



HOW LISBON CYCLES

Towards a more sustainable, inclusive and safe city

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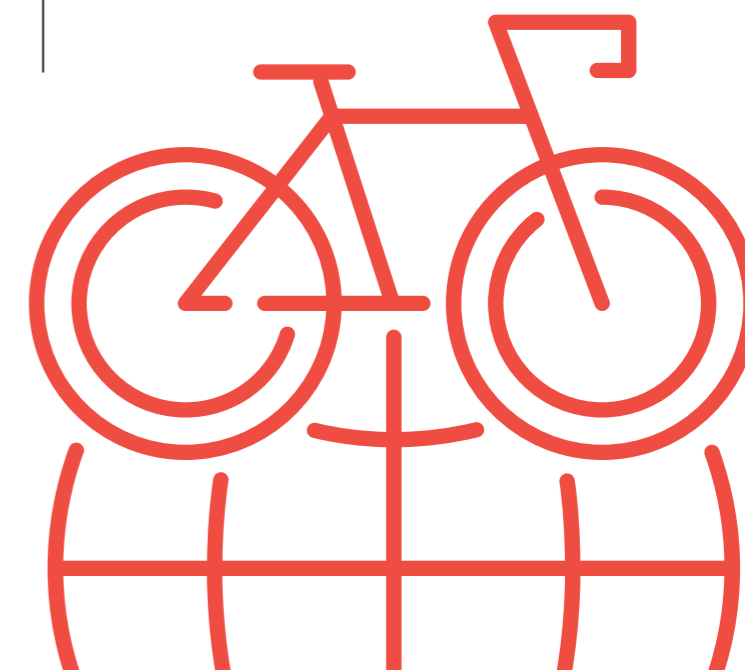
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INTRO- DUCTION

Lisbon has come a long way from the first bicycle lanes in 2001. In 2009, a network of bicycle lanes designed for leisure began connecting some of the city's green spaces. Some of these bicycle lanes, like the one along Avenida Duque d'Ávila, already offered a glimpse of things to come: a Lisbon that views the bike as a day-to-day means of transport and not just leisure. In 2017, a new bicycle lane was built in the city, crossing services and businesses areas. Today, this bicycle lane on Avenida da República is one of the most used in the entire city.

With the increase of cycling infrastructure in the urban network, and the introduction of the GIRA public bike share system, many people in Lisbon began viewing the bike as a real alternative. This booklet tells the story of an increasingly cyclable Lisbon, in the hope that this narrative may continue to be recorded in the future.





WHY RIDING A BIKE IN LISBON?

The bicycle is the most energy efficient mode of transport.

It is very competitive in urban areas, especially for short distance travel up to 5 km (or 15 min).

Although Lisbon is known as the city of seven hills, 73 % of its streets are flat or have slopes of less than 5 %, making them accessible to most users. On the other hand, the proliferation of e-bikes and other similar modes, along with elevators and escalators, allows topographic difficulties to be overcome and kindle aspirations of a fully cyclable Lisbon.

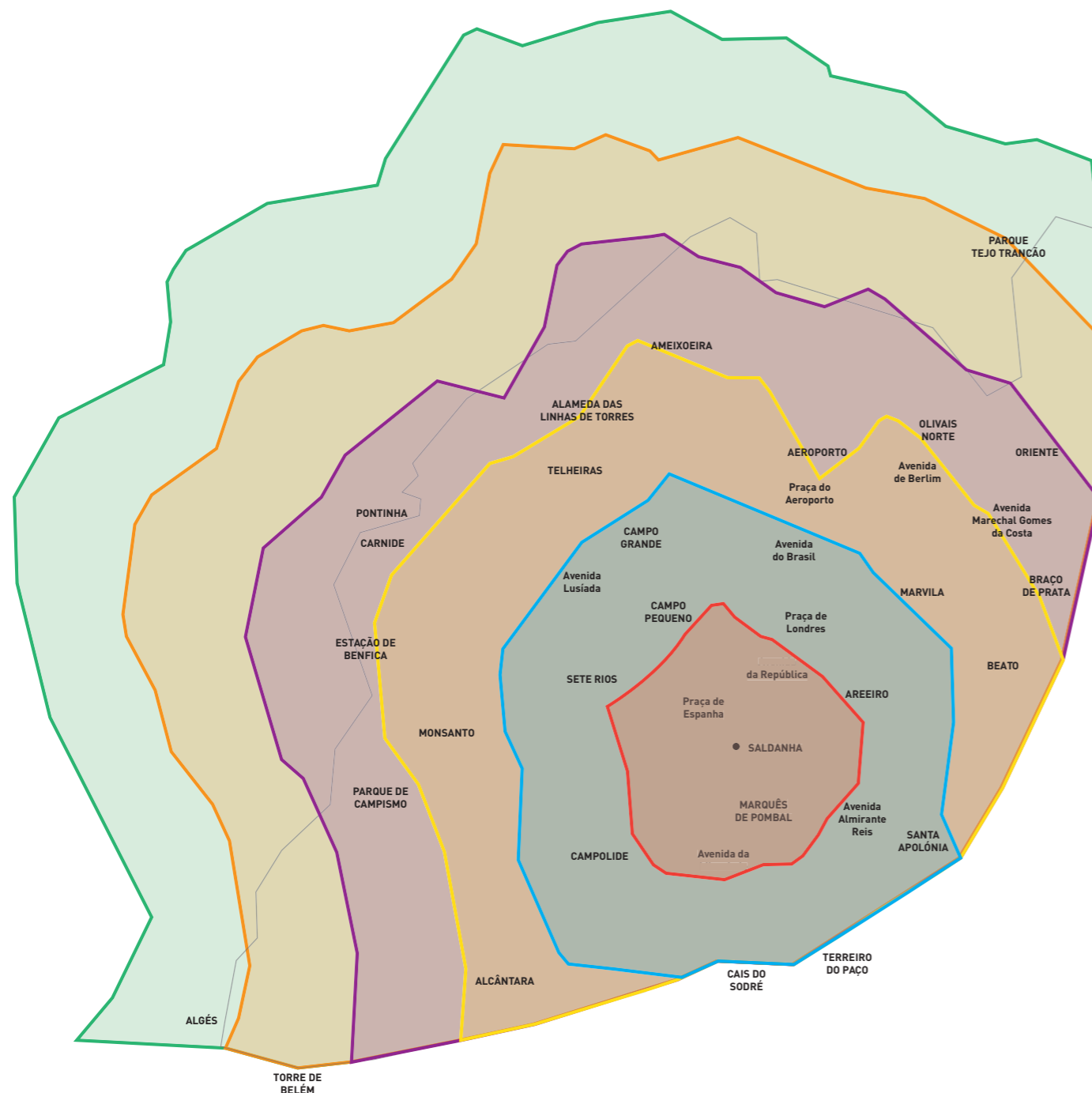
THE BICYCLE HAS ECONOMIC AND ENVIRONMENTAL BENEFITS, IN LINE WITH CITY OF LISBON DECARBONISATION STRATEGIES



“The Lisbon we aspire to is a city with a neighbourhood life, of daily proximity, protected from intense traffic, where people prefer to travel on foot, by bike or neighbourhood transport services. To this end, barriers to pedestrians will be reduced, routes will be made comfortable and accessible, and traffic flow will be subdued, becoming friendlier to pedestrians and bikes for the safety of everyone. The streets will

become meeting points for residents and visitors to make the most of and exchange experiences, where commerce and culture will set the pace, where children will be able to play and the elderly will be able to socialize”

MOVE LISBOA – STRATEGIC VISION FOR MOBILITY 2030



DISTANCES TRAVELED BY E-BIKE

- CITY CENTRE / Praça Duque de Saldanha
- 5 MINUTES / 1,7 km ● 20 MINUTES / 6,3 km
- 10 MINUTES / 3,1 km ● 25 MINUTES / 8,0 km
- 15 MINUTES / 4,5 km ● 30 MINUTES / 9,2 km

69%

OF JOURNEYS IN LISBON ARE UNDER 5 KM, ONE THIRD OF WHICH ARE MADE BY CAR

SOURCE: IMOB 2017, INE

73%

OF LISBON'S STREETS ARE FLAT OR HAVE LOW SLOPES

SOURCE: Rosa Félix, 2012

BY 2030, LISBON AIMS TO REDUCE THE USE OF PRIVATE CARS BY 28 %, ACHIEVING A MODAL SPLIT OF 66 % FOR PUBLIC TRANSPORT, WALKING AND CYCLING

30%

JOURNEYS IN LISBON ARE MADE ON FOOT OR BY BIKE (2017)

SOURCE: IMOB 2017, INE



BIKE NETWORK



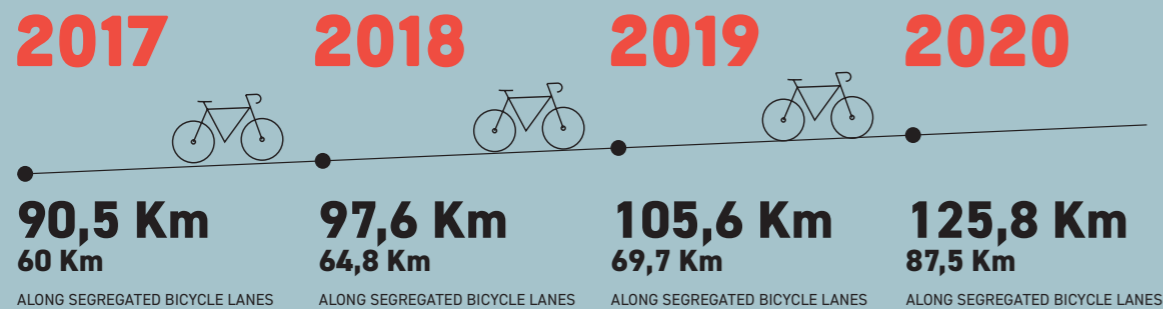
150 km

BIKE NETWORK CURRENTLY IN PLACE OR UNDER CONSTRUCTION (APPROX.)

The bike network in Lisbon has increased substantially in recent years. In a city with more than 1700 km of roads, the aim is to reserve 200 km for safe cycling. Although there are several loose ends and unfinished connections, the goal of 200 cyclable kilometres for 2021 aims to connect different neighbourhoods and increase bike use as a mode of transport.

NEXT INTERVENTIONS:

- Avenida da Liberdade
- Avenida do Uruguai
- Avenida de Roma
- Avenida de Ceuta
- Avenida José Malhoa
- Avenida Almirante Gago Coutinho
- Avenida do Restelo, Avenida das Descobertas and Avenida da Torre de Belém
- Avenida Álvaro Pais
- Avenida Carlos Paredes and Avenida Helena Vieira da Silva





INCREASINGLY MORE PEOPLE CYCLING

Over the last few years, bike use as a mode of transport has increased in Lisbon. The increase in cycling infrastructure and the expansion of the GIRA public bike share system have contributed to this phenomenon. From 2019 to 2020 alone, there was a growth of 25 % in the city as a whole and a 140 % increase with the construction of the pop-up bicycle lane on Almirante Reis in June 2020. This increase may be justified by the implementation

of new bicycle lanes in the city of Lisbon and also due to the Covid-19 pandemic, which may have transferred demand for public transport to cycling, in line with the trend observed in the rest of the world. Since 2017, the increase in bike use in Lisbon has been monitored by researchers at Instituto Superior Técnico on behalf of Lisbon City Council, providing the municipality with observational counts for this mode of transport.

66

OBSERVATION POINTS IN 2020

639

OBSERVATION HOURS IN 2020, DURING 11 WORKING DAYS

25%

INCREASE IN BIKE USE IN THE CITY FROM 2019 TO 2020

138%

INCREASE IN BIKE USE IN THE CITY FROM 2017 TO 2020

500 BIKES PER HOUR

DURING LUNCH TIME ALONG THE CENTRAL AXIS (INCLUDING AVENIDA DA REPÚBLICA)

6/7 PM

THE PEAK TIME FOR CYCLISTS IN THE AFTERNOON, WHICH DIFFERS FOR DRIVERS

HOW PEOPLE CYCLES

42%

WEAR A HELMET. THIS PERCENTAGE HAS INCREASED, SUGGESTING AN INCREASE OF RECENT CYCLISTS

1 IN 4 CYCLISTS

IN LISBON IS FEMALE. THIS PERCENTAGE INCREASED FROM 17.7 % (2017) TO 26.2 % (2020), EVIDENCING THE SAFETY OF THE INFRASTRUCTURE. THERE ARE MORE WOMEN CYCLING ON SEGREGATED CYCLE

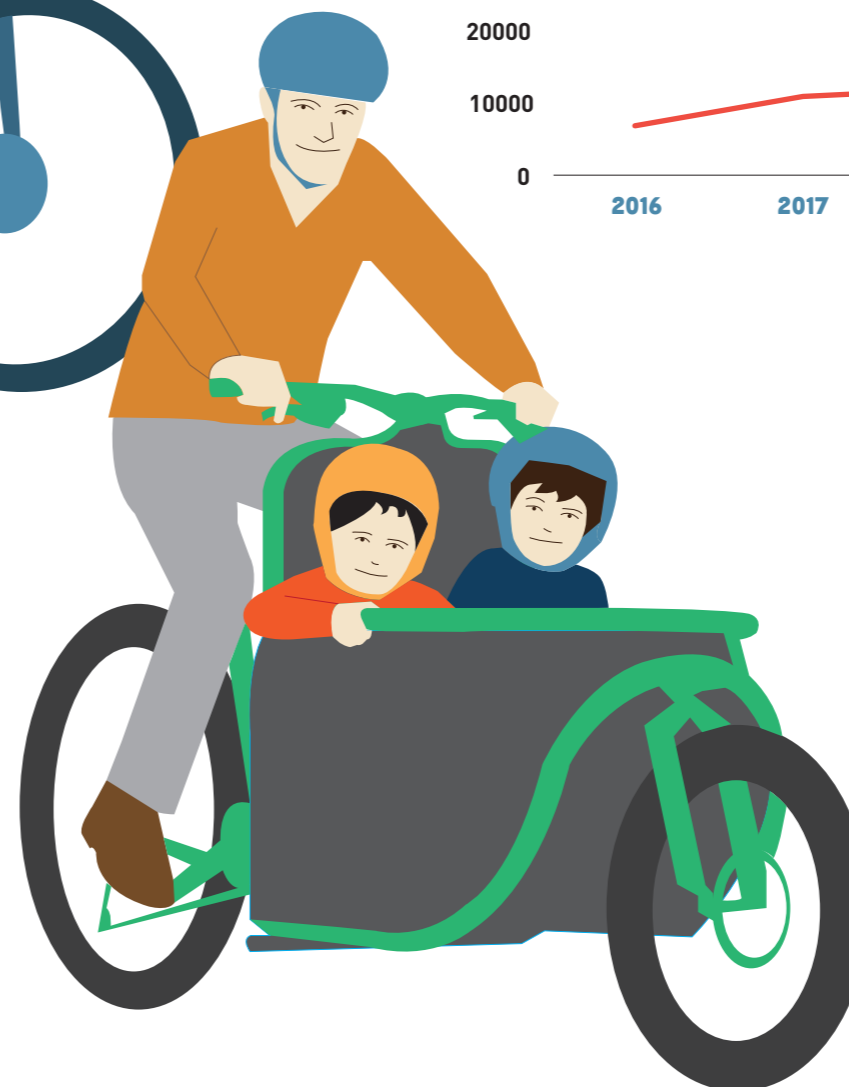


OFF THE SIDEWALKS

CYCLISTS WERE FOUND TO AVOID CYCLING ON THE SIDEWALKS ALMOST ENTIRELY WHEN BICYCLE LANES ARE AVAILABLE.

MORE THAN DOUBLED

THE PROPORTION OF BIKES WITH CHILD SEATS OR TRAILERS FROM 2017 TO 2020. THESE REPRESENT 6.2 % OF OBSERVED CYCLISTS, AN INCREASE THAT CAN BE INTERPRETED AS AN INDICATOR OF CONFIDENCE AND THE SAFETY OF THE CYCLING NETWORK.

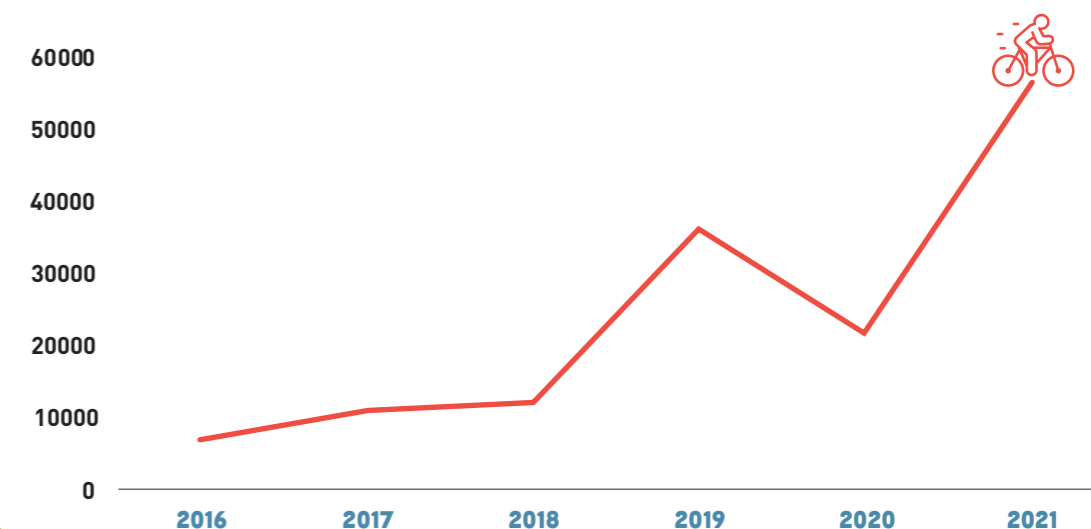


THE SPECIAL CASE OF AVENIDA DUQUE D'ÁVILA

This bicycle lane has the only automatic counter in the city of Lisbon at the time of this publication. The city expects to install 34 such counters until the summer.

60 THOUSAND

DURING THE MONTH OF MARCH 2021



2000 BIKES

PASS THROUGH THIS SITE EVERY DAY, AN INCREASE OF 820 % COMPARED TO 2016

SOURCE: ECO-PUBLIC.COM/PUBLIC2/?ID=100028002



GIRA

LISBON'S PUBLIC BIKE SHARE SYSTEM

Following a testing period in Parque das Nações, Lisbon's public bike share system - GIRA - began to be extended to the rest of the city from the end of 2017. GIRA is thought to have contributed to the increase in bike use as a mode of transport in Lisbon. The entry into operation of bike share systems, public at first but later also private, had great impact on the increase in bike

use, representing more than a third (34 %) of the total of bikes observed in the counts performed from the first year of operation.

GIRA IN NUMBERS

3,2 MILLION

JOURNEYS SINCE SEPTEMBER 2017

24,3

THOUSAND ACTIVE USERS ON THE SYSTEM (2020)

20-35

YEARS OLD AGE OF MOST USERS



100 TONNES CO2 EQ

ESTIMATED CO2 EQ SAVINGS FROM GHG EMISSIONS IN 2018

*1ST STUDY FOR EMEL, 2018

29%

OF GIRA JOURNEYS REPLACED AUTOMOBILE JOURNEYS

*1ST STUDY FOR EMEL, 2018

13 TRIPS ON AVERAGE

PER DAY BY E-BIKES (2019)

15 MINUTES

AVERAGE TRAVEL TIME; HALF OF TRIPS LASTS 9 MINUTES OR LESS (2019)

THE GIRA NETWORK PRESENT AND FUTURE

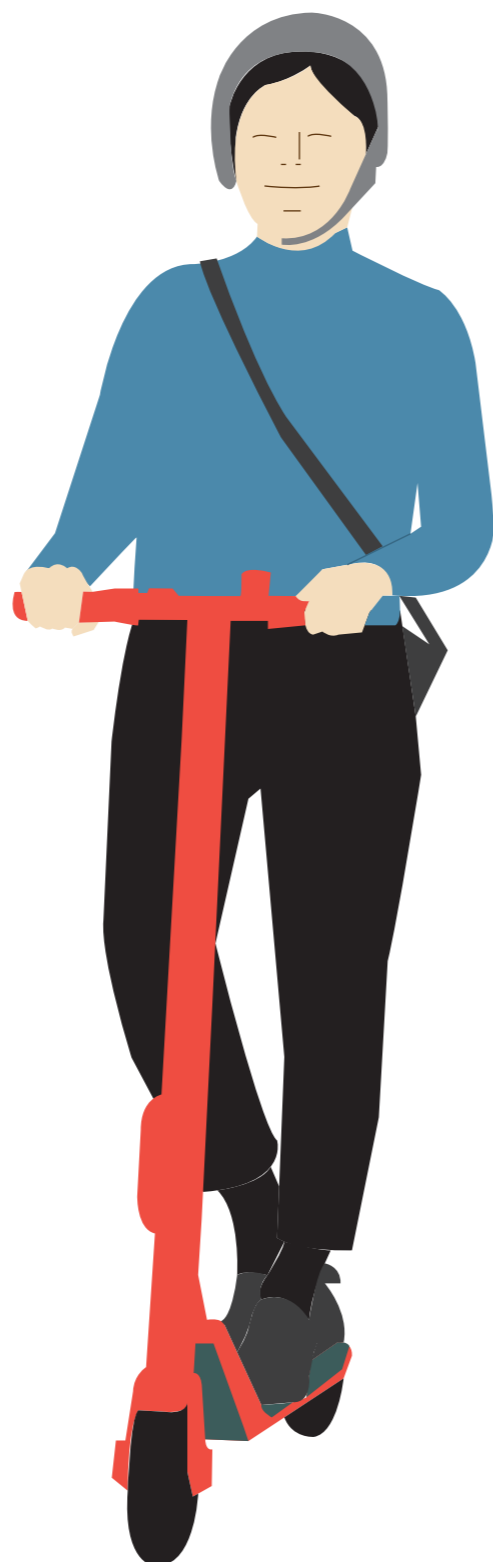
91 STATIONS INSTALLED

NEW 80 STATIONS INSTALLED DURING 2021, COVERING NEW POINTS IN THE CITY TO KEEP UP WITH THE EXPANSION OF THE CYCLING NETWORK

1300

BIKES

BETWEEN 1700 AND 2000 BIKES WILL BE PURCHASED THROUGH PUBLIC TENDER



SCOOTERS

Scooter-sharing were first made available in Lisbon at the end of 2018. The number of different companies operating in the city was 11, and at the peak in May 2019, there were about 7000 e-scooters distributed throughout the city.

This mode of transport did not coexist peacefully with other users of the city's public spaces at first, but a balance was quickly sought with the creation of authorised parking places and awareness campaigns, both by operators and the municipality itself.

At the end of 2020 there were 4 companies in Lisbon operating just over 2 thousand e-scooters. One of these operators still shares dockless bikes. Since becoming available in October 2018, scooter-sharing have covered 79 million kilometres in the city, over the course of 3.9 million journeys.

AS A FORM OF MICROMOBILITY, ELECTRIC SCOOTERS REPRESENT A DEMAND FOR ALTERNATIVE TRAVEL MODES

Not all scooters in Lisbon are shared. The counts indicate that 40 % of the scooters in circulation in the city belong to the users themselves, who are mostly male. Only 6 % of children and teenagers use this mode of transport.

40%

40 % OF THE SCOOTERS CIRCULATING IN LISBON ARE PRIVATE

SUPPORTING THE PURCHASE OF BIKES

Lisbon City Council has an ongoing programme to support the acquisition and repair of bikes for city use (Bike Purchase Support Programme, PAAB acronym in Portuguese) by those who live, work or study in Lisbon. Launched in 2020 in the context of the pandemic to promote the use of bikes, through purchase, the PAAB runs until the end of 2021.



Main conditions:

Be a student, resident or worker in Lisbon or a company based in Lisbon.

Purchase and repair the bike in one of the participating shops or workshops.

Submit the online application and all the necessary documentation.

Contributions:

Conventional bikes: 50 % of the cost up to 100 euros.

Cargo bikes: 50 % of the cost up to 300 euros.

e-Bikes: 50 % of the cost up to 350 euros.

E-cargo bikes: 50 % of the cost up to 500 euros.

Handicap e-bikes: 75 % of the cost up to 500 euros.

Repair and bicycle accessories: 50 % of the cost up to 80 euros.

More info:

lisboa.pt/programa-de-apoio-aquisicao-de-bicicletas

In 2020, through the Bike Purchase Support Programme, the city council co-financed 50 % of the purchase cost of bikes by residents, students and city workers.

3305 CO-FINANCED BICYCLES

2157 CONVENTIONAL BIKES
1136 E-BIKES
11 E-CARGO BIKES
1 HANDICAP E-BIKE

600
THOUSAND EUROS
IN SUPPORT

64% OF BENEFICIARIES
ARE CITY RESIDENTS

18% WORKERS
14% UNDERAGE RESIDENTS
4% STUDENTS

In a survey carried out among PAAB beneficiaries, 1270 responses were collected, supporting the following conclusions:

62%
OF BENEFICIARIES STARTED
USING A BIKE IN LISBON

6%
ALREADY USED A BIKE, BUT
SWAPPED IT FOR A NEW ONE

FOR
29%
OF SURVEY RESPONDENTS,
THIS WAS THEIR FIRST BIKE

93%
FELT MOTIVATED BY PAAB
TO ACQUIRE A BIKE

WHAT IS IT USED FOR?

93%
WORK/STUDY

14%
SERVICES/SHOPPING/VISITING
THE DOCTOR/POST OFFICE...

91%
ARE SATISFIED USING
THE BIKE IN LISBON

39%
FACTORED IN THE PANDEMIC
WHEN CONSIDERING THE
ACQUISITION OF A BIKE

41%
DID NOT RIDE A BIKE BEFORE
THE PANDEMIC



E-BIKES

The sale of e-bikes has registered a significant increase in recent years, mainly between 2019 and 2020. In a city with Lisbon's topography, the increased use of e-bikes is not surprising. The PAAB may increase use of these vehicles in the city over the coming years. The proportion of e-bikes circulating in the city increased from 5 % (2018) to 17,5 % (2020) of privately owned bikes,

according to the collected observations. E-bikes for own use account for more than 26 % in some locations.



E-BIKES IN NUMBERS

1148

E-BIKES (CONVENTIONAL, CARGO AND ADAPTED) CO-FINANCED BY THE MUNICIPALITY PROGRAMME IN 2020

17,5%

OF BIKES MONITORED IN OCTOBER 2020 WERE E-BIKES

400 THOUSAND EUROS

IN SUPPORT

66%

OF THE VALUE CO-FINANCED

SELIM AND THE CIRCULAR ECONOMY

Selim (Portuguese for Saddle) is a service that collects, repairs and provides used bikes to those who need them, as a long-term rentals. The project was created to support the mobility of all people who need to move around during the Covid-19 pandemic

but do not have a bike. The project by the association CICLODA is supported by Lisbon City Council and the Civil Parish Council of Arroios.



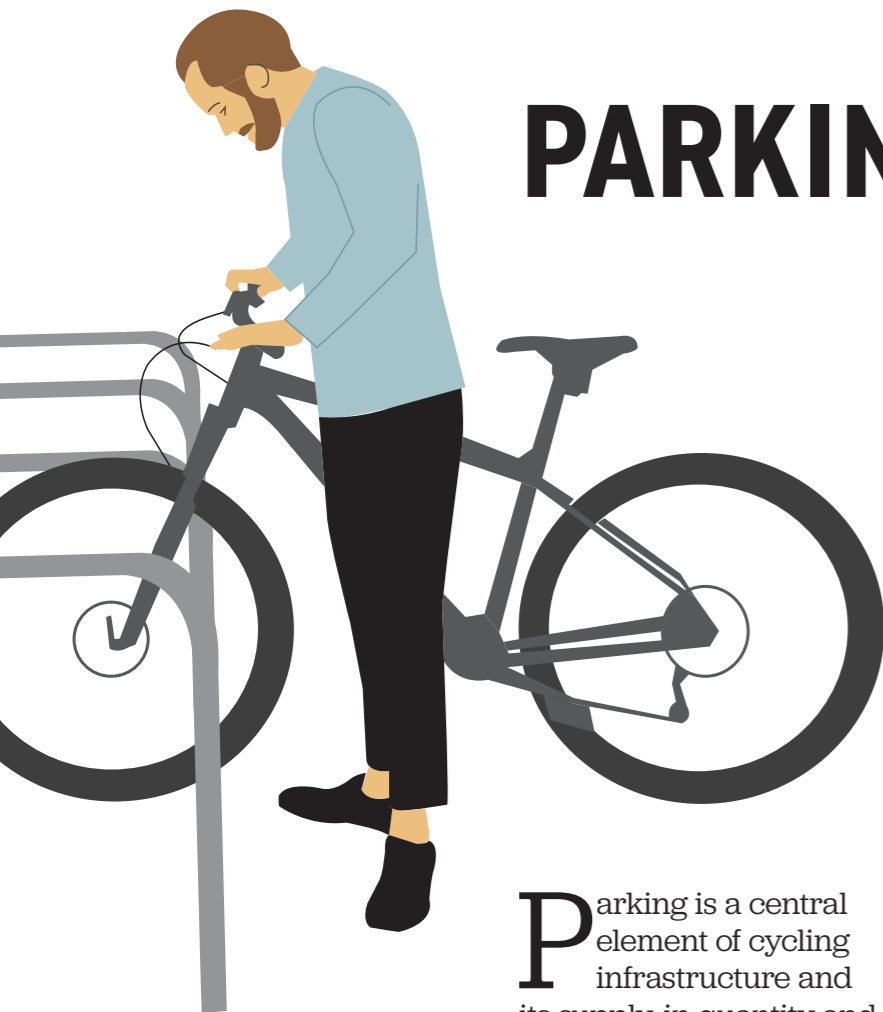
966 REQUESTED



277 COLLECTED



175 DELIVERED



PARKING

1068
PARKING PLACES (2020)

6288
BIKE AND SCOOTER
PARKING CAPACITY (2020)

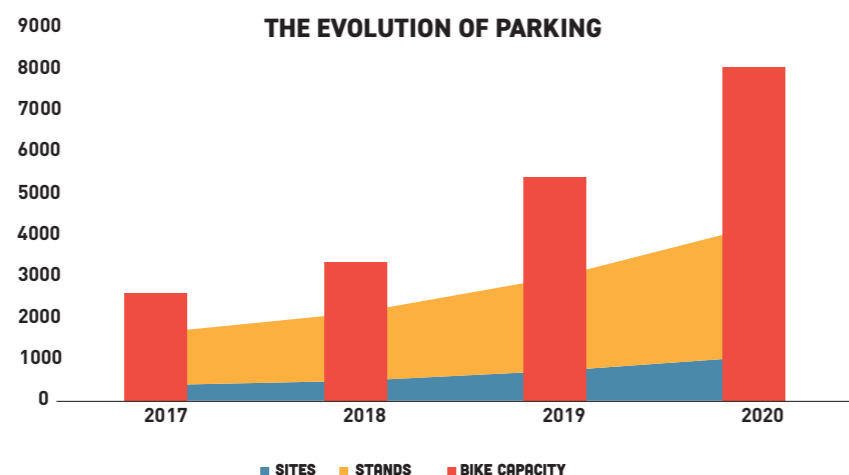
Parking is a central element of cycling infrastructure and its supply, in quantity and quality, may dictate the adoption of this mode of transport for many people and families.

Lisbon has been investing in short-term on-street bike parking, and will begin investing in long-term, protected parking.

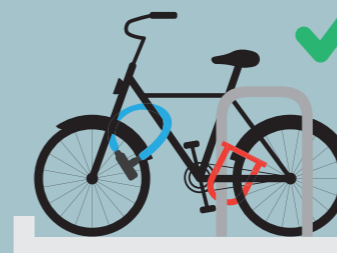
SHORT-TERM

Lisbon almost tripled the available on-street bike parking between 2017 and 2020. There are more than 3 thousand Sheffield-type cycle stands around the city, which offer users more security.

Another 1400 stands are set to be installed throughout 2021, with school facilities and transport interfaces as a priority



HOW TO PARK YOUR BIKE



1 Use a high-security U-lock. The value of the lock must match the value of the bike



2 Always secure the bike by the frame. Preferably securing the frame and one of the wheels to the stand

3 For added security, secure the other wheel with a second lock to

LONG-TERM BIKE PARKING

Parking facilities offer greater security, an important factor for long-term stops. Lisbon relies on two types of solutions:

BIKEHANGARS

There are two parking hangars, acting as a pilot.

One next to the Entrecampos train station, with capacity for 6 conventional bikes.

One on Rua Mouzinho da Silveira, in a highly corporate area, with capacity for 6 conventional bikes and 4 cargo bikes.

UNDERGROUND PARKING

13 bike rooms have been created in EMEL underground parking facilities.

In the future, this BiciPark network will be extended to include an additional 15 parking facilities, in partnership with private concessionaires. Protected by video surveillance and restricted access, BiciParks serve residents, students and workers in Lisbon who are unable to store their bike at home. Use is free for Lisbon residents who do not have a resident parking permit, green permit or an EMEL's car parking pass.



238

PARKING PLACES
IN THE BICIPARK

TRAVELLING TO SCHOOL

Cycling to classes is increasingly popular in Lisbon. The Municipal Bike Train Programme is already operating at 10 schools, with 16 lines and transports almost one hundred and fifty children.

FROM THE FIRST TRAIN

The first bike train left on 25 May, 2015 to the Parque das Nações Elementary School and, on the first day, 12 children rode on their bikes. Thus the “Cyclo Orient Express” was born, an initiative of parents and volunteers, with the support of the Parish Council of Parque das Nações.

Lisbon City Council conducted a pilot test during the 2019/2020 school year at 3 schools in the city, and later planned to implement the programme in 5 schools during the 2020/2021 school year, but the demand and hands-on commitment of parents and civil parish councils caused the project to grow rapidly and spread throughout the city - Parque das Nações, Olivais, Lumiar, Alvalade, Avenidas Novas, Areeiro, Arroios and Restelo.

10 BIKE TRAINS

ALREADY CIRCULATE IN THE CITY, A NUMBER THAT SHOULD CONTINUE TO GO UP

1243 KM

TOTAL KMS ALREADY CYCLED BY PARTICIPATING CHILDREN DURING THIS SCHOOL YEAR.

FUN FACT: THIS IS THE DISTANCE BETWEEN LISBON AND TOULOUSE.

LEARN TO CYCLE



Lisbon schools teach students how to ride a bike.

Lisboa Sem Rodinhas [Lisbon without training wheels] is a municipal programme that started in the 2018/19 school year with 853 students from 12 schools, and was extended to subsequent school years. Although interrupted by the pandemic, Lisboa Sem Rodinhas continues to teach children in the 1st cycle of education to ride, so that they can have the choice of using this mode of transport in the future, and be more independent. Today, the project brings together 55 schools in the city and almost a hundred

classes, reaching about 2100 students

A PICTURE OF SCHOOL MOBILITY

Every year since 2018, Lisbon City Council has promoted the “Mãos ao Ar Lisboa!” [Hands Up, Lisbon] survey at all schools in the city.

Information is gathered by having students raise their hand in class.

In 2020, 1.5 % of students replied that they travelled to school by bike, which represents an increase of 50 % compared to the previous year.

This figure rises to 2.0 % when only secondary school students are considered.

Initiatives such as the Bike Train, Move around through your city (Mexe-te pela tua Cidade) and Lisbon Without Training Wheels, the expansion of the cycling network and the installation of bike parking at schools can help increase the modal split of bikes in home-school trips over the coming years.



51,4%

BY CAR

24,2%

ON FOOT

1,5%

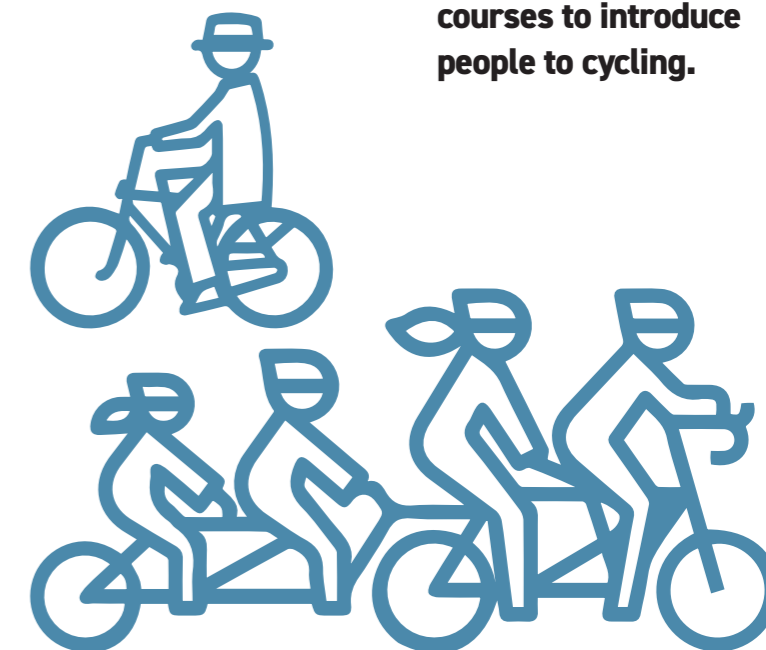
BY BIKE

Hands Up, Survey! Lisboa 2020

THE GROWN-UPS

Not knowing how to ride a bike is one of the most common invisible barriers to the use of this mode of transport.

Lisbon City Council, Civil Parish Councils and other actors in the city frequently promote theoretical and practical courses to introduce people to cycling.



BIKES AND LOGISTICS



Cargo bikes are specifically designed to transport multiple people or loads, heavy, light, large or small. There are several forms of cargo bikes, and despite being in use for more than a century, the design and use of more recent materials along with innovations related to electric assistance have made contemporary models much more efficient and affordable.

Load capacity and price range also vary widely, and smaller, lighter cargo bikes with variable prices can easily carry 80 to 100 kg. Cargo bikes can be great for transporting groceries, children, or as support for urban logistics activities or street vendors.

CARGO BIKES ARE INCREASINGLY FREQUENT IN LISBON. THEY REPRESENT 3-4 % OF BIKES OBSERVED IN CIRCULATION.

LOGISTICS

Faced with growing competition from e-commerce, many local retailers are looking to improve service and proximity to their customers. For some of these retailers, the cargo bike has been an important part of that change. Whether delivering products or acting as a pop-up store, the flexibility of cargo bikes, the potential for public relations and the low purchase and

maintenance costs became integral parts of the business.

In Lisbon, there are already several examples of uses for cargo bike, from the sale of flowers, “ginjinha” or even for delivery by major retail outlets.



10 122^{KM}

TRAVELLED ON CARGO BIKES BY FAMILIES WHO DECIDED TO TRY THEM OUT UNDER THE EUROPEAN PROJECT CITY CHANGER CARGO BIKE (CCCB), AIMED AT PROMOTING THE USE OF CARGO BIKES IN CITIES, WHICH LISBON HAS BEEN A PART OF SINCE DECEMBER 2019

35 FAMILIES

TESTED THESE BIKES, TOTALLING 70 ADULTS AND 37 CHILDREN

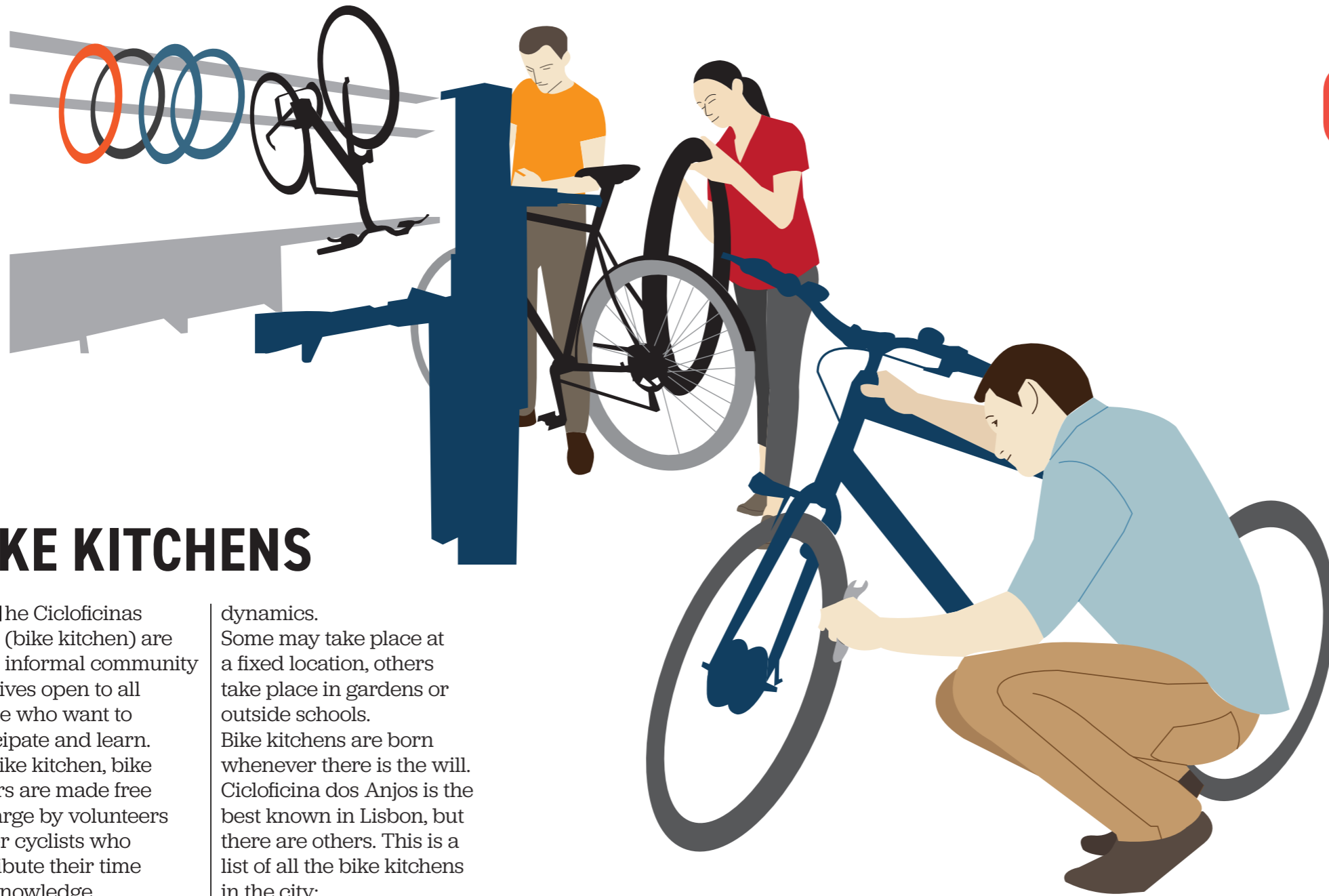
14% OF FAMILIES

BOUGHT A CARGO BIKE AFTER THE TEST

FAMILIES

Cargo bikes are perfectly suited to solve many of the daily logistical needs of urban families. The cargo bike is replacing cars across Europe, facilitating and strengthening the concept of car-free living, depending on the distances to be travelled. With their capacity to transport children, food, toys and pets, and a high carrying capacity, these bikes are redefining the concept of transport for many families.

In fact, studies show that 80 % of all private logistics trips (shopping, leisure, etc.) can be made by bike (cargo) and this doesn't even include the daily transport of children. For many city trips, the cargo bike is a great alternative to the second family car.



BIKE KITCHENS

The Cicloficinas (bike kitchen) are informal community initiatives open to all people who want to participate and learn. In a bike kitchen, bike repairs are made free of charge by volunteers – other cyclists who contribute their time and knowledge. Simple things like changing a tyre tube or patching a hole, inflating tyres, adjusting the brakes or gears, adjusting the height of the saddle, tightening some nuts and bolts and replacing parts. Bike kitchens are opportunities to learn and talk with other cyclists. Currently, there are several bike kitchens in the country and some in Lisbon. Each one has its own schedule, rules and

dynamics. Some may take place at a fixed location, others take place in gardens or outside schools. Bike kitchens are born whenever there is the will. Cicloficina dos Anjos is the best known in Lisbon, but there are others. This is a list of all the bike kitchens in the city:

- CICLOFICINA DOS ANJOS
- CICLOFICINA DA JUNQUEIRA
- CICLOFICINA DE BELÉM
- CICLOFICINA DA SARAH AFONSO
- CICLOFICINA DA FCUL
- CICLOFICINA DA FCSH
- CICLOFICINA DO ORIENTE
- CICLOFICINA DE ALFAMA
- CICLOFICINA DE MARVILA
- FEMINA CICLOFICINA

More information at cicloficina.pt



COMMUNITY

The community is a central part of the cycling experience in Lisbon. Projects, initiatives and entities that promote this mode of transport are multiplied throughout the city and bring together those who make it a part of their daily lives. These are some of them:

- LISBON CYCLE CHIC
- MASSA CRÍTICA LISBOA
- MUBI - ASSOCIAÇÃO PELA MOBILIDADE URBANA EM BICICLETA
- CICLODA
- SEXTA EM BICICLETA
- CICLISMO PARA TODOS - FPC
- FPCUB
- PEDALAR SEM IDADE
- SELIM
- TIA BINA
- MUBI BIKE BUDDY
- CASA DA BICULTURA
- CENAS A PEDAL
- LISBOA PARA PESSOAS

ADVICE AND RULES FOR PEDALING

- 1** Before starting, check the condition of the bike, especially the brakes and tyres.
- 2** Those over 10 years of age cannot ride on sidewalk and pedestrian areas.
- 3** You should signal whenever you need to change direction or stop.
- 4** At night, the use of front and rear lights is mandatory.
- 5** Helmet use is optional.
- 6** Light or moderate rain does not get in the way of cycling, but take care on wet roads.
- 7** Wear warm clothes on cold days and be careful with the wind.
- 8** Uphill climbs can be managed effortlessly with intelligent and early use of the gears.
- 9** Respect the road signs and Code and have fun!



More information at
www.lisboa.pt

TECHNICAL INFORMATION

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