

# FreeBici

Explore, Analyze, and Optimize  
Your Valenbisi Experience

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# 1 Introduction

**FreeBici** is the all-in-one web app designed to enhance users' Valenbisi experience. With powerful features and intuitive functionalities, FreeBici empowers users to make the most of their bike rides throughout the beautiful city of Valencia. The service aims to revolutionize the way people explore the city on two wheels.

## 2 Explanation

FreeBici's core value lies in the three main features it provides:

- A **Heatmap** tab, that makes visualizing real-time availability possible.
- A **History** tab, that allows the user to dive into bike availability trends.
- A **Finder** tab, that helps users optimize their bike routes.

It is also important to mention our website is designed to cater to users across various platforms, including both mobile and desktop environments. With its impressive functionality and seamless responsiveness, the site ensures a smooth and enjoyable user experience regardless of the device used.

Figure 1 shows what FreeBici's landing page looks like: a clean interface, summarising the service's capabilities and giving users access to its features with a simple tap.

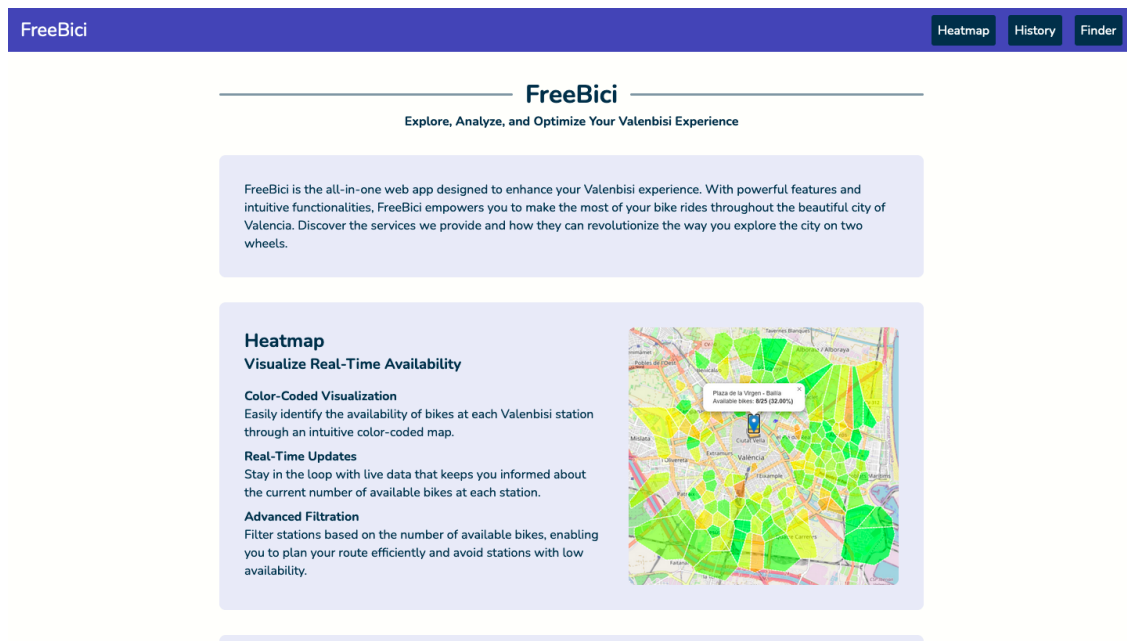


Figure 1: Screenshot of FreeBici's landing page (desktop version).

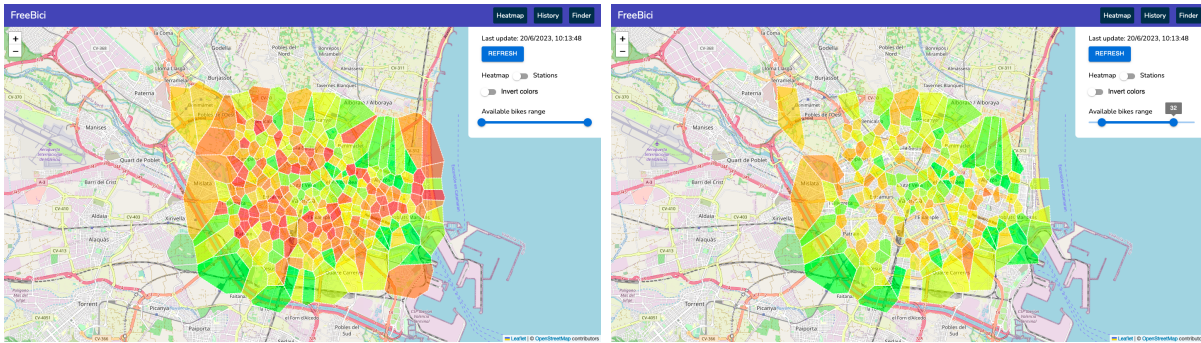
Now, let us dive deeper into what benefits each feature provides.

## 2.1 Heatmap

The heatmap is a fantastic way to become aware of the current status of the service at a glance. Its color-coded display makes it easy to get an idea of the volume of bikes available at each station.

This functionality also offers live updates, so the user always stays in the loop. At all times, there will be knowledge of the number of available bikes at each station (along with the corresponding percentage of its total).

Lastly, our filtering system allows the user to filter out stations with low availability, enabling more efficient route planning. An example of this can be seen in Figure 2, where any station out of the 5 to 32 bike range is filtered out.



(a) Default opening page for the Heatmap tab. (b) Heatmap, using the bike availability filter.

Figure 2: Heatmap feature.

## 2.2 History

The History feature makes it possible to display historical bike availability data through easy-to-understand visualization. It provides Interactive Animation, allowing users take a journey through time with our animated playback functionality, which showcases changes in bike availability over the available period.

With this knowledge in hand, one can analyze this historical data and use it to plan rides better, ensuring the most convenient times and locations are chosen for Valenbisi adventures.

These functionalities, as shown in Figure 3, are accesible through the same minimalistic interface provided for the previous tools mentioned, unifying our site's image and making user experience one of our strenghts.

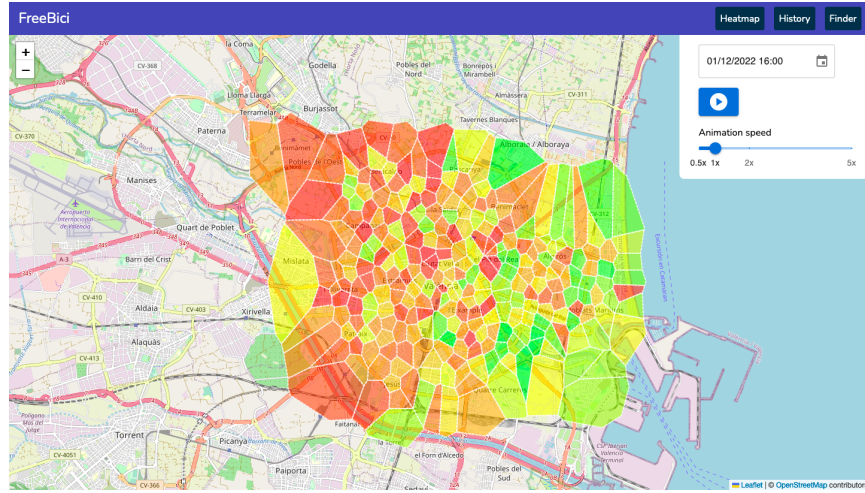


Figure 3: History feature.

## 2.3 Finder

Indeed, FreeBici's Finder looks very similar to Google Maps or other navigation services. This is done on purpose, since, in this way, its use does not require prior learning, as it is already familiar. The user only has to enter an origin and a destination location, and the most efficient route for the bike ride will be found.

Another key benefit of this feature is its ability to find the optimal connection stations: the best connecting stations along the route can be discovered, enabling bike changes every 30 minutes of travel and avoiding any additional rental fees. An example of the Finder feature in action can be found in Figure 4.

Of course, all these functionalities translate into time and cost savings: we let the user maximize biking efficiency, save money, and enjoy uninterrupted rides, FreeBici will take care of the rest.

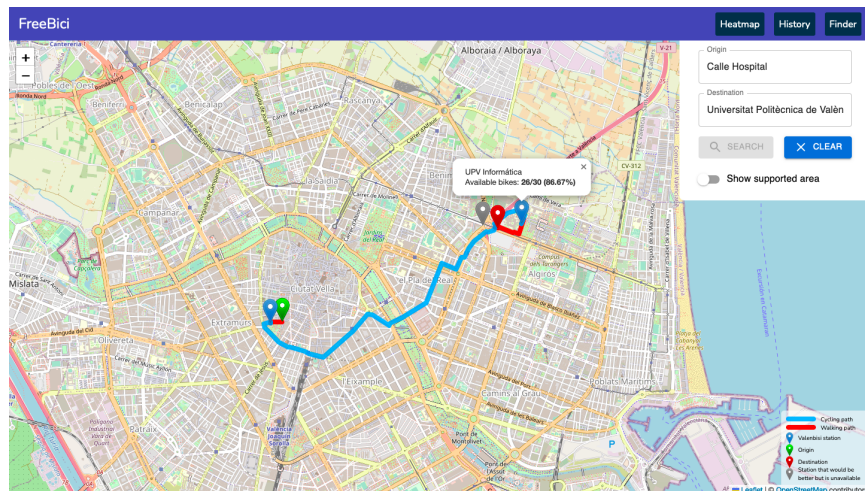


Figure 4: Finder feature.