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Adapting new tools of urban freight management based on Gdynia's dedicated delivery bays example – an analysis of the process

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Abstract

The article presents an analysis of a process which ultimately helped Gdynia to designate pilot delivery sites in its downtown area using international experience. A verification was conducted of policy transfer theory and its practical implementation based on an URBACT Freight Tails project. While the choice of the solution was based on critical analysis of existing practical examples, it needed to be adapted to the local conditions which required a strong involvement of project partners and specifically the municipality. The experience shows that if copied directly from other cities or countries, urban freight management measures are not going to work and must be preceded with a careful analysis. Understanding the structure of deliveries was also recognised as an important information tool that can support decision-makers in adapting a solution. Studies like these are adaptable and ensure that the current situation is carefully analysed and the costs are reasonable. They can serve as a point of departure to understanding how urban freight works and how to plan for its improvement

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Keywords: urban freight; policy transfer; freight transport analysis; freight transport planning

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1. Introduction

Because of its role in modern cities, freight transport has been an increasingly important topic on the agenda of transport system management practice both as a creator of economic processes and contributor to undesired effects of transport in sensitive urbanised areas (Russo and Comi, 2016a). As we know from analysis of urban transport improvements, there are two important problems which make these measures less effective. The first problem has to do with failed attempts to adapt solutions which work for other cities. This includes good practice and examples of unsuccessful treatments which are even more informative for other cities looking to adopt similar measures. If properly interpreted, such examples can provide valuable information and motivation for decision-makers. It is important to understand the conditions of policy transfer, which is defined as the process by which knowledge about policies, administrative arrangements, institutions and ideas in one political system is used in the development of policies, administrative arrangements, institutions and ideas in another political system (Dolowitz and Marsh, 2000). The second problem which links into the first one is the difficulty with assessing transport figures to support decisions and tie in with the city's management strategy. As a result, freight transport is seen as an isolated topic and one that is separate from the day-to-day planning of the urban transport system. This makes a proper assessment of the problems even more difficult. A mismatch between the solution and the local conditions is a likely consequence. The problem involves organisational (Russo and Comi, 2010) (Allen et al., 2000) and entity-related complexity (Dablanc, 2009) of urban freight transport. It is also quite difficult to identify well in advance what measures will be needed to form a consistent policy.

With these factors in mind, the objective of this article is to analyse the process of adapting a new solution for Gdynia's freight transport management, i.e. a pilot implementation of dedicated loading bays. The theoretical aspects of the process have been assessed using an established methodology known from the literature (Dolowitz and Marsh, 2000), (Marsden et al., 2011). Principles of loading bays analysis and deployment has also been verified. It was then related to Gdynia's practical experience with urban freight management. Because this is the first example of a city in Poland having an active freight policy based on international experience, the analysis discusses the practical aspects of the process and provides insight into the process which other cities may find interesting.

The article is divided into five parts. Section 1 presents an introduction into the topic. Section 2 provides a review of delivery bays concept and planning approaches, which was a basis for developing of the method applied in Gdynia. Section 3 analyses the conditions for adapting freight transport management solutions. Section 4 gives the details of how Gdynia's dedicated delivery bays were developed as a process, based on limited available examples. By analysing the process we can verify in practice the theory behind the process designed to adapt new urban freight transport solutions.

2. Review of the delivery bays concept and planning approaches

Loading bays are defined as a physical bays within the urban area and road network where freight vehicles stop to perform a delivery to a nearby receiver and conduct any necessary cargo handling activities without disrupting traffic flow (Alho and de Abreu e Silva, 2014). Contribution of freight vehicles to congestion especially in peak hours is one of the most concerning issues for local authorities (Russo and Comi, 2016a). Although the problem of the road capacity reduction is more evident with regards to medium and heavy trucks stopping along the lanes or at the junctions (Bouhana et al., 2015), also vehicles below 3,5 t may disrupt traffic is a considerable way. Moreover, smaller vehicles tend to stop as close as possible to receiver, often on the pavement. Problem of on-street parking highly influences traffic conditions from three different perspectives. First, the parking lanes occupy available road space causing reduced traffic capacity (Roca-Riu et al., 2017). Second, parking maneuvers generates a temporary bottleneck and causes extra travel time (Yousif and Purnawan, 1999), (Ibeas et al., 2009), (Ibeas et al., 2009) (Hongwei et al., 2012). Third, special parking behaviours such as unloading trucks reduce the road capacity unreasonably causing inconvenience for other road users (Chiabaut, 2015) (Lopez et al., 2016) (Han et al., 2005), (Kladeftiras and Antoniou, 2013).

Difficult access to receivers should be also viewed from a logistic operators perspective, which have difficulties in accomplishing their operations due to insufficient provision of parking spaces. Several studies indicated that from

the perspective of logistic sector non-availability of delivery bays is one of the main issues in freight distribution (Nuzzolo et al., 2016), (Oliveira and Guerra, 2014), (O'Laughlin, R., Thomas, D., and Rinnan, 2008).

However being not the ultimate solution to all issues related to freight distribution (CERTU, 2009), loading bays are often considered as the most convenient solution for efficient last mile delivery in dense urban areas where customers cannot be reached directly (Letnik et al., 2018). The main challenge to utilise their potential to improve efficiency of loading and unloading operation is to define and provide an adequate number of loading bays, properly located and sized to expected freight demand and types of freight vehicles (Alho et al., 2014). Selected works showed that ill-designed loading bays can have negative impact on traffic congestion and security (Aiura and Taniguchi, 2006), (Delaître and Routhier, 2010). Moreover, implementation of loading bays by local authorities is a subject of several trade-offs with other concerns related to urban space management (Dablanc and Beziat, 2015) such as steady supply of traditional parking spaces for personal vehicles, development of bus and bike lanes which may obstruct deliveries (Ripert and Browne, 2009) and implementation of bike sharing and self-service electric car stations. Another challenge is to provide adequate conditions for walking according to pedestrian friendly principle of city planning. Despite all stakeholders desire the minimum hindrance, it is essential that public administration establish the efficient number of delivery bays, addressing stakeholders' requirements (Comi et al., 2017), (Russo and Comi, 2016b).

On-street delivery bay schemes may be categorised according to three main classes (Comi et al., 2017): a) on-street delivery bays based on allocation of curb side accompanied with some specific rules including time limits and load factors, b) bookable on-street bays where reservation is performed through web or phone, c) on-street bays supported by intelligent transport system, providing advanced management solutions (Letnik et al., 2018) (Patier et al., 2014). However, only a few papers focus on an issue of optimal distribution of loading bays. Despite limited in number they still provide very diverse approach. Available studies use different analytic approaches: Monte Carlo simulation (Pinto et al., 2016), mixed estimation of deliveries per entity and a dedicated loading bay simulation application (Delaître and Routhier, 2010), a number of equivalent stores to express the commercial density of the surveyed area (Dezi et al., 2010) or considering location of delivery bays as a form of a facility location problem with an objective to minimise transportation costs (Aiura and Taniguchi, 2006). There are also direct practical guidelines on loading bays implementation for city planners (CERTU, 2009), (Paris City Council, 2005).

The diversity of identified approaches reveals a gap in research which should be addressed from two angles. The first is a policy point of view, which refers to conditions of adaptation of loading bays as an urban freight management measure. The second concerns operational aspects related to the structure of implementation method closely linked to the first issue.

3. Analysis of the conditions for adapting new urban freight transport solutions

3.1. Assessment of Gdynia's current system for freight transport management

While new urban freight solutions are usually assessed for their costs and expected results, not enough attention is paid to analysing the processes which lead up to the decisions to introduce a specific measure. It is important to do it especially when the solutions are taken from other cities that have had a successful transport policy. Freight management is a special case given the uniqueness of each city and its solutions making a transfer of experience more difficult. To ensure that new freight solutions can be adapted successfully, the changes must be viewed in a wider social and economic context and the institutional factors that affect the change must be well understood (Marsden et al., 2011).

In the case of Gdynia there are several factors for a successful adaptation of freight solutions. These include the infrastructure, economy and institutions. When the city was first built it was to accommodate the construction of the sea port in the 1920s. Gdynia was built from scratch and took over from a former fishing village. It was granted city rights in 1926. Its spatial layout represents the principles of modernism with streets running east-west and north-south forming three main axes.

Because the city features a modern layout, it was not plagued by transport-related problems which are typically common in cities with historic street layouts. However, with the growing presence of shops and services in the city centre in recent years, the demand for deliveries has been growing too. Combined with the high and increasingly

higher motorization rate (542 cars per 1,000 population in 2015), transport pressure was mounting and affecting the socio-economic environment. For many years he city's transport policy was primarily geared towards maintaining the share of public transport in passenger movements and building the necessary infrastructure. Freight transport was seen from the perspective of the city and port being direct neighbours which pre-determined certain steps. They were designed to ensure direct access for heavy goods vehicles with as little effect on urban functions as possible. Restocking inner-city businesses and services was never really on the agenda. This is typically what happens across Poland because urban distribution is hardly ever covered in the strategy papers of Polish cities. No practical steps are taken either, as we know them from a number of European cities.

The problems of urban freight transport management took more of a centre stage after the adoption of the 2016 Sustainable Urban Mobility Plan (SUMP). Developed under the CIVITAS "Dynamo" project (2012 - 2016), the plan sets out strategic goals with objective 4: Effective freight transport in the city, that addresses the issue directly (Kaszubowski, 2016):

- Goal 4.2 Establishment of an effective and sustainable urban distribution system, including i.e. regulation on freight vehicle access to selected areas and organisation of the freight delivery system in the city centre
- Goal 4.3 Support for modern technologies and solutions for freight transport, including i.e. use of ITS/ICT in freight traffic management and implementation of low emission vehicles in goods transport and municipal services.

The Plan also accounts for heavy goods transport with the Weigh-in-Motion system, now operational on the main access road to the sea port (Oskarbski and Kaszubowski, 2016). To sum up the preliminary analysis of Gdynia with regards to urban freight management, we can say that:

- The institutions support new freight management solutions in their strategy papers
- No previous efforts were made regarding deliveries to shops and services, especially in the downtown area
- Not enough is known about the actual quantitative characteristics of freight making any proposals more difficult, especially in the early stages of the city's involvement with this

3.2. Analysis of the process to adapt new urban freight management measures

The analysis will look at a pilot scheme of dedicated delivery bays on three downtown streets in Gdynia. Developed as the city's first effort of this kind, the scheme reflects the conditions set out in the previous section. The assessment will be made using a method developed by Dolowitz and Marsh (Dolowitz and Marsh, 2000) with six fundamental issues (Table 1).

Table 1. A policy transfer framework in Gdynia.

Why transfer?	Who is involved in transfer?	What is transferred?	From Where	Degrees of transfer	Constraints on Transfer
Voluntary change	Local officials Civil servants Attitudes Consultants	Policy instruments	International - local government level	Emulation	Feasibility - proximity and bureaucratic

There are a number of reasons why cities decide to adapt solutions that have already been successfully tried and tested in other transport systems. The triggers may include the current situation and its assessment suggesting a reasonable and voluntary decision to change it or the need to meet regulations or give in to the pressure of some user groups. Gdynia's decision to join the project with an objective of implementation of dedicated delivery bays was clearly voluntary and based on an in-depth analysis of transport system efficiency and the related problems. Dissatisfied with the current situation and unable to find solutions locally, the city took the voluntary decision to introduce new solutions based on international experience (Marsden et al., 2011).

All the main actors of the process have been named. In the case of Gdynia, as well as involving the direct decision-makers (elected officials), the pilot project engaged relevant departments responsible for road infrastructure signage and management. By involving them in transferring the solution, it was possible to focus on the practical aspects of project delivery, especially given the lack of Polish examples. Working with municipal police officers was equally important because of their enforcement role. Finally, the city was advised by a consultant for the Freight TAILS project whose role was to analyse available international case studies. Efforts were taken to ensure that the consultant would not rely overly on "best practice" forgoing the local context, a common problem identified in the literature (Dolowitz and Marsh, 2000).

Next in the analysis of Gdynia's policy transfer framework is the subject of the transfer. There are eight most common issues (Benson and Jordan, 2011) with policy instrument, i.e. dedicated delivery sites, as the most frequently mentioned element. Studying the delivery structure prior to the roll-out was also mentioned. Whether the solutions are innovative is debatable, especially because so many cities across Europe use it as a basic tool of freight vehicle accessibility combined with weight and time limits (Muñuzuri et al., 2005). However, some authors claim that later adopters tend to adopt policies as a response to a pressure to do so and are more likely to accept the most common practices (Westphal et al., 1997). In the case of Gdynia the claim cannot be fully corroborated for two reasons. Number one, there was no direct pressure on the city. In fact rather than wait until the problems intensified and required radical steps, the city addressed the emerging problems well in advance. Number two, while the solution is frequently used in other European cities, it is Poland's first ever case of a systemic scheme based on delivery structure research.

While Gdynia built on a specific case which it adapted to its needs, Polish cities as a rule do not use any urban freight measures except for the standard weight and time limitations to control access to selected areas. Despite the relative simplicity of the ultimate solution, a number of problems needed to be addressed, mostly related to signage, terms of use and enforcement. With each of the countries analysed handling the issues differently, adaptation was anything but easy. In addition, there is nothing in the Polish regulatory system to define dedicated delivery sites. To ensure that the solution is workable, it had to fit in with the legal and formal requirements of setting delivery time limits. Because the problems were anticipated early on in the project, the relevant services, i.e. the police and municipal guards were involved from the start. Thanks to this, the rules for site use are more likely to be complied with.

In the case of Gdynia the degree of transfer can be termed as emulation of international experience. While it copies many of the original assumptions (e.g., designating the number of spaces and their size), it makes the solutions meet the local requirements, both formal and regulatory.

The last two issues that complete Gdynia's policy transfer framework analysis are about ways of making the new solutions known to the public and about causes of failure. While they are not included in Table 1, they are an important complement to the table. The decision-makers were regularly kept up-to-date on project developments, the proposed number of delivery sites and their distribution inviting their comments. Before its final approval, the concept was presented to the managers of the city council's departments. Thanks to this it could be related to other transport management measures already in place. The pilot implementation was to be preceded with two campaigns targeting residents and delivery site users. The first campaign is designed to emphasise how the solution will change safety, accessibility and quality of urban space. The second campaign will explain the rules and benefits for suppliers and receivers. Before the solution is actually implemented, it is difficult to foresee factors that may occur as a result of the adaptation and cause the project to fail.

4. Process of developing the proposed number and location of Gdynia's dedicated delivery bays

4.1. Implications from the adaptation process analysis

The understanding of how Gdynia adapts delivery spaces helps to evaluate the effects these factors have on the practical side of the scheme. This includes the project methodology and how it was implemented. There are some important conditions as regards the local background. They are:

- Because the city did not have an urban freight management policy before, there was no data on how freight operates. While businesses did report problems with organising deliveries, i.e. not enough space to ensure that vehicles are parked legally, no assessment of the scale of the problem could be conducted due to lack of knowledge about the structure of transport processes or the demand for deliveries
- With no experience from similar projects in Poland, there was no knowledge to fall back on from similar towns and similar problems. As a result, international experience was the point of reference and adaptations had to be made to the towns' needs and capacities
- The methodology for implementing designated delivery bays in selected streets in the city centre was to serve as a point of departure for further research into its possible applications in other areas with different spatial and functional characteristics
- Because the designated sites are in the city centre, it was important to engage private entrepreneurs in selecting the delivery bays. They are in fact the primary group affected by the changes. Having business associations actively operating in the city centre was very helpful with the process. They were first set up when a previous project of pedestrian zones was planned but later postponed
- It was assumed that the measures should be practical in the sense that the method for defining the demand for delivery spaces should be workable for organisations responsible for managing urban transport infrastructure.
- Designating the delivery bays was seen as a first step towards including distribution transport in the practice of urban transport management; further practical activities are envisaged such as developing a concept for uniform weight restrictions for heavy goods vehicles in the city centre

The factors listed above helped to formulate the requirements for the methodology for analysing delivery place demand on three city centre streets. They were then used to verify available international solutions:

1. Because urban freight data are not available, the proposed solution must include the need for collecting reliable freight structure data
2. The data acquisition method should take account of the city's policy for improving city centre access for all users, better pedestrian safety and quality of urban space. The data collection method must allow for a verification of the actual demand for deliveries reported by recipients
3. Because delivery bays will be designated by changing the way existing generally available parking spaces are used, the size of the spaces must be optimal according to the freight vehicle size revealed by delivery survey
4. The solution should work for other parts of the town that have a similar commercial and service function. This is why it is important to define uniform quantitative parameters and a pattern for how to use them
5. The method should be easy to use without having to carry out extended research for each application separately, using predefined delivery rate factors
6. The process to designate delivery bays should take account of local businesses and their opinions and make sure that they are consulted

As agreed in the assumption one of the basic requirements was to combine work on developing a site designation method with analysing urban freight within the area of analysis. In addition, local businesses as the main users of the proposed measure were to be consulted. Having verified the international experience the decision was made to exclude the method which uses modified warehouse location problem (Aiura and Taniguchi, 2006). It was based on a driver survey to understand the actual situation of loading and unloading operations. While it provided the data required for the model, the group of freight process participants in Gdynia was not in the immediate area of interest of the decision-makers. The variables used in the model involving costs such as operational costs, parking fee, delay penalty and waiting costs of both freight vehicles and passenger cars did not represent the intentions of decision-makers as regards better city centre access and reducing the nuisance of distribution for the residents. More importantly, the method did not have the information needed to combine the specificity of commercial and service functions with the demand for freight transport.

A more extended approach was applied in Bologna (Dezi et al., 2010). However, the analysis was again based on freight vehicles driving into the city centre. The information was used to assess the occupancy rate of existing delivery bays. To optimise the distribution of delivery bays, an algorithm was used where each commercial recipient was assigned a weight to represent their demand for freight. The weight was expressed with the number

of equivalent commercial stores (NECS) and developed on the basis of freight demand data. While the method has a reference to the requirements adopted for Gdynia as regards the characteristics of the area, the algorithm it uses seems overly complex compared to the actual needs. Direct information about the number of deliveries is to be expressed in the form of an artificial variable (NECS) which rules the method out.

The next method uses the Monte Carlo simulation to find an optimal distribution and relative sizes of delivery bays (Pinto et al., 2016). It relates the distribution of delivery spaces to the potential number of shops. It does not, however, categorise recipients for the number of deliveries which renders it less useful for representing the commercial characteristics of the area. The next method assumes a combination of two analytical solutions used in France (Delaître and Routhier, 2010). It is a module which generates the number of deliveries to recipients in an analysed area which was developed for the Freturb transport model (Routhier and Toilier, 2007) and a application for analysing the distribution of delivery bays. The approach used goes significantly beyond the operational capability of Gdynia because it involves a comprehensive business database in connection with accurate delivery numbers supported with a dedicated software solution (Routhier and Patier, 2009).

While the last method is not directly applicable to Gdynia, it has in fact references to solutions that would work for Gdynia's decision-makers in the context of introducing the delivery place scheme such as data acquisition and practical use of data. As a result, it was decided that the approach should be adapted based on French delivery structure studies (Bonnafous et al., 2016) which were the basis for developing practical guidelines for planning delivery bays (CERTU, 2009), (Paris City Council, 2005). They do reflect practical needs of municipality introducing urban freight measures with reasonable requirements for data and operational effort.

4.2. Survey on delivery structure in Gdynia as the basis for a delivery bays deployment

The survey on delivery structure in Gdynia was based on the French example and adopted to local situation. As no comprehensive database of retailers is available it was decided to conduct a direct survey with all retailers at three streets selected for delivery bays implementation. Direct survey has been validated with one day control on-street observation to compare the results. The surveys fulfilled the requirement for data provision and allowed to calculate mean daily number of deliveries per entity.

The downtown of Gdynia is characterised with a structure of receivers rather typical for such areas with 19% of restaurants, 11% of food shops and other retailers and services at 70%. Most deliveries were to pharmacies (on average 5.3 deliveries daily), restaurants (3.4) and food shops (2.8). Average weekly deliveries in Gdynia per recipients were 10 deliveries, slightly more than in a similar survey in 2015 elsewhere in Poland (city of Szczecin) with 8 deliveries (Kijewska and Iwan, 2016).

The study turned out to be useful as an information tool to support the process of planning freight management tools. This can be easily adapted to local needs, and if reasonably complex, it can provide information about delivery vehicle activity. It is important to remember, however, that it was designed to meet the special nature of downtown areas. Where entire cities are concerned, the study must take account of the diverse types of receivers, as an example. When a survey covers smaller sections (e.g., several streets), it is possible to send questionnaires to all the businesses. Studying entire cities, however, means having the right sample to ensure that it is statistically reliable. A possible problem here is poor quality of company databases which are run by local authorities.

4.3. Approach to implementation of dedicated delivery bays in Gdynia based on selected reference approach

The final concept as approved by the decision-makers took full account of the local factors. Between 2016 - 2018 the following steps were taken:

- The URBACT Freight Tails project was presented to interested entrepreneurs who set up a Local Support Group during the project offering advice and consultation
- A receiver classification was developed for the three main streets with shops and services in the downtown area under analysis
- A receiver list was made following the agreed classification

- The results of the inventory were included in the plans which represent the current road infrastructure and access limitations such as the number and distribution of car parking spaces, vertical marking (no stopping signs, etc.) and elements of street furniture (bollards) stopping vehicles from entry
- A survey was drafted to conduct direct interviews with receivers
- Entrepreneurs who are part of the Local Support group were consulted on the survey and a trial survey was conducted to test how easy it is to use for pollsters and respondents
- An observer distribution plan was developed for the one day control observations of deliveries on the streets under analysis
- Direct surveys and control observations were conducted
- The results were processed to help assess the area's delivery structure
- A method was developed to estimate the number of delivery bays required based on average delivery duration and daily distribution
- A concept of delivery place distribution was prepared
- Municipal guards who are responsible for enforcing the new regulations were consulted on the definition of delivery place occupancy
- A working version of the concept was presented to managers of municipal bodies that are functionally relevant to the project
- The proposed distribution of delivery bays was verified to check the technical conditions of the locations
- A number of consultation meetings were conducted with entrepreneurs, separately for each of the three streets to present and verify the concept
- The final concept was presented to the decision-makers and approval was granted for a pilot implementation of deliveries in selected sectors of the streets under analysis.

Even though a similar process was relatively well documented, adapting it to the local conditions required a number of consistent efforts with a lot more stakeholders than originally planned. Clearly, adapting freight transport solutions is an ambitious task, especially if no earlier experience is available to the city. The experience shows that a direct transfer of international experience is hardly likely unless it is adjusted to local requirements.

Some of the elements of the process require more detail. With no city-owned database of businesses e.g. in a given street, the businesses had to be identified in a physical stock-taking. Available company lists were made in 2014 and only identified the type of business with no details of their address. New business classification principles had to be developed. The objective was to keep the number of categories relatively small whilst providing reliable numbers of deliveries. The classification represents the downtown character of the streets with their shops and services. If it were to be applied elsewhere (e.g., sub-urban areas), other business categories wold have to be included such as small-scale production, transport services, etc.

The surveys and control observations helped to adapt the French method which was the scheme's point of reference. Because there were no time constraints regarding access to the area, a longer baseline delivery concentration period was used from 9.00 to 17.00. The median of a single delivery duration was 10 minutes and so the rate of 3 operations per hour per one delivery place was accepted. With these parameters and generalised rates of delivery for each type of receiver, a preliminary concept was drafted for each street with a suggested number of delivery bays and their location with reference to receiver distribution and transport infrastructure parameters.

Next, the *Local Support Group* was consulted on the proposal. Because there was a limited number of bays which could be transformed into unloading bays, the purpose of the consultation was to check whether deliveries could use inner courtyards to reach the building or use rear access. As a result, the initial delivery bays on the three streets went down from 49 to 29 with 11 selected for the pilot implementation in the first stage in April 2018. After positive appraisal from the business sector it was decided to implement the remaining 18 bays until October 2018.

5. Conclusion

As a process urban transport policies require openness to innovation at the institutional, organisational, technical and conceptual level. Examples are available in other transport systems from organisations that have already faced similar challenges and have had both positive and negative experiences. Gdynia's example of dedicated inner city

delivery bays shows that urban freight must be tackled in a comprehensive and careful manner, both in terms of selecting the right solutions and how they are delivered. The solution was adapted from experience of European cities. Despite that, the process turned out to be internally complex and required the involvement of many stakeholders, both at the municipal and private sector level, who provided the necessary consultation. As regards the specificity of freight transport, it is clear that a direct copy of what are relatively successful solutions from other cities is likely to fail. Any transfers must be preceded with careful analyses of the local conditions and anticipating possible barriers. The solution which Gdynia chose was designed not only to adapt a specific instrument for organising freight, but also to adapt the method for analysing delivery structure. The experience shows that studies like these are a useful tool in supporting decision-makers and offer practical and informational advantages. They can be easily adapted to local needs to address the level of detail of the information collected.

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