

Consulting



#8

OUR CHALLENGE

Designing cities to
fight against the
effects of climate
change



Redesigning a promenade to fight against heat islands

Yves and Jacqueline, both in their seventies, live in the Molières-Chantegrive neighbourhood on the outskirts of Miramas, a small town in the Bouches-du-Rhône department in France.

Every day, they walk along Boulevard Théodore Aubanel to fetch their grandchildren from the nursery school a few hundred metres from their home.

There is nothing pleasant about this boulevard: a noisy four-lane road used by lorries, which gets the full brunt of the Mediterranean sun and heat, particularly in summer.

On the way home from school, Yves and Jacqueline never take the boulevard with their grandchildren, opting for a longer, safer route home.



What solutions can we offer to turn this area into a more pleasant place to live?

How can we give more space to pedestrians and soft mobility solutions?

How can we reshape the area to boost biodiversity and reduce environmental impacts? 

OBJECTIVE

New urban spaces for new purposes, reducing the effects of climate change and boosting urban biodiversity.

33,000 plants
and trees

were planted to boost biodiversity and protect against heatwaves

⇒ **Calculating the effects of the new design on district cooling.**

In February 2018, alongside the Ville de Miramas local authority, SUEZ Consulting and its partners began work to transform Boulevard Théodore Aubanel, on the outskirts of the town.

Combined with a new bypass of the town, the boulevard, originally a **dual carriageway**, was converted into an **urban promenade**, with a **single-lane** road.

The new linear green area raised several challenges:

- Link the Péronne de Miramas urban development zone (ZAC) to the city centre with a high-quality, fun area suitable for soft mobility solutions and playgrounds
- Reduce soil waterproofing
- Boost urban biodiversity
- Ensure responsible management of water resources to promote natural cycle and circular economy of the materials present on site

Promenade Aubanel was inaugurated in July 2019. Two years later, our teams conducted heat assessments on the newly designed space and reported promising results!



SOLUTION

⇒ REDESIGNING the promenade

Find the study results
on [suez.com](https://www.suez.com)!

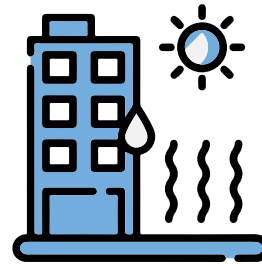
- Environmental issues were of key concern:
 - **Circular economy:** walls and street furniture made from raw earth and pebbles from the construction site
 - **Energy savings:** road lighting technique used
 - **Climate change resilience and adaptation:** creation of an urban park using existing vegetation, choice of draining coatings to reduce overheating
 - **Promote the natural water cycle:** de-waterproofing the road surface, longitudinal parking spaces in a combination of earth and stone covered with unbound aggregates, **ponds designed for direct infiltration into the water table**
- Focus on well-being, attractiveness and social cohesion:
 - A new **space for events** and an **educational garden** to enhance social cohesion
 - An 800m-long **pedestrian and cycle path**, protected from road traffic

DID YOU KNOW



IN FRANCE,
THE AVERAGE SUMMER
TEMPERATURE IS
19.9 °C

Source: CEREMA

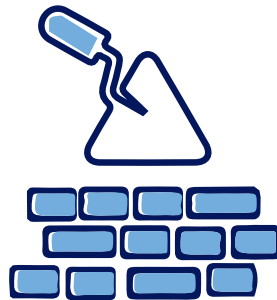


80%
OF THE FRENCH POPULATION
LIVES IN AN URBAN AREA

Source: CEREMA

URBAN MATERIALS STORE
15 TO 30%
MORE HEAT IN THE DAYTIME THAN IN
LESS DENSELY POPULATED AREAS

Source: CEREMA

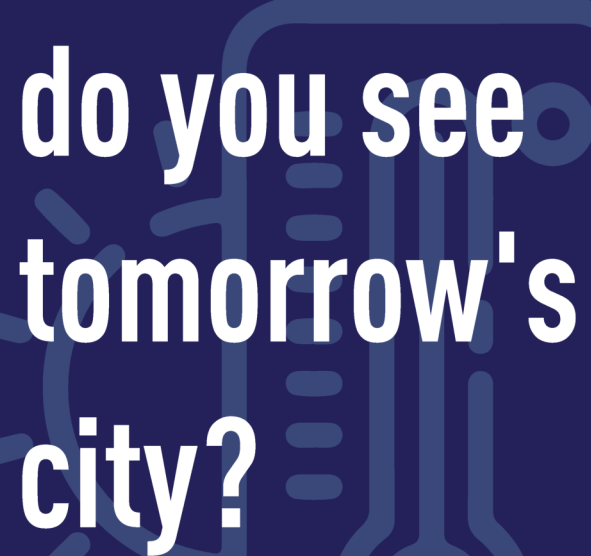


OVER THE LAST THREE SUMMERS,
FROM **2018 TO 2020**,
HEATWAVES HAVE CAUSED
5,000 DEATHS IN FRANCE

Source: CEREMA



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do you see
tomorrow's
city?



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