LIS_05: To enhance multimodal interconnection with the peri-urban municipalities

Description of the measure and main outcomes expected

This measure has two sub-measures described below as task 1 and 2.

Sub-Task 1: Review the cycling infrastructure plans – an audit to the city's cycling network has identified the main problems of the network and the prioritization of the interventions to be carried out. Based on that, the network plan was redesigned, and its milestones planned.

 Sub-Task 2: Plan for the expansion of the bike sharing system – the development of the expansion plans supported by data (namely, user demand) in order to expand to major interfaces and the neighbouring cities is sought.

Preparation of the measure

Sub-Task 1: Review the Cycling Infrastructure

Public tender to purchase the technical audit concerning existing bike lanes

In this sub-task, CML launched the public tender to purchase the technical audit, which was adjudicated in March'23 to the company Copenhagenize.

Delivery of the cycling network improvement audit

Through March to December'23 we followed-up the company's (Copenhagenize) technical field work. Specifically, in June'23 CML launched an online survey for the population in order to gather data and understand their perception of the cycling network in the city and biking habits. We had almost 5000 answers.

Furthermore, on October 24th to 27th Copenhagenize planners travelled to Lisbon to conduct a Knowledge Transfer Workshop with a group of ~20 members of different planning departments from the city of Lisbon. This event was also used to lobby with Vice Mayor that has responsibilities on this matter, to inform about the current state of the assessment.
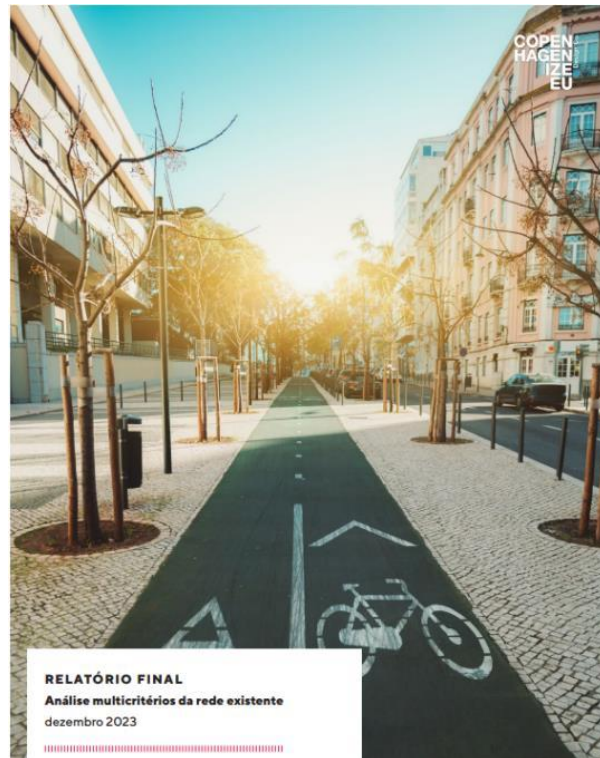
Fig 20. Front cover of the audit Report

The cycling network improvement final Audit was delivered, in December 2023. This Report is constituted by: a network analysis that combines extensive on-site observation with data-driven spatial analysis to assess Lisbon's bicycle network according to 8 criteria - Directness, Connectivity, Intermodality, Attractiveness, Comfort, Safety, Coherence, Readability. The observation data were combined with open-source data and data provided by the City of Lisbon to conduct quantitative and qualitative analysis, carried by Copenhagenize, of the network using GIS.

Identification of cycling network improvement locations

The identification of the cycling network improvement locations was carried out based on the results of that analysis, therefore as the calendar for its execution. The 8 criteria above gave us the structure for the definition of the missing links of our network. This process led to the network expansion milestones planning. This work was publicly presented by the Mayor and Vice-Mayor on the 23rd of May. The work was also published online.[1]

Fig 21. Online publication "Lisbon cycling network redesigned with more safety and functionalities."

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[1] https://www.lisboa.pt/temas/mobilidade/estrategia#c2382 &
https://informacao.lisboa.pt/noticias/detalhe/rede-ciclavel-de-lisboa-redesenhada-com-mais-seguranca-e-funcionalidades

The baseline identified in the public presentation[2] includes the following components:

14 High level missing links

54 Missing links

30 Intersections with problems

The Action Plan (Fig 22) defines:

Increase cycling network in 50%

Create 56 bike lanes/missing links

13 M€ investment

+ 90 Kms

1.7 M€ for cycling network maintenance

Plano de ação

2024 - 2025

Aumentar a rede ciclável em 50 %

Vice-Presidente Filipe Anacoreta Correia

+ 56 ciclovias/ligações   13 M€ investimento   + 90 Kms   1,7 M€ manutenção

Fig 22. Action Plan key figures, as presented by the Lisbon Mayor (23.05.2024)

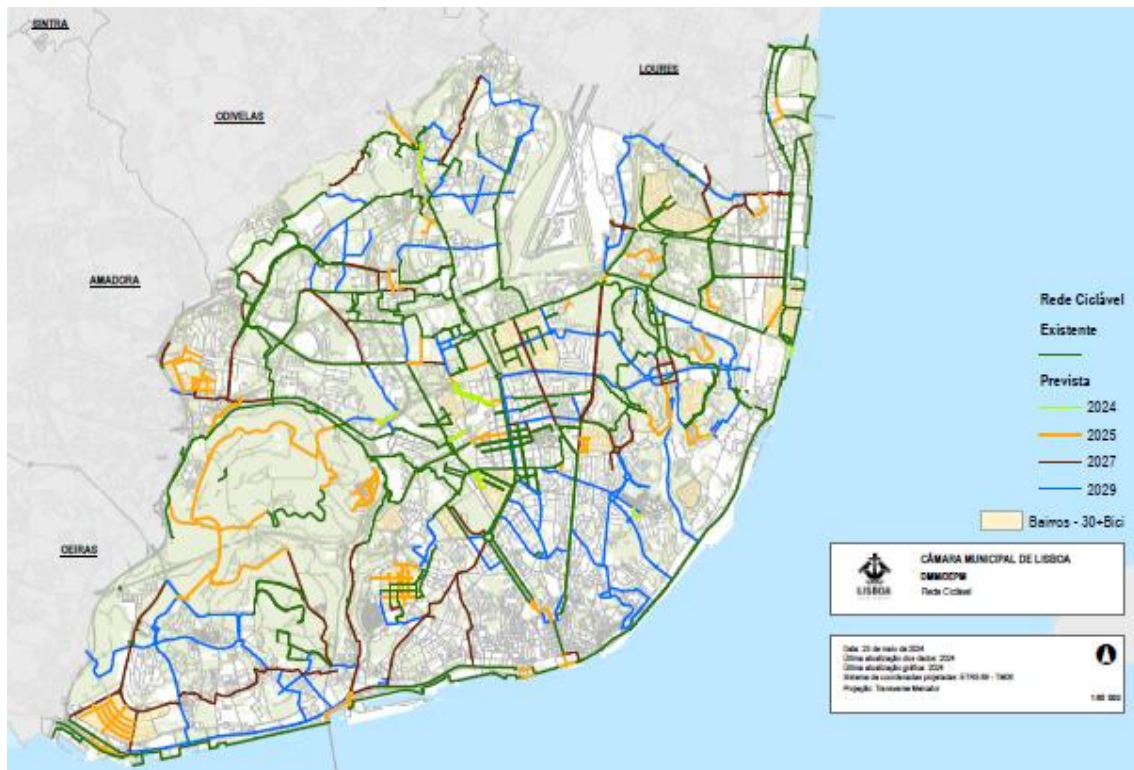Below, the plant with the cycling network expansion planning is presented (Fig 23).

Fig 23. Cycling network expansion planning

Sub-Task 2: Plan for the Expansion of the bike Sharing System (GIRA)

Data collection and analysis

CML collected and analysed Data from several sources, namely: heat maps from the users' preferential routes of the GIRA system and demand/feedback requests from citizens though municipal public platforms (*Naminharua* Lx website; EMEL website; on site public citizen service Stores).

Selection of areas to expand bike sharing network.

Based on the analysis of the collected data, the planning of the areas of the bike sharing system were (re)defined – the areas with more citizens' requests and with stronger heat maps were taken in higher consideration in the decision when selecting the areas for expansion of the bike system planning, also matching with the political decision for serving every parish in the council.

Delivery of the bike-sharing system expansion plan

The several cycling network expansion phases (Fig 24) are as follow:

Macroplanning

Project

Operation

Fig 24. Bike Sharing expansion phases

The main technical planning criteria were:

Assume the continuity along certain axes and stations boundaries - therefore, the definition of network expansion must overcome administrative limits (neighbouring municipalities of Lisbon), ensuring a cohesive and coherent structure that encourages the adoption of this means of transport;

Assume locations of several generating poles (1st and 2nd level interfaces, Metropolitan and boat stations, markets and areas with expressive offices, shopping/restaurant streets, universities, hospitals and stadiums), with the areas with the highest population density, close to cycling networks and with a preferential distance of 400m between stations and inferring proposals for the installation of future priority stations, in line with recognized good practices in this field.

At the moment CML already has a preliminary version of the bike sharing system plan of expansion. This preliminary version focus the milestones for the upcoming year (2025).

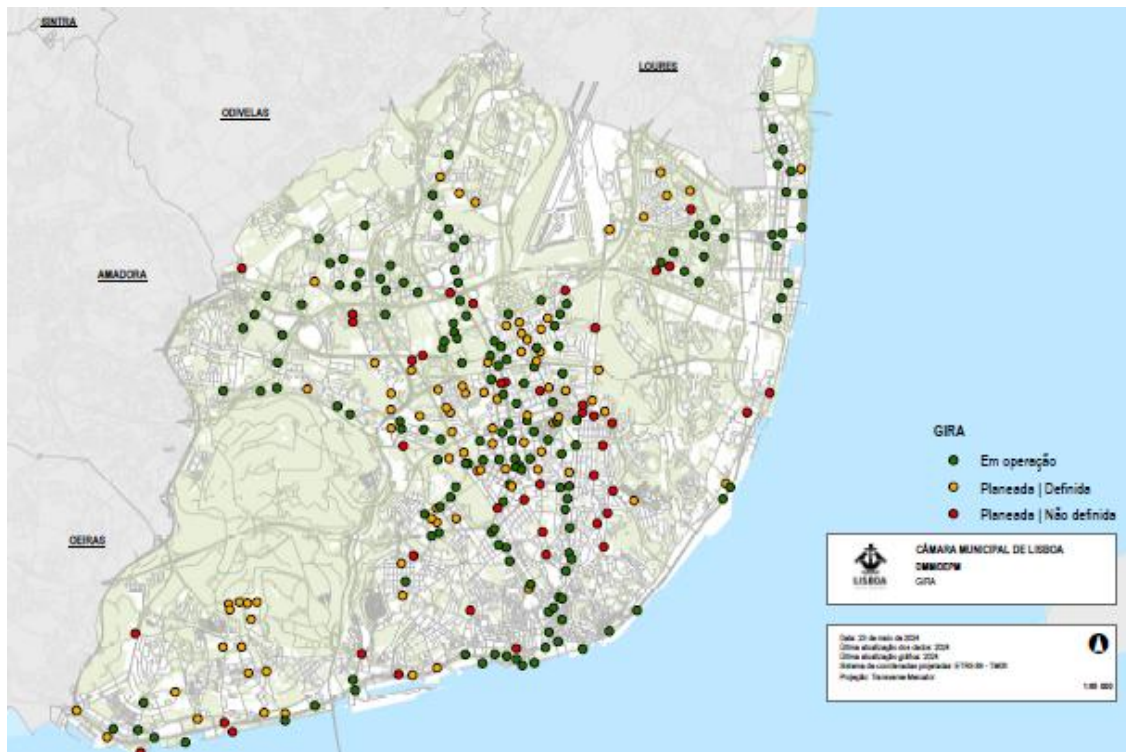Below, the plan with the expansion of the bike Sharing planning is presented (Fig 25).

Fig 25. Bike Sharing planning

The first public announcement of the bike Sharing planning was conducted by the Mayor and Vice-Mayor on the 23rd of May, defining the milestones[3].

The milestones presented are as pictured in the figure below (Fig 26).

Fig 26. Milestones for bike sharing system expansion, as presented by the Lisbon Mayor (23.05.2024)

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[3] Please refer to online publication here https://informacao.lisboa.pt/noticias/detalhe/rede-ciclavel-de-lisboa-redesenhada-com-mais-seguranca-e-funcionalidades or https://www.lisboa.pt/temas/mobilidade/estrategia#c2382

Challenges & Mitigations

Sub-Task 1: Review the Cycling Infrastructure

The political executive of the municipality had some questions regarding the technical conclusions of the audit report that needed to be clarified, which delayed the public announcement.

Sub-Task 2: Plan for the Expansion of the bike Sharing System

The biggest challenge was to plan the expansion of the bike sharing system, without having any parish underserved which will be accomplished.

The fact of the GIRA expansion being developed by EMEL (municipal company) sometimes brings some organizational constraints which require ongoing attention and follow-up.

Next steps towards implementation

Sub-Task 1: Review the Cycling Infrastructure

Even though the LIS_05 measure output is already reached, CML will start the planned network expansion plan by developing the specific implementation projects (design, review) which will be followed by the infrastructural works.

Sub-Task 2: Plan for the Expansion of the bike Sharing System

Installation of new bike stations. The planning and its execution is an ongoing process and also incremental, therefore it´s expected successive development stages/milestones.