



GA 859887: MOVING TOGETHER - reimagining
mobility worldwide

D5.2 – Technical tours organization criteria and procedures report

Laboratório Nacional de Engenharia Civil, I.P. (LNEC)



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List of abbreviations / acronyms

Acronym	Definition
ANI	Agência Nacional de Inovação, S.A.
EC	European Commission
EU	European Union
GA	Grant Agreement
H2020	Horizon 2020
IMT	Instituto da Mobilidade e dos Transportes, I.P.
LNEC	Laboratório Nacional de Engenharia Civil, I.P.
TRA	Transport Research Arena
VTS	Vessel Traffic System
WP	Work Package



Executive Summary

This report addresses the second deliverable for WP5 concerning more specifically "D5.2 – Technical tours organization criteria and procedures report". The organisation of the technical tours aims to be comprehensive, meaning it will ensure a multi-modal coverage. This task will be developed in close collaboration with the network of stakeholders (Task 5.1) and the consortium, taking into account foreseeable conditions posed by the health situation.

This task supports the organization of the *Transport Research Arena (TRA) LISBON 2022* Conference, that will take place at the *Centro de Congressos de Lisboa*, Lisbon, from 14th to 17th November 2022.



The TRA LISBON 2022 priority themes and subthemes are identified within the moto of *Moving Together – Reimagining mobility worldwide*, and cover major challenges and opportunities handled by the current transport and mobility system. Within this moto, citizens, industries, private and public enterprises, cities, and other stakeholders, as well as researchers, are invited to present their latest results and innovative research, as well as practical and commercial applications, in the scope of the various themes and subthemes of TRA LISBON 2022.

According to the CSA project plan, WP5.2 task objective is to organize technical tours that feature attractive and interactive showcases aiming at engaging participants into novel technologies for all transport modes and enabling stakeholders and their companies to disseminate and even sell their products and applications to all interested parties.

This report intends to support the plan for technical tours. At the date of delivery, work is still under development and may include several uncertainties, mainly due to present health situation of Covid-19 pandemic.

In this deliverable, technical tours procedures will be described on the principles, selections of technical visit sites, coverage of costs and workplan for the future planning. As referred before, such activities have taken place within the frame of the Work Package 5 of this CSA, more specifically, Task 5.3 (Technical tours organisation and specification).



1. Introduction

Technical tours are important events that take place within and during TRA Conferences. These allow local, national and even international multimodal transport entities to showcase their novelties various operations and techniques and, through networking, allow these companies, to disseminate and market their products and applications to participants and interested parties.

For TRA LISBON 2022 the technical tours will have the objective to present to participants aspects of all the transport modes and infrastructures in the host country that are somewhat novel or context specific, that are applied already in practice, but may not be widely in use internationally or at European scale. By participating in the technical tours, attendees will have additional networking opportunities and will be able to discuss and experience something perhaps not already utilised in their home countries or business areas, thus providing a possibility for new applications and Business-to-Business (B2B).

Technical tours will be closely linked with demonstrations occurring during the conference and will provide an opportunity for accompanying delegates to enjoy the offerings of TRA LISBON 2022.

2. Criteria

The organisation of the technical tours entails the following criteria:

1. The themes of the technical tours will be aligned not only with the TRA conference motto, but also with its corresponding themes and sub-themes, ensuring that different modes of transport are considered.
2. The locations of the tours will be carefully considered, thus allowing a stress-free commuting between the different sites.
3. Locations should be, in principle, as close as possible to the conference site (Lisbon).
4. Each tour will follow an efficient management structure, ensuring balanced, safe, and secure participation of all.
5. Participants of the technical tours should be registered for at least one-day of the TRA conference. Upon registration on the conference, a form for the technical tours will be provided with specific information regarding the technical tour.
6. The number of participants within each tour should be well planned before the event to allow an efficient management to avoid that some tours are fully booked while others have few participants.
7. Safety and security issues should be ensured in advance by each organiser.
8. Quality is preferred over quantity.



3. Tour selection

As in the last TRA Conference in Helsinki, it was decided that at TRA LISBON 2022 no open call would be launched for the offer of technical tours, and therefore the list of chosen tour locations was the responsibility of the planning team. For that purpose, the suggested sites were selected based on the criteria described in 2. The final selection of tours will be confirmed at a subsequent stage and will be fully presented (brief description, images and location map) in the deliverable D5.3 – “Demonstration and technical tours plan”.

A preliminary list exemplifying possible technical visits sites is presented below:

- [Lisbon Cruise Terminal](#)



The Lisbon Cruise Terminal is a reference in the international cruise market and places Lisbon among the best served ports in terms of this activity.

The Lisbon Cruise Terminal, which integrates the new building and the Santa Apolónia Cruise Terminal, offers the best conditions to accommodate cruise ships and passengers with ever greater demands, thus providing an excellent service to anyone who wants to visit Lisbon on board a cruise ship.

A project by the architect Carrilho da Graça, the new facility was inaugurated on November 10th, 2017, having won the Valmor and Municipal Architecture Award in the same year, one of the most important architecture awards in Portugal.

Flexibility and accessibility, safety, environmental quality and comfort are the main criteria of the new facility, which has an area of 13.800 sq. meters and, together with the Santa Apolónia terminal building, is served by a pier 1.490 meters long with capacity to receive ships of various types and dimensions with a draft of up to 12 meters.

- [The Centre for Coordination and Control of Maritime Traffic and Safety \(VTS\), Lisbon](#)



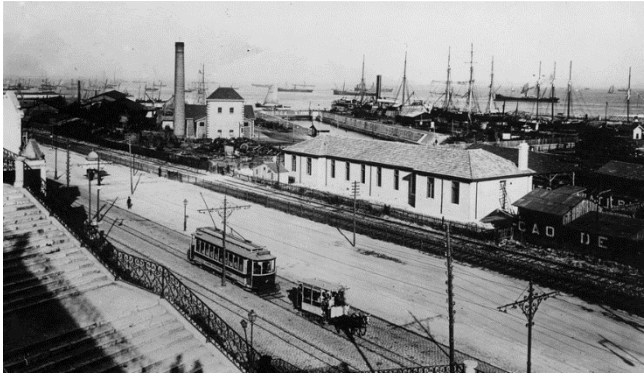
The Centre for Coordination and Control of Maritime Traffic and Safety, installed in the VTS Tower in Algés, integrates the coordination and control of traffic and the port environment safety area. It coordinates and controls navigation within the jurisdiction area of APL, S.A., with the Vasco da Gama Bridge as the upstream limit and the entire approach area to the Port of Lisbon downstream; provides information and advises ships sailing in the Tagus estuary or approaching it, within a radius of up to 16.5 nautical miles, centred on the VTS - Lisbon.

The maritime traffic control (VTS Vessel Traffic System) is designed to promote safe and efficient traffic, contribute to the improvement of navigation safety conditions, control the ships' entrance into and departure from the port, plan the stays of commercial ships in the port, enable the assisted navigation system, collaborate in safeguarding human life at sea, collaborate in actions to protect the port environment and prevent illegal activities.

The VTS system is mandatory and applicable to all vessels with a VHF station license, except for local fishing, local traffic and recreational crafts with an overall length of less than 20 meters. With this system, the Port of Lisbon has the most modern technology to provide the support service for port navigation. It integrates the most modern and sophisticated equipment / software for the control and tracking of maritime shipping such as Radars, VHF, AIS, DF, GMDSS, Marigraphs and Meteorological stations, supporting and giving the crucial information for an excellent service.

Currently, the Maritime Traffic Control Center, that executes this service, has a set of stations all connected to each other by its own autonomous network links, keeping all the information on state-of-the-art dedicated servers, operating 24 hours / 365 days, ensuring data security and operational readiness.

- [CARRIS Museum, Lisbon](#)



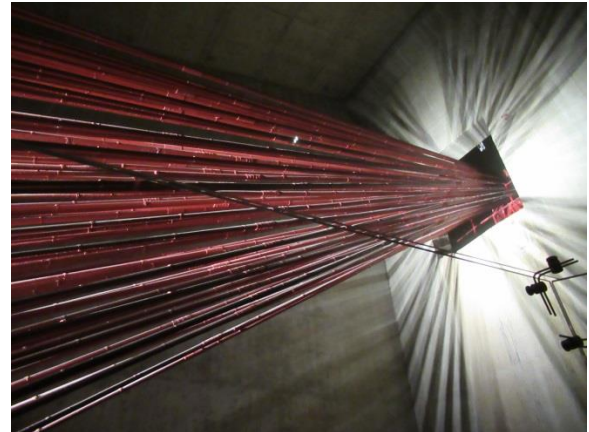
CARRIS (Companhia de Carris de Ferro de Lisboa), founded in 1872, is a public transport company which presently operates 724 buses, 48 trams, 3 Funiculars and 1 lift in Lisbon. In 2018, CARRIS began a fleet renewal process, focused on natural gas-powered buses, but also on new diesel buses and 100% electric buses.

The CARRIS Museum was inaugurated in 1999. Its mission is to preserve and conserve the CARRIS collection and publicize its role in the development of Lisbon City. The museum has several different sections and the drive between them is done in a 1901 tram that was remodeled in the 1960s.

This Museum offers the opportunity to travel back in time through a vast collection which includes photographs, uniforms, tickets, official equipment, trams and buses, among many other documents and objects of great historical interest. The Museum also integrates the history of the Lisbon Underground, exposing various pieces, including a core allusive to Art in the Metro.

- [Pilar 7 Bridge Experience, Lisbon](#)

An interactive and immersive experience that allows an unique discovery of the Ponte 25 de Abril.



Located in Alcântara, near the Lisbon Congress Centre, this interactive centre allows all visitors to have an unique experience of the 25 de Abril suspension bridge – considered one of the prettiest in the world – via a tour that takes in the exterior areas of this key pillar and the sensory experience of visiting its interior.

It is a trip through the history of its construction and ends with an elevator ride up to a panoramic viewing point that provides an unrivalled view of the city and the river.

Making use of modern multimedia devices, the visit ends with an immersive virtual reality experience of parts of the bridge that are inaccessible.

- [Traffic Control Centre, Almada](#)

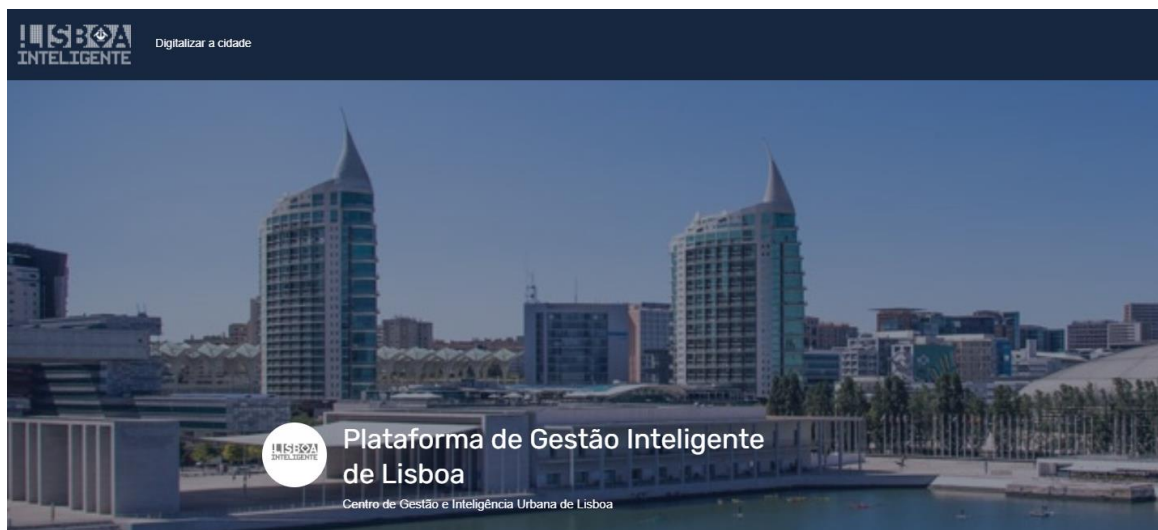
The road Traffic Control Centre from Infraestruturas de Portugal (IP) is located in Almada, at the south side of the Tagus River. It monitors road traffic in real time, providing support to traffic flow and user assistance. Real time information is available to the users through variable signs, digital platforms and call centre.

- [Railway Operational Control Centre, Lisbon](#)

The railway Operational Control Centre from Infraestruturas de Portugal (IP) is located close to “Braço de Prata” railway station in Lisboa. It hosts all the command and traffic control systems for the Portuguese railway in the country’s central region.

- [Lisbon Intelligent Management Platform \(PGIL\)](#)

This visit will be promoted by Lisbon City Council’s Management and Urban Intelligence Centre. It will cover the design, development and implementation of a data integrator platform, with the capacity to receive, process and make available useful information for the operational and strategic management of the city to the various stakeholders. This will allow the integration of various data sources: internal systems, external systems, sensor data and social networks.



Through its powerful analytical tools, PGIL will enable the processing of information and its availability to nearly 60,000 simultaneous users, including the Integrated Operational Center, the Data Laboratory, the Open Data Portal, Municipal Services, Parish Councils and citizens.

The visit may include an overview of the future system SIM.Lx designed for the intelligent management of the city traffic.

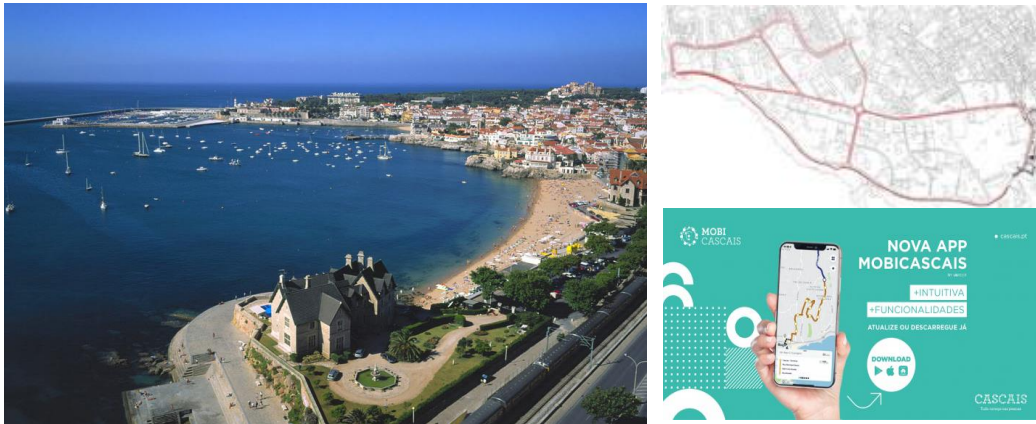
- [GIRA Lisbon Bicycles](#)

This visit will be promoted by Lisbon City Council’s EMEL – “Empresa Municipal de Mobilidade e Estacionamento de Lisboa, EPM”. GIRA is the public bike sharing service in the city of Lisbon. The system integrates electric and conventional bicycles and a set of stations located at strategic points of the city, allowing to increase the modal choice supply and, thus, to capture different types of users, residents, visitors, workers, students and tourists. Its use is based on digital systems by simply downloading the App on any smartphone. It is from this App that it is possible to know the location of the stations, check which bicycles are available, unlock the chosen bicycle and confirm the end of the trip.



This public bike sharing system aims to contribute to the reduction of road traffic and its externalities (congestion, greenhouse gas emissions and particulate matter emissions, noise and accidents), leading to improvements in the urban environment and public health. Overall, the city aims to contribute to increasing the modal share for cycling, especially in commuting trips, through enabling transferring traffic from individual road based transport to cycling.

- [MobiCascais, Cascais](#)



MobiCascais is an integrated system for the management of the sustainable mobility of Cascais municipality, 30 km from Lisbon. It is based on a platform integrating several transport service operators into a network of infrastructures and equipment. Its purpose is to offer a set of multiple and flexible mobility solutions and services to meet the needs of the resident population (around 210.000) and visitors (1,2M).

Since it was launched in 2016 MobiCascais promotes the use of public transport and smooth mobility solutions, providing in a single application the access to bicycles (for bike sharing or leisure), buses, parking spaces and electric charging. Furthermore, MobiCascais integrates other transport options provided by different partner operators, such as car sharing, school transport, transport on demand, the taxis network, as well as various payment possibilities.

Upon registration of participants in TRA LISBON 2022 conference, the following procedures will be taken:

- A specific registration form for technical tours will be provided to participants to collect the information needed by the organizing entity promoting the technical tour.
- Participants in technical tours need to be registered for the conference.
- Technical tours will be organized in close connection with the TRA 2022 conference program, in order not to keep the participants away from the actual venue for too long.

TRA LISBON 2022 organization will apply for sponsors to provide a free pass to all participants for transportation (tram, metro, buses) in the city of Lisbon during the whole event. This will enable participants to acknowledge recent advances in transport and mobility in Lisbon.

4. Scheduling

Technical tours schedules should have a minimum interference with those of the TRA 2022 conference program, although a good integration is expected to exist between both. Technical visits can be complementary scientific events to some themes and sub-themes of the Conference.

The Technical tours will be scheduled from Monday 14th to Friday 18th November. The final schedule will be determined by June 2022.

5. Workplan

A description of current state of play regarding the technical tours is given. There are still some uncertainties related to the health situation, but a general framework and principles are already clear. Therefore, tentative milestones for the technical tours are:

- End of FEB-2022: Preliminary list of potential sites near Lisbon is shared between partners
- End of MAR-2022: List of potential sites is finalised and contact persons are given
- MAY-2022: Final sites are settled
- JUN-2022: Practicalities of visits are settled (i.e., logistics) and Technical Tours Plan is finalised
- JUL-2022: Announcement and registration for technical tours
- 14-18 NOV-2022: Technical tours during TRA LISBON 2022



6. Conclusions

Technical tours are unique opportunities for all participants in the TRA LISBON 2022 conference to have contact with concepts and solutions currently implemented in Portugal, providing insights as how ideas can grow to become actual products and services.

Through their multimodal coverage, technical tours are additional means to attract the vast community of national and international stakeholders to the TRA LISBON 2022 Conference.

While presently we still face some uncertainties, this plan provides a pathway for achieving a successful program for the technical tours, which are expected to offer amazing experiences for the participants in the TRA LISBON 2022.