

What is the solution?

The main goal of the city of Madrid's Traffic Safety Plan (Plan de Seguridad Vial 2012-2020) is to reduce casualties caused by traffic by 50%, and the number of serious injuries by 30%, by 2020. Following the new mobility culture guidelines, within which the traditional 'traffic-vehicle' approach to traffic safety is complemented with wider mobility issues (such as street design and urban layouts, mixed uses and shared spaces, traffic calming and shared speeds, etc.), recognition that the promotion of a sustainable mobility model must be aligned with increased safety within the transport system. As a result, the approved Sustainable Urban Mobility Plan, SUMP (PMUS 2014), for the city of Madrid includes safety as one of its four strategic goals.

A comprehensive road safety study will be undertaken in the demonstration area, supported by the development of an application, based on Geographical Information Systems (GIS), for mapping road safety incidents. These will be categorised by type - for instance, involving cyclists, pedestrians etc., as well as high-risk locations - either real or perceived. The public will be encouraged to report on road safety hazards and incidents using apps, thus participating in the process of improving mobility. This information will feed into the GIS-based application. Citizens will also engage in other road safety actions in Madrid's 'living labs' (the CIVITAS ECCENTRIC 'living labs' in Madrid are two south-eastern districts - Puente de Vallecas and Villa de Vallecas). The GIS-based tool will also serve to monitor traffic safety measures included in Madrid's Sustainable Urban Mobility Plan (SUMP).

How does it work?

Under this measure, the city of Madrid will conduct a comprehensive road safety study in the demonstration area, complemented by the development of a GIS-based application to map road safety incidents, categorised by type (e.g. with cyclist involved, pedestrians, etc.), as well as high-risk locations (either real or perceived).

The road safety study will be composed of:

- Definition of traffic Safety Indicators.
- Collection and systematization of data linked to street safety through an application developed and based on GIS.
- Calculation of traffic safety indicators in sections of the street with homogeneous characteristics.
- Identification of points/sections of accident concentration.
- Identification of points/sections with traffic safety level (real and perceived) compromised.
- Identification of environments likely to perform actions to improve traffic safety.
- Definition of prioritisation criteria and type of actions to be carried out.

Making use of the GIS-based tool, the municipality will take over some of the most relevant traffic safety measures included in its SUMP, whose implementation will be boosted by the CIVITAS ECCENTRIC project. New technologies will be used to further promote traffic safety conditions by introducing tools that range from intelligent speed humps and smart signage to blind spot alerts, etc. In addition, public participation is highlighted as a determining success factor in the framework of the new mobility culture. Involvement of citizens and key stakeholders is needed to deliver a proper policy and planning approach, generate support from the general public and trigger new mobility behaviour, which is also more sustainable.

Some of the activities carried out during the research and planning phase:

- Several meetings have been held with representatives from the relevant municipal services, aimed at defining the information transfer protocol to perform a diagnosis on road safety in the specified range. These have also served to help define the information that will feed into the future app.
- Meetings have been held with entities and representatives from other administrations with ICT programmes or applications with similar functionalities as those under development.
- Administrations that have software with similar functionalities have been identified, as have barriers to data integration.

Expected results

Long-term objectives for the implementation of this measure include the promotion of non-motorised mobility by providing a safer and more comfortable environment. Short term objectives include reducing the number of fatal accidents and serious injuries also reducing the perceived accident risk by all means of transport, with a focus on non-motorised ones.

Business model

The total budget foreseen for this measure is of €277,813 and it is entirely provided by the City of Madrid.

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