



FERRARA

A COMPREHENSIVE POLICY TO PROMOTE CYCLING



Key words:

Non-motorised modes; Planning; City-centre regeneration

Ferrara is an Italian city located halfway between Florence and Venice. In the mid-1990s, two factors prompted the municipality to rethink its transport policy: the city was placed on UNESCO's World Heritage List, and Italian cities with more than 30,000 inhabitants were required to introduce an urban travel plan. The municipality wanted to increase accessibility in order to preserve its heritage and develop tourism. The policies adopted by Ferrara have made this city a Mediterranean model for cycling policies.

Italy	Ferrara
Population: 60,483,000 inhab.	Population: 135,000 inhab.
Area: 301,336 sq. km	Area: 405 sq. km
Density: 200.7 inhab. / sq. km	Density: 330 inhab. / sq. km
Urbanisation rate: 68.40%	Bike paths: 86.1 km (2007)
Annual rate of urban-population growth (2005-2010): 0.71%	Modal mix: Private cars: 56% Public transport: 5% Active modes: 39%
GDP / inhabitant: \$34,075.1	
HDI: 0.874 / 1	
Car ownership: 596 vehicles per 1,000 inhab.	
Vehicles per km of road: 80	
Accident rate: 0.96 fatal accidents per 10,000 inhab.	

Sources: World Bank – UNDP – Albert Croce – Pietro Osti – EPOMM

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Based on:

- A presentation by **Alberto Croce** – consultant and former City of Ferrara transport director (Marseille conference, 2010).
- The 2010 brochure by **Pietro Osti** – “Ferrara by bike”.

The municipality of Ferrara consists of a medieval centre, where two-thirds of its population live, and 42 surrounding villages of widely varying size. To enhance its tourist appeal, Ferrara restricted motorised-vehicle traffic back in the late 1960s. The old city was closed to cars and motorbikes in favour of pedestrians and cyclists¹. Car traffic was allowed outside this pedestrian zone, but with many restrictions, across a 50-hectare area.

In Italy, under the revised 1992 version of the Highway Code, cities with more than 30,000 inhabitants were required to implement an urban transport plan. Starting in the mid-1990s, Ferrara devised a comprehensive strategy to reduce car traffic in the city and promote a switch to active modes of transport. The Limited Traffic Zone, a central zone subject to access control for motorised vehicles, was extended and LTZ access rules were toughened to favour cleaner vehicles:

¹ http://ec.europa.eu/environment/archives/cycling/cycling_en.pdf

- A “paid access permit” was introduced. Its cost varies according to the type of vehicle, level of emissions, and profile of the permit-holder (resident, resident with a private garage, visitor, small shopkeeper, delivery driver).
- A system to automatically control LTZ access was introduced, with electronic scanning of the registration plate of vehicles entering the city centre.

In addition to this LTZ, paid parking was applied throughout the city centre, and park-and-ride facilities were built on the edge of the old city (by the ramparts). High-frequency shuttle services were launched to provide a link with the city centre. In addition, the entire urban bus fleet was converted to natural gas. Next, travel plans were drawn up for public establishments, the hospital, city council departments, etc.

But the city’s flagship policy in terms of sustainable mobility is the promotion of bicycle use. Today, Ferrara is a Mediterranean model in terms of the modal share of cycling. The topographical characteristics of the city, which is situated in the plain of the river Po, are not the only reason for the popularity of biking. Its development stems from several local initiatives and policies to encourage this means of transport.

THE BICYCLE’S PLACE IN THE CITY

- In 1995, the municipality introduced the Bicicard, which lets tourists leave their cars in a car park and borrow a bike and visit museums, all free of charge, and enjoy discounts in the city’s hotels, restaurants and shops.
- In 1996, an office (“Ufficio biciclette”) was set up to promote bike use. It was the first of its kind in Italy.
- In 2000, a Biciplan was rolled out. This is the operational planning instrument for the development of bike use in the Ferrara metropolitan area. It was incorporated in the Urban Traffic Plan (PUT), with the following objectives:
 - o Create optimal conditions for bike riding in the dense urban zones. To increase the appeal of biking and walking in the old town, the former cobbles have been replaced by flatter and wider paving stones.
 - o Create bike paths that offer accessibility from the peripheral villages to the city centre.
 - o Guarantee a high level of operation, sustained over time.
 - o Ensure maximum security of routes, to convince all user categories. For example, to reduce the risk of accidents, bike-only routes (bridges and underpasses) were created, and systems and features to moderate driver speed and separate bike and road traffic were introduced, etc.
 - o The creation of services for cyclists: appropriate parking (free, supervised parking), public tyre pumps, bike network map, information on repair centres, etc. In terms of the local economy, the popularity of bikes allows roughly 30 repair outlets to co-exist².

² http://ec.europa.eu/environment/archives/cycling/cycling_en.pdf

The Biciplan programme, which was revised in 2011, tripled the number of bike path kilometres and allowed the construction of eight underpasses. The total investment was €25 million, or €20 per inhabitant per year.

The measures accompanying this bike plan also covered fighting theft. In Ferrara, bike theft is the second most frequent offence after car/home vandalism: 7.1% and 7.4% of families respectively are affected. Ferrara promoted the numerical marking of bikes throughout Italy, with a microchip and a bike listing on the Italian Bicycle Register.

In 2001, a self-service bike rental system, Bike Bus Key, was launched. Once registered, people can use a public bike free of charge, by means of a special key. The stations are mainly located near transport interchanges to contribute to intermodality. Since 2004, the system has been adapted to promote intermodality with the regional train network.



Figure 1: Bike Bus Key station in Ferrara.

Although bikes' modal share is particularly high in Ferrara, cars still provide strong competition. The city has one of the highest car-ownership rates in Italy: 620 cars per 1,000 inhabitants (in 2009)³. Cars remain the most-used means of transport (56%)⁴. In spite of this, bikes' modal share has consistently stayed above 20% for 25 years, thanks to pro-bike policies; and their modal share even reached 27% in 2008. The city has managed to develop high multimodality among its residents: 89.5% regularly ride their bike⁵. Ferrara has designed a holistic strategy to organise the city's traffic; it aims to integrate the various modes of transport, so as to ensure and increase city-centre accessibility. The municipality applies measures to encourage bike use, but also measures to restrict personal car use in the city centre. According to Alberto Croce, *"Bike use is not a residual form of transport. It plays an efficient role in reducing the negative impacts of car use; it drives improvements in health and quality of life; and lastly, it makes savings for both the municipality and households."*

³ See statistics of the Italian region of Emilia-Romagna: car ownership in households.

⁴ 2008 survey in the province of Ferrara.

⁵ Stefanati, 2009.