Logistics city-regions in transition: New spatial imaginaries in Spain and Italy

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Introduction

Among the new emerging geographies of the city-region, those involving logistics are multiplying and extending. Paraphrasing the renowned article by Paasi and Metzger (2017), the conceptualisation of a 'logistics' city-region is certainly not merely a 'what it is' problem since the city-region cannot be understood exclusively as a fixed entity or neutral background but as social constructs produced/reproduced by multiple actors in and through variegated practices,

policies, and discourses.

Indeed, as Cowen (2014) and Chua *et al.* (2018) have shown, the dialectic between movement and stasis determines the production of the urban region: the contradiction between the 'movement' of the turbulent dynamics of urbanisation and circulation and the 'stasis' of the permanence and persistence of spatial and infrastructural articulations are intrinsic in the spatialities of logistics. Geographers, planners, and other social scientists no longer only investigate logistics and its spatialities as a gregarious sphere to other economic sectors. Indeed, logistics is studied as a vital infrastructure of contemporary capitalism, a complex system of organisational, managerial, and material processes capable of redefining the balances between political and economic spaces, as well as shaping the territory not only through the development of connectivity, networks, and corridors but also through spaces of 'immobility', those of the storage of raw materials and goods before/after the phase of movement, transport, and delivery (e.g., distribution centres, storage warehouses for reverse logistics, ports, logistics platforms, etc.).

To further expand the scholarly debate on the second aspect, in this short paper, we focus on a specific type of logistics platform (the freight village) in the geographical macro-area of the Mediterranean. In particular, we explore two cases: PLAZA in Zaragoza (Aragón, Spain) and Quadrante Europa in Verona (Veneto, Italy), which are respectively ranked as the 4th and 2nd best-performing freight villages in Europe (GVZ, 2020; Armondi, Galimberti, 2024). We analyse the role of the public actors in the two freight villages in the construction of the logistics city-region imaginary as something constantly 'in the making', particularly against central processes of city-regional change (ecological transition and digitalisation) that are also recognised by the logistics industry itself (DHL, 2022).

Even though there has yet to be a formal agreement on the terminology, a freight village (also referred to as a logistics platform, interport, or transport and logistics centre) can be defined as an inland node of the global supply chain located outside the city, allowing stakeholders to perform value-added logistics activities, and enabling coordination and collaboration. Europlatforms (2024), the European Association of Logistics Platforms, which has been working on the development of freight villages as nodal transport infrastructure since 1991, has

defined some of their key characteristics, listed below:

- ‘It must comply with EU standards and quality performance to provide the framework for commercial and sustainable transport solutions.
- It is managed in a single, neutral legal body (preferably by a public-private partnership) to ensure synergy and commercial cooperation.
- The operators can be owners or tenants of buildings and facilities (warehouses, break-bulk centres, storage areas, offices, car parks, etc.).
- It must provide the required facilities, equipment and services to the users and public services for the staff.
- It should preferably be served by multiple transport modes (road, rail, sea, inland waterways, air)’.

Consequently, besides the attempt to enhance collaboration, there are two main reasons behind the development of a freight village: first, the fragmented logistics services started to get together in clusters, where different public and private logistics actors tried to solve the problem of integration; second, it brings down infrastructure costs.

While scholars agree that freight villages are one of the main drivers of regional development, Altuntaş and Tuna (2013) noted that most studies on freight villages commonly overlook their environmental impact, ecological roles, and public actors.

PLAZA and a regional push towards logistics

Since the end of the 1990s, the Autonomous Community of Aragón, thanks to its geographic position close to France and barycentric between Madrid and the ports of Valencia, Bilbao, and Barcelona, has focused on developing its logistics sector. Today, it is the fourth-largest logistics region in Spain, after Madrid, Catalonia, and Andalusia, with predominantly national flows (UNO Logística, 2024). The Autonomous Community of Aragón first pursued this strategy by promoting the creation of PLAZA (Plataforma Logística Zaragoza), a freight

village located on the southwestern outskirts of its capital, Zaragoza (a city that concentrates about half of Aragón's population). PLAZA was established under a specific law enacted by the Autonomous Community in 2001, which classified it as a 'project of regional interest', directly regulating its planning and bypassing the usual municipal level. Even today, PLAZA remains under public governance, focusing on the sale and leasing of land and warehouses to tenants such as logistics operators (e.g., DHL), freight forwarders (e.g., DB Schenker), companies shipping their products manufactured elsewhere (e.g., Inditex, Porcelanosa), and other commercial players (e.g., Decathlon).

Today, PLAZA is not only Europe's fourth best-performing freight village but also the largest by area, covering 13.45 million square metres and housing more than 500 companies and 16,000 employees. PLAZA's boom came in its early years when Inditex (the Spanish fast-fashion multinational that owns brands such as Zara and Bershka) installed itself there in 2003, building one of its four logistics warehouses in the world, taking advantage of PLAZA's adjacency to Zaragoza airport, and now accounting for two-thirds of the airport freight flows (making it Spain's second largest cargo airport after Madrid). The presence of Inditex, proximity to the airport, three motorways, a dedicated rail terminal, and lower land and labour costs than other major Spanish logistics regions have all been catalysts for PLAZA's growth. The freight village recently expanded into nearby agricultural or undeveloped areas, with PLAZA 3.5 (home to an Amazon logistics centre) and PLAZA 4.0 (currently under development and the only partially privately managed section).

For more than twenty years, PLAZA has also structured its spaces. For example, it built a public linear park of around 650,000 square metres, creating a buffer zone with closer low-density residential areas. Further, inside PLAZA, there are hotels, restaurants, some services (such as nurseries), and cycle paths that run through the freight village via its two entrances. No public transport links it directly with the city, so companies within it organise shuttles for their employees.

Over time, the Autonomous Community of Aragón has supported the creation of other logistics settlements in the region. In 2019, to promote a systemic strategy, it established the regional public entity Aragón Plataforma Logística (Aragón Logistics Platform), incorporating the freight villages of PLAZA and those in the region's other two main cities, Huesca (PLHUS, well-connected to France) and Teruel (PLATEA, linked to the Port of Valencia), alongside two planned platforms

in Zuera and Calamocha. Other logistics nodes in the region operate more autonomously within the Aragón Plataforma Logística system, such as the Terminal Marítima de Zaragoza (a dry port linked to the Port of Barcelona), Mercazaragoza (focused on agri-food logistics), and platforms in Fraga and Monzón. Moreover, Aragón Plataforma Logística has established permanent coordination committees with municipalities involved in significant logistics activities.

In terms of numbers, PLAZA alone accounts for around half of the entire Aragón Plataforma Logística, which has an area of almost 20 million square metres and 26,000 employees.

This public coordination facilitates expropriations, settlement permits, tenders, and warehouse construction (these operations typically take one to four years, depending on the complexity and size of the client's demand). It ensures that infrastructure is developed where it is most needed. The aim is to rationalise logistics spaces and flows throughout the region, foster cooperation rather than competition between logistics hubs, and make logistics a major economic driver, today accounting for 5.5% of the regional GDP (Economic and Social Council of Aragón, 2024). This development aims to comply with EU directives on environmental sustainability, provide access to logistics opportunities for economically fragile areas, and prioritise areas close to existing infrastructure.

For example, in 2025, Inditex will open its fifth global logistics warehouse in Aragón, still in Zaragoza, but in an industrial area on the other side of the city from the airport, which means longer road journeys for trucks and increased pollution. In addition, the region has already begun to welcome major global players such as Amazon Web Services and Microsoft with their large data centres in certain logistics platforms and industrial areas, promoting Aragón as a possible 'technology platform' for Spain, integrated with the 'logistics platform' that has been in development for 20 years and thus flanking the logistics of good with the logistics of data. Data centres are strategic and essential for digitalisation, but they are also a double-edged sword for a region, as they create few jobs and extract a lot of value by consuming vast quantities of energy and sealing off much land.

Quadrante Europa and a sprawling logistics city-region

Verona is located in Veneto, in the northeast of Italy, one of the country's most prosperous areas. Its prosperity has been driven by a manufacturing network that has changed over the decades and still contributes many points to Italy's GDP. Over the past 15 years, logistics has become a defining feature of the area south of Verona, with hubs proliferating mainly without a regional planning strategy, particularly along the Brenner motorway and the national road to Rovigo (Armondi, Di Vita, Galimberti, 2024).

Amid this logistics density, the largest node is the Quadrante Europa Freight Village, strategically located on the outskirts of Verona at the intersection of the already mentioned north-south Brenner motorway, the west-east Turin-Venice motorway, and the corresponding railway lines (along the TEN-T Mediterranean and Scandinavian-Mediterranean corridor). Expanding since its inception in the early 1980s, Quadrante Europa covers an area of 2.5 million square metres (planned to reach 4.2 million). It hosts 120 companies, employs 13,000 people, and handles 7.3 million tonnes of rail freight and 16.5 million tonnes of road freight per year (Conzorzio ZAI, 2024). To better understand what these figures mean, 50% of the freight trains passing through the Brenner corridor stop at Quadrante Europa, which also handles over a quarter of all the trains moving in and out of Italy's 26 freight villages (Confetra, 2023).

Quadrante Europa is managed by Consorzio ZAI, with two existing industrial zones and a planned partially logistics area (contested by environmental groups and many residents of the surrounding areas). Consorzio ZAI is a public economic entity established by national law in 1948, with full public governance (with members appointed by the Municipality, the Province, and the Chamber of Commerce). However, it operates with considerable autonomy and flexibility, like a private company (for example, in selling land and warehouses without public tender). Consorzio ZAI and its affiliated companies oversee the management, planning, and maintenance of Quadrante Europa, the sale and concession of its land and warehouses, the provision of services to tenant companies, and the handling operations at one of its three rail terminals. Quadrante Europa's tenants include logistics operators, freight forwarders, and manufacturers benefiting from road-rail multimodality. Since the 1990s, the Agricultural Centre of Verona has

also developed near the freight village, using its multimodal services.

The freight village's city-region extends approximately 150 kilometres, covering neighbouring middle cities such as Vicenza, Trento, Bolzano, Mantua, and Modena. Rail links extend much further, connecting with northern European ports such as Antwerp, Rotterdam, Bremen, and Hamburg (75% of rail traffic is with Germany) and Denmark. To the east, it connects with the Czech Republic, while southern routes link to Italian ports, including Genoa, La Spezia, Livorno, and Bari.

Quadrante Europa is not only a critical infrastructure but also one of the cores of a sort of company town, where the fright village's 13,000 employees (demographic data are unavailable) operate in shifts around the clock, 24/7. These workers commute by public transport, bicycles, scooters, motorcycles, and, above all, by car. Paved parking areas for staff vehicles are huge, soil-sealing nearly 20% of the site. In 2024, Consorzio ZAI introduced a secure 80-space parking facility for truck drivers waiting for loading and unloading slots. This facility complies with new EU regulations and offers rest and service amenities to improve drivers' working conditions while reducing congestion on surrounding urban roads. In addition, Consorzio ZAI has reclaimed a former landfill site, transforming it into a 70,000-square-metre public park enclosed between Quadrante Europa, the Agricultural Centre of Verona, and other logistics platforms.

Quadrante Europa, an infrastructure larger than Verona's historic centre, has significant economic, social, environmental, and spatial impacts on the region. We suggest addressing these impacts without reducing their complexities and ambivalences. There is no doubt that the site contributes to pollution and extensive soil sealing. However, Consorzio ZAI complies with European regulations, and every train that passes through the site means 30 fewer trucks on the road. Despite these considerations, many logistics companies prefer settling in independent warehouses or small hubs mushrooming in the agricultural areas of the small municipalities south of Verona. These areas, often lacking adequate infrastructure and located close to residential zones, offer lower land costs and faster building permits than Quadrante Europa (a few months compared to several years). Small municipalities, in need of the large amounts of tax revenue that new logistics facilities bring, often welcome and approve these developments, despite no coordinated regional planning and the irreversible land

consumption, pollution, traffic congestion, economic polarisation, and social challenges that a large logistics company can bring when it moves into (or out of) small communities of a few thousand inhabitants.

Conclusions: Not just a ‘freight matter’

Much of the existing research literature and industry strategies focus on the environmental sustainability of Plaza and Quadrante Europa freight villages through technological solutions (e.g., by improving the efficiency of delivery systems, transitioning to electric vehicles, retrofitting buildings, developing digitalisation, introducing new data centres, and expanding rail freight transport). Meanwhile, planning tools and policies stress concerns about land consumption and pollution. The underlying idea is that technology-driven innovations and planning constraints will lead to ‘greener’ logistics systems. However, is this enough for an environmentally conscious transition? Reflecting on the two cases of Plaza and Quadrante Europa, we suggest they are insufficient. In this short paper, we emphasise adopting a broader, more systemic approach to understanding the pathways to environmental, social, and economic sustainability of logistics city-regions. We suggest framing freight logistics within the city-regional transformation’s multi-scale social, environmental, and political processes. The point is about how logistics spatialities are included in thinking, research, and analysis, as well as strategies, plans, and policies on city-region transitions, not just as a ‘freight matter’.

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