services.

Publiacqua S.p.A. S.p.A. manages the integrated water service in the Optimal Territorial Area no. 3 Medio Valdarno, a territory included between the provinces of Florence, Prato, Pistoia, and Arezzo.



Tuscany



About
1 ML
Energy and
gas customers

1,3 ML
Inhabitants
and **46**
municipalities
served in the
water sector

1,5 ML
Inhabitants
and **65**
municipalities
served in the
environment sector



Empowering citizens in accessing services

symbiosis between technology and organization

Every surprise...

...requires long preparation

1. Dumpster technology and sensors 5.0
2. Data transmission network (everything is a node)
3. Service Control Room and Dispatcher
4. On Demand Home Services
5. Digital and omnichannel user experience
6. Loyalty rewarding behavior

We have embarked on a path of digital transformation of processes and relationships with citizens, through the use of new technologies and tools.

We have designed new assets for waste collection, we have integrated them into a network and designed new services, basing them more on demand than on supply.

The journey continues with a better user experience and the return of the value generated to users.

OBJECTIVES

Creation of a "tariff", linked to the actual use of the services and the behavior of the individual user, which encourages the adoption of cross-commodity offers

Economic incentive and disincentive consistent with the behavior of service users.

Creation of a "responsible social identity" of the citizen who becomes an active part in achieving the objectives of the circular economy with "measurable" behaviors.

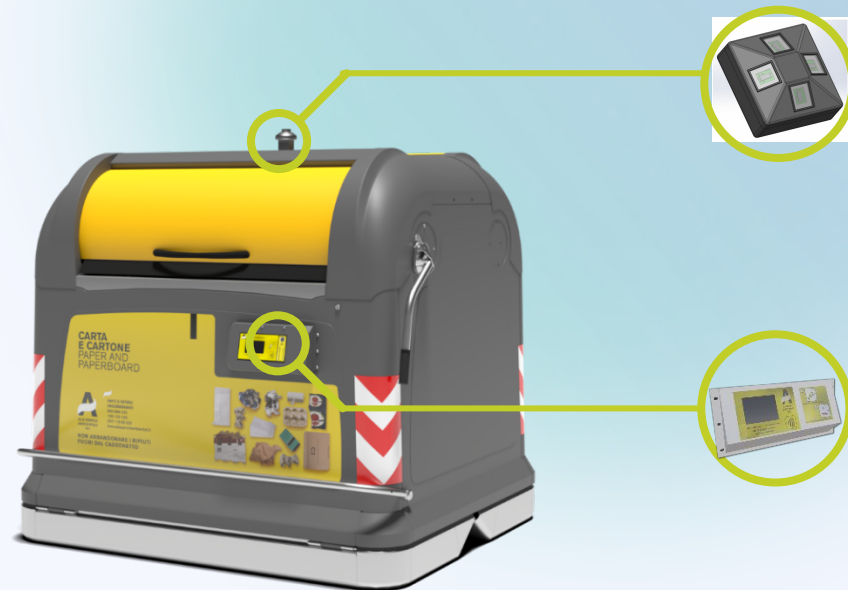
The dynamic change in needs and objectives

We have designed and implemented electronics to transform the bin into a "territorial sensor" for user recognition, for tracking and controlling disposal, filling level, state of use and optimization of emptying (Smart Bin).

The group currently holds two patents for the complete solution and is acquiring others.

The configuration of the electronics consists of:

- Main Board
- NFC Card
- GPS card
- GSM card
- Volumetric sensor



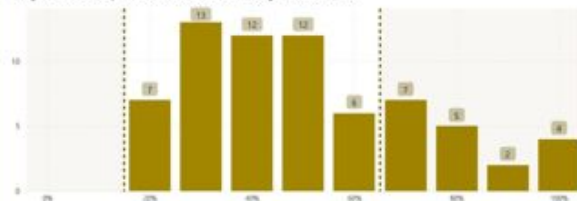


From the users' perspective, it enables the creation of **pay-as-you-throw tariffs** that include a discount based on the amount of sorted recyclable material relative to the total waste.

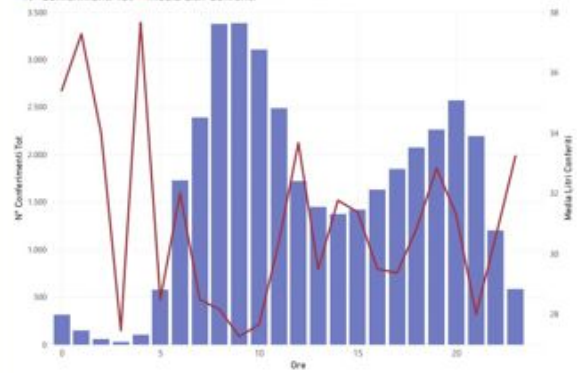
Riempimento medio dei cassonetti ad ogni svuotamento

47,16%

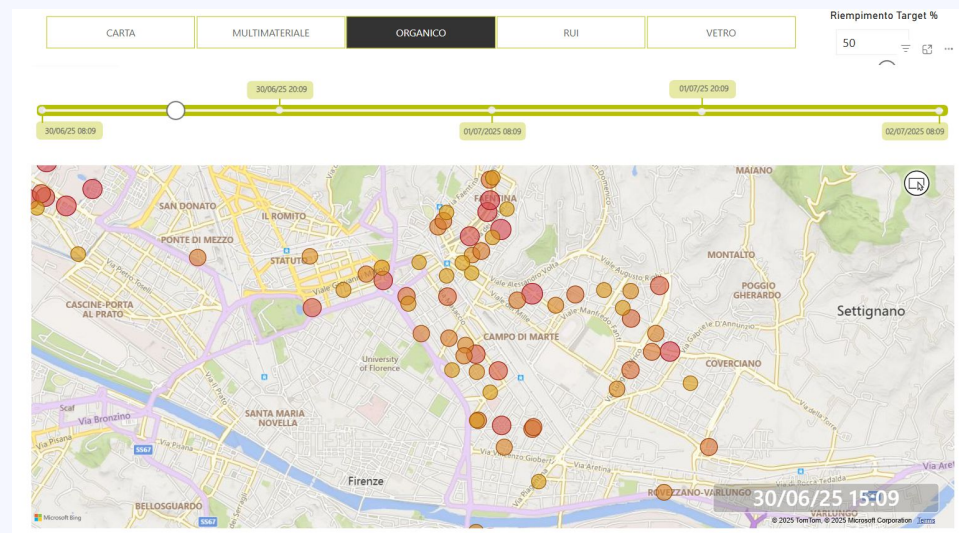
Istogramma - Riempimento medio cassonetti ad ogni svuotamento



● N° Conferimenti Tot ● Media Litri Conferiti

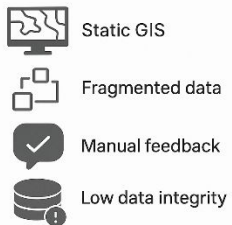


The technology we have developed makes it possible to identify and track citizens' deliveries and orient services based on filling forecasts: we do have a **digital twin of our territory**

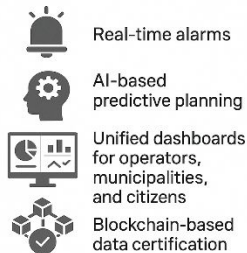


From static to smart

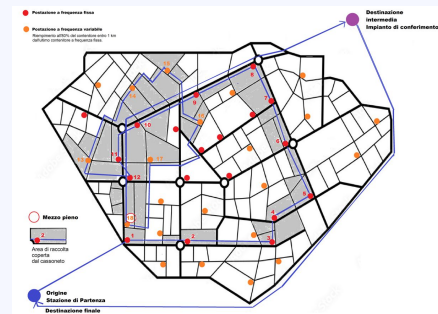
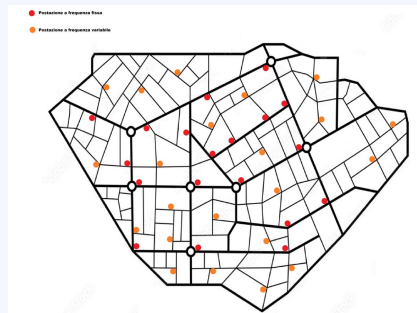
Before



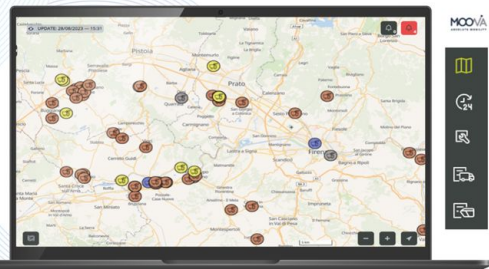
After



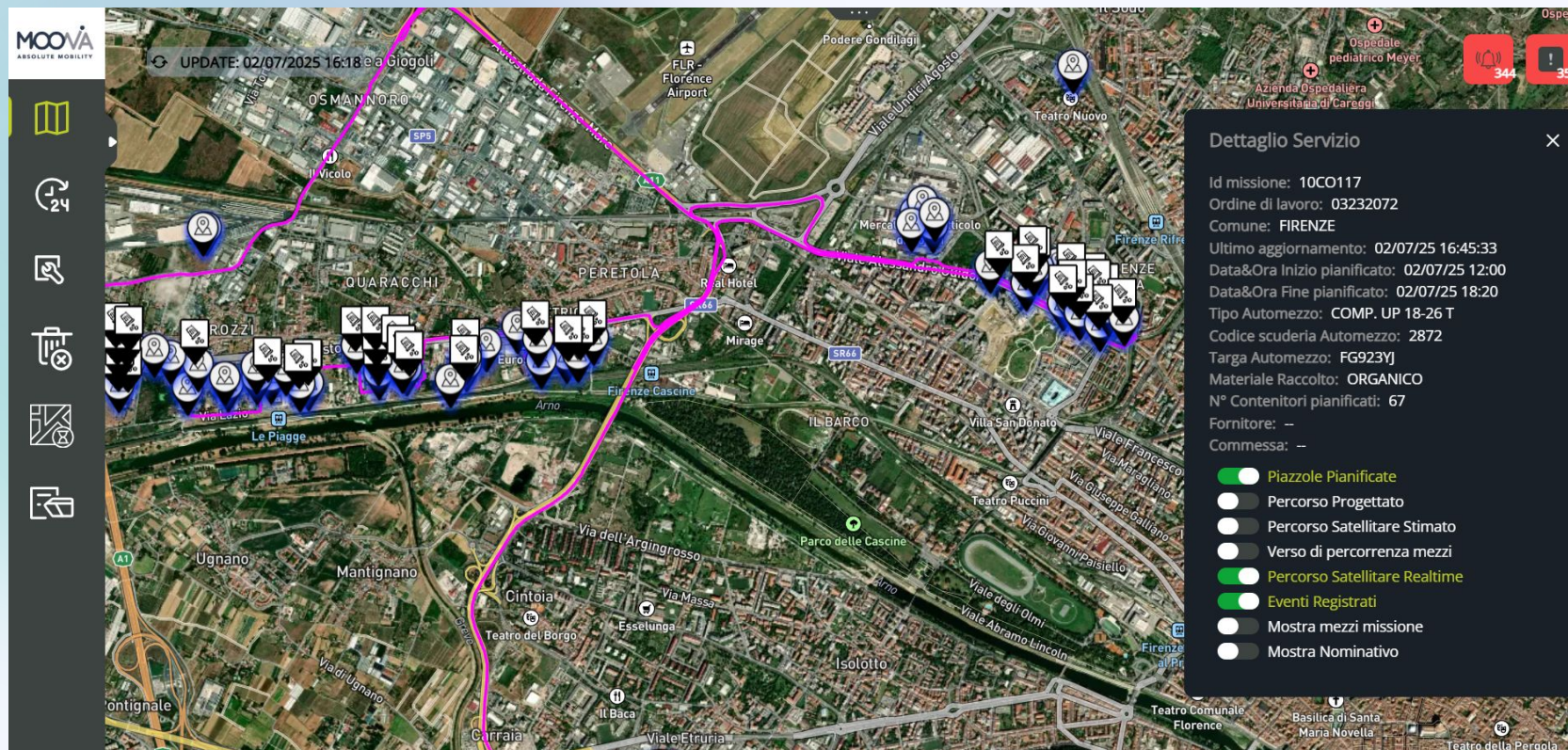
We moved planning from a static approach to a **smart flexible method** to improve efficiency and effectiveness

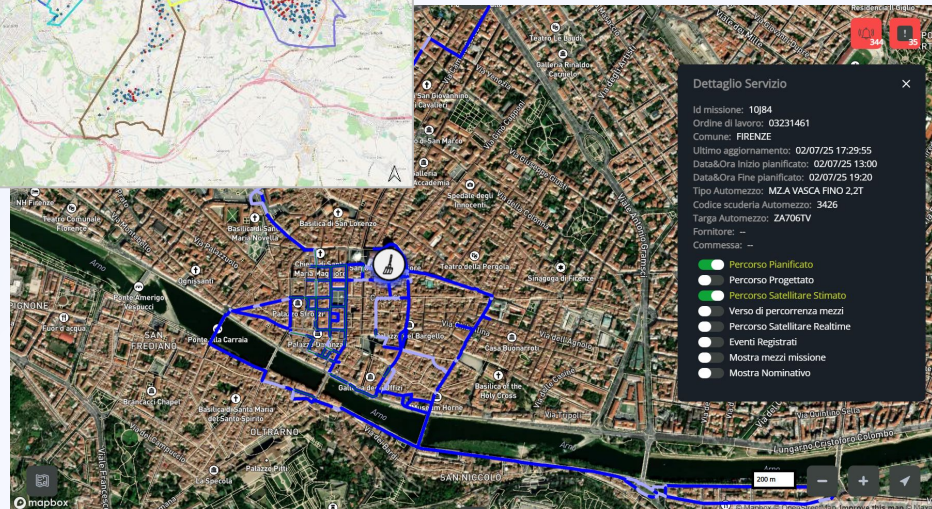
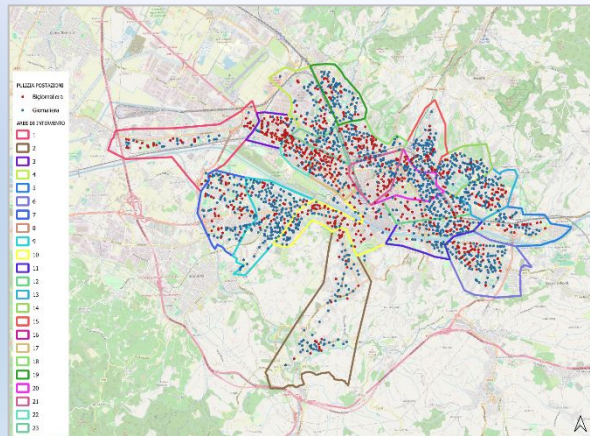
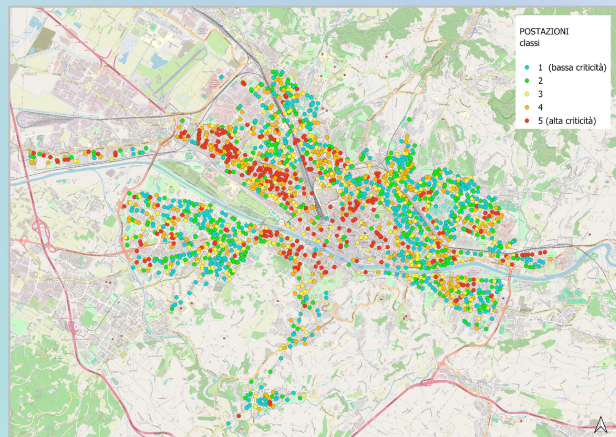


- Dynamic scheduling replaces static routes
- Live spatial feedback enables precision interventions
- Integration with control room improves planning and coordination



The track of a collection service and the progression of the activity managed in real time

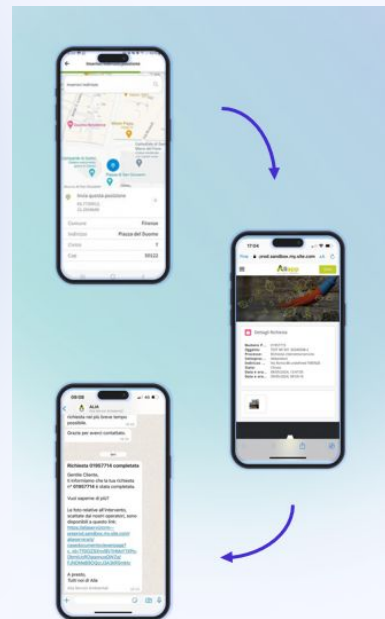




From managing street cleaning needs
to defining of an activity plan
up to the management of requests on
demand



From complaint management with static reporting to real-time resolution with associated feedback by App



An example of citizen involvement

Management of reports of abandoned waste in Florence

Intervention SLA: 3 hours in the UNESCO Area and 6 hours throughout the municipality



The customer, through Aliapp, reports the presence of abandoned waste, photographs it and locates it.



The report becomes a work order to which the predetermined SLA is assigned to the localized area.



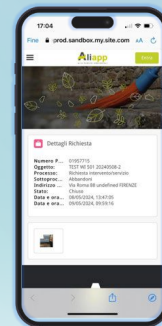
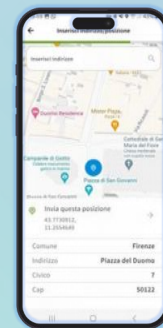
The work order is sent, via Dispatcher, to the mobile application of the nearest team of operators.

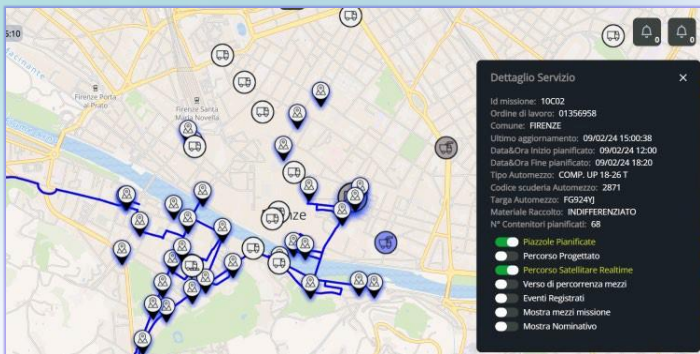


Once the service is completed, the customer receives photos on Aliapp and a Whatsapp message if registered.



In the Dispatcher room, the progress of responses and the efficiency of the SLA are monitored through real-time dashboards.





The control room and dispatcher

In real time, reports or bookings from all assets and other channels are automatically entered into the "dispatcher" system which defines the correct work order and assigns it to the most suitable field operator, rescheduling his interventions.

The following items are monitored in real time:

- the progress of planned services;*
- requests for "OnDemand" services;*
- the recovery of rescheduled services;*
- transfers to recovery and disposal plants;*
- the dynamic filling of street containers;*
- the filling of collection vehicles in service;*
- impacts from events outside the service (from different sources);*
- the creation of maintenance orders in the event of anomalies in the bin sensors;*
- appointments and deliveries to Ecocentres*

The value-sharing model

We are launching a new **Sustainability Loyalty** model to reward virtuous customer behavior in an open ecosystem.

As part of the 360° transformative program, we want to launch a new proposition on the market through a loyalty program with the aim of rewarding virtuous customer behavior based on two factors. This is why we want to create an ecosystem of companies that share these principles with us.

Sustainability

How people relate to the environment, making purchasing decisions with respect to the services offered by companies.

reduce the production of unsorted waste.

External ecosystem

The breadth of the integration of the supply chain of service/product offerings between several companies, both in the purchase and in the use phase.

purchase only energy from renewable sources

We have applied the **Token Economy** as the basis of loyalty to promote virtuous behavior and reward it.

OBJECTIVES

To guide and incentivize people to live sustainably, measuring CO2 emissions and providing personalized advice for reducing their footprint.

REWARDING BEHAVIORS

Identify the daily actions and activities considered as sustainable: purchases of zero-km products, choice of reduced packaging, energy efficiency, etc.

OPERATION MODE

Record through the mobile app, with a **gamification** mechanism, the calculation of the footprint, the assignment and the completion of suggested activities.

REWARD

To recognize the most virtuous customers with **exclusive NFTs (Non-Fungible Tokens)**, specific rewards (e.g. Football Team Passes) and to support social projects.