

Murcia



Local context

City size and context

Murcia is the seventh largest city in Spain with a population of 453,238 inhabitants and the capital of the Murcia region located in the southeast of the Iberia peninsula.

The city has all modern facilities one can expect from a regional capital, two universities, university hospitals, public transport (buses, trams and public bicycles), as well as tourist attractions. The principal economy is based on services, (residential) tourism and agriculture (exporting all over Europe fruit, vegetables and wine) being important.

Tourism plays a major role in the local economy, the city's historical sights and local

KEY FIGURES

Population: 453,238

Area: 8,822 km²

Density: 497.75 people/km²

NUTS level: NUT-3

TEN-T corridor(s): Murcia is an urban node of the Mediterranean corridor

USER-CHI role: replicator city

gastronomy are the main attractions for the visitors, mostly domestic tourists. While historical monuments such as baroque churches, convents and museums are located in the city centre, most tourists stay at the seaside, in resorts, apartments and hotels densely built along the coast. Future cultural offers should move out visitors from this thin costal line, which suffers the drawbacks of over tourism, having little connections with the urban or rural areas of Murcia.

This scenario could have an impact on charging infrastructure deployment, in view of promoting light public electric vehicles, such as e-bikes and e-motorbikes and scooters.

1.1.1. Geography

Located in south-eastern part of Spain close to the Mediterranean coast, the municipality of Murcia has an ample geographical dispersion of districts (only 40% of the population lives in the city centre, composed of 28 neighbourhoods, the remaining 60% of the population lives in the 54 surrounding rural districts).

1.1.2. Modal split

The modal split of the city of Murcia is summarised in Figure 1. Remarkably, public transport as well as cycling are more popular among the people aged between 14 and 29 years, as shown in Figure 2Figure.

For what regards the travel reasons, 33% of all commutes are done for working and up to 35,5% for study reasons, as shown in Figure 3.

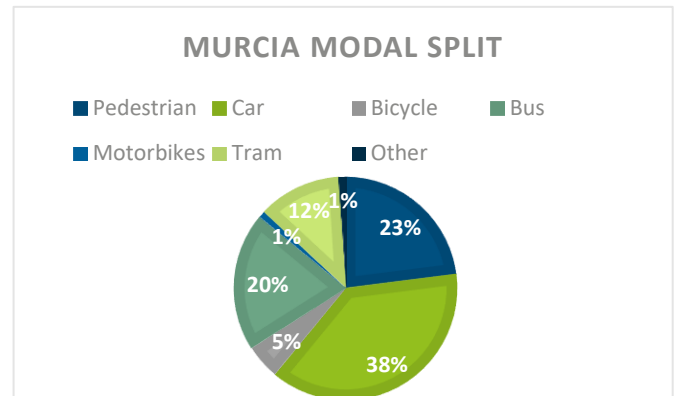


FIGURE 1: GENERAL MODAL SPLIT FOR THE WHOLE MUNICIPALITY. SOURCE: CITY OF MURCIA

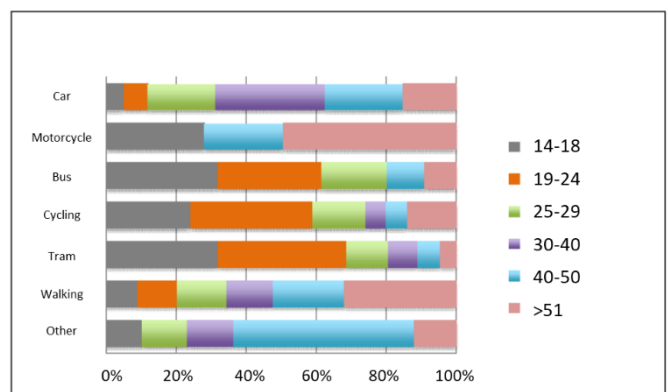


FIGURE 2: MURCIA'S MODAL SPLIT BY AGE. SOURCE: CITY OF MURCIA

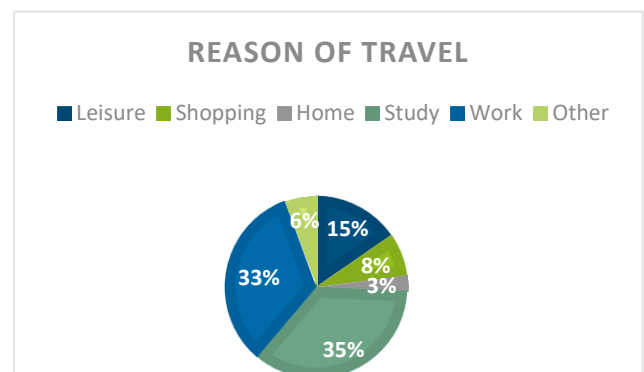


FIGURE 3: MURCIA'S REASONS OF TRAVEL. SOURCE: CITY OF MURCIA

Electric vehicles

In Murcia, electric vehicles data is available for battery electric vehicles and plug-in hybrid electric vehicles combined only. Out of 689 electric vehicles in total, 58% are e-motorbikes and 32% are cars, as shown in Table1 below.

TABLE 1: SPLIT OF REGISTERED E-VEHICLES. SOURCE: MUNICIPALITY OF MURCIA

Type of e-vehicle (BEVs+PHEVs)	Total
Trucks < 3500kg	2
Trucks > 3500kg	2
Vans	16
Motorbikes	401
Others	43
Cars	225

Charge point characteristics

Payment options

Murcia has a public and free of charge electric charging network for EVs that at present offers 6 charging stations. The charging on this municipal public network is accessible via a user card (provided by the municipality on demand) and also using a specific app (Fenie Recarga) of the operator aimed at managing and monitoring the network's functioning and usage. Likewise, an online platform¹ is also available to check

the availability of the charging stations and have a record of the user's charging.

Murcia also counts several private developments in shopping centres and on parking lots. In total there are additional 54 electric charging points, where citizens can charge e-vehicle in a pre-paid way.

Total RES supplied

The total renewable energy source supplied is 32,425 kWh/year.

Electromobility strategies and initiatives

State of play

The municipal climate change mitigation strategy 2030 (SECAP) establishes the strategic lines, actions and tools necessary to achieve energy use, consumption and production in a sustainable way. Its ultimate

objective is to increase the protection of the environment and leads the municipality to a better quality of life, through the planning of a series of measures that entail an improvement in the areas of action where the City Council is competent. Electric

¹ <https://recarga.fenieenergia.es>

transport and sustainable mobility are fundamental parts of this strategy.

To give a significant impulse to sustainable mobility in the city, the council has designed a specific local strategy to encourage the use of electric vehicles in Murcia, which is a fundamental step in the process of converting and converging towards a smart city model.

Murcia has elaborated a local strategy for the use of electric vehicles (*Estrategia local del vehículo eléctrico de Murcia*)² in 2017, which sets a clear political commitment in favour of sustainable mobility and the progressive decarbonisation of transport means.

According to the local strategy for the use of electric vehicles, an essential requisite for achieving smart and sustainable mobility is the creation of a broad network of charging points which ensure users of electric vehicles a greater accessibility. One envisaged option would be to connect those charging points to the existing infrastructure created around MUyBICI, the city shared biking scheme.

Supporting policies for zero emission vehicles

The local strategy for the use of electric vehicles sets initial proposals to encourage the purchase of e-vehicles and rewards users of this type of vehicles through tax reductions, exemption from parking fees, or reserving exclusive parking spaces.

Similarly, the city of Murcia is intensifying its commitment to gradually transform its administrative fleet of vehicles into electrical vehicles, providing the municipal buildings

² <https://www.energiaturcia.es/movilidad-electrica/>

with charging infrastructure, and favouring service subcontracts that foresee and increment their use.

E-fast car initiative

In 2018 Murcia also launched the e-fast car initiative that aims to foster e-mobility in Murcia through offering 50 EV exclusively parking spaces in the most valued spots of the city (as a result of a car park distribution study) and monitoring the availability and occupancy of these spaces through an app called "FAstpark. This app, linked to embedded sensors on the ground within these parking spaces, enables e-vehicle drivers to check which places are available and easily plan their trips to different places of Murcia.

Comparte moto

The municipality of Murcia is also operating an e-moto sharing for civil servants called "Comparte moto". A parking lot for 10 electric motorcycles has been defined at the largest municipal building and e-motorcycles under a shared scheme are provided to the municipal staff in order to give them the opportunity to shift from the old combustion-engine fleet to a clean and agile mean of transport.

Murcia has also worked on several European projects, which fostered the trend towards a greater e-vehicle friendly city.

Horizon 2020 Cirve (2016-2020)³

The action takes place on the Atlantic and Mediterranean Core Network Corridors in Spain and Portugal. Its objective is to increase the use of electric vehicles in Spain, Portugal and France under a fully interoperable cross-border framework that

³ <http://cirveproject.com/es/>

allows electric vehicle users to transit from the North of Europe to the Iberian Peninsula, ensuring a link between the southern and northern parts of the EU.

ELECTRA- Electric City Transport (2013-2015)⁴

The objective of the project is to promote a new urban mobility model and support the development of the electric scooter market in urban areas.

MOBISEC - Mobility Initiatives for Sustainable European Communities (2012-2015)

Murcia coordinates this projects whose objective is to promote the use of the bicycle as a daily transport mean; guarantee the safety of users in public roads and especially cyclists and pedestrians; it includes strategies to promote the inter-modality of bicycles with other transport modes and citizen participation. Electric bikes are part of the scope.

Regional or national frameworks

The municipality contributes to the national strategy defined under the National electric vehicle strategy which sets the objective to reach by 2030 the target of 5,000,000 of e-cars and 11,000 charging points. No specific frameworks are defined at the regional level.

Deployment approaches

Murcia's development approach combines the development of a municipal basic network which is complemented by infrastructure developed by private companies.

Murcia has a public and free of charge electric charging network for EVs that at present offers 6 charging stations that were determined through a study carried out by the University. This network uses open protocols for communications (OCP) and is running under a single operator, which makes charging convenient and easy.

Good practices

Murcia counts several good practices in terms of e-mobility development.

In terms of procurement the municipality of Murcia foresees that any new contract with utilities must include a minimum number of electric vehicles.

Furthermore, every year, the municipality supports the purchase of electric vehicles (bikes, scooters, charging point, cars, etc.) through a dedicated call. The latest call was budgeted at 130,000 euros.

Additionally, Murcia has been working on several European projects, explained in detail above, which fostered the trend towards a greater e-vehicle friendly city.

Challenges and barriers

The main barriers that Murcia faces towards a full roll-out of electric mobility include the lack of infrastructure, the timing of the charging, the prices of electric vehicles, the lack of grants to support the purchase of electric vehicle and the technological development.

⁴ <http://www.electraproject.eu/project-info/partners/24-city-of-murcia>

Learning needs

Murcia would be interested in learning about other European cities' approaches and strategies on electromobility. It is particularly important to have an exchange on the

USER-CHI solution

overall implementation process, including the drawbacks and barriers that other cities faced and how they tackled them.

In Murcia, four USER-CHI products will be demonstrated. The USER-CHI products that will be demonstrated in Murcia are the following:

- **Stations of the future handbook:** Guidelines and recommendations to design the perfect user-centric charging station of the future.
- **eMoBest – e-Mobility replication and best practice cluster:** A collaboration platform to facilitate the transfer of best practices among the demonstration and replication cities.
- **INFRA – Interoperability framework:** A package of rules, guidelines and recommendations that will support highly interoperable processes among the electromobility stakeholders.
- **INSOC – Integrated solar DC charging for Light Electric Vehicles (LEVs):** A solution combining charging, onsite production of renewable energy and theft-proof parking for Light Electric Vehicles.

