



## Abstract

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# Railway Tourism and Sustainability in Águeda

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# Railway Tourism and Sustainability in Águeda <sup>†</sup>

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**Abstract:** The growing demand for sustainable tourism is evident in regions like Águeda, Center of Portugal, where the Historic Vouga Train attracts a significant number of visitors. This study analyzes the intersection of this historic train's use and sustainability principles, focusing on tourist demand. The methodology includes analyzing news from 2020 to 2023 and CP's passenger data. The findings show the train boosts tourism in Águeda, attracting visitors keen on historical and cultural preservation. Sustainable initiatives such as promoting public transport and minimizing environmental impact are highlighted. This study underscores the importance of integrating railway heritage preservation with sustainability goals to foster local economic development.

**Keywords:** Historic Vouga Train; railway tourism; sustainable tourism

## 1. Introduction

In the 19th century, the railway reduced travel time, enabling people to use trains for leisure. However, in the 1980s and 1990s, the railway system in Portugal underwent changes, with lines being closed or reduced. The Vouga line and the Aveiro branch were no exception, and in 1972, the section between Viseu and Sernada do Vouga was closed on the grounds that the steam locomotives caused forest fires [1,2]. Nevertheless, the population held a special affection for the Vouga Valley line, affectionately naming the train “Vouguinha” [3], a name still used by the populace today. Despite this, Comboios de Portugal (CP) decided not to use this name commercially and has demonstrated, as seen on the company's website, an effort to completely sever ties with this popular name, opting instead to use the commercial name Vouga Historic Train (Comboio Histórico do Vouga).

Águeda, a municipality in Center of Portugal, stands out for the historical and cultural value of its railway heritage through the workshops in Sernada do Vouga, the existence of a railway museum nucleus in Macinhata do Vouga, initiatives at Águeda station, and an old locomotive placed in the city. Moreover, Águeda has the potential to attract visitors through the Vouga Historic Train, a railway service offering a nostalgic journey aboard a centenarian locomotive. This is the only narrow-gauge line still in operation in Portugal [4], promoting the preservation of national, cultural, and historical railway heritage by repurposing it for tourism [5]. This tourism experience aligns with a growing interest in more sustainable tourism practices, reflecting a significant shift in traveler behavior towards combining leisure activities with environmental responsibility [6–8]. The railway, as a tourism resource, has been increasingly discussed, particularly for generating economic dynamism and differentiating localities through railway tourism [9,10]. In this context, the authors deemed



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it important to analyze how the use of the Vouga Historic Train relates to the principles of sustainability in the tourism demand of the Águeda region.

## 2. Materials and Methods

To achieve this objective, the methodology used was based on the analysis of news published by the media between 2020 and 2023, which covered the editions of the Vouga Historical Train. This analysis included journalistic coverage of the tourist impact and the frequency of news, in addition to data provided by CP regarding the number of passengers and the editions made to evaluate the impact of the train on tourist demand and on the sustainable development of the municipality of Águeda.

## 3. Results

Between 2020 and 2023, numerous articles were published about the Vouga line. However, many focused on its modernization and the National Railway Plan, which were excluded from our analysis. The investments in upgrading the line highlight its importance. In 2020, the International Union of Railways named the Vouga Historic Train one of the “Dream Trains”, as noted by *Jornal da Bairrada*. *Público* (January 2020) reported on the return of the historic steam train for the final Christmas season journey, while *Notícias de Aveiro* (February 2020) highlighted its return during Carnival and Easter. In 2021, the number of articles on the Vouga Historic Train’s return increased, featuring in various media such as *Time Out Lisboa*, *Volta ao Mundo*, *Público*, *Diário de Coimbra*, *SIC Notícias*, *Braga TV*, *A Notícia*, *NIT*, *Águeda TV*, *Diário de Aveiro*, *Notícias de Aveiro*, *Evasões*, *MAGG*, and *Aveiro Mag*, among others. The language used in these articles reflected a long-awaited return, evoking a sense of travelling back in time, with some describing it as a “unique” experience. However, due to COVID-19, the Christmas edition was cancelled, as reported by *Público*, which also announced its return for the special Carnival edition. In 2022, more media outlets focused on tourism promotion, such as *Turisver*, *Lisbonne Affinités*, *Traventia*, *EchoBoomer*, and *Sapo Viagens*, writing about the return of the Vouga Historic Train and its special editions, indicating increased interest in tourism promotion. In 2023, this interest from tourism-related media solidified with continued coverage by general and local media. Notably, new sources such as *Aldeias de Portugal* and *Centro Portugal Film Commission* began highlighting this special service, suggesting growing community impact.

According to CP, in 2019, there were 15 trips with a 76% occupancy rate. In 2020, only the Carnival edition was held. In 2021, the Christmas edition ran for two days, while in 2022, the Carnival edition ran for two days and the Christmas edition for three days. Some trips were cancelled due to weather conditions, strikes, and steam locomotive breakdowns, transporting approximately 3050 passengers according to CP (Table 1).

**Table 1.** Editions and number of passengers of the Vouga Historic Train.

Year/Edition	Approximate Number of Passengers
2020—Carnival (February)	150
2021—May	150 + 150 + 150 + 150
2021—Christmas (December)	150 + 150
2022—Christmas (December)	150 + 150 + 150
2022—Carnival (February)	150
2023—Christmas (November, December and January)	200 × 7
Approximate total number of passengers over the 3 years	3050 <sup>1</sup>

<sup>1</sup> Approximate value. Source: [11].

On the other hand, it should be noted that the price in 2020 was 30 euros per adult and 16.50 for children aged 4 to 12; in 2023, the prices were 37 euros for adults and 22 for children, which could evidence a greater willingness to pay due to the increased demand. However, there tends to be a perception that passengers are willing to pay more when the trip is carried out with a steam locomotive than when the service is carried out by a diesel locomotive.

Considering the three pillars of sustainability: environmental, economic, and social, the results obtained from the news review and data provided by CP on the editions, approximate number of passengers, and ticket prices reveal that environmental issues are rarely mentioned despite the use of coal and diesel, likely due to the historical aspect. Regarding economic sustainability, two relevant aspects are the price increase and existing demand. Socially, the media frequently uses the name “Vouginha”, reflecting the local population’s preference. Some news articles highlight the community and a local association’s advocacy for the service’s continuity. Editions often coincide with other events in Águeda, with visitors to the museum being welcomed by musical groups and local products available for sale. It is noteworthy that from 2020 to 2023, media attention to this service has increased, indicating greater involvement.

It is also noted that the Municipality of Águeda has been committed to maintaining these special editions of the tourist train “Comboio Histórico do Vouga”, as highlighted in several media outlets, through the partnership with CP, whether through the visit to the Macinhata do Vouga Museum Center, the tasting of regional sweets, and the stop at Águeda station to visit the city.

#### 4. Discussion

Through the analysis of news articles and data provided by CP, the authors aimed to address the study’s objective. The use of the Vouga Historic Train aligns with the principles of sustainability in the tourism demand of the Águeda region, primarily through social sustainability. This allows the community to preserve their railway heritage, supporting findings by Hoekstra [11,12] in the Netherlands and Niedzielski and Malecki [13,14], who suggest that railway tourism does not necessarily require environmental and economic sustainability but rather social sustainability to promote greater social cohesion. Additionally, the use of railway heritage for tourism services, such as the Vouga Historic Train, fosters community involvement through activities like singing, selling local products, and volunteering, helping to promote local culture. This perspective aligns with studies indicating that such tourism can enhance local economic development [15,16]. The demand for this service and the evolution of ticket prices highlights that investment in railway tourism stimulates the tourism market, reflected in the increased media attention from tourism-related outlets. This growing interest may sensitize public authorities to invest in railway heritage and plan tourism activities, as advocated by White [17].

#### 5. Conclusions

The use of railway heritage in the Vouga Historic Train tourism service contributes to the sustainability of Águeda’s tourism offerings by fostering local community involvement. Regular editions could help regenerate local communities and generate positive economic impacts by boosting local product sales and new business development. Tourists seek unique, past-related experiences, underscoring the importance of media and entities in promoting this service.

This study focused on a non-exhaustive news analysis to highlight key developments and media coverage. The main limitation was the inability to detail all articles. Future research could explore promotion strategies for consistent demand and tourism develop-

ment. On the other hand, through the analysis carried out, it was not possible to define a consumer profile, since they do not focus on this type of content, so we consider that this could be a line of future research.

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