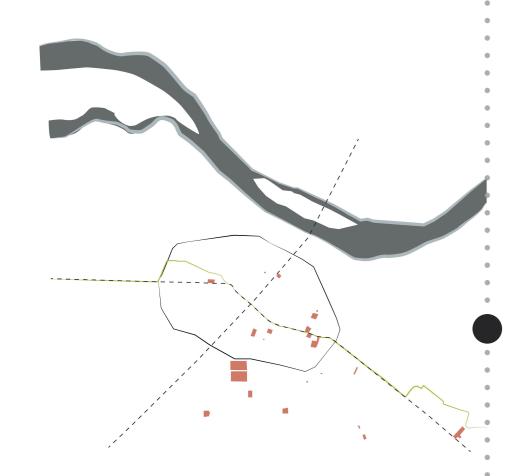


INVOLVED SUSTAINABLE DEVELOPMENT GOALS (SDGs)



SMARTNESS TIMELINE



PAST

2010

LAND USE - SHARED VIA FRANCIGENA

- mix of uses and functions;

- mapping activity;

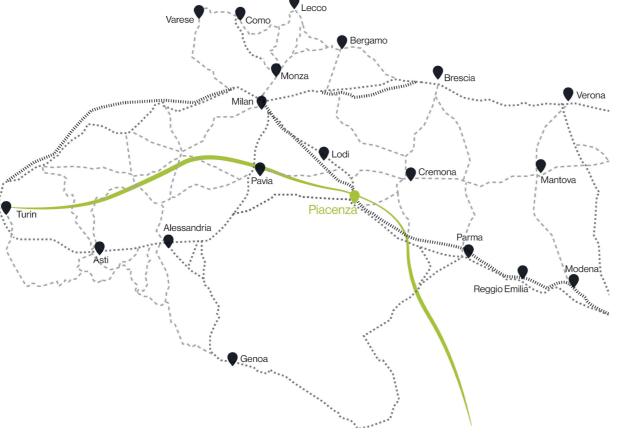
- kowledge of new landsapes;

- provide a service from an app.

KEY-POINTS OF THE INTERVENTION

Connecting existing services;
multiscale approach;
involvement of different cities and territories;
promoting walkability and bikeability;

INTERLACEMENTS



INVOLVE OPENSTREETMAP





- Openstreetmap users can map hostels, restaurants, bike points along Via Francigena.
- Openstreetmap can create a collaboration with Via Francigena Association and provide data.
- 3. Pilgrims walking and cycling along Via Francigena can know the geo-location of every useful place.
- 4. All the mapped facilities can generate a net to share information and organize events.
- 5. The mapping activity can also be expanded in all the cities crossed by Via Francigena.



BIODIVERSITY - GARDENS FOR LIVING

KEY-POINTS OF THE INTERVENTION

- Starting from the existing;
- make visitors aware of Piacenza places;
- discover biodiversity;
- providing a service from an app;
- crowdsourcing: citizens as active participants;
- tangible benefits.

THE PROCESS

- 1. Citizens give information, such as feedback on the park, or updates about current events in the area, or new proposals.
- 2. The app system collects the information.







"Gardens for living" app lists all the parks in Piacenza and their characteristics, showing the one closest to the user with the desired parameters thanks to the use of GPS and preference filters.

The app asks for feedback on the park

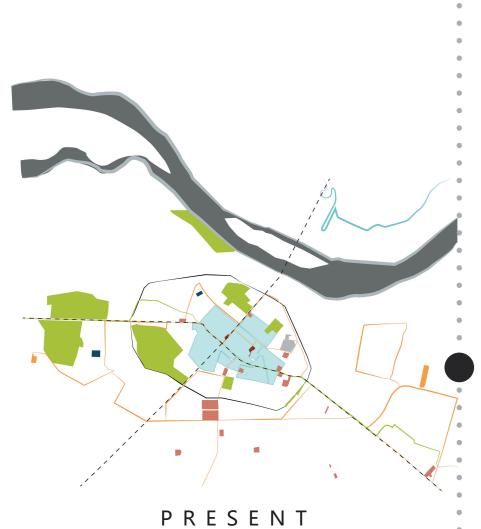




Home Close to me Feedback Best park My profile

5:16

GARDENS FOR LIVING



2020



NEAR FUTURE



3. Feedback and proposals are sent to the Municipality offices for consideration.

Information about current events is updated directly in the app, which notifies all users.

- ★☆☆☆ Low feedback : the Municipality provides practical actions to encrease security and livability.
- ★★☆☆
 ★☆☆
 Medium feedback : the Municipality provide small interventions and events in the park.
- $\bigstar \bigstar \bigstar \bigstar$ Hight feedback : no improvement is required at present.

when the user's GPS is on the area, so that the user can respond about park conditions in real time. The operation is based on some questions and it takes few seconds.

Thanks to users feedback, the Municipality is able to provide improvements in each specific park.

REFERENCE: AMSTERDAM MIJN PARK

Crowdsourcing data app to monitor landscape change and quality through feedback from park users.



MOBILITY - PO CONNECTIVITY

KEY-POINTS OF THE INTERVENTION

Starting from the existing;
promoting slow mobility;
citizens wellness;

isting; - favouring social connections; pility; - ehnancing the main landmark; - rivitalising Po riverside;

- integration of sport facilities; - creation of a new park;

- soft and hard infrastructures; - spending time in contact with nature.

ACTIVITIES

EXISTING SITUATION

In Piano Strutturale di Piacenza the Municipality has already outlined several ideas on the re-development of Po waterfront. For this reason, Po connectivity project is the catalyst of this intervention.

A more connected and integrated city is the basis of the smart process, and its connection with its surroundings allows people to enjoy nature and experience new public green spaces.

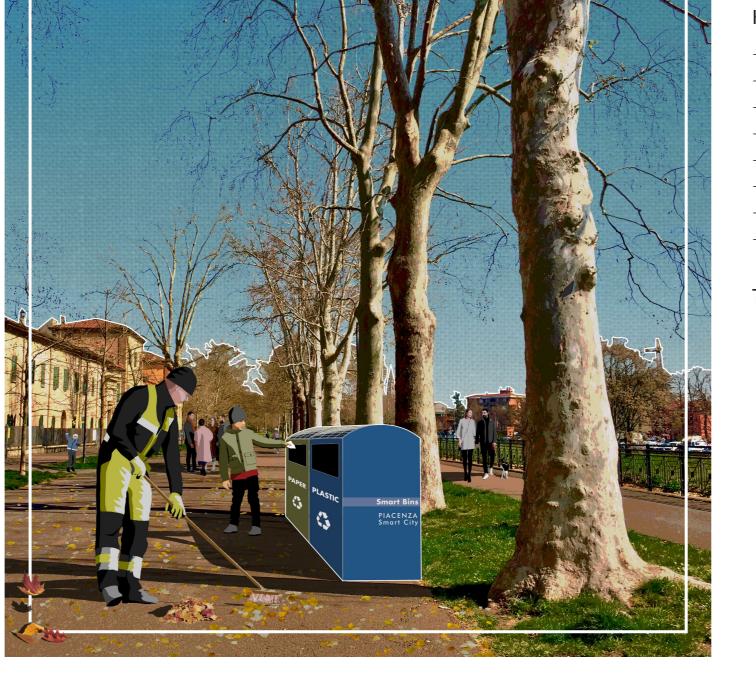


WATER, AIR, WASTE - SOLAR POWERED SMART BINS

KEY-POINTS OF THE INTERVENTION







- Eco-friendly solution;
 high impact on the recycling sistem;
 use of solar energy;
 less waste production;
 more clean and liveable public spaces;
 no bad smells;
- no rats, nor insects;less work for the dustman.

THE PROCESS

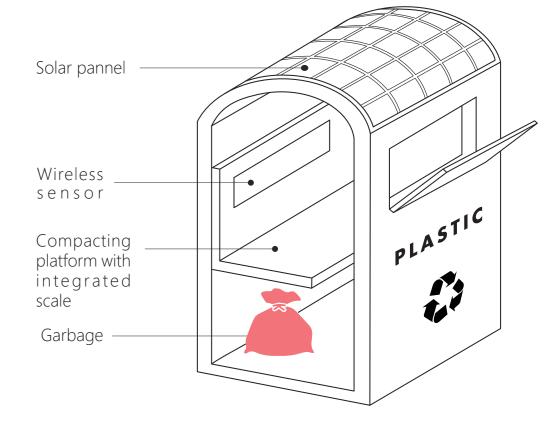
When waste is thrown into the bin, the sensor detects the object and gradually compacts it by an internal press to reduce it and confine it to the bottom to marginalise the smell. With the app, rubbish will be recorded and the user will pay the waste tax according to how much he produces.

- ((co)) When the rubbish reaches its maximum capacity or there is an excessive smell, a sensor alerts the waste station control to inform that the bin needs to be emptied and cleaned.
- Bin emptyers reduce the working time and optimise throughput. This makes public places cleaner and more pleasant.



Solar-powered bins equipped with a chip that detects when the bin is full or too smelly, allowing waste collectors to pick up the rubbish.

BINS ANATOMY





POLITECNICO DI MILANO piacenza campus

co SUSTAINABLE ARCHITECTURE AND LANDSCAPE DESIGN

KATIA CAGALLI 918404 PROF. MASSIMO TADI MASTER THESIS A.Y. 2020/2021 PIACENZA #10YEARCHALLENGE

OWARDS A SMARTER AND GREENER CITY, BETWEEN PAST, PRESENT, AND FUTURE.