

**Second BESTUFS Workshop,
“city access, parking regulations and access time
restrictions and enforcement support”**

**27th September 2000,
at POLIS/Scotland House, Brussels**

Participants

Mike Hollingsworth,	ACEA	Hans Visser,	NEA
Roberto Palacin,	ARRC	Martin Quispel,	NEA
Silvia Gaggi,	Car Free Cities	Chris Kutesko,	Norfolk County Council
Martin Fisher	City of Aalborg	Henry Britton,	POLIS
Esther van Kesteren	City of Amsterdam	Guillermo Montero,	PROINCA
Ulrich Jost	City of Bremen	Elisabeth Sage	PSA Citroen
Søren B. Jensen	City of Copenhagen	Rob Weiss,	PSD
Vito. M. Contursi	City of Genoa	Dieter Wild,	PTV
Cristina Piai,	City of Torino	Marcel Huschebeck,	PTV
Peter Sonnabend,	Deutsche Post	Martin Ruesch,	RAPP
Patrick Mercier-Handisyde,	EC, DG TREN	Claudia Glücker	RAPP
Marcel Rommerts	EC, DG TREN	Bernard Frayne,	RSTU (Belfast)
Marco Monticelli,	FIAT-IVECO	Hughes Duchâteau,	STRATEC
Laetitia Dablanc,	GART	Julian Allen,	University of Westminster
Axel Eisele,	GVZ Nürnberg		

Agenda

Chairman: Dieter Wild (PTV AG)

1. Introduction

- Welcome and introduction by Dieter Wild
- Short self introduction by each participant

2. Access restrictions for goods transport in urban areas (I)

- ‘City distribution concept of Copenhagen’ by Søren B. Jensen, city of Copenhagen
- ‘Physical distribution in urban areas in the Dutch cities’ by Rob Weiss, Platform Stedelijke Distributie
- ‘Practices of the Spanish cities Cordoba and Sevilla’ by Guillermo Montero, PROINCA

3. Access restrictions for goods transport in urban areas (II)

- ‘Transport vehicles and city access restrictions’ by Laetitia Dablanc, Gart and Marco Monticelli, IVECO
- ‘IDIOMA project and Nürnberg access’ by Axel Eisele, GVZ Nürnberg

4. Access restrictions for goods transport in urban areas (III)

- ‘Recommended urban truck routes – Bremen approach’ by Ulrich Just, City of Bremen
- ‘Access restrictions in Genoa’ by Vito M. Contursi, City of Genoa
- ‘New Paris city access and delivery regulations’ by Laetitia Dablanc, Gart
- ‘Environmental zones and other restrictions in Stockholm’ by Mats Fager, City of Stockholm
- ‘The CIVITAS initiative’ by Marcel Rommerts, DG TREN (Clean Urban Transport)

5. Statements on ‘access restrictions’ and discussion

Ad 1 Introduction

Dieter Wild opens the workshop and welcomes the participants. He explains that on the theme 'Statistical data, data acquisition and data analysis regarding urban freight transport' a questionnaire is made and distributed. Also at the theme 'City access, parking regulations and access time restrictions and enforcement support' a questionnaire is ongoing parallel to this workshop in order to find and identify interesting solutions. The results of the inquiries will become available at www.bestufs.net. This workshop is focussed on city access and restrictions. It is an active workshop and the aim is to learn about current situations and practices in cities. After the introduction all participants introduce themselves.

Ad 2 Access restrictions for goods transport in urban areas (I)

Presentation 1: Søren B. Jensen 'City Distribution concept of Copenhagen'

Søren B. Jensen from the city of Copenhagen gives the first presentation, dealing with the situation of urban distribution in Copenhagen. The main objective of the Copenhagen project is to increase the use of capacity in the lorries and vans entering the city centre. The city centre has an inner city, dating back from the medieval time. In 1996 the municipality took contact to the transport companies and their customers. After more than 20 meetings a voluntary test scheme started. The transport companies commit themselves to:

- Utilise the capacity of every single vehicle at an average of 60% over a 3-month period.
- Sign up all the vehicles between 2-18 tons driving to/from the area.
- Only use vehicles with engines younger than 8 years.
- Once every 3 months the company sends a report of the capacity use to the municipality.

It is voluntary to participate in the scheme. Therefore something was made to encourage the companies to join the project:

- 10 loading zones were established, exclusively reserved for the participants to load/unload goods on weekdays between 8-12 hours in the morning.
- The companies will be entitled to show that they are participating in an environmental improvement scheme.
- A list of the companies involved was put on the "City Distribution" site on the Internet. In this way the customers are able to choose a "green" transport company.

Another reason for participating is that it makes it possible to influence a later obligatory scheme.

The control is being performed on the basis of the report send to the Road Department for each vehicle. The parking guards check that only vehicles with a certificate use the loading zones between 8 and 12 hours. Other vehicles are being fined. The guards also observe the vehicles in the certificate area in order to make crosschecks possible on the information given by the companies about the capacity use.

After a year and a half the experiment ended in agreement with the transport companies. 80 companies have signed over 300 vehicles (mainly big lorries) into the scheme. About all participants in the voluntary scheme were able to use 60% of the capacity, however conditioned transport has difficulties. The transport companies were in general satisfied with the scheme. 86% of the participants would like to have an obligatory arrangement. 20% of all participating transport companies have changed their daily transport planning behaviour during the experiment.

After the experiment negotiations with transport companies took place again with the introduction of the following regulations:

40 loading zones are reserved for vehicles with a "green" certificate. These vehicles use 60% of their capacity in average over 3 months. Some types of transports, like couriers and handicraft cars, however can not fulfil the demand of 60% use of capacity. For them a more short-term certificate – "yellow"- is suggested with more negotiations. When they get near to get a green certificate they will also get permission to use the reserved loading zones. Also suggestions exist for one day- certificate –"red"- for export-vehicles and furniture removers.

Concerning the cost per certificate the following prices are suggested: Each certificate will cost about 100 Dmk. The "Green" one will be valid for the whole 2 years period. The "yellow" will also cost about 100 Dmk, but it needs to be renewed every ½ year. A one- day permit will cost much less. It is expected that the obligatory project will reduce the number of lorries and trucks to the city centre of about 30%. It is also expected that the amount of particles will be reduced with 25% (on NO_x with 10% and NO₂ with 5%).

Presently, the approach conflicts with the law that prescribes that loading and unloading zones should be open for all trucks. The ministry now promised to prepare a new paragraph in the law making it possible for municipalities to experiment. The scheme has been prolonged for half a year, in order to gain more experiences from the experiment. Now a proposal for an obligatory arrangement is under preparation. In this scheme it will either not be allowed to enter or stop in the inner city for lorries and vans over 2 tons (some vehicles excepted).

Questions and remarks

Dieter Wild remarks that the public private partnership is interesting in this case. Laetitia Dablanc asks how is dealt with trucks that are not participating. Søren B. Jensen says that all transport companies are positive and want to join the scheme. Julian Allen asks how the 60% capacity utilisation is checked. Søren B. Jensen explains that the trip data and the database are both reasonably easy to deal with. Roberto Palacin asks how often there were meetings with transport operators. Søren B. Jensen answers that 20 meetings were necessary before anything could start. Mike Hollingsworth remarks that he doubts whether 40 loading zones are enough. Peter Sonnabend asks how blocking of these zones is prevented. Søren B. Jensen answers that trucks are fined after 15 minutes 'non-activity'. Hughes Duchâteau asks if a decrease of use of vans was observed. Søren B. Jensen says that this was not the case. Søren B. Jensen says that he is now dealing with the question how to expand the area.

Presentation 2: Rob Weiss 'Physical distribution in urban areas in the Dutch cities'

Rob Weiss, a representative of the Forum for Physical Distribution in Urban Areas (PSD), gives the second presentation concerning the approach in the Netherlands. During 1650 and 2000 the average speed in cities increased from 5 to 20 kilometres per hour. The (historic) city centres however stayed the same in shape and structure.

PSD operates from synergy between government and intermediary (business) organisations. The goals of the forum are:

- (1) improve the accessibility of urban areas
- (2) improve the economic situations in (inner) cities,
- (3) increase the transport efficiency and
- (4) increase the cities living environment

The city distribution centre has proven to be no good solution and there are questions at municipal timeframe restrictions, conveyance restrictions and routing. PSD supports five pilot experiments in the Netherlands (Amsterdam, Haarlem, Groningen, Tilburg and 's-Hertogenbosch).

The forum's products are:

- City-infarct: awareness – process attitude
- Uniformity – vehicle matrix
- Harmonisation of municipal timeframe restrictions
- Benchmark city logistics

The vehicle matrix consists of four categories. Category 1 has weight class 3.5 – 7.5 tons, length till 7.5 metres, Euro-2 (diesel/LPG) and always entry to cities. Category 2 has weight class 7.5 – 18 tons, length till 12 metres, Euro-2 (diesel/hybrid/LPG) and often enters cities. Category III concerns a weight of 18 – 40 tons, length till 19 metres, Euro-2 (diesel/LPG) and often enters cities with required permission. Category four covers exceptional transport with vehicles weighing over 40 tons and Euro-2 diesel with incidental entry to cities with required permission.

PSD also works on harmonisation of timeframe restrictions. Areas are defined by the current jurisdiction of authorities, supply characteristics (different types of transport routing) and demand characteristics (cities in regions of economic importance). The implementation plan for harmonisation of municipal timeframe restriction deals with:

- Information
- Municipal participation
- Co-operation, not competition between municipalities
- Logistic chain development

PSD is now developing a model for benchmarking and identifying the problems and possible solutions for cities. PSD also works on a virtual transport engine. This should provide solutions for tomorrow's transport.

Questions and remarks

Søren B. Jensen of the city of Copenhagen remarks that the effective delivery time is very limited. Shop-owners usually start to work at 10 a.m. but most cities are only accessible for heavy goods vehicles between 7 and 11 a.m. In several cases it is therefore only possible to deliver goods between 10 and 11 a.m. This worsens the situation.

Presentation 3: Guillermo Montero 'Practices of the Spanish cities Cordoba and Sevilla'

Guillermo Montero of PROINCA gives the third presentation. This presentation was made in co-operation with Juan Larrañeta (University Sevilla) and Jesús Muñuzuri (University Sevilla).

The qualitative importance of urban goods movement is 5-15% of all urban vehicle movements (in Spain). The transport problem for goods supply and pick-up consists of space demand and inefficiency. Space demand concerns traffic space and loading space. Inefficiency concerns bottlenecks and use grade. Public administration measures can be:

- (1) incentive system (positive and or negative),
- (2) planning of constructions (buildings, infrastructure and equipment),
- (3) traffic planning (land and street use, temporal actions and vehicles).

Conflicting interests exists among the actors in urban freight transport finding common solutions. For example, freight forwarders have a high interest in urban logistics. Freight receivers have low interest in urban logistics and the community is affected by urban logistics.

Freight transport problems in Cordoba are:

- Very narrow old historical streets
- Archaeological sites obstruct any possibility of construction (e.g. Parking lots)
- Urban transport regulation does not exist
- Pedestrian area will be widened
- Increased activity of private vehicles: from the outer residential zones and from the province
- Lack of logistic infrastructure: freight transport centre, road ring, etc.

Local case requirements for Cordoba are: access impediments, archaeological rest conservation, city terminals, collect delay, delivery time, freight companies co-ordination, increase the economic activity of supermarkets, legal regulation / restricted access, new pedestrian areas, no creation of new traditional commercial areas, open shopping mall, parking areas at surroundings for lorries and vans, parking space, pedestrian streets, reducing traffic congestion and use of local markets.

Strategic approach for Cordoba are: (1) Freight Zone Classification, (2) Access according to weight, (3) Route and access control, (4) Load/unload time restrictions. This results in: (1) Load/unload zones, (2) Streets classification, (3) Temporally load/unload zones, (4) Streets blocking allowance. Depending on the weight (< 6 tons, 6 – 9 ton, >9 tons) and the zone (A, B and C) access times are determined.

Freight transport problems for the Sevilla are:

- Competition for space among transport modes (taxi, private vehicles, buses)
- Truck drivers operate without following regulations
- Difficult access to pedestrian areas
- Access time windows (7-11 hrs, exit by 12.00 and 15-17 hrs, exit by 18.00)
- Same regulations for all types of trucks
- Other parties not involved in the freight transport problem
- Freight forwarders see their individuality as positive

Local requirements for Sevilla are:

- Public Administration: representing the community, fulfilment of regulations, special plans
- Freight Receivers: enforcement load/unload zones, time restriction decrement, mini-hub locations, access to pedestrian zones
- Community: full accessibility for private vehicles, new public parking in the city centre, controversial pedestrian areas, no limits for freight movements

The strategic approach in Sevilla is:

1. Improve the performance of the current system (better land zone use, time window revision, first steps towards co-operation)
2. Mini-hub system (provided and controlled by the public administration)
3. Valley-hour and night deliveries (with the appropriate regulations)
4. Freight carriers co-ordination (within a framework designed by the public administration, with the agreement of all parties involved)
5. Restricted access for private vehicles (only freight vehicles and public transport entering the city centre)

Questions and remarks

Esther van Kesteren asks how night access for goods vehicles is possible in Sevilla. Guillermo Montero answers that the centre is not crowded and houses are isolated. Hans Visser asks how the world exhibition affected the city? Guillermo Montero answers that there has been no effect on the city since most of the visitors didn't go to the city centre.

Ad 3 Access restrictions for goods transport in urban areas (II)

Presentation 4: Laetitia Dablanc and Marco Monticelli 'Transport vehicles and city access restrictions'

Long term stability of local regulations is necessary for the truck and van manufacturing industry so that it can plan ahead adequate delivery vehicles. Since there are only seven major truck manufacturers in Europe they can significantly influence urban logistics. In this line, GART and IVECO discussed their approaches and viewpoints, and tried to integrate them into a common position.

Surveys in different European cities show that urban freight transport accounts for about 10-15% of total urban traffic in terms of number of vehicles, and 20-25% in terms of car-equivalents vehicle-km. The structure of urban goods transport flows today is quite different from one European city to the other, but they tend to converge, both spatially and temporally.

Urban freight systems are complex. Therefore, regulations of urban freight must take into account different objectives as in particular: system efficiency, the protection of the urban environment and the quality of urban life. In this triangle solutions must be found. The common idea of public intervention in the field of transport and traffic is to restrict. But public policies should not necessarily be restrictive. In summary, there are four main types of public policies in the field of transport and traffic:

- Information/communication policies, i.e., transport or traffic plans and studies and other communication activities towards citizens and economic operators;
- Investment, i.e., road and rail construction, infrastructure development, private and public parking/loading/unloading facilities, transport telematics facilities, etc.;
- Restrictions, i.e., traffic and parking rules, access regulations, etc.;
- Incentives, i.e., tax credits or special traffic regulations for green technologies, etc.;

The implementation of the different measures concerning urban freight should take into account three aspects:

- to clearly identify the objectives of the measures and the way to calculate their impacts;
- to search for the consensus among the different stakeholders;
- to learn from the experience by means of feasible and measurable solutions, which should demonstrate their effectiveness and efficiency before being generalised and adopted to a full scale.

The following recommendations on urban freight transport can be given

Regulations must be integrated with information/communication and investment policies. Urban freight transport needs a co-ordinated set of consistent measures. Regulations should be as harmonised as possible and should be as simple as possible. In this way they are easy to be understood from citizens and efficient for commercial operators.

Enforcement will be a key issue for making regulations effective and efficient (estimations suggest that 80% of operations are carried out illegally) Enforcement measures must be consistent with the other factors influencing urban distribution. Therefore, telematic applications can help to optimise and control traffic flows. Investment in transport telematics has been identified as a priority area.

It is important that all municipalities agree on harmonised truck size and weight definitions. Today for example, there are the following truck limits for city access delivery regulations in some large European cities:

Paris	16m2 and 24m2
Amsterdam	7.5 tons
London	16 tons
Barcelona	16t ; 5 t ; 3.5 tons
Milan	15 t ; 3.5 t

Information on existing regulations for all major European cities should be provided to all interested parties. A booklet could be designed by BESTUFS and published and distributed by the European Commission. City officials do expect help and orientation from BESTUFS results in at least five major areas: (1) 'best' vehicle sizes, (2) balance between on-street and off-street deliveries, (3) required technological sophistication at enforcement, (4) harmonisation of regulations, (5) promotion of clean delivery vehicle technologies.

The following conclusions has been worked out:

Priority Issues:

- Urban freight regulations (restrictions and incentives) must be integrated with other public measures such as investment and information policies.
- European metropolitan and urban authorities should work together and in co-operation with the other urban distribution stakeholders in order to define a common and shared framework for freight regulations based on four main concepts: a) harmonisation of regulations within and between European metropolitan/urban areas; b) simplicity of regulations; c) long term stability of regulations and d) integration with regulations concerning other traffic components/public measures.
- The BESTUFS TN should promote:
 - collection of information and comparison of urban freight regulations in the European cities;
 - further studies (including modelling and evaluation) about best practices in urban freight regulations concerning a) city access (f. e. truck size and weight), b) time windows (f. e., night deliveries) and c) innovation (f. e., automated enforcement or environmental enhanced vehicles).

Presentation 5: Axel Eisele 'IDIOMA project and Nürnberg access'

Restrictions can be virtual (e.g. administrative restrictions) and physical (objects, narrow streets) because of the historic character of a city. A short example illustrates the result of restrictions. In a non-time regulated situation the whole daytime is available to do deliveries. Considering 800 parcels

to be delivered per day, 3 vehicles are necessary. However if 800 parcels have to be delivered within a time frame from 6:00 till 10:30 a.m. then 8 vehicles are required. In this case the street attendance time of goods delivery rises and causes many other problems.

An approach to improve urban freight transport should include the following issues:

- Put in question all actual city regulations (save money for enforcement)
- Regulations, once installed, must not be intangible to socio-economic changes
- Install a neutral “traffic round table” based on PPP
- Bring interest groups together to understand their point of view
- Help implement the innovations of logistic service providers
- Help to improve city acceptable propulsion technologies
- Improve a city near freight village as logistic co-operation platform
- Use logistic as the science of flow management to reconfigure the disarranged cargo flows in metropolitan areas

An attractive city attracts people, attracts traffic but not necessarily attracts future regulations. There are several scenarios to overcome the restriction problems. If nothing is done shop opening time is stable but switches in the evening hours. B2B reduces goods weight and size and rises the frequency. Bundling of cargo can be a scenario. This can be done in three ways: (1) co-operation of logistic service providers (parcels, pallets), (2) combine different functions (goods delivery and pick up, home delivery, waste disposal and long and short haul transport) and (3) combined transport per industrial sector. New techniques are build-in-logistics (buildings, areas), co-operative scanner, multimodal transfer tools and new vehicle propulsion.

In Nürnberg an example project (IDIOMA-task) is running to overcome the restriction problems. Multimodal 1/3 swap-bodies are used, the vehicles are propelled by rape-seed fuel. The concept is an integrated approach considering the whole transport chains (long and short haul). A co-operative scanner technology has been developed and tested for the ISOLDE city logistics in Nürnberg. The city logistic approach is based on co-operation in pallets and parcels. The distribution vehicle is propelled electronically. The approach comprises an integration of functions and certificate of exception.

Further possibilities in city distribution are the re-inventions of pneumatic delivery (small tubes) and multimodal transport. An alternative is goods transport to each household with a tube diameter of 1.40m. Problems are (1) the infrastructure costs for creating an underground tube net, (2) operations of goods transfer to pneumatic box and (3) compressed air is not suitable for propulsion of heavier goods.

Another alternative for truck transport can be transport by tram. For example the Volkswagen AG has fabrication of cars in the city of Dresden. For the supply of goods they use a cargo tramway. In Erfurt, the tramway leads to the pedestrian zone and Erfurt has a good city rail infrastructure. The idea of a study was to use the existing tramway for goods transport and integration of supply and disposal services for retailers. Problem of realisation is integrating the goods tramway into the regular tramway

schedule. It is necessary to reconstruct the tramway for loading pallets. The disadvantages of the tram delivery are that manual transshipment is more cost expensive and the load transfer is to be done manually by walkers.

Questions and remarks

Peter Sonnabend remarks that the integration of waste transport is limited to clean waste (e.g. used paper, plastic). Inner city goods supply by means of a tramway is only possible if there is a dedicated destination with large demand of goods. Marco Monticelli has doubts if B2B will indeed result in more traffic in the future.

Ad 4 Access restrictions for goods transport in urban areas (III)

Presentation 6: Ulrich Just 'Recommended urban truck routes – Bremen approach'

A higher share of the rising transport volume is transported by road. Traffic problems are a result. To cope with these problems, the city of Bremen has implemented the concept "Integrative transport planning" ("IVP") in 1991. All relevant economic, social and planning aspects are considered and seen in an integrative framework. Several measures for freight transport based on the results of scenarios became part of the traffic concept. One of them was the implementation of a truck guidance network. It was developed for the following reasons:

- The increase of traffic leads to a shift of through traffic from main routes to smaller roads in residential areas.
- Threat of restrictions and/or bans leading to detours and even bigger problems in certain (other) residential areas.

The aim was to minimise travel times and trip lengths of all trucks on the Bremen road network and of the number of residents affected by freight traffic. The concept had to determine in the street network which routes will not be restricted for the through truck traffic and which routes might be restricted for heavy trucks.

Finally additional measures for implementing this route system were developed:

1st stage: Voluntary Avoidance

- Map indicating the truck routes for drivers to keep the truck routes. Low emission trucks excepted.
- Improvement of the guiding system to industry parks
- Extension of city logistic measures

2nd stage: Avoidance by Measures

- Traffic regulation: e.g. restrictions on through traffic and/or on night traffic, possibly differentiated by truck weight
- Construction measures: e.g. guidance to extended routes of the IVP

The decision, which has a status of a local law, consists of the following measures:

- The truck route system consists of the routes important to the through traffic. The system is smaller than the main road net for private car traffic. On the roads part of the system no restrictions regarding the use of trucks > 2.8 t can be imposed. Truck traffic with its source or destination inside a district, traffic caused by diversions and bus traffic are excluded from the regulations of the system. The truck route system becomes a basis of decisions of local/regional transport policies.
- Traffic counts to evaluate the impact of the truck route system on urban traffic.
- The voluntary obeying of the truck routes is supported by the distribution of a map to drivers.
- The signs leading to industrial areas were checked and minor changes were made.
- Extensions and repairs of roads of the truck route system are given priority.

Traffic counts were conducted in the Bremen road network to evaluate the acceptance of the recommended truck routes. As a result a concentration of trucks on roads of the truck guidance network could be proven. Average increase was about 1,5% on highways and highway-like roads. This increase was paralleled by a decrease of truck volume on minor roads not part of the truck routes by about 11%. For residential roads a decrease about 40% was recorded. On some sensitive roads, however, decreases of truck through traffic are minor so far (< 5%).

To improve the voluntary obeying of the truck routes the road administration start a study of satellite-based truck navigation systems with regard to truck guidance network. The study was part of activities within the ITS-project VIKING, supported by DG TREN of the EC. The study of satellite-based truck navigation systems is targeted

1. to define truck specific requirements for on-board navigation systems (what is the most important additional static and dynamic information?),
2. to identify potential user groups (type and number),
3. to analyse possible data sources for truck attributes,
4. to investigate the technical feasibility to include truck attributes in existing navigation systems,
5. to assess the possible market share of on-board navigation systems for trucks and
6. to judge on the chances for implementation.

For static navigation systems, average costs of about 460 Euro per vehicle per year are regarded as acceptable. For navigation systems that provide real-time information about traffic and weather conditions, average costs of 615 Euro per vehicle per year are regarded as acceptable. The benefit most frequently mentioned by fleet operators is savings in time and costs. The fleet operators also expect a reduction in their drivers' workload and, therefore, an improvement in road safety. The interest in navigation systems for trucks is, additionally, influenced by the open-mindedness of fleet operators.

Truck attributes can be grouped as dynamic or real-time and static information. In Germany, real-time data are available for traffic conditions on federal highways only. Floating cars equipped with navigation systems, as soon as these systems penetrate the market (perspective of 3 to 5 years) will provide traffic conditions on all other roads. Weather conditions, however, need special and costly roadside equipment as long as information should be provided link specific.

Negotiations with providers of digital maps, software and hardware devices show no technical obstacles or problems in including truck attributes and truck specific requirements to navigation systems. However, major effort will be needed in rewriting existing software to respect type of truck and type-specific as well as non type-specific truck attributes. Consequently, less technical but more financial doubts remain whether or not to include truck attributes in navigation systems. This will not only be a question of importance of attributes but to a large extent a question of financial investment and pay off.

In Germany a total number of 120,000 to 150,000 trucks (with a total weight of 3.5t+ each) could be subject to truck navigation. The expected market share of truck-specific navigation systems in Germany can be further split into the above mentioned 3 categories of open-mindedness of fleet operators. The “altogether open-minded“ fleet operators run up to 79,500 trucks, the “selectively interested“ fleet operators up to 49,500 trucks and the “mainly reserved“ fleet operators up to 21,000 trucks of the total marked share for Germany. Today manufactures tend to follow a stepwise approach to truck navigation with a minimum of changes in existing systems and with no or a minimum of truck-specific elements. Manufactures of the in-car navigation systems think that navigation systems for trucks are a little bit „ahead the market“, but this might be change in the future.

Questions and remarks

Hans Visser mentions that integrating navigation tools (based on GPS / GALILEO) with mobile communication (GSM or future UMTS) can offer a helpful application for control / enforcement. For example at hazardous goods transport, the authorities can easily check whether trucks really drive on assigned roads by means of ‘tracking and tracing’ technology. This system can perhaps also be applied on the city road network of Bremen.

Presentation 7: Vito M. Contursi ‘Access restrictions in Genoa’

Vito. M. Contursi presents the situation in Genoa. In Italy every city has its own regulations. Genoa is more or less seen as a laboratory on mobility issues.

The M.U.F.T. project (Management of Urban Freight Transport) concerns the planning of different activities aimed to test a prototype system for the freight transport in the city centre. The objectives are to:

- Improve the quality logistic and define services with new added value and new functionalities
- Demonstrate a rational use of the intermodal transport
- Reduce the trips due to the freight in the urban zones and their impacts on the urban traffic flows.

The work plan consists of eight tasks. The analysis is done in two ways: on area level and on goods level. The area approach consists of a target area, with an analysis of the path network and an analysis of the commercial firms present in the area. The goods approach consists of an analysis of the volume, typology, transport demand and the transport supply.

Total transport demand in the historical centre of Genoa is 10,242 packages per day. Shops offer / need 1930 packages, offices offer / need 467 packages per day. In-going couriers (41%) mainly supply transport. In-going self-couriers have a share of 23%. Express services have a share of 10% (in 5%, out 5%) and outgoing self-couriers have 15%. Out-going couriers have a share of 4%.

There are different operators for market categories. The following operators are ranked by their share: Offices (19%), Average sized store (17%), Handcraft laboratories (14%), Dresses shops (14%), Huge sized store (10%), Restaurants (7%), Food shops (7%), Beauty centres (6%), Banks (3%), Services (2%), General store (1%).

The share per market category in the historical centre is indicated by means of the number of packages per day. Banks have the biggest number of packages and deliveries per day followed by markets, food shops, huge sized stores, restaurants, services, average sized stores, offices, dressing shops, handicraft shops and beauty centres.

Vehicles used for goods deliveries consist for 42.9% out of cars, 38.6% of vans, 20% of ape cars, 14.3% of bikes and 24.3% of others. Genoa has a lot of traffic related the harbour.

New delivery service planning is now based on:

- Inter change point localisation
- Chosen vehicles
- Resources management (number of vehicles, number of paths per vehicle, amount of personnel)
- Stops and path definition
- Interaction with traffic
- IT instruments for vehicle management and control.

Traffic density has been monitored on three points in the city. Also simulation models have been made and a study on electric vehicles is done.

Questions and remarks

Peter Sonnabend remarks that it would be interesting to separate the traffic flows by using a small pecuniary incentive. Hans Visser remarks that the share of banks in the amount of deliveries in Genoa is unusually high.

Presentation 8: Laetitia Dablanc 'New Paris city access and delivery regulations'

Mrs. Rouffin of the Paris chamber of Commerce was not able to attend the workshop. Therefore Laetitia Dablanc of Gart presents the new situation in Paris on city access and delivery regulations.

The new Paris city access and delivery regulations are effective since September 6, 1999. It is implemented after extensive discussions between public and private partners.

The Paris regulation is based on 6 principles:

- Simplification: 3 types of vehicles in stead of 4 in the regulation of 1991
- Higher legal limits for truck size
- Night deliveries favoured
- On-street loading/unloading zones increased
- Passenger transport peak hours protected from freight traffic (7:30-9:30 and 16:30-19:30)
- Exemptions for specific categories of goods

There are three categories of vehicles:

- Surface (length * width) same or smaller than 16m²
- Surface between 16 and 24 m²
- Surface above 24m²

Exemptions are made for e.g. tanker transport, conditioned transport, waste transport services and removal transport. During the night (19:30-7:30) all types of transport are allowed in Paris.

Two problems are left:

- Enforcement
- Harmonisation with neighbouring municipalities

Questions and remarks

Ulrich Just asks whether night deliveries will cause problems. Laetitia Dablanc answers that night deliveries are rare, but that some residents indeed complained about the noise.

Presentation 9: Mats Fager 'Environmental zones and other restrictions in Stockholm'

Mats Fager presents another example for city access regulations for Stockholm. In 1995 the noise levels were measured on all roads in the inner city. In 1999 the NO₂ levels were measured in the city.

No lorries heavier than 3.5 tons may drive in the city during nighttime (22:00-6:00hrs). Also vehicles longer than 12 metres aren't allowed to do so. In the old town of Stockholm motor traffic is not allowed between 11:00 and 06:00 hrs. Only cabs are exempted. No cars longer than 7 metres can enter because of the small and narrow streets of the old city.

The central parts of four Swedish cities have environmental zones where special demands are imposed on diesel powered vehicles heavier than 3.5 tons. The inner city of Stockholm has about 250,000 inhabitants. The environmental zone covers this area but some main roads are excluded from this zone.

The principal rule today is that heavy diesel powered cargo carrying vehicles must belong to a certain environmental class to be allowed to travel in the environmental zone. To be entitled to travel in the

zone a vehicle must have a visible sticker on the windscreen. This sticker specifies its environmental class or permit period.

The share of heavy vehicles without a permit has increased significantly. Counts on four streets in the environmental zone showed a gradual increase from a 2.6% share in 1997 to a 10% share in the year 2000.

The results of the regulation showed reduced emission. The emission of particles has decreased with 15-20%. The emission of hydrocarbons has decreased with 5-10%. The emission of nitric oxides has decreased with 1-8%.

There is a proposal for modified rules for 2001. The main rule is that heavy diesel powered vehicles must not be older than 8 years to be allowed to travel in the environmental zone (as well for domestic as foreign vehicles). There are however exemptions possible for:

- vehicles with approved retrofittable emission control equipment (a filter / catalyst) and not older than 12 years
- engine replacement to an engine meeting the EU-requirements for the best environmental class
- vehicles which rarely have destinations in the environmental zone

Questions and remarks

Søren B. Jensen asks whether there are in Stockholm enforcement problems. Mats Fager admits that there are problems but that they might be solved automatically because cars and trucks get cleaner and therefore defining environmental zones are not needed anymore in the future.

Presentation 10: Marcel Rommerts: 'The CIVITAS initiative'

Marcel Rommerts of DG TREN, Clean Urban Transport presents the CIVITAS initiative.

The objective of this initiative is to assess on urban transport the impacts, including those on congestion, energy consumption, noise and air pollution, of the introduction of radical integrated sustainable urban transport policy strategies, supported by innovative measures, technologies and infrastructures. These strategies should particularly aim at achieving a shift in modal choice of people who have the option of car use towards alternatives.

The CIVITAS initiative deals with integrated strategies and is aimed on European cities. Two cities should work together while one city is the leader and the other one is the follower. There will be an independent project to monitor and evaluate the city performances.

More details on this initiative can be found on:

http://europa.eu.int/comm/energy_transport/en/cut_en/cut_civitas_en.html

Ad 5 Statements on 'access restrictions' and discussion

Dieter Wild starts by saying that there will possibly be another workshop on this theme. However then it will be more direct by means of seeking answers to questions. Next he invites all participants to give their view on this theme.

Mike Hollingsworth starts the round by saying the conflict analysis in the discussion paper was useful. However, restrictions are not directly a solution for the problem. Enforcement gets harder and more difficult when the restrictions are various and hard to understand. Differences in the vehicle categorisation are worrying since there is one European market. There are made differences by the physical aspects (weight, length, width, and height), by emission standards and by the required driver licence. At the moment, all these differences have to be taken into account by the truck manufacturing industry. This makes the designing and production process complex. Harmonisation is therefore desirable.

Hughes Duchâteau remarks that the interaction of private cars with trucks is an important topic. Problems with trucks can be caused by private cars. Pricing could then be an efficient method to solve problems.

Hans Visser remarks that in the discussion only the existing situation is looked at. However, significant changes are expected caused by the effects of e-commerce and home shopping. Also some problems with urban freight are unavoidable.

Axel Eisele stresses that private cars can be the root for city traffic problems. Furthermore he recommends involving logistic service providers in order to change and improve this situation.

Elisabeth Sage remarks that regulation is better than restrictions. Restrictions may damage the dynamics of a city centre. Furthermore, BESTUFS should take into account the future developments on e-commerce.

Ulrich Jost underlines the problem of the growing number of small vehicles compared to the growth of the amount of heavy vehicles. Furthermore, road pricing needs to get attention. Finally he remarks that there can be a tension between the authorities and the truck manufacturing industry. Therefore one has to be sure that the truck manufacturing industry supports the regulations proposed by the authority. Harmonisation might be hard because of different situations and different problems.

Roberto Palacin remarks that establishing a forum is a best practice to get feedback and support from the key-players in urban goods transport.

Esther van Kesteren stresses that co-operation is vital. The way to improve urban goods transport is to stimulate new logistical concepts in order to find solutions.

Bernard Frayne remarks that in Belfast there is a problem with the 'Just In Time' concept in relation to transport efficiency. New measures need to be considered.

Rob Weiss adds that uniformity is the key element in order to get innovative solutions. There should be a knowledge centre where information is available on urban transport.

Mats Fager wants rules to be harmonised as far as possible and easy to comply with. Key words are simplicity and transparency.

Patrick Mercier remarks that the focus on the city centre is too limited. A broader view should be adopted, for example a metropolitan area. Furthermore, integrated passenger-freight schemes need attention. The question is to what extent what European standardisation and harmonisation is possible.

Martin Quispel mentions that ICT applications can be helpful at enforcement problems. Promising solutions for enforcement have already been prototyped and demonstrated in Barcelona.

Martin Fisher stresses that co-operation is necessary and BESTUFS should focus on simple solutions.

Laetitia Dablanc also stresses that the metropolitan area is the adequate level for establishing regulations. Furthermore, local administrations want to stay independent and need expertise on urban freight solutions. In BESTUFS we need to build up this expertise and offer this to local administrations.

Chris Kutesko adds that local solutions can be rather different and therefore conflicting.

Vito M. Contursi stresses the need for political support. The politicians need to evaluate proposed regulations in an early stage and should provide feed back.

Cristina Piai advocates an integrated approach towards land-use and urban freight policy.

Julian Allen adds the point that current regulations need to be reconsidered. Certain groups of road users should be prioritised. Furthermore, the costs and benefits of better delivering premises should be divided among the actors within the logistic chain. Loading zones for off-road deliveries should be integrated in spatial planning policies.

Marcel Huschebeck remarks that it is not possible to harmonise all regulations. Also enforcement is a very important aspect.

Claudia Glöcker remarks that night deliveries are a promising solution for the urban freight problem.

Martin Ruesch wants incentives to be looked at in order to stimulate new technologies. The introduction of the Heavy Vehicle Fee in Switzerland (above 3.5 tonnes) is stimulating rail and intermodal transport. Also distribution by rail shouldn't be forgotten in BESTUFS.

Henry Britton stresses that city logistics is the end of the whole logistic trade-offs. Therefore, tradeoffs in the supply chain have to be taken into account. Ex ante enforcement of city access can be considered (e.g. by means of physical barriers).

Roberto Palacin remarks that at the conference in Barcelona end of March 2001 some information on technologies will be given.

Peter Sonnabend did prepare a statement on behalf of Deutsche Post AG. The logistic chain should be taken into account. There needs to be understanding of the drivers of decision making in urban transport like customer needs, costs, regulations, technology and urban mobility resources. Infrastructure is often too limited. In a competitive environment, the circumstances should be the same for everybody. Road use has to be optimised, especially in the peak hours.

Søren B. Jensen wants to reward to commercial operators, which behave good, by giving them access to the city. There should become more money available for pioneering cities for exchanging information and experiences.

Dieter Wild thanks everybody for the participation and contribution. He again points out that the workshops are not primarily intended for dissemination of information but to acquire information. Dieter Wild closes the workshop.