

#EUYearofRail



The future of urban passengers transport

Investments planned by Metropolitano de Lisboa and its prospects for the future of railway

Vitor Domingues dos Santos, CEO and Chairman of the Board of Directors
Metropolitano de Lisboa

Metropolitano de Lisboa as a structuring mobility operator in the Lisbon Metropolitan Area (LMA)

56 stations



44.2 km



Our purpose is to
serve the LMA

333 cars



1,520 workers



4 lines



COVID-19 Impact: main measures implemented

Metro: Safe Transport



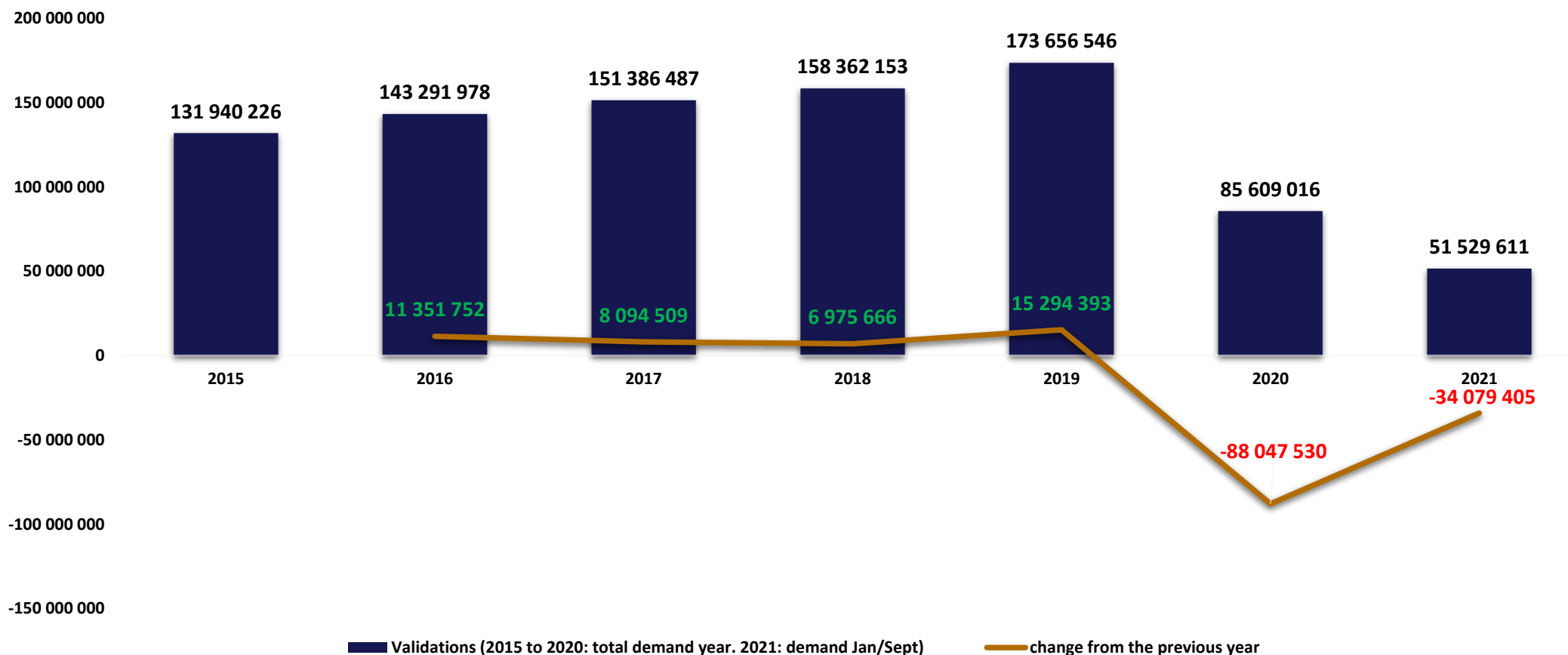
Workers

- Distribution of masks, hand sanitizer and gloves
- Staff and suppliers body temperature and masks checks
- Telework
- Enhanced disinfection and cleaning of facilities
- Direction and safety distance signalling in corporate offices
- Adaptation of the cafeteria and bar
- Information, information, information

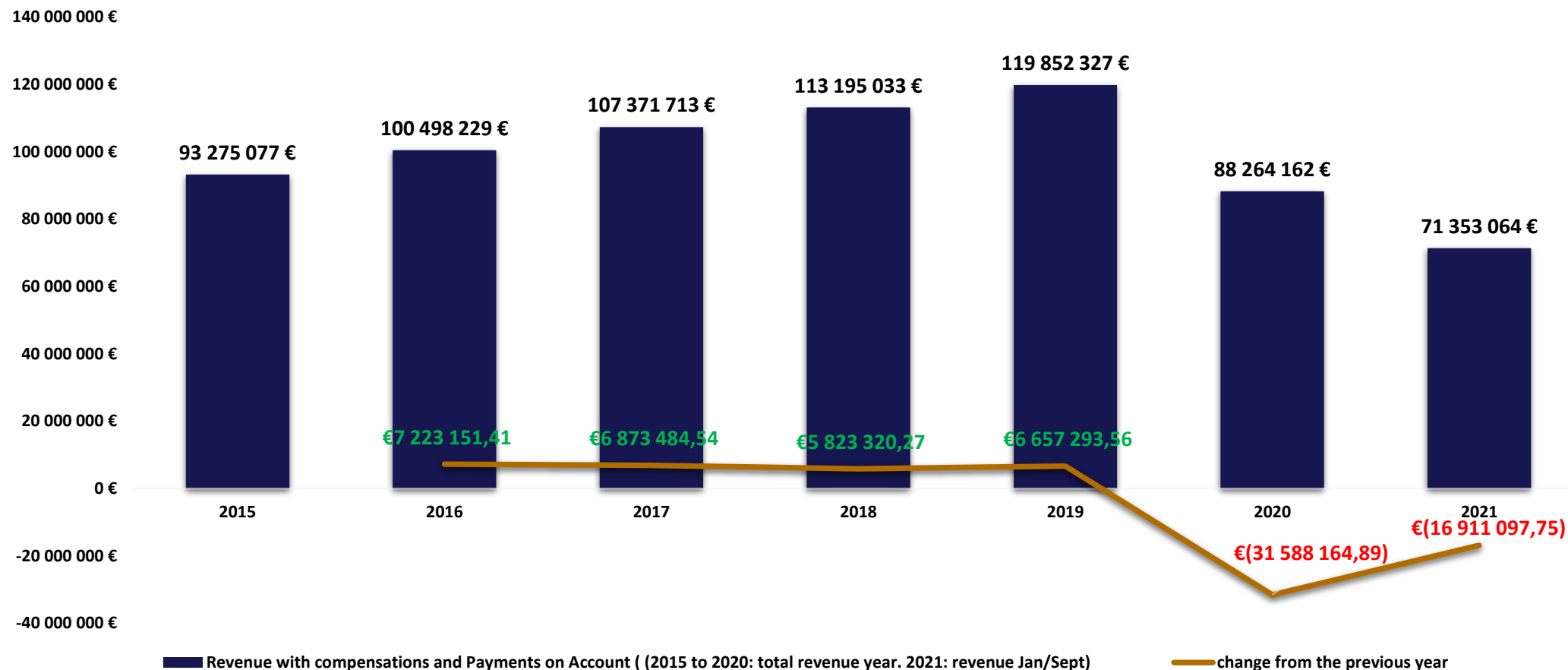
Customers

- Reinforced cleaning of stations and trains
- Daily cleaning of spaces, handrails, handles and knobs
- Free provision of hand sanitizer
- Sale of masks, hand sanitizer and gloves at symbolic prices (in vending machines)
- Signalling of good hygienic practices throughout stations and trains
- Communication campaigns on social distancing and the obligation use of masks
- Operational changes at the supply level
- Partnerships with the National Police
- Information, information, information...

Demand evolution - Passenger validations



Revenue evolution





**Urgent
implementation of
sustainable
measures to
increase demand**

Key measures to restore demand 2021-2024



Key measures to restore demand 2021-2024

Service supply

- Increase supply regularity and train frequency
- Reduce waiting times
- Modernize rolling stock
- Modernize stations and equipment
- Improve accessibility
- Further tailor the service to mobility needs

Customer experience

- Listen to the customer
- Improve service perception
- Innovate and streamline
- Create and/or adapt products and services according to customer needs and expectations

Image

- Increase ML's presence and visibility
- Increase the perception of safety (of both the service and cleaning)
- Foster a close relationship with customers
- Increase Metro staff in stations
- Boost partnerships involving numerous discounts (in Metro shops and other discounts)
- Maintain the Lisbon Metro's positive image and reputation

Network renovation



Network modernisation

New CBTC - Communications-Based Train
Control signalling system

42 new cars (14 triple units)

adapting other units to the new system

115 million euros



Network renewal

Renovation of doors systems, communications systems and
other technical systems

New rail grinding equipment

Full accessibility in Stations Colégio Militar, Areeiro, Arroios,
Entre Campos e Cidade Universitária

± 47 million euros



Network expansion



CIRCLE LINE

Rato/Cais do Sodré extension



RNI 2030 – National Investment Plan; PRR 2021-2026 – Recovery and Resilience Plan; PRE 2020-2030 - Economic Recovery Plan;
PEES 2020-2021 – Economic and Social Stabilisation Programme

3 STRUCTURAL FEATURES

240.2 million euros

137.2 M€

from the
Environmental
Fund

103 M€

from the
Cohesion Fund /
POSEUR



**2 new stations:
Estrela e Santos**



**Refurbishment of
Cais do Sodré
station**



**Connection of the
Campo Grande
viaducts**

Circle line Estrela and Santos stations

- Network construction: 1.9 km
- To attract 8M new customers



Red Line extension S. Sebastião - Alcântara



PNI 2030 – National Investment Plan; PRR 2021-2026 – Recovery and Resilience Plan; PRE 2020-2030 - Economic Recovery Plan;
PEES 2020-2021 – Economic and Social Stabilisation Programme

Red Line extension S. Sebastião - Alcântara

Technical Data:

- Four new stations: Amoreiras, Campo de Ourique, Infante Santo and Alcântara
- 4 km of extension
- Finance Contract signed under the Recovery and Resilience Plan
- Construction phase 2022 - 2026
- Preparing the purchase of Rolling Stock: 35 TUs prepared for GOA 4 system
- The expectation is to have this section fully operational **before 2026**

304 million euros
(without rolling stock)



Red line extension S. Sebastião - Alcântara

Amoreiras Station:

- Located in an area with high concentration of services and housing: next to the Hotel D. Pedro and the Amoreiras Shopping Centre
- Built at shallow depth
- Construction method: Cut & Cover

Campo de Ourique Station:

- Located in a predominantly residential area with traditional shops, schools and a graveyard: Jardim da Parada (at the centre of the neighbourhood)
- Built at greater depth
- Construction method: NATM (New Austrian Tunnelling Method)

Infante Santo

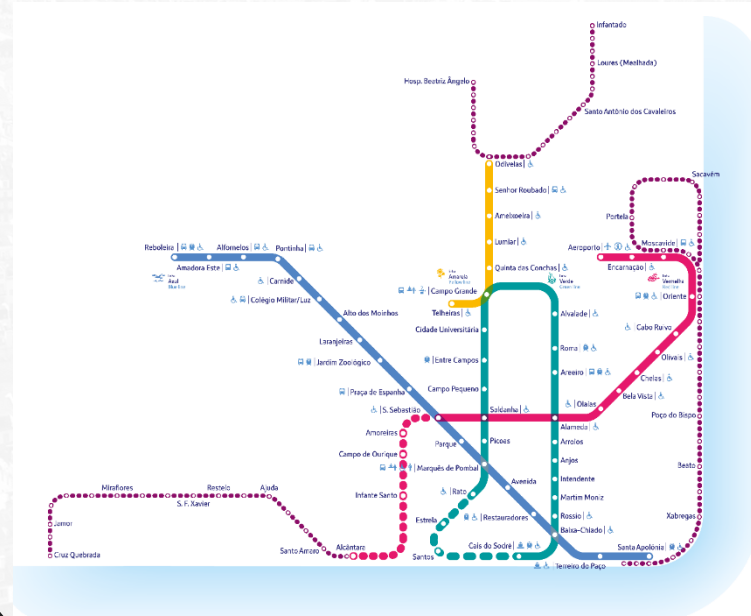
- Located at Infante Santo avenue
- Built at shallow depth
- Construction method: NATM (New Austrian Tunnelling Method)

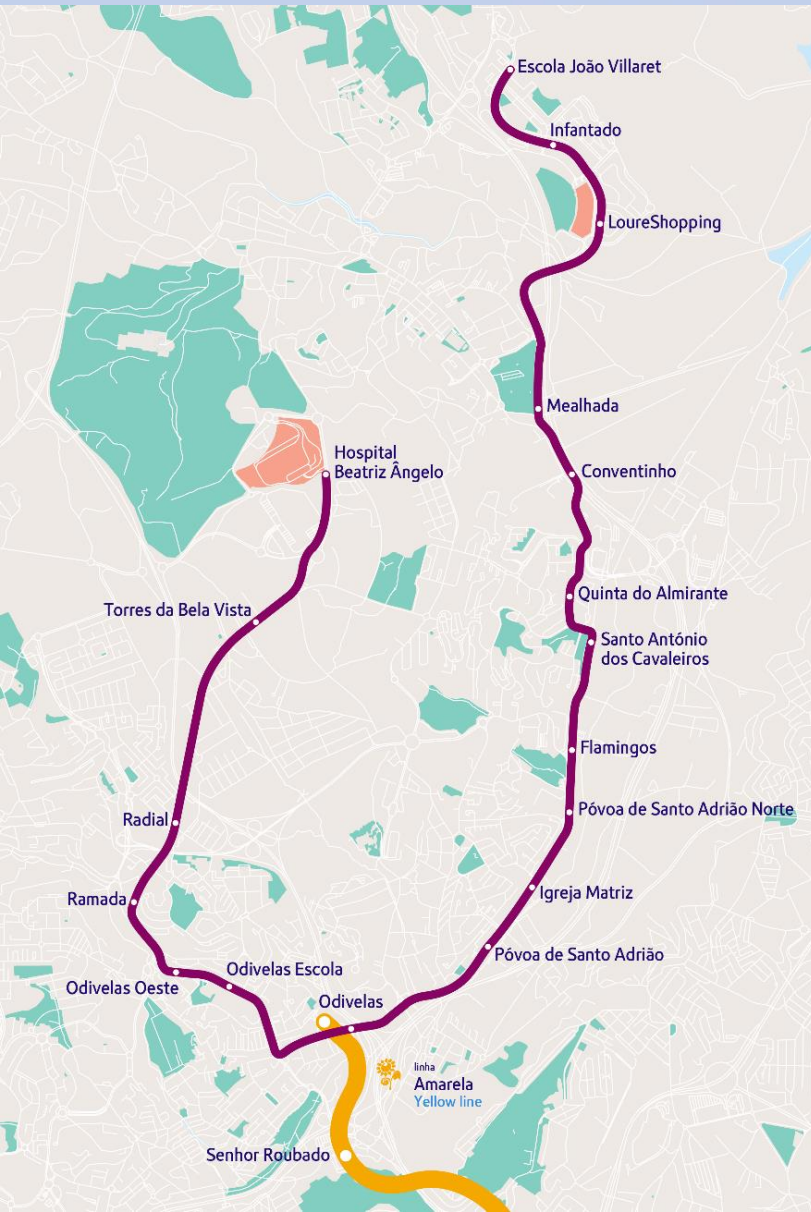
Alcântara Station:

- Interface Station for Lisbon Metro, CP Railway Service (Alcântara Mar and Alcântara Terra stations) and Western LIOS



Light Rail Lines





New Purple Line Light Rail Loures – Odivelas

Technical Data:

- The construction of a light rail connecting two municipalities: Loures and Odivelas
- This line will connect the Beatriz Ângelo Hospital to several neighborhood points between BAH and Infantado, with interface in Odivelas Station Metro to connect Lisbon network
- Finance Contract signed under the Recovery and Resilience Plan
- 12.4 km of route; 18 stops
- 12 cars
- 1 Depot

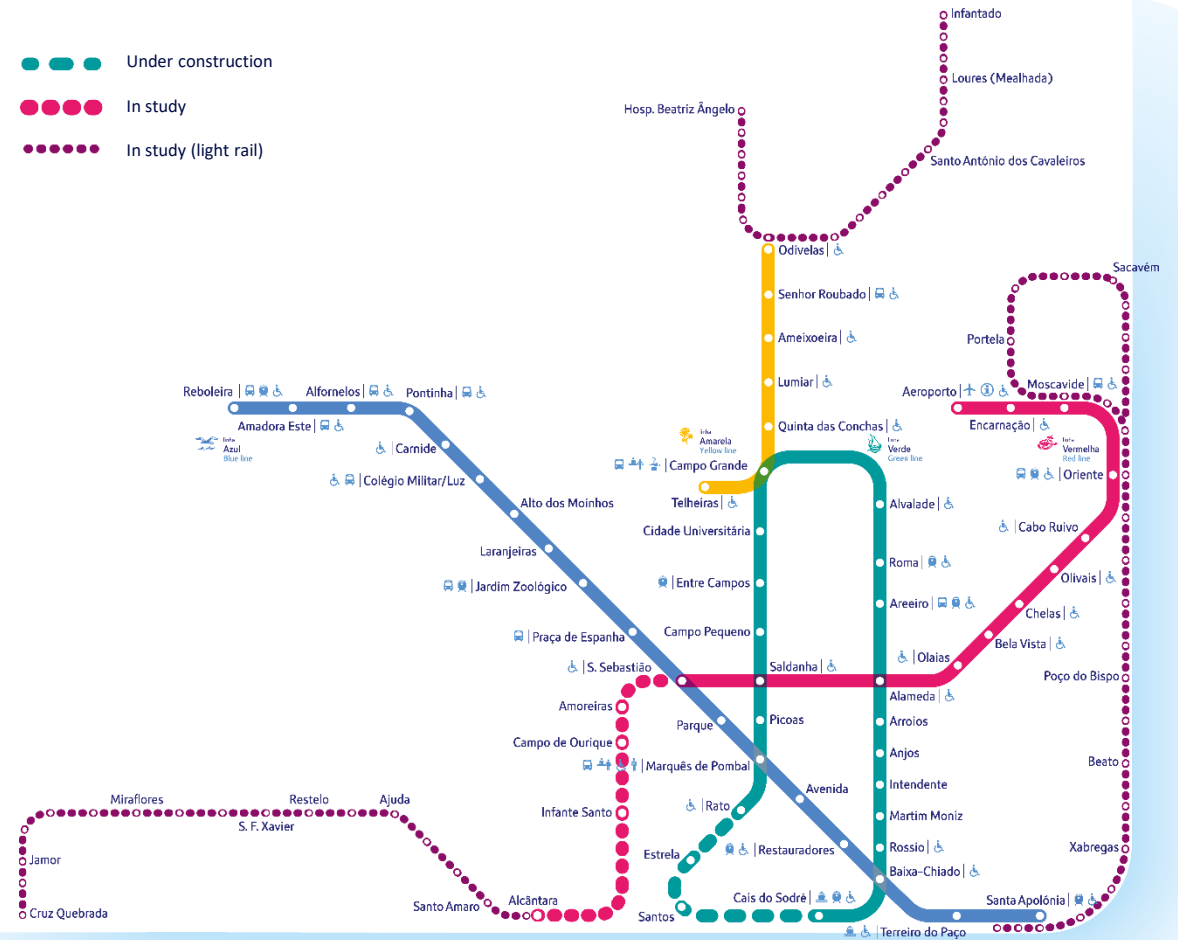
250 million euros

LIOS – Sustainable Intermodal Lines – Light Rail

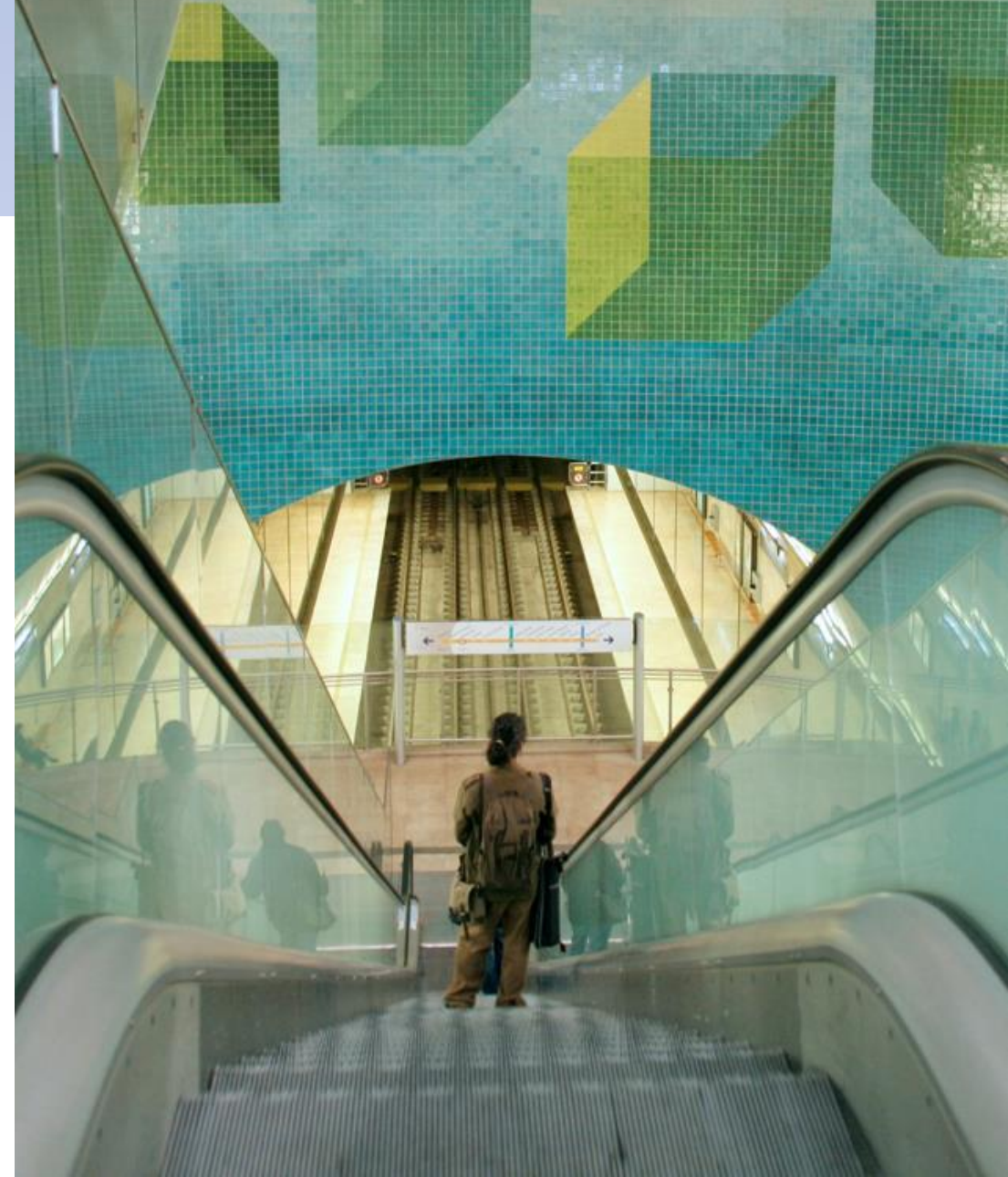
- Metro signed a Cooperation protocol with Carris and the Lisbon, Oeiras and Loures municipalities
- The scope is the Assessment, planning and implementation of the “LIOS, Sustainable Intermodal Line” project in the technical, environmental, financial and operational aspects
- The Purpose is to have quick connections with the railway services of the Cascais / Lisbon and the North lines and with the expansion of the Red line to Alcântara
- **Two new lines (Western LIOS and Eastern LIOS)**
- **24.4 km of route; 24 cars**
- **1 Depot**

440 million euros

(infrastructure, rolling stock, depots; financing in the QCA 2030)



Sustainability and Innovation



Integrated Environmental Sustainability Plan 2030

Ongoing actions

1. Photovoltaic power generation

Installation of a photovoltaic plant in the Depot and Workshop II

2. Use of LED technology

Full replacement of the current station lighting system by LED technology

3. Parking spaces for electric vehicles

Reserved parking spaces for staff and visitors

4. Sustainable consumption

Encourage the procurement of sustainable materials and goods

5. Promotion of circular economy

Increase of the amount of waste sent for recovery

6. Reduction of paper consumption

Digitisation of internal processes

7. Disclosure and transparency

Disclosure of this commitment by stakeholders and of the degree of implementation of the defined actions

Planned actions

8. Air quality information sharing

Installation of air quality monitoring equipment in stations and corporate buildings, with data sharing with the Lisbon City Council

9. Parking priority for electric vehicles

A balanced distribution of parking spaces is under study

10. Reused water consumption

Usage of reused water for washing and irrigation in the new Metro stations and in the Depot and Workshop III

7 million euros

Innovation

Predictive
maintenance of rolling
stock

Automation and
simplification of the
procurement process

Contactless payments
at automatic vending
machines: credit/debit
cards and QRcode

Contactless payments
by Visa - Mastercard
at automated ticket
gates

PLAGO Project:
Digitalisation of ML
operations

Digitization of
customer information

Metrotech Innovation
Hub

Future of Mobility (some ideas)



1. Fleet improve, renewal and environmentally sustainable networks that multiply PT options

- **Supply improvement** (quantity/quality/frequency) in existing heavy rail urban networks (ML and CP) and in the Tagus river transport networks (TT-SF/Fertagus/new operators)

2. Improved Ticketing Systems

- **Boost new digital options** with intuitive user-friendly equipment in stations
- **Simplify payments** by using all potential means, traditional and digital

3. TML with enhanced competences


- **Create new ticketing options** to promote greater freedom in PT use (occasional, daily, weekly, monthly and annual)

4. Study of solutions to improve TP access to Lisbon

- **Creation of Rings of alternative PT crossing de municipalities around Lisbon: Oeiras, Amadora, Odivelas e Loures with connexions to the existing heavy rail systems;**
- **Study for new PT modes to solve the important access of A5 / IC 19 axis responsible for sending around 100.000 vehicles per day to Lisbon.**

5. Definition of Lisbon's new Airport location

- **The new airport will be a key element** in the definition of LMA's mobility in the long term
- **It's necessary to define its location in a timely manner, in order to plan the adaptations to the current transport network in light of the new demand patterns the new airport will create.**



Implementation of a strategy based on **environmentally sustainable practices** that boost the **descarbonisation** of the Lisbon Metropolitan Area.

Thank you

vitor.dsantos@metrolisboa.pt



Metropolitano de Lisboa