

# **The limits of public policy intervention in urban logistics: The case of Vicenza (Italy) and lessons for other European cities.**

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## **Abstract**

For over fifteen years, the subject of urban logistics has preoccupied many, including public decision-makers. This paper seeks to identify the limits beyond which regulations restricting vehicle access to limited traffic zones may be sanctioned for abuse of power. Here, we present the case of Vicenza (Italy), which has implemented very restrictive regulations. Based on this case study, certain lessons can be drawn for others urban areas in Europe.

**Keywords:** urban logistics, local policy, regulations, urban distribution centres, competition

## **1. Introduction**

Freight transport provides an essential link between goods supply and demand. The freight sector is a major source of jobs, but is facing problems related to congestion and environmental concerns, especially in urban areas. With the expansion of urban areas and the growth of their populations, urban goods transport contributes to negative effects like congestion, CO<sub>2</sub> emissions, and local pollution, as well as societal issues such as noise (LET *et al.* 2006). For example, goods transport is responsible for around 30% of NO<sub>x</sub> emissions and almost half of particulate matter emissions resulting from urban transport (LET *et al.* 2006). For these reasons, cities' supply systems must be restructured. This objective of reorganizing goods flows within urban areas in the interest of sustainability is now commonly referred to as "urban logistics" (Dablanc, 2007).

For more than fifteen years, the subject of urban logistics has preoccupied public decision-makers (elected officials and city planners), logistics professionals, freight operators, and researchers. An increasing number of studies are addressing the subject (Dablanc, 1998; Routhier *et al.*, 2001; Taniguchi *et al.*, 2001; Boudouin and Morel, 2002; Patier, 2002; Ambrosini and Routhier, 2004; Anderson *et al.*, 2005; Munuzuri *et al.*, 2006; Dablanc, 2007; Patier *et al.*, 2007; Crainic, 2008; Patier and Routhier, 2008; Quak and De Koster, 2009; Dablanc, 2010). It is a central theme of many colloquia, exchanges, initiatives, and experiments. Among the most popular urban logistics concepts is that of an Urban Consolidation Centre (UCC). A UCC is “a logistics facility situated in relatively close proximity to the geographic area that it serves (be that a city centre, an entire town or a specific site such as a shopping centre), to which many logistics companies deliver goods destined for the area, from which consolidated deliveries are carried out within that area, in which a range of other value-added logistics and retail services can be provided.” (Allen *et al.* 2007). To the above definition, we add that public authorities very frequently provide financial support for

their operation. Because of their very central locations, UCCs often require significant real estate expenditures, which are generally covered by public funds.

These urban terminals emerged in the 1990s, when there were more than one hundred of them, notably in Germany and the Netherlands. UCCs ran up against difficulties related to municipalities' hesitancy to continue subsidizing experiments. Today, there exist only about 20 genuinely significant consolidation terminals of this kind, notably in Italy (SUGAR, 2010). It is difficult to construct a typology of these terminals because UCCs are very diverse. But whatever its form may be, a UCC's effectiveness seems to depend heavily on the presence of appropriate local regulations, including vehicle access rules for the zone covered by the UCC and benefits accorded to UCC operators. Thus, the question emerges as to how far authorities can carry regulations before they risk legal challenges.

This paper will attempt to answer this question through the example of the town of Vicenza in the North of Italy. The Vicenza consolidation centre involved the most daring regulations that we know of, and allows us to identify the effects of such decisions, as well as the legal risks surrounding such measures for European cities today and in the future. After describing UCCs and their principal components, we shall present our case study. First, we shall study the individual regulatory steps toward full UCC implementation. We will look at the motives of the different parties involved, as well as court decisions regarding a complaint lodged by carriers who were unhappy with changes in local regulations intended to favour UCC use. Finally, lessons drawn from the Vicenza case will be generalized to other European cities.

## **2. Urban Consolidation Centres: definitions and typology**

Until the 1980s, deliveries in urban areas followed the same logic as interurban freight transport. In this schema, each carrier made its own deliveries from one or several grouping/de-grouping terminals located at varying distances from the final recipients. In response to societal and consumer demands, new ways of consolidating flows in dense urban zones have emerged in recent years, aiming for a decrease in the number of vehicles and pollution, as well as an increase in productivity. These new forms of organization are founded on new logistic terminals specifically conceived for urban consolidation. Goods flows are bundled, and their delivery is coordinated. The objective is to serve the city with fewer vehicles that are better loaded and make less frequent deliveries to each recipient. Often, these vehicles run on natural gas or electricity in order to lessen the environmental impact of the new system.

In France, more than twenty UCC projects have appeared in PDUs (Urban Mobility Plans) since the Law on Air and the Rational Use of Energy (LAURE) was passed in 1996. This law required cities to develop PDUs, which include freight transport policy strategies. In Europe, more than one hundred UCCs were implemented, but most of them did not produce the expected results (Dablanc and Masse, 1996; Boudouin, 2006). Experiments were also carried out in Japan, where two UCCs are still functioning today (Dablanc, 2010). Only a few of these experiments made the transition into truly operational, financially sound systems. Other types of UCC have appeared (such as construction consolidation centres, specializing in the management of deliveries to construction sites), as well as UCCs in historic cities and heritage sites, *e.g.* Italian cities, La Rochelle, and Monaco. (Dablanc, 2007; SUGAR, 2010). There are many reasons for the diversity of these European experiments, primarily related to two issues:

the economic sustainability of the delivery system paired with the physical terminal, and the reliability of the service it offers.

The first UCCs were private or semi-private initiatives on the part of individual businesses or groups of carriers, and were created in the interest of optimization (Dablanc and Masse, 1996). Later, environmental concerns prompted public administrations in several countries to design such systems for urban goods distribution in medium-sized towns. It was more difficult for similar projects in larger European cities to make the transition into functioning systems, and they generally did not continue operating over the long term (Gonzalez-Feliu, 2008). Based on studies of several UCC experiments in Europe (Dablanc and Masse, 1996; Dablanc, 1998; Rosini, 2005; Boudouin, 2006; Spinedi, 2008; Bestufs, 2009; SUGAR, 2010) we can establish the following typology:

- "Private" or "semi-private" UCCs (carriers' or shippers' projects for internal operations, without a direct influence from public authorities other than some financial assistance). These UCCs have an essentially economic purpose, and contribute to their users' business development strategies. They are generally created by a freight carrier or logistics provider.
- "Multi-user" UCCs (projects created by municipal authorities or groups of businesses, with the intent to provide a service open to all potential users). These terminals are generally combined with services promoted and supported by public authorities, and are sometimes referred to as a "public freight service", though this term is still rarely used and has no legal definition in many countries.
- "Specialized" UCCs (mainly for construction and airports). They may be temporary (centers associated with a specific construction site or large moving operation) or permanent (in airports, in entertainment parks). However, they do not always serve an urban environment, unlike the two categories described above.

The following lesson can be drawn from fifteen years of experiments in Europe, most of which have been unsuccessful: except in unusual circumstances, the objective of consolidating intra-urban delivery tours is not in itself sufficient to economically justify new infrastructure and changes to carriers' habitual organization. The cost of additional transshipping in the logistic chain is not covered by the financial gains associated with consolidation, especially when done in an urban terminal (Feliu *et al.* 2009). A city that would like to implement a scheme for consolidating urban deliveries must therefore take additional financial and regulatory measures to guarantee a comparative advantage for the UCC. It is particularly important to accompany the UCC with regulations favouring its use.

First and foremost, an urban logistics solution must be economically viable (Henriot *et al.* 2008). The simple presence of a logistic terminal such as a UCC is in no case sufficient to assure a scheme's profitability. In the preparation and planning of a socially, economically, and environmentally sustainable logistic system, several different elements must be considered (Morana and Gonzalez-Feliu, 2010). Based on suggestions from the European Commission (1998), Dablanc (1998), and Patier (2002), as well as the conclusions of the second congress of the Italian Association for Urban Logistics (Spinedi, 2006) and recommendations from the European BESTUFS network (BESTUFS, 2009), we have identified the following components:

- *Infrastructure.* For the terminals themselves, particular care must be taken in the search for available urban real estate close to the service zone. However, they are not the only relevant type of infrastructure. Lanes or parking areas reserved for freight transport may favour the use of a delivery system in dense areas.
- *Logistic organization of transport.* This item includes the principal design, planning, and optimisation steps for the system's logistic chain. They allow the definition of the logistic system's main organisational strategies.
- *Technologies.* In general, two types of technologies are used. Information and communication technologies (ICTs) promote the exchange of information, vehicle or merchandise tracking, and other transport support operations. Vehicle technologies, specifically those related to the engine, allow reductions in pollutant emissions and help improve air quality.
- *Communications.* This item refers to processes and means for communicating with potential users of the system, as well as other stakeholders directly or indirectly involved in the urban logistics system.
- *Funding.* For most urban logistics systems, private funds alone are not sufficient to cover the costs of establishing a UCC and its vehicle fleet (often composed of “clean” vehicles). Public subsidies and low-cost reuse of existing facilities are the most common forms of assistance when launching an urban logistics project. Operational costs can sometimes be covered by revenue, notably in cases where the system manager is also the facilities' owner.
- *Regulations.* Public authorities can put legislation or other regulations into place to promote use of the system they offer. These regulations can be restrictive (requiring or strongly inducing vehicles to use the UCC) or founded instead on advantages accorded to users.

### 3. The case of Vicenza

As we mentioned above, the creation of a UCC generally implies creating more or less restrictive traffic regulations. For example, the creation of a UCC in La Rochelle, France involved numerous municipal ordinances reducing freight vehicle access to the city centre. Thus, in La Rochelle, lorries over 3.5 tonnes gross vehicle weight are now prohibited from delivering to the historic centre between 6 AM and 7:30 AM. These restrictions have not been controversial. The case of La Rochelle, like that of Vicenza, does however raise legal questions. Both municipalities have decided to make urban goods delivery a public service, which was then delegated to their respective UCCs. As organizing authority for public transport, the La Rochelle metropolitan authority accorded management of three urban transport services (including goods delivery by electric vehicles in the centre) to Veolia after a bidding process. Only UCC vehicles are allowed to use the city's bus lanes, which provides a considerable competitive advantage. Though the delegation of public freight services posed no problems in La Rochelle (as traffic restrictions are fairly limited and have exceptions)<sup>1</sup>, it has been the subject of much debate in Vicenza, where a series of city ordinances has gradually reduced delivery vehicle traffic within the municipal territory until finally all vehicles except the UCC's were forbidden. This policy provoked outcry among transport

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<sup>1</sup> In La Rochelle, few transport firms have their own logistic terminal. They are therefore relatively content to take advantage of Elcidis (the UCC).

operators, who created an association and challenged its validity in court. It is for this reason that we have decided to examine the Vicenza case and present our findings here in detail. To do so, we will first recall some facts (3.1), then present the judges' decision (TAR Veneto, the Regional Administrative Tribunal of Veneto) (3.2), and finally look at the Italian State Council's ruling and opinion (3.3).

### 3.1 The facts

The historic centre of the town of Vicenza was given UNESCO world heritage status in 1996. In order to protect its cultural heritage<sup>2</sup> Vicenza adopted municipal ordinance 3474 on 20 June 1996, which creates pedestrian and limited traffic zones (LTZ)<sup>3</sup>. When the desired results were not achieved, the municipality launched an ambitious program<sup>4</sup> intended to rationalize the distribution of goods in the city. To do so, the municipality implemented an urban logistics pilot program<sup>5</sup>, which created a consolidation terminal and assured pick-up and delivery for packages within the LTZ using clean electric vehicles. Vicenza City Centre Logistics (Veloce)<sup>6</sup> was created to carry out the plan and provide goods delivery services to all participants in the zone. This organization was to manage freight flows arriving at and leaving from the logistic terminal, using advanced warehouse management technologies. Additionally, Veloce carried out urban pick-ups and deliveries using clean electric vehicles. The city chose to gradually implement the system so participants would have time to familiarize themselves and adapt to it. A series of municipal ordinances were applied in 2005 and 2006, progressively limiting traffic access to the LTZ. They are as follows:

- Ordinance 22453 of 28 April 2005 created an exception to the ban on delivery vehicles for "air carriers"<sup>7</sup>, who were allowed to use any kind of vehicle in the LTZ during certain time windows, up until 30 June 2005.
- Ordinance 35219 of 30 June 2005 then granted "air carriers" access to the LTZ at certain times, but only if they used a low-environmental-impact vehicle. This ordinance remained in effect until 30 September 2005.
- Ordinance 36780 of 29 June 2006 created special delivery permits granting freight carriers access to the LTZ within certain time windows with low-impact vehicles. There was a maximum of five permits per carrier. This ordinance remained in effect until 31 August 2006.
- Ordinance 47471 of 30 August 2006 renewed the requirement for carriers to use low-impact vehicles to access the LTZ, as well as the need for a special delivery permit. There was a limit of five permits per carrier, and access was permitted only between 7 and 9 AM. This ordinance remained in effect until 31 December 2006.

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<sup>2</sup> Stated motives also included public health concerns.

<sup>3</sup> The ordinance creates time slots during which delivery vehicles will be permitted to park on the street, but only for loading and unloading operations.

<sup>4</sup> Decision 5102 on 28 December 1999.

<sup>5</sup> The project was adopted in accordance with the general orientations established by the Transport Ministry in the "General Plan for Transport and Logistics", and included in the "National Transport Plan" and the city plan.

<sup>6</sup> This company was created by resolution 21, on 20 March 2003.

<sup>7</sup> "Air carriers" are those who provide express services using air modes for package transport, such as DHL or FedEx.

- Ordinance 72012 of 29 December 2006 restricted LTZ access to only electric vehicles operated by Veloce. No "air carrier" exception was provided.

These severe restrictions on the free exercise of commerce and industry in the historic centre of Vicenza led to discontent among specialized international express carriers such as DHL Express Ltd, TNT Global Express SpA, Federal Express Europe Inc., and United Parcel Service UPS Italia SRL, who then created an association called AICAI (*Associazione Italiana Corrieri Aerei Internazionali*)<sup>8</sup> and challenged the validity of these municipal ordinances in court. According to one of their representatives who we were able to contact, "The case of Vicenza did not endanger our companies in itself. But it was symptomatic of a future challenge from Italian cities as a whole to the presence of our vehicles."

### **3.2 The court of first instance: the ruling of the Veneto Administrative Tribunal on 23 January 2008**

The AICAI association requested before the Veneto regional administrative court (TAR Veneto first section) that certain Vicenza municipal ordinances be annulled. At a public hearing on 22 November 2007, the association presented several arguments in support of its request<sup>9</sup>:

- Violation of article 6D of decree 261/99 transposing EC directive 97/67/EC concerning liberalisation of the postal sector. As the Veloce company was publically funded, its handling of packages was contrary to the liberalisation of the postal sector.
- Violation of European regulation D 2002/2320/EC concerning civil aviation security. In order to provide express postal services, a carrier must be considered a "regulated agent". To obtain this status, the carrier must require its personnel to take classes on the safety and security of freight, maintenance, warehousing, and onboard equipment. While all members of the AICAI association were qualified, Veloce was not. Consequently, it was conducting business illegally.
- Abuse of power and violation of articles 82 and 86 of the EC Treaty. The logistic terminal gives all goods distribution to a single operator. It thus eliminates all competition between carriers. Carriers are required to use the terminal and transfer goods to Veloce if they wish to deliver to the LTZ<sup>10</sup>. Though member states and public entities in general are permitted to limit competition (notably by reserving a monopoly over a specific activity) this must be the only way to achieve a public objective. According to AICAI, this is not the case in Vicenza, as the solution chosen by the municipality is inadequate and disproportionate to the desired environmental goal. In addition, the use of small vehicles would increase the number of lorries in circulation and the public health impact would be marginal, as the terminal serves only one small zone.

For its part, the city of Vicenza asserted that the measures taken were entirely justified, given the objective of reducing pollution and protecting health in the city centre. Veloce's transport service was compatible with safety enforcement. Finally, this system

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<sup>8</sup> Italian Association of International Air Express Carriers.

<sup>9</sup> The arguments were presented per municipal ordinance, and their content is thus repetitive. In order to conserve space, we have decided to present them together in summary.

<sup>10</sup> Shippers are also required to go through Veloce if they wish to ship merchandise out of the LTZ.

was a local public service, and thus did not violate article 13 of legislative decree 223/2006 concerning the right to competition.

The tribunal rendered its decision on 28 January 2008. It confirmed that the regulations in question had created an obligation for carriers to concede their goods to Veloce in order to carry out the final leg of the contracts they established with their clients. Thus, these regulations required carrier substitution, in violation of Italian civil law. In addition, Veloce was forbidden to offer express package services, particularly for packages which had been previously shipped by air, as the company had neither the necessary authorization to do so (article 6, decree 261 of 1999) nor regulated agent status. Nonetheless, the tribunal did not consider the measures taken by the city to be contrary to the liberalization of the postal sector, as their impact was limited to one zone of the municipality rather than the entire national territory.

The tribunal thus ruled in favour of the AICAI association's request, and annulled the measures in question. The city of Vicenza and Veloce then submitted an appeal to the Italian State Council.

### **3.3 The position of the Italian State Council in the Vicenza case: the decision of 3 February 2009**

#### *3.3.1 The appellants' arguments*

The city of Vicenza and the Veloce company (hereafter referred to as the appellants) offered several arguments in support of their appeal:

- *On the alleged violation of national and European legislation concerning the liberalisation of the postal sector by municipal ordinances, and the obligatory substitution of Veloce for private carriers when carrying out the final leg of transport contracts.* The appellant maintained that Veloce's intervention is very limited, concerning only the central LTZ area. Consequently, the municipal ordinances in question cannot be interpreted as a general limitation or an attack on the liberalization of postal services. They also stated that Veloce possesses the required legal authorization to conduct express letter and parcel transport because it was created specifically for this purpose. Finally, they underscore that it is in no way an objective of Veloce to replace private carriers. On the contrary, the organization's only goal is to contribute to a reduction in pollution within the central zone while protecting both cultural heritage and citizens' health.
- *On the violation of legislation concerning air freight security, and the lack of "regulated agent" status.* The appellants again recall that the city of Vicenza's objective is not to replace or compete with express air carriers, but rather to protect public health, the environment, and historic heritage sites. The measures taken by the municipality could be adapted to meet airfreight security requirements.
- *On lack of reason and abuse of power.* The appellants reaffirm that the legal basis for the appeal is an article of traffic code law 285 (30 April 1992) which allows municipalities to "limit access to all or certain categories of vehicles in order to prevent pollution and protect historic and artistic heritage (...) by the creation of pedestrian and limited traffic zones". This power is principally exercised by municipalities. Thus, the municipality was simply duly exercising its regulatory powers.

### 3.3.2 The State Council's opinion

Before announcing its opinion, the Italian State Council briefly recalled the precedent on measures limiting automobile access to centre cities. It mentioned several decisions<sup>11</sup> and recalled that decisions regarding vehicle access to urban centres can be made at the discretion of the competent authorities. Their legality can only be questioned on the basis of legitimacy and justification. The partial restriction of traffic is always justified when it is necessary for the protection of cultural or environmental heritage.<sup>12</sup>

The State Council then overturned the lower court's decision on several points:

- *The alleged violation of free competition, and anticompetitive practices on the part of Veloce.* The State Council declares that this argument is unfounded. Indeed, the municipality of Vicenza did not discriminate among the various international carriers. The idea that the Italian postal service benefitted from an exception, to the detriment of the international air carriers was rejected, for the Italian Post was serving a general public service role. The State council also rejected the argument that the example of Vicenza could create a risk in other municipalities.
- *The alleged violation of legislative decree 261 of 1999 and of articles 82 and 86 of the EC treaty by municipal ordinances.* According to the State Council, the decision to restrict traffic in the historic centre cannot be annulled based on accusations that it limits free competition. The Council recalls that the principle of free competition concerns all economic sectors, not only the freight transport domain. Additionally, such restrictions are coherent with municipal public health and environmental objectives, and do not seem at all disproportionate.
- *The prohibition of public financial contributions to any business, and the consequent illegality of the Vicenza municipality's financial support for the Veloce company.* The State Council recalls that this prohibition is not applicable to businesses providing local public services.<sup>13</sup> The Council then underscores that Veloce offers a local express freight public service, and that this service benefits only the municipality of Vicenza. Consequently, public funding is entirely legal.
- *Finally, concerning the lack of justification for the measures taken by the city of Vicenza.* The coherence of the measures taken with environmental and cultural protection objectives depends on concrete facts, on which the State Council may not pronounce an opinion.<sup>14</sup>

Having read this opinion, we can deduce the State Council's ruling: it accepted the appeal by Veloce and the municipality of Vicenza, and overturned the decision of the Veneto Regional Administrative Tribunal. As the state council is the highest Italian administrative judicial body, the decision of 3 February 2009 is considered *res judicata* and is consequently definitive. Nonetheless, as all national-level means of appeal have

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<sup>11</sup> Plurimis ex, sect. V, 4 Mars 2008; n. 824, sect. V, 11 December, 2007; 6383, sect. V, 29 May 2006; no. 3259, pour. Plen. 6 February, 1993, n. 3.

<sup>12</sup> The state council also specifies that placing restrictions on particular categories of vehicles rather than all vehicles does not constitute unjustified discrimination. Additionally, articles 16 and 41 of the Constitution (supported by the AICAI association) are not violated when measures are applied to a limited urban zone rather than the entire national territory.

<sup>13</sup> See Cons. St., Sec. V, 25 August 2008, n. 4080.

<sup>14</sup> It declared nonetheless that it is not certain use of small electric vehicles to make deliveries in Vicenza's historic centre will increase the total number of vehicles to 18.



failed, the AICAI association may now bring an appeal before the European Community's court of justice. We may then speculate on the ECJ's position when faced with the Vicenza case.

Firstly, it is not certain that the European Court will agree with the idea that urban goods distribution can be a public service. Of course, the transport sector is the only one for which the EC treaty mentions a need for "public services".<sup>15</sup> However, the notion of "public service" is generally associated with passenger transport rather than freight. Member states do have the option of creating public service obligations, defined as obligations that "...carriers would not assume if they were solely considering their commercial interest."<sup>16</sup> Now, in the case of urban freight delivery there is no "deficiency" in the service provided by private carriers. Consequently, public initiative does not fill a void but rather directly competes with private firms. Thus, it is not certain that the ECJ would agree that such services are of economic interest.<sup>17</sup>

Secondly, while the State Council rejected the argument that there was risk of a "snowball effect" on other Italian towns, the threat does seem plausible. Though traffic restrictions in the LTZ of Vicenza will have only minimal economic effects on express freight businesses (as Vicenza is a rather small town), the risk is more serious when we consider metropolitan areas like Milan or Rome, or even larger cities elsewhere in Europe. We must then ask ourselves what lessons other European towns can draw from the Vicenza case. Is this an "Italian exception" to be understood in the unusual context of Italian urban consolidation centres, or on the contrary will it become a point of reference for other European cities?

#### **4. Lessons for European metropolitan areas**

The "Vicenza precedent" that we have just presented concerns a seemingly minor subject in transport law: restrictions on freight transport vehicles' access to city centres. However, we find that this case yields significant lessons for transport, environment, and urban planning practitioners in European cities. The Italian State Council reaffirmed and restated the right of a municipality to considerably restrict the free movement of goods transport vehicles in historic centres. This was done within the specific framework of Italian law, but also based on environmental arguments which are explicitly or implicitly present in numerous regulatory projects targeting freight traffic in large European cities. By rejecting the abuse of power accusations brought against the city by an association of large international express carriers, the State Council has in a sense confirmed that cities may act strongly to protect the environment.

The Vicenza case should be understood in the particular context of Italian urban consolidation centres. Around ten urban consolidation terminals now exist in Italy. They

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<sup>15</sup> Article 73 of title V, devoted to transport, states that "Aids shall be compatible with this Treaty if they ... represent reimbursement for the discharge of certain obligations inherent in the concept of a public service".

<sup>16</sup> R CEE n° 2408/92 of the Council, 23/07/1992, about the access of European air carriers in the intra-european liaisons.

<sup>17</sup> European law speaks of "economic interest" rather than public service. Services of general economic interest are public undertakings that member states must hold to specific public service requirements (article 86 -ex-article 90- of the EC Treaty). This is the case for network services like transport, energy, and communications. For further information on this subject, and specifically the question of public aid, see the ECJ's Altmark judgement of 24 July 2003 and the "Monti texts" adopted by the Commission on 13 July 2005.

are in different stages of implementation, but all share the purpose of protecting historic centres with rich architectural heritage. We should also note that own-account transport plays an important role in supplying urban business sites in Italy: 80% of delivery vehicles in cities are own-account, but only 20% of tonne-km are handled on an own-account basis.<sup>18</sup> Likewise, even when third-party shipping is used, it is dominated by the *padroncini*, small individual entrepreneurs. These two groups, the own-account shippers (*i.e.* shop holders or artisans handling their own supply and delivery) and the small third-party carriers, have a characteristic in common: under-optimisation. They generally do a small number of poorly organized tours, and on average their vehicles are far from full. Urban goods distribution is under-optimized everywhere in Europe (Dablanc, 2007) but this phenomenon reaches an extreme in Italian cities. We can understand that under these conditions, Italian local officials attempt to "force" freight transport optimization in city centres. Thus Vicenza is one of several Italian municipalities that make use of particularly innovative regulations. The example of Parma is also interesting. City ordinance 249 of 29 September 2008 creates an "accreditation" that carriers must obtain if they wish to deliver to the historic centre. If they are not accredited, they must use the services of Ecologistics, a UCC. The criteria for receiving accreditation are the following:

- Use of vehicles meeting the Euro 3 norm (*i.e.* vehicles manufactured during or after year 2001).
- Vehicles must be loaded to 70% of capacity (in volume or weight).
- Vehicles must possess a geo-positioning system that allows tracking.

Despite these facts, we do not consider the Vicenza case to be of interest only in Italy - it has European significance. First, it is part of a structural change opposing two schools of thought, two different visions of city logistics. Some European cities, including Italian ones but also others like La Rochelle in France or Monte Carlo in Monaco, consider a publically subsidized UCC (preferably paired with restrictive municipal regulations) to be the only way to assure successful rationalisation of urban goods distribution. According to 2007 data on Italy, 40 million Euros were spent on urban consolidation experiments, of which 33 million resulted in truly functional systems. The remaining 7 million financed studies for new projects.<sup>19</sup> Public funds come primarily from the regions,<sup>20</sup> the Environment Ministry, the European Union (through INTERREG projects), and municipalities. These funds are used to lease a terminal, buy electric or gas-powered vehicles, or assure the day-to-day operation of UCCs. Client fees are not sufficient to cover expenditures for the complete project (including initial investments) or even operations. The mayor of Parma has stated that "In this case, the market simply does not work spontaneously. Public authorities must accept that financial assistance is necessary and provide it, and that's what we do."<sup>21</sup> This is also the position of La Rochelle, which transferred management of its Elcidis consolidated freight delivery system to Veolia in 2006. In this way, Elcidis benefits from operational subsidies. UCCs that planned on medium- or long-term financial independence were unable to survive; this was the case for many UCCs in Germany, the Netherlands, and Switzerland at the end of the 1990s, and more recently Genoa in Italy.

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<sup>18</sup> These figures were cited during a debate between experts and local officials at the Padua City Logistics Expo in 2007.

<sup>19</sup> Statements made at the City Logistics Expo mentioned above.

<sup>20</sup> The Emilia-Romagna region spent 11 million euros for this type of projects (SUGAR, 2010).

<sup>21</sup> Statements made at the City Logistics Expo mentioned above.

On the other hand, other cities elsewhere in Europe do not consider the rationalization of freight delivery to be a municipal responsibility, but rather the result of market mechanisms within each economic sector present in the city. There, local public action directly targeting freight transport involves more traditional, though updated measures such as delivery vehicle access restrictions based on tonnage or pollution criteria, or traffic and parking plans and the creation of delivery zones on the roadway or within businesses themselves. The introduction of information and communications technologies can reinforce these traditional measures (*e.g.* cameras able to read license plates and verify lorry access, or devices near roadside delivery areas enforcing maximum delivery times). Any shared delivery terminal in these cities is a result of private initiative, supported if necessary by a few public measures that are nonetheless lightweight and not of a financial nature.

The Italian legal decisions concerning Vicenza are relevant to both schools of thought. For cities interested in proactive rationalization of urban freight, the Vicenza case reveals the position of large express carriers present in Europe. On one hand, they wish to "green" their urban operations in order to improve their image. In Paris, TNT thus subcontracts all of its central neighbourhood deliveries to Green Logistics, a start-up that offers an urban delivery service using only electrically assisted tricycles. On the other hand, these carriers remain cautious and take legal action when they believe that local authorities are overstepping their legislative bounds or contradicting European competition law. One of the participants in the case against Vicenza confirmed for us that the AICAI's failure before the State Council had not weakened the plaintiff's determination, and that additional legal action would be taken. Other cities in Italy and Europe can thus expect legal challenges if they create UCCs that place heavy access restrictions on delivery vehicles not owned by the UCC. We also see that the administrative judge was accepting of localized policies restricting vehicle access and promoting municipal goods consolidation terminals.

For cities that have not created a centralized delivery system, the Italian State Council's decision may raise concerns about the possible legal obstacles to public action on freight transport and delivery operations. The Italian State Council decision is clearly part of a more general shift in European case law over the last several decades: measures that restrict lorry traffic and logistic operations for environmental reasons have become acceptable (Dablanc, 2007). European cities find themselves in a situation where action targeting freight transport traffic will be increasingly challenged by freight carriers, but accepted by judges.

## **Conclusion**

In this article, we have commented on an Italian Court decision and evaluated its significance for European cities. This decision by the highest Italian administrative court, the State Council, authorized the city of Vicenza to continue its implementation of a consolidated delivery terminal, which included strong access restrictions on other carriers' vehicles within the city centre. This case is specific to Italian cities and the Italian legal system, but is also significant for other European cities. It demonstrates that large national and international express delivery groups (such as UPS, TNT, and DHL) are increasingly wary of centre-city access restrictions. This increases the risk of legal complications. However, this case may also reassure municipalities that court authorities are generally positive toward municipal measures targeting freight transport

vehicles. This acceptance depends mostly on environmental arguments. While urban goods transport is essential for cities' economic well being, it is also recognized as a significant source of pollutants and greenhouse gasses.

The Vicenza case also highlights a unique option chosen by certain European cities: the urban consolidation centre (UCC). A UCC is a localized terminal very close to a city centre, which receives and distributes goods flows for businesses in the central zone in a shared, consolidated manner. Because of their very central location and other reasons beyond the scope of this paper (Dablanc and Masse, 1996; Boudouin, 2006; Allen *et al.*, 2007; Dablanc, 2010), UCCs are costly affairs and often require public subsidies. The city of Vicenza and around ten other Italian cities have chosen to act directly on the organization of goods flows with UCCs, and have taken financial responsibility for this choice. However, we would not suggest that other cities follow the example of Vicenza or La Rochelle.

Paradoxically, the decision analyzed above supports this point of view. It shows that environmental and public health concerns are sufficient to justify traditional but strengthened municipal measures, such as access restrictions on those vehicles that produce the most pollution. It is perhaps not useful for most European cities to imagine taking more proactive measures like the creation of urban consolidation centres. The primary conclusion of our article is thus the following: cities can benefit from the "positive" side of the Vicenza ruling (the judge's affirmation that municipalities have a large degree of freedom in organizing their traffic and access restriction) while avoiding the additional legal complications and risks associated with coordinated municipal consolidation terminals' projects. These schemes are costly and may create dissatisfaction among freight carriers and logistics firms, leading to legal conflicts. UCCs do have excellent local environmental performance, but affect a very minimal proportion of total goods flows in an urban area<sup>22</sup>. Thus, they help improve environmental conditions, but their contribution is marginal at the metropolitan scale.

While the UCC concept is interesting, UCCs alone are not sufficient to resolve congestion and other freight-related problems. It is therefore important to study alternatives to the single-operator urban consolidation model of Vicenza or La Rochelle, such as collaborative solutions (Gonzalez-Feliu and Morana, 2010), the free use of terminals with incentives for consolidation (Spinedi, 2008), dedicated delivery areas (SUGAR, 2010), low emission zones (SUGAR, 2010) and above all a mixture of public policy, quality standards, technological solutions, and organizational systems which promote urban goods flow rationalization while respecting the legislation on free competition and incorporating changes agreed upon by stakeholders.

## References

- Ambrosini C., Routhier J.-L. (2004), Objectives, Methods and Results of Surveys Carried out in the Field of Urban Freight Transport: An International Comparison, *Transport Reviews*, vol. 24 n.1, pp. 57 – 77.
- Allen, J., Thorne, G., Browne, M., (2007), *Good Practice Guide on Urban Freight*, Bestufs, Rijswijk, Pays-Bas.

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<sup>22</sup> The mayor of Padua estimates the total decrease in traffic thanks to the CDU at 1%. Statement at the City Logistics Conference cited above.

- Anderson, S., Allen, J., Browne, M. (2005), Urban logistics – how can it meet policy makers' sustainability objectives? *Journal of Transport Geography*, vol. 13, n. 1, pp. 71-81.
- BESTUFS (2009), *BESTUFS II Bibliografic Overview*, BESTUFS, The Netherlands.
- Boudouin, D., Morel, C. (2002) *Logistique urbaine : l'optimisation de la circulation des biens et services en ville*, La Documentation française, Paris.
- Boudoin, D. (2006), *Guide de mise en œuvre d'espaces logistiques urbains*, La Documentation française, Paris.
- Crainic, T. G. (2008), City Logistics. In Chen, Z. L. and Raghavan, S. (eds.), *Tutorials in Operations Research 2008. State-of-the-Art Decision Making Tools in the Information-Intensive Age*, INFORMS, pp. 181-212.
- Dablanc, L., Masse, F. (1996), Les centres de distribution urbaine : un tableau comparatif, *Transports Urbains* n. 91, pp. 15-21.
- Dablanc, L. (1998), *Transport de marchandises en ville. Une gestion publique entre police et services*, Liaisons, Paris.
- Dablanc, L. (2007), Goods transport in large European cities: Difficult to organize, difficult to modernize, *Transportation Research part A* vol. 41, pp. 280-285.
- Dablanc, L. (2010), Freight transport, a key for urban economics. Guidelines for practitioners, *Transportation Research Board 2010 annual meeting*.
- Eisenhardt, K. (1989), Building theories from case study research, *Academy of Management Review* vol. 14 n. 4, pp. 532-550.
- Gerardin, B., Patier, D., Routhier, J.-L., Ségalou, E. (2000), *Diagnostic du Transport de marchandises dans une agglomération*, Programme national Marchandises en ville, DRAST, Paris.
- Gonzalez-Feliu, J. (2008), *Models and methods for the City Logistics - The Two-Echelon Vehicle Routing Problem*, Monographie de Thèse, Politecnico di Torino, Turin, Italie.
- Gonzalez-Feliu, J., Rakotonarivo, D., Routhier, J.-L. (2009), La logistique urbaine. In Semet et al., *Logistique urbaine mutualisée durable. Etat de l'art scientifique et technique*. Rapport Presstalis et Advancity.
- LET, Aria Technologies and Systems Consult (2006), *Mise en place d'une méthodologie pour un bilan environnemental physique du transport de marchandises en ville*, ADEME, Paris, France
- Morana, J., Gonzalez-Feliu, J. (2010), Sustainable supply chain management in city logistics solutions: lessons learned from the case of Cityporto Padua (Italy), *Proceedings of the 3<sup>rd</sup> International Conference on Information Systems, Logistics and Supply Chain, April 14-16, 2010, Casablanca (Moroco)*, BPC, Casablanca, Maroc.
- Munuzuri, J., Larraneta, J., Onieva, L., Cortes, P. (2005), Solutions Applicable by Local Administrations for Urban Logistics Improvement, *Cities* Vol.22, n. 1, pp. 15-28.
- Patier D. (2002), *La logistique dans la ville*, Celse, Paris, France.
- Patier, D., Dufour, J.-G., Routhier, J.-L. (2007), Du transport de marchandises en ville à la logistique urbaine, *Techniques de l'Ingénieur* n° AG 8 210.

- Patier, D., Routhier, J.L. (2008), How to Improve the Capture of Urban Goods Movements. In Bonnel, P., Lee-Gosselin, M., Zmud, J., Madre, J.L. (2008), *Transport Survey Methods. Keeping Up With a Changing World*, Emerald, Bingley, UK.
- Quak, H. J. and R. De Koster (2009), Delivering Goods in Urban Areas: How to Deal with Urban Policy Restriction and the Environment, *Transportation Science* Vol. 43, pp. 211-227.
- Rosini, R., coord. (2005), *City Ports Project Interim Report*, Quaderni del Servizio Pianificazione dei Trasporti e Logistica n. 7, Regione Emilia Romagna, Bologna, Italie.
- Routhier, J. L, Segalou, E., Durand, S. (2001) *Mesurer l'impact du transport de marchandises en ville - le modèle Freturb (version 1)*, Programme national marchandises en ville DRAST-ADEME, 104 p.
- Spinedi, M. (2006). *Atti del II convegno nazionale city logistics, Roma, maggio 2006*, Associazione City Logistics, Rome, Italie.
- Spinedi, M., ed. (2008), *Logistica urbana: dagli aspetti teorici alle applicazioni pratiche. Esperienze italiane e straniere a confronto*, Emilia Romagna Region, City Logistics Expo, Bologna, Italy.
- SUGAR project (2010), *Good Practices Reporting and transversal analysis*. Research Report to the European Commission, INTERREG IV C Programme, Deliverable D3.3. ([www.sugarlogistics.eu](http://www.sugarlogistics.eu))
- Visser, J., van Bisbergen, A., Nemoto, T. (1999), Urban freight transport policy and planning. In Taniguchi, E. et Thomson R.G., *City Logistics I*, Institute for City Logistics, Tokyo, Japon.
- Taniguchi E., Thomson R. G., Yamada T. Van Duin R. (2001) *City Logistics - Network modelling and Intelligent Transport Systems*, Elsevier, Amsterdam, The Netherlands.