

III European Conference on Sustainable Mobility at Universities – 18 November 2021

Measures for active mobility in the Mobility Plan of Politecnico di Milano

Giada Messori – Politecnico di Milano, Sustainability Unit

Eleonora Perotto – Politecnico di Milano, Mobility Manager



"The U-MOB LIFE Project has received funding from the LIFE programme of the European Union"



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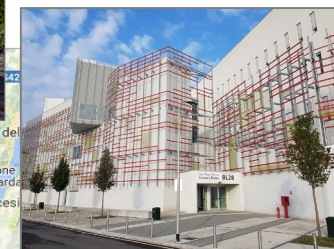
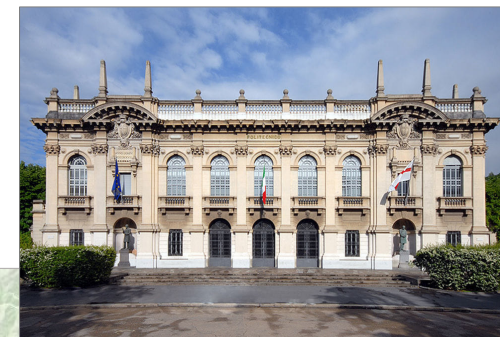
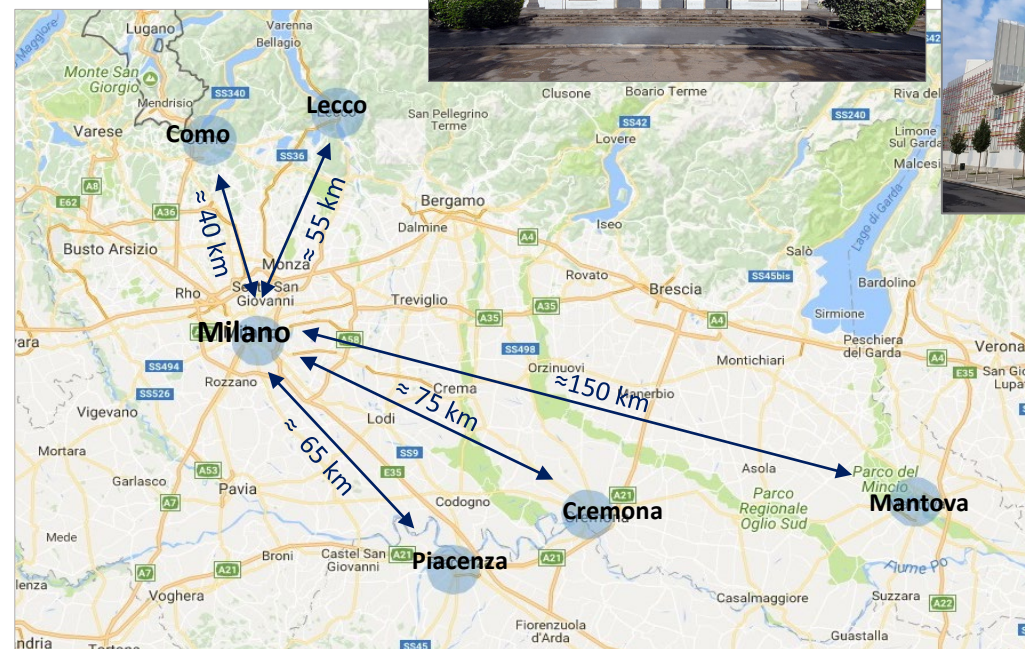


Community (a.y. 2020-21)

- **49.547** students
- **5.169** teachers and employees

7 campuses

- Milano Città Studi
- Milano Bovisa
- Como
- Cremona
- Lecco
- Mantova
- Piacenza





Facilitations and agreements

Funds for staff PT subscriptions, agreements for shared mobility services, ...



Infrastructural interventions

Bike shelters, recharge stations, structural renewal and redesign of open spaces



Awareness raising campaigns

Events and seminars, test drives, citizen science projects, experimentations ...



Networking activities

Working groups at local, national and international level (RUS, U-MOB, ...)

SUSTAINABLE DEVELOPMENT GOALS



main SDGs involved



Main results of the 2019 survey

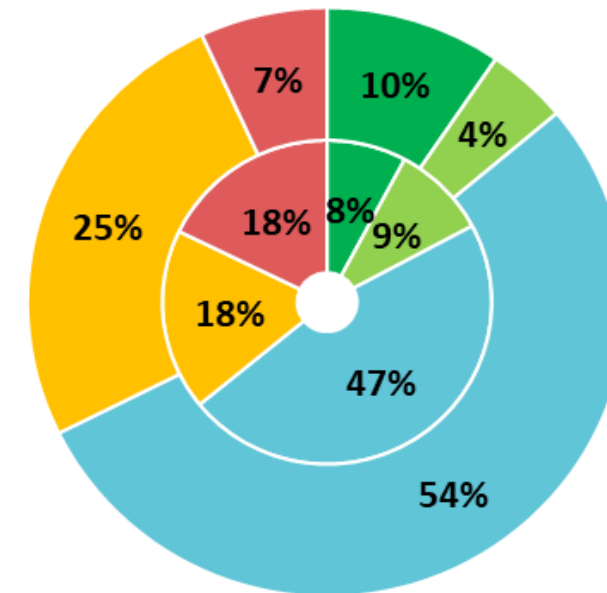
- widely used public transport, both alone or together with private transport
- private vehicles mostly used by staff
- high share of **active mobility**

Very different commuting patterns between Milanese campuses and regional ones

New survey
planned for 2022

Outer ring: students

Inner ring: personnel

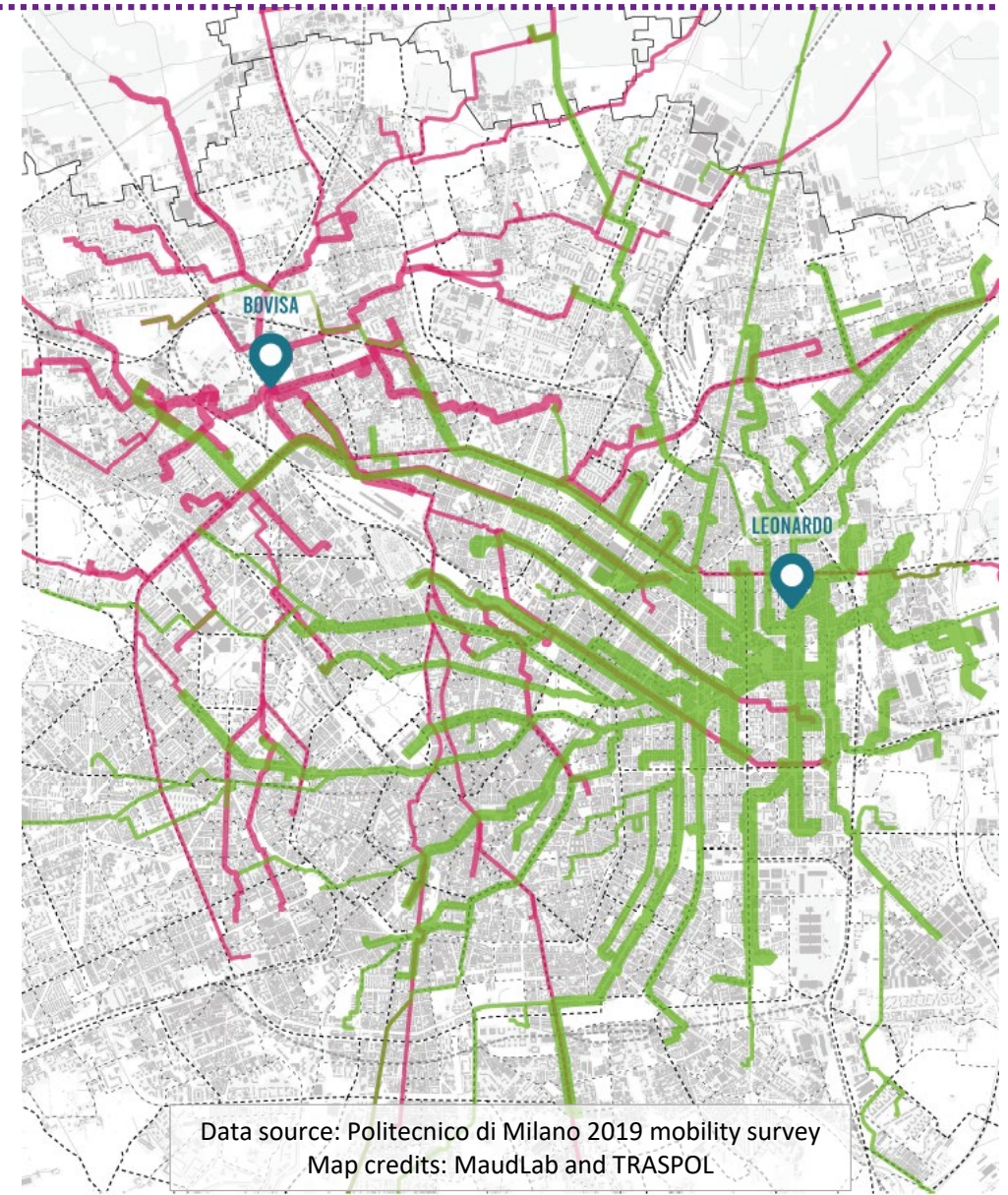


Cycling routes

Cyclist routes are not limited to areas around the campuses but involve a **wide catchment area**, including most of Milan and some surrounding Municipalities.

90% of bike travels are below 7 km, but there are people (especially personnel) cycling up to 10-20 km each way.

The map shows the **shorter routes** from the origin zones not the ones actually taken by the cyclists, but would be the preferred paths if they were safe and comfortable for cycling.



Data source: Politecnico di Milano 2019 mobility survey
Map credits: MaudLab and TRASPOL

Incentives for using the bike more

More cycle lanes
requested by 45% respondents

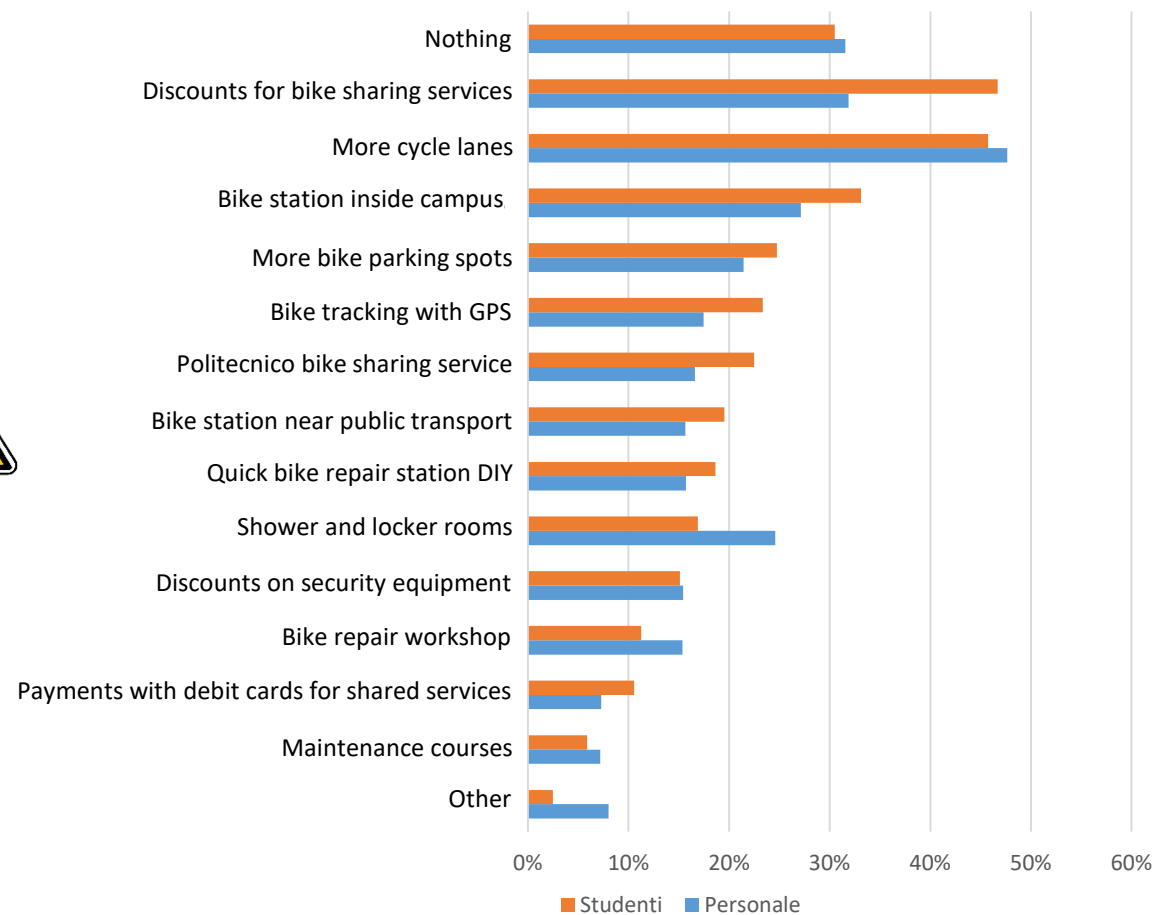
Collaboration with the Municipality needed



Other main requests:

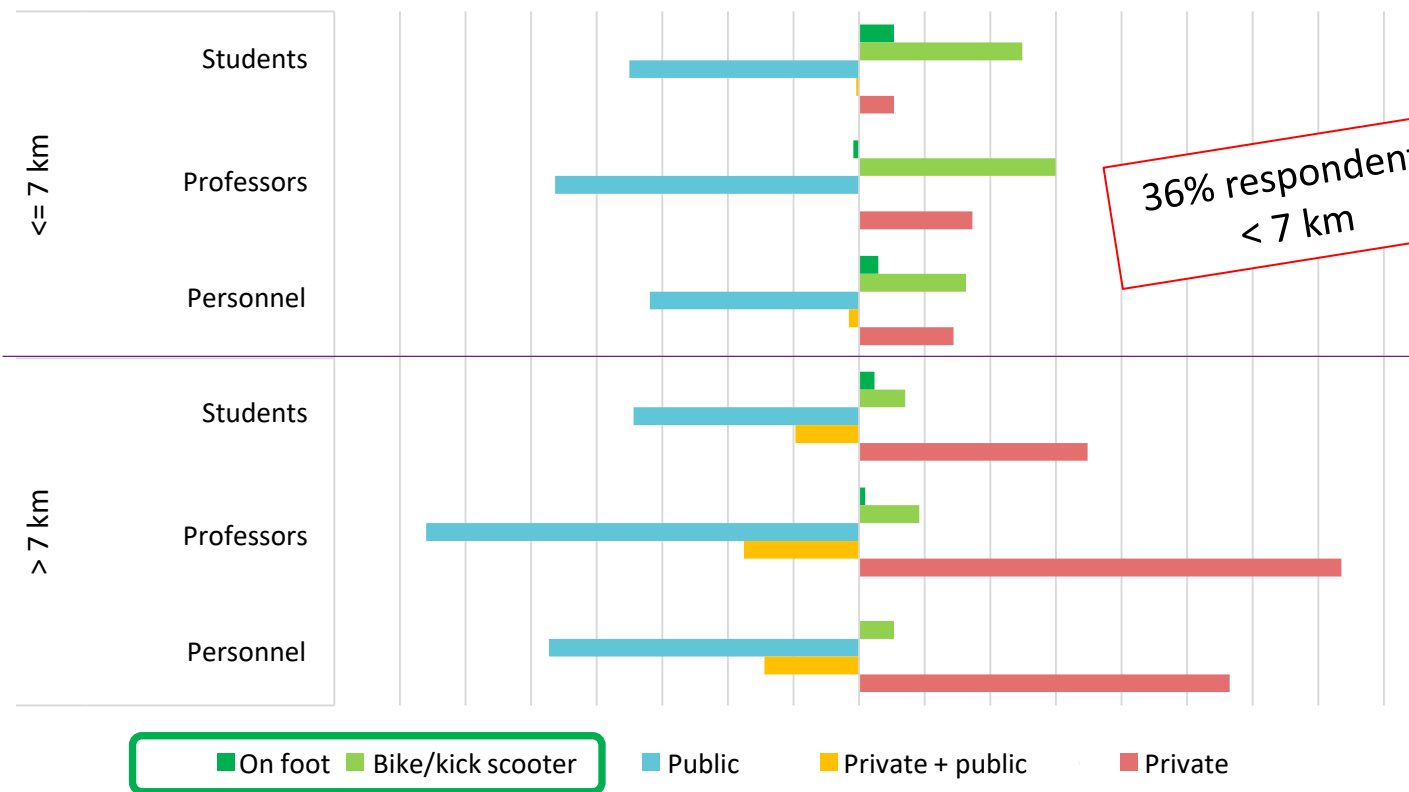
- discounts for bike sharing services
- more and safer bike parking spots
- bike repair station (mostly students)
- shower and lockers rooms (mostly personnel)

Incentives – Milanese campuses



Modal share variation – Pessimistic scenario

-40% -35% -30% -25% -20% -15% -10% -5% 0% 5% 10% 15% 20% 25% 30% 35% 40%



RUS survey 2020 to understand expected shifts in mobility habits due to COVID

Pessimistic scenario: virus still dangerous

Great reduction in public transport usage, shift toward active mobility for distances below 7 km.

POLIMI respondents:
16% students - 22% teachers - 35% personnel

Adopted by PoliMi institutional bodies in July 2021

in compliance to regulations and in order to have access to funding from the Italian government.

Drafted by the Sustainability Unit and Mobility Manager, with help from the TRASPOL research laboratory and many colleagues, aims at reducing the use of private vehicles and addressing the UN's Sustainable Development Goals.

Contains both proposed actions **for the University and the local authority**, which are the same ones shared in 2020 in most cases.

Index

- Regulatory framework
- Shared mobility data
- Mobility in Italian Universities
- Politecnico di Milano
- Mobility supply analysis
- Mobility demand analysis
- National survey on home-university travels during COVID-19
- Ongoing activities
- Proposed actions
- Priority interventions and budget

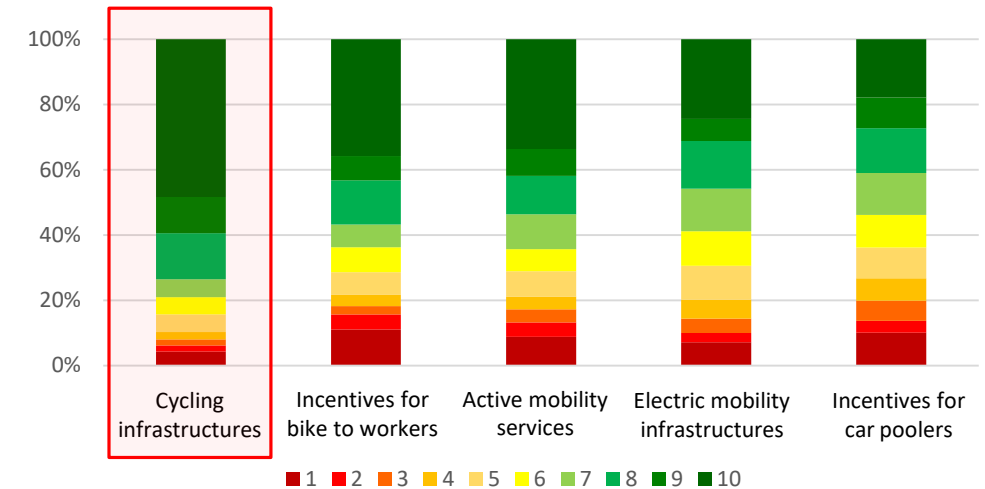
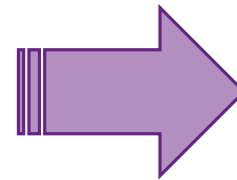


Proposals for Politecnico

- Reduction of entry flows
- Infrastructures for active and electric mobility
- Incentives for active mobility
- Sustainable mobility services
- Communications and awareness raising campaigns

SURVEY ON 5 PRIORITY MEASURES

1. Cycling infrastructures
2. Electric mobility infrastructures
3. Active mobility services
4. Incentives for bike to workers
5. Incentives for car poolers





Cycling infrastructures

Building 5 bicycle stations and increasing the availability of bike racks in order to reach a total supply of at least 1,300 bike parking spots in Leonardo campus, 600 in Bovisa campuses and around 100 for each regional campus.

Proposed investment:
550,000€



Incentives for bike to workers

Introduction of benefits or prizes for Politecnico employees that will travel to the University by bike and will take part in a voluntary program to track and certify their daily routes.

Proposed investment:
400,000€



Active mobility service

Construction of shower and locker rooms, ideally near the bicycle station and inside each department.

Proposed investment:
250,000€



Electric mobility infrastructure

Installation of 20 charging stations for electric cars to be distributed among the campuses and 300 more power sockets to recharge bike and kick scooters batteries.

Proposed investment:
200,000€



Incentives for car pooler

Introduction of benefits or prizes for the users of the University car pooling platform, still being tested.

Proposed investment:
100,000€

Politecnico already offered **1,231 bike parking spots**, some of which with overhangs sheltering them.

A **bike station** was installed in 2021 in Leonardo campus and more should be added according to the Mobility Plan. Access to the bike station is limited to those with a Polimi badge and it is equipped with tools for small repairs and power sockets for electric vehicles.



Politecnico is working on the idea to offer **incentives to bike to workers**, possibly by paying them according to how many kilometres they travelled to get to work. An alternative could be to offer them discounts on items available in the Polimi Official Merchandise Green Collection.

In order to do this, employees need to agree to have their travels monitored through an app, which will certify that a bike was used to reach the University. The data collected would be very useful also to compute the obtained CO₂ emission reductions.



Ministerial Decree 16 March 2021 “Resources for urban cycle lanes between railway stations and university campuses”

Politecnico worked on a proposal to have access to ministerial funding to build cycle lanes connecting two of its campuses (Milano Città Studi and Lecco) to nearby railway stations.



Lecco



Milano Città Studi

2017-18: **6** companies under agreement

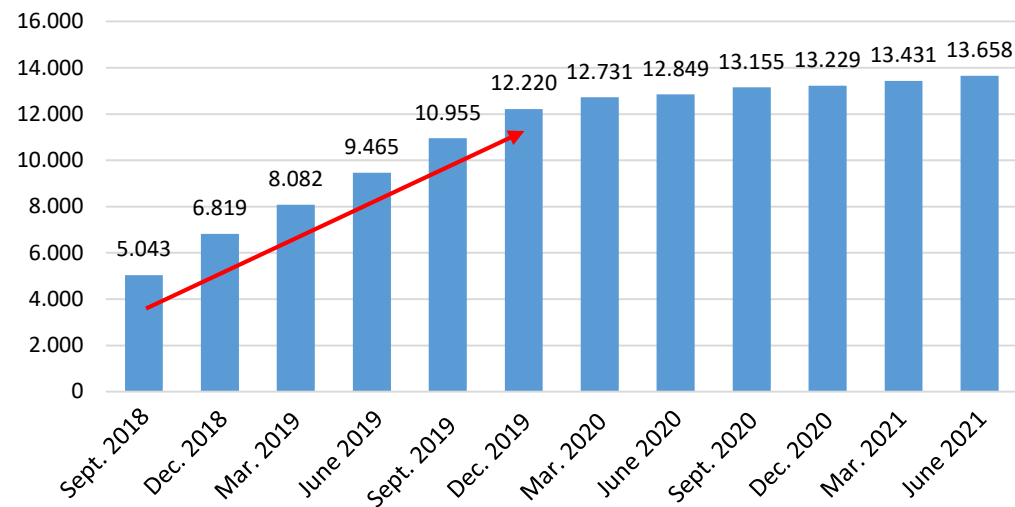
2018-20: **16** companies under agreement

- 6 car sharing
- 1 bike sharing
- 4 scooter sharing
- 5 bus/shuttle services

2020-21: **12** companies under agreement

- 4 bus/shuttle services
- 2 scooter sharing
- 2 car sharing
- 1 car pooling
- 1 kick scooter rent
- 1 purchase group for hybrid/e-cars
- 1 long term rent for bikes, kick scooters and mopeds

Total users



Politecnico signed an agreement with Swapfiets, a service offering **long term rents** for bikes, electric kick scooters and mopeds. Thanks to the agreement, the Politecnico community is offered a discount on the subscription for all kinds of vehicles.

The Sustainability Unit also received a **traditional bike** and an **electric bike** for duty travels. Events were organized to engage the community during the EMW, like a **treasure hunt** to win a free bike for 3 months.



35 rents since June!

NEW



Politecnico provides a supply of around **100 bikes** for staff internal travels and **4 kick scooters**, given by the Sustainability unit to those who request them.



Launched in 2014, **Policiclo** is the Politecnico bike repair workshop (open also for citizen). It is managed by students and offers a **free bike repair service** while teaching people how to take care of their bikes.

The Sustainability Unit supports Policiclo by funding the purchase of needed **materials** and organizing **events together**.

Some figures:

- Students involved: **8**
- Weekly openings: **2**
- Customers for opening: **7-8**



Bike2Poli – il BiciBus dei grandi

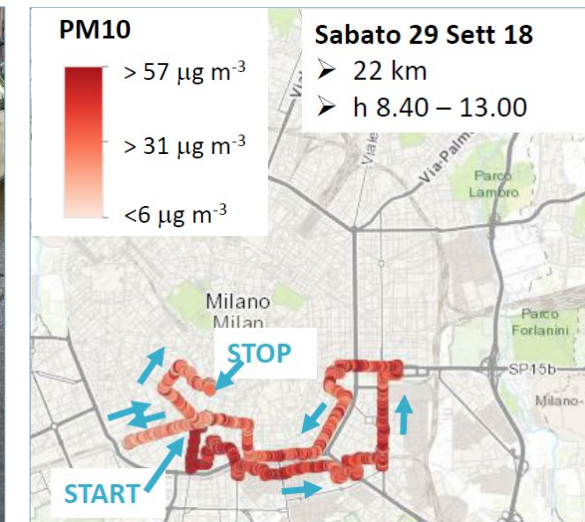
Bike to work initiative created to get more people to come to University by bike.
Thanks to some colleagues who already cycled every day to work and that were also available to act like guides, we could identify various paths covering most of the Milan Municipality. Participants could join the group at each stop and face the traffic together, learning the best paths to reach the campus.



Politecnico participated every year to the Milano Bike Challenge, a friendly competition aimed at encouraging employees to cycle to work.
Our University took 3rd place in 2015, 2nd place in 2017 and 2018 and **first place in 2019**.



Politecnico participated in a bike relay, organized in 2018 by *Citizens for Air* to involve citizens in **monitoring Milano air quality**. During the ride, participants could measure PM concentrations as perceived by cyclists, showing the difference between cycling on main roads among the traffic or on less frequented streets.



2 active projects for the structural renewal of the campuses, aiming at improving their liveability and quality: **VIVI.POLIMI** and **Renzo Piano**.

Objectives:

- less cars inside the campuses
- more study spots and benches
- more bike parking spots
- more green areas



Data source for ViViPolimi Project
Eugenio Morello and Giuseppe Mondini – ViViPolimi Commission
Data source for Renzo Piano Project
Gianluca Noto



VIVI.POLIMI – Bovisa



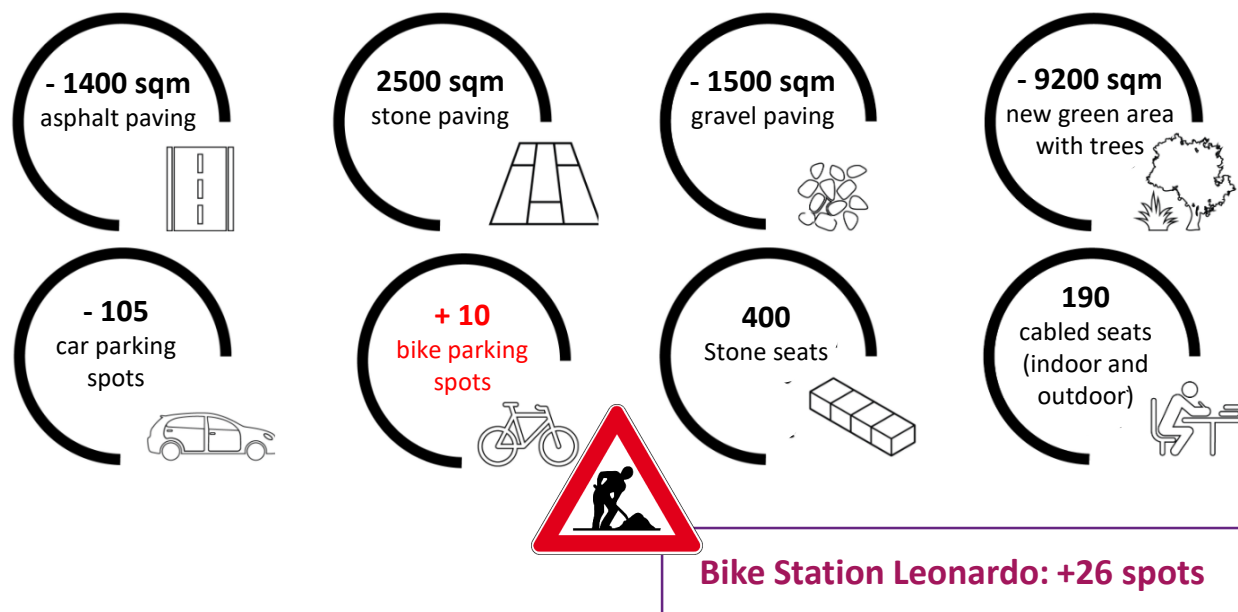
Renzo Piano



VIVI.POLIMI - Leonardo

VIVI.POLIMI Project

Most parking spots have been removed and internal traffic has strongly reduced, creating study spots and new bike parking spots.



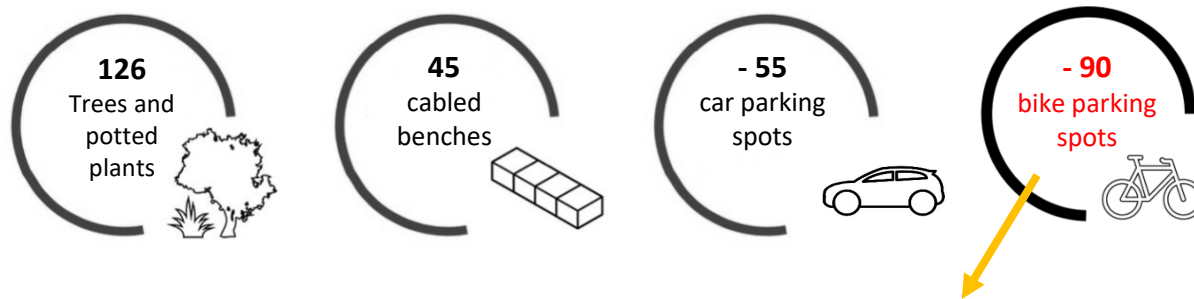
Before



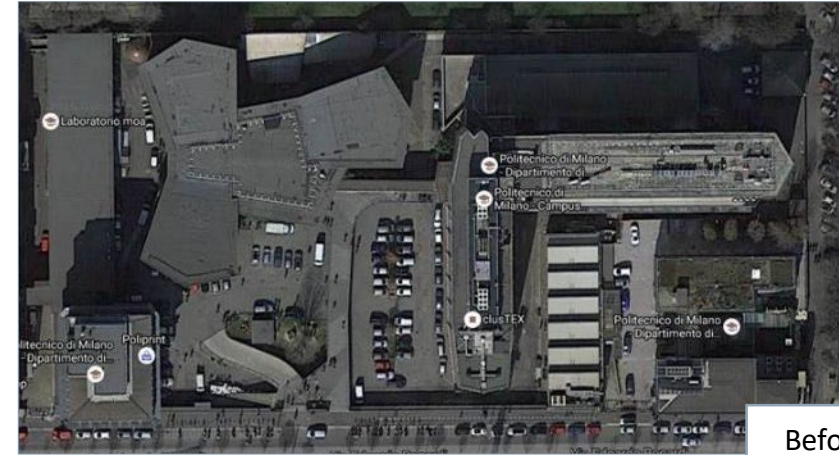
After

RENZO PIANO Project

Initial design proposed in 2015 by archistar Renzo Piano.
The big parking area as become a pedestrian public space covering an area of 800 sqm, featuring new trees and accessible rooftops.



**+ 10 bike parking spots outside campus
(tot 260 bike parking spots)**



Before



After



POLITECNICO
MILANO 1863

THANK YOU!

Contacts

Giada Messori: giada.messori@polimi.it

Eleonora Perotto: eleonora.perotto@polimi.it – mobility@polimi.it



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- **General interventions**

Work on a different timetable plan, introduce mileage reimbursement and stimulate bike and kick scooter purchases, ...

- **Promotion of cycling mobility**

Strengthen connections between Milan and the surrounding Municipalities, links between Universities and railway stations, bike stations near stations, ...

- **Redevelopment of public space and traffic calming measures**

Traffic calming measures, close to traffic streets near Polimi campus, remove all cars parking on sidewalks to regain space for pedestrians, ...

- **Public transport**

Better links between the areas on the outskirts of Milan, improve competitiveness of surface public transport services, allow more bikes on trains, ...

