

## Fifth BESTUFS Workshop,

*“Rail based transport: A disappearing opportunity or a challenge for urban areas?”*

30<sup>th</sup> & 31<sup>th</sup> of August 2001, Dresdner VerkehrsBetriebe (DVB),  
Dresden, Germany.

### Participants of the workshop

Name of organisation / company	Name of participant
Advanced Railway Research Centre (ARRC)	Mr P. Mortimer
CDV – Transport research centre	Mr M. Capka
City of Nürnberg	Mr A. Eisele
City of Zurich	Dr W. Dietrich
Czech railways	Mr B. Pokorny
Dresdner Verkehrsbetriebe (DVB)	Mr Lange
Dresdner Verkehrsbetriebe (DVB)	Mr Zieschank
ECONSULT	Mr R. Dorner
European Commission DG TREN – Unit clean urban transport (D4)	Mr M. Rommerts
FOCAL	Mr R. Hilditch
GVZ Nurnberg	Mr S. Nestler
IVT, ETH Zurich	Mr J. Wichser
Municipality of Amsterdam	Mr D. Bous
NEA Transport research and training B.V.	Ms G. de Jonge
NEA Transport research and training B.V.	Mr M. Quispel
Norfolk County Council	Mr C. Kutesko
Planung Transport Verkehr AG (PTV)	Dr D. Wild
Planung Transport Verkehr AG (PTV)	Mr M. Huschebeck
PROINCA	Mr G. Montero
RAPP AG	Ms C. Glücker
RAPP AG	Mr D. Egger
RAPP AG	Mr M. Ruesch
SNCF – FRET	Mr J. Ebrardt
STRATEC	Mrs N. Isacker
Technicatome	Mr J.C. Dellinger
University of Coventry	Prof. P. Foyer
University of Sevilla	Mr J. Munuzuri
University of Westminster	Mr S. Anderson

## **AGENDA**

### **DAY 1**

#### **1. Welcome and introduction**

- a) Welcome and introduction by Dieter Wild, PTV AG
  - Structure and aims of the workshop
- b) Introduction Dresdner Verkehrsbetriebe (DVB) by Mr. Zieschank
- c) Short self introduction by each participant

#### **2. Rail in urban areas: Examples from regions**

- a) Presentation by Mr Lange, DVB, "CarGo Tram in Dresden"
- b) Presentation by Mr Bous, City of Amsterdam, "Study on the feasibility to use Amsterdam's underground railway system for distribution of goods"
- c) Presentation by Mr Dorner, ECONSULT, "Concepts for Rail based city distribution Requirements and case studies"

#### **3. Future concepts and possibilities**

- a) Presentation by, Mr Hilditch, Focal, "Transport corridor principle: An integrated concept for urban transport"
- b) Presentation by Prof. Foyer, University of Coventry, "Just-in-Time by Rail: Enabling Real Benefits for Retail and Small-Lot-Logistics"

#### **4. Rail dedicated land use: Different views**

- a) Presentation by Mr Ebrardt, SNCF "New activities for rail cargo stations in urban areas"
- b) Presentation by Mr Ruesch, Rapp, "How to improve rail freight in urban areas: An example from Düsseldorf"
- c) Presentation by Mr Eisele, City of Nuremberg "Possibilities and limitations of using rail and rail infrastructure in Nuremberg"
- d) Presentation by Mr Wicher, IVT ETH Zurich "Situation in Switzerland"

### **DAY 2**

#### **5. Visit of the "Dresdner CarGo Tram"**

#### **6. Group discussion**

#### **7. Round along the table**

#### **Ad 1 'Welcome and introduction'**

The chairman, Mr Wild, opens the workshop and welcomes the participants. He describes the goals, the approach and the current status of Thematic Network BESTUFS. The chosen city for this 5th workshop is Dresden, because of their experience with the operational CarGo Tram. Next Mr Wild explains the focus of this 5th BESTUFS workshop. He explains that there are locations in cities that traditionally are used for transport related activities (e.g. rail terminal) but nowadays cities want to use these valuable locations for other purposes.

The next (6th) workshop is planned to be held on 8 and 9 November 2001 and the focus for this workshop will be "road pricing and urban goods transport". The next BESTUFS conference is planned to be held in spring 2002.

After the introduction by Mr Wild, Mr Zieschank of DVB gives an introduction about the Dresdner Verkehrsbetriebe. It is a public transport company with a.o. 12 tram lines (414 trams), 27 buslines, 4 ferry stations and 2 cable cars. In the last decade DVB has become a lean organisation due to an impressive reduction of the number of employees (from 4180 employees in 1991 to 1938 employees in the year 2000). In 1991 the DVB had a cost coverage of 16.8%, whilst in 2000 there was a cost coverage of 60%. Furthermore extensive technological improvements have taken place. A computer controlled guidance system is now operational. Also big attention has been paid to marketing. A.o. there are activities for children and car drivers (car sharing). DVB wants to be a complete service provider.

After the introduction of DVB by Mr Zieschank, the participants introduce themselves and explain their interest in TN BESTUFS and in this workshop.

### **Ad 2 "Rail in urban areas: Examples from regions"**

a) *"CarGo Tram in Dresden", Mr Lange, DVB [Please see annex 1 for this presentation].*

The CarGo Tram project is a co-operation between DVB, Volkswagen and the Government. The decision to start up the Cargo Tram was taken in 1999 and the CarGo Tram became operational in November 2000. Mr Lange presents the CarGo Tram line that provides connection between the logistic centre of VW to the manufacturing plant. Next he presents the technical details of the CarGo Tram. Volkswagen wanted a competitive solution compared to road transport. The main key to the viability of the solution is the length of the tram (60 metres) and the load capacity of 2.5 lorries (max load 60 tons and a load space of 214m<sup>3</sup>). DVB has a contract of 15 years with Volkswagen and also this length of the contract made a competitive solution possible. The CarGo Tram runs 6 days per week at 16 hours per day. Calculations showed that the business is profitable and also competitive to road transport.

### *Questions/discussion*

Mr Hilditch asks about the flexibility of the solution. Mr Lange says that the flexibility of possible load is the same as a truck, only the width of the load is limited. Mr Hilditch also asks if it would be possible to increase the number of transfer points in the city. Mr Lange answers that then the operation would

become economically unfeasible. Mr Foyer remarks that the CarGo Tram is a part of the VW supply chains and that it is a closed flow. He asks if the flow is only single way - from logistic centre to the plant - or that the trams transports good in both ways. Mr Lange answers that indeed goods are transported in both directions. Mr Dellinger asks about the operation system of the tramline. Mr Lange explains that the operation centre is not a dedicated one for the CarGo Tram. The operation is combined with the normal trams. The maximum speed of the CarGo Tram is 50 km/h. Mr Mortimer asks about the traction and power supply. Mr Lange says that all wagons have an electric engine and the wheels of the wagons all provide traction. Mr Capka asks about possible problems that had to be overcome. Mr Lange answers that their haven't been problems at all. Mr Wild asks about the main difficulties. Mr Zieschank answers that the main difficulty was to find a manufacturer who was willing to build only 2 trams. Finding a manufacturer to build 500 trams would have been much easier. Mr Foyer asks about the costs for the trams. Mr Zieschank tells that the final bill was 3.5 Million DM. Mr Mortimer asks if transport by truck is the only alternative. Mr Lange confirms that this is the case and adds that VW compared the prognosis of the operational costs for the CarGo Tram with the costs for road transport. Mr Hilditch asks if an extension of the CarGo Tram line to the airport would be possible. Mr Lange explains that this is not possible because there doesn't exist a tramway to the airport. There is however a station for heavy rail. Mr Wild asks about the acceptance of the solution. Mr Zieschank tells that both residents of Dresden and VW are proud on the CarGo Tram. Only one road transport company had problems due to the priority the CarGo Tram gets in operational traffic situations.

b) *"Study on the feasibility to use Amsterdam's underground railway system for distribution of goods", Mr Bous, Municipality of Amsterdam [Please see annex 2 for this presentation].*

Mr Bous explains that there is a big contrast with the plans of Amsterdam compared to the CarGo Tram which is operational in Dresden. Amsterdam just started with a study on the possibility to use the metro (=underground railway) and this is an initiative of the municipality. Mr Bous outlines the restrictions and the policy of Amsterdam concerning urban goods transport. Due to the expected increase of congestion, there is a need for development of (additional) alternatives for road transport, by water and rail, a.o. metro. Extensions of the current light rail network in Amsterdam are planned by means of the 'North-South line' and a light rail connection with Schiphol Airport. The ultimate goal is to combine optimal logistics with a liveable and sustainable city. Therefore a new logistic concept fitting in the existing metro-operation is being developed. The right markets for this concept have to be found. Two options to make use of the metro infrastructure are currently being studied. Furthermore a feasible development process from a simple to an advanced logistic system has to be defined and commitment for a pilot project has to be found in the private sector. Amsterdam wants to start with a real-life pilot in 2003 that can start with doing minimal investments and only a few adaptations. From 2006 to 2009 two phases are defined to develop eventually an advanced transportation system using the metro. Critical factors are the commitment and interest from private parties, the building of a multi modal transport network on national scale, availability of substantial public (financial) support for the first phases of the project and development of local policy towards compact and car-free city. The preliminary conclusion is that the alternative using metro is feasible under the existing conditions. However, it would need substantial long term investments at a limited return rate. Also the main questions are not clear: does

the market want it and (if yes) how to seduce private parties to be part of a pilot? Furthermore, during research it was experienced that reliable data are hard to find. There is a great need for a better database on urban goods transport and modelling.

### *Questions/discussion*

Mr Ebrardt asks if the decision is already taken to start up the pilot. Mr Bous answers that this is not the case and that first private partners have to be found. Mr Hilditch asks if there has been contact with NS Cargo (Dutch railways). Mr Bous confirms this and says that they are interested in the project and will be kept informed. Mr Foyer asks how the enddistribution will be organised and how security will be guaranteed. Mr Bous explains that it is the idea to make use of small vans for the enddistribution but that a service provider still has to be found who is willing to do this work.

### *c) "Concepts for Rail based city distribution Requirements and case studies", Mr Dorner, ECONSULT [please see annex 3 for this presentation]*

Mr Dorner starts the presentation with a vision on new hi-tech concepts for urban distribution. Existing infrastructure should be used (networks, terminals in the centre of the cities) at low costs, preventing congestion and emissions. Next he gives a historic overview of using cargo trams in urban transport. Examples for urban freight transport by tramways exists during several periods in the past. In the 1970's the GDR did research and employed rail-based transport because of the energy crisis. Results were that in several cities passenger wagons were adapted to enable freight transport. Today there are mixed systems (passenger and goods trains on the same tramway). The pro's of rail are: (1) about 25% of energy usage compared to road based transport, (2) a high reserve on moving capacity and (3) shorter lead-times than road transport are possible if new technologies are used. On the other side the con's of rail are: (1) its limited flexibility, (2) rail mounted, (3) in general more expensive than road based transports and (4) additional transshipment is necessary. Due to differences in transport systems (heavy/ light rail/ road) transshipment is necessary, therefore more standards are required, especially standardised container systems. He gives an overview on approaches for existing solutions (e.g. cargo sprinter, unimog system with horizontal transshipment of a small container). However due to logistic requirements, he sees only limited potential of goods for city logistics and rail based distribution. Next Mr Dorner presents the case studies in Berlin and Vienna. In Berlin a rail-based distribution concept will be unrealistic due to higher costs and higher lead-times compared to current road transport. The concept of Vienna includes a CarGo Tram. The conclusion of this study was that although there are several advantages of rail based transports the implementation is a difficult problem to be solved. In general he points out that rail-based transport has only limited potential for local distribution and the implementation depends heavily on the co-operation between partners in a logistic system. Exploiting benefits like less environmental impacts requires public private partnerships. According to a recent decision Vienna has concrete plans to transport waste in the city by means of CarGo Tram. There is a potential of transporting 500,000 tons of waste per year by means of rail.

### *Questions/discussion*

Mr Wild remarks that the presentation gave a good overview on the possibilities and limitations of rail in urban areas. It raises open questions like: are costs too high? Who is leading such projects? Should the city not provide the required infrastructure but should this be done in a PPP? Mr Foyer says that in the UK the brown-field locations are interesting to connect them to rail terminals. These sites are high value property. Mr Wild adds that this is also the case for Germany.

### **Ad 3 “Future concepts and possibilities”**

a) *“Transport corridor principle: An integrated concept for urban transport” Mr Hilditch, Focal [please see annex 4a for this presentation and 4b for the script]*

Mr Hilditch starts the presentation with a historic overview on urban transport systems in UK. Developing new systems for infrastructure unable to cope with the technology explosion placed the system ahead of the infrastructure. As the urban heartland emerged the gap between the property and transport planners exploded like the technology. Mr Hilditch states that perhaps the basic infrastructure’s limitations are ignored whilst allowing planners to develop systems that follow the new IT advancements that can only conceptualise new processes in an electronic environment. When in reality, our towns and cities buildings often change their shape, whilst the roads or rail width/gauge remain constant. Mr Hilditch indicates that a solution maybe akin to ‘Just – in – time, combined with different integrated transport interchanges, able to correlate the local fixed infrastructure and using the new IT advances. The Transport Corridor Principle proposal paints a transport corridor where any principal performs their function to deliver their application to their customer. There has been set out a programme where in partnership with principals from the commercial sector and academia for the next generation of planners and designers to explore reusing the infrastructure long forgotten in use today. Four independent pilot schemes will be developed (in the UK, France, Germany and Spain) to examine equipment to combine the infrastructure into an alternative solution for distribution and storage. Using and considering the available modern materials used in all sectors aims on manufacturing containers that offer a standard and be common usable across the main transport zones. Rapid loading and unloading is needed in chains with railway transport (e.g. electromagnetic or roll based transshipment techniques). Existing infrastructure has to be used with a logistic platform using standard boxes. The maintenance spaces underground for underground metros can perhaps be used for goods storage and transshipment activities.

#### *Questions/discussion*

Mr Ebrardt asks which lift is to be used with the underground goods transport operation. Mr Hilditch answers that the normal person lift can be used for vertical movement of boxes with sizes 1000 mm x 1000mm x 800 mm, with a maximum weight of 250 KG. A hybrid (diesel-electric) vehicle can be used for the end distribution. Furthermore Mr Hilditch remarks that the cargo sprinter mentioned in the presentation of Mr Dorner, doesn’t have sufficient speed to mix it with person trains.

b) *“Just-in-Time by Rail: Enabling Real Benefits for Retail and Small-Lot-Logistics” by Prof. Foyer, University of Coventry [please see annex 5a for the presentation and annex 5b for the script]*

The economies of urban areas are dominated by retail, services and manufacturing. Recent changes in the culture, which resulted from the Japanese manufacturing influx and evolution in the 1980s, have totally changed the face of these industries and the ways in which they supply themselves. In particular, all are now dependent upon Just-in-Time technologies, which enable them to supply a vast range of products and services whilst containing stocks, space, waste and costs to acceptable levels. While in 1970's the share of storage space was 50%, in 2001 it has reduced to only 5%. The transport element of this is expected to deliver: frequent departures/ arrivals, short journey times, utter reliability and continuous traceability and security. Unfortunately, the change in rail culture since World War 2 has tended to move in the opposite direction. Current rail and multi-modal practices tend to worsen, not improve these factors. The traditional inner-city freight terminals have gone as part of a vicious circle in which worsening access and falling demand have fed each other until the business has been largely lost to rail. Out-of-town terminals ignore or worsen these problems by leaving large gaps between the points of origin and demand and the railheads. To move forward, it is important to go back to the basic objectives. For instance, the Key Performance Indicators for such logistics system might be defined as those which define the service and costs as experienced by customers and suppliers, such as: overall journey time and frequency, utilisation of all assets, inventory and availability, intrusion and pollution. All of these factors have to be positive to justify modal change. Changing three key variables can have radical effects: (1) more terminals nearer sources and destinations of cargo, (2) smaller terminals on brown-field sites and (3) more frequent, shorter trains. Key vehicle parameters have to be reinvented. Current intermodal terminals generally involve long transfer times and hence long train stopped times. In view of the key part played by terminal times in total transit times, this problem needs to be addressed in depth and with a considerable mindset change. Furthermore a more flexible container standard has to be developed that fits well into an urban environment. Railways can then increase the transport of the high-value goods which operation is profitable.

### *Questions/discussion*

Mr Wild remarks that the presentation was rather objective and he asks about Mr Foyer's personal opinion. Mr Foyer says that he thinks that several shifts can be made. Terminals are the most important issue in this respect. The brown-field locations can be used to establish new viable intermodal terminals in combination with new load units and small fast trains. There is interest from supermarkets and other parties for these ideas. Mr Mortimer expresses that it is essential that the railway companies create merits compared to road transport.

### **Ad 4 “Rail dedicated land use: Different views”**

a) *“New activities for rail cargo stations in urban areas”, Mr Ebrardt, SNCF [please see annex 6 for the presentation]*

Mr Ebrardt indicates that there are rail freight stations in the big cities in France. Although the location facilities and the accessibility can be quite good, the locations are threatened due to pressure to change the use of the location for other purposes (e.g. offices, residential areas) . Main reason is the

poor usage of these locations by railways. JIT lead to a loss of market share of rail and shift of storage activities to bigger and cheaper locations on a higher scale level. This lead to less and less railway traffic and reduction of investments in the rail terminals. As a result of small investments, the locations are hard to use for current logistic activities. Sometimes the sites have the impression of being fallow lands. To keep the locations available as rail terminals, the SNCF-Fret has been working on new projects. Some industry branches already use rail freight transport, especially for transport of building material and beverages for café's restaurants hotels. This because of the high volume and the need for low transport costs. SNCF-Fret now wants to use inner city rail terminals to create urban logistic centres in the freight stations. Road vehicles doing the end distribution can be adapted to local requirements. A feasibility study showed that there is interest from industry that have activities in urban areas. Furthermore, using rail to get into the city seems economically viable. How ever it is a long term process. Currently three projects are running (Lille-Paris relation, Toulouse and Strasbourg). The conditions of success are to work in a partnership and taking the urban environment into account. The Lille-Paris relation aims to create a daily train shuttle between stations located in the heart of the 2 towns. In Toulouse an urban logistic centre is created using clean lorries for pre- and enddistribution. In Strasbourg also an urban logistic centre is created.

### *Questions/discussion*

Mr Mortimer remarks that the land using for rail terminals might not be favoured by the local authorities due to problems with local traffic at the rail terminal. Furthermore they don't experience the direct advantages of the main haul transported by rail. Mr Ebrardt says that using clean and friendly road vehicles for end distribution (e.g. hybrid or electric vehicles) can change this perception.

*b) "How to improve rail freight in urban areas: An example from Düsseldorf", Mr. Ruesch, Rapp AG  
[please see annex 7 for this presentation]*

Mr Ruesch starts his presentation with an overview of the Düsseldorf area where a study was done on development of the (regional) rail freight. He presents the characteristics of industry and transport in this region. Next the framework conditions and problems in freight transport are presented, seen from different angles. Main problems identified are giving up railway infrastructure in urban areas, high operation expenses in urban and regional rail distribution, missing infrastructure for assorting links, long leading times in regional distribution by rail and the low level of co-operation in railways. He states that there is a clear need for conservation and improvement of the regional and urban rail freight management. To improve the share of railways in the area of Düsseldorf new services and products are developed (e.g. direct trains to the seaports). Findings and conclusions related to the role of rail freight in urban areas are the following: (1) rail freight transport has also within urban areas potential and (2) can contribute to a reduction of road transport and environmental burdens. (3) Potential for improvement of rail freight exist in different fields (services, operation/infrastructure, organisation/co-operation). (4) Integrated approaches which include services, operation, infrastructure and organisation / co-operation are useful.

Key problems to be solved are (1) improving the level of service while reducing the operation costs, (2) capacity problems and conflicts between passenger and freight transport, (3) preservation of the

needed railway infrastructure considering new productions concepts and technologies, (4) realisation of open access without affecting the service quality, (5) financing of regional rail freight infrastructure (especially when they are only used by rail freight). Improvement of framework conditions is needed (e.g. cost truth, road pricing, new technologies, open access, track pricing system). Support of rail freight transport is still needed, e.g. by means of development of a regional and urban freight transport policy. Such a policy integrates rail freight requirements in land use planning. Furthermore, local rail freight networks should be integrated with national and international rail freight networks and required rail freight infrastructure (long term) should be identified. Also innovative rail freight distribution concepts and technologies have to be developed.

### *Questions/discussion*

Mr Huschebecks asks if the demands and requirements of shippers and receivers (e.g. time windows) are taken into account in the project. Mr Ruesch says that they were asked about their requirements. Mr Mortimer remarks that the railway companies should be more pro-active. Mr Hilditch asks on the attitude of railway companies on urban freight transport. Mr Ruesch says that their main interest lies not at urban freight transport but that they focus on long distance transports. Secondly, the cities should first define their needs and then involve the railway company. Mr Foyer indicates that especially the higher market segments (transport of valuable goods) are interesting for railway companies. Parties in higher market segments are financially powerful and able to invest in innovative railway solutions. Mr Dellinger adds that the big problem is the organisational change, to find the right decision maker who can provide the required funds. The problem is therefore not technical but more political and organisational.

After the discussion, Mr Wild provides information about the City Logistics II conference that took place in Okinawa (Japan), June 2001. The proceedings include 26 papers that were presented at the Second International Conference on City Logistics. The titles of the 2 review papers are: Recent advances in modelling city logistics and E-commerce and city logistics. These papers describe recent advances in the research area of city logistics and urban freight transport (420 pages, hardcover). More information and an ordering form can be found at <http://urbanfac.kuciv.kyoto-u.ac.jp/citylogistics/>

c) *“Possibilities and limitations of using rail and rail infrastructure in Nuremberg”, Mr Eisele, City of Nuremberg [please see annex 8 for this presentation]*

Mr Eisele starts his presentation with explaining the pro's and con's of railway and road transport. Next he presents the history of railway in Germany and he gives an overview on the general transport situation and especially on the railway infrastructure in the city of Nuremberg. Since the privatisation of the Deutsche Bahn (DB) in 1993 various sites and routes were being checked on profitability. In many cases profitability proved to be negative. Policy of DB was then to sell unprofitable sites and routes. This also happens in Nuremberg where there was initially a full ring-railway route that was used to deliver goods to the heavy industry that was located in the surroundings of Nuremberg. After the industrial plants closed the maintenance costs became too high for the DB and consequently some railway sections were closed. Regarding the combined terminal in Nuremberg, this freight station is

situated in a residential zone. This terminal is hard to access by lorries due to a child's play zone that has to be crossed and low bridges. Every day there occurs a traffic jam because many loads have to be delivered just before closing time of the terminal. After 10 years of discussion and protests, there are now concrete plans for re-location of this terminal in the freight village (GVZ Hafen Nürnberg). From the city view "Industrial area management" is a vital module in successful economic development. „Industrial area management" means definition of future development and strategic positioning for city and region. Restructuring and re-use of industrial areas in a grown surrounding is needed but is difficult because of the conflicting interests of city planning and the actual owner. The activities of the administration are planning, (definition of the prerequisites of re-use), bargaining (reconciliation of targets both, city administration and owner), moderation (initiate and monitor internal administration processes), engagement (search of and dialog with new users of the industrial area) and organisation (cross-functional team structure with new forms of interaction). Also a new type of organisation (symbiotic) is needed over different levels, a long run, high intensity and process oriented.

### *Questions/discussion*

Mr Mortimer asks if the railway ring route can be used for person trains. Mr Eisele answers that there is an underground metro system thus there is no need for using the ring railway for transporting people. Mr Wild asks if Mr Eisele sees opportunities for rail based transport. Mr Eisele explains that road transport is more flexible due to the fact that less transshipment activities are needed in rail chains. Therefore the possibilities are limited. Also the economic situation of Nuremberg has changed, all big industries left the area, Nuremberg is now a service oriented area. Mr Wild suggests that perhaps the focus should be on a intermodal interface, actually a trimodal with connection to rail, road and inland waterways. Mr Eisele confirms that this is now planned. Mr Foyer says that there are two sides, one side is track and land owning, while the other side is the operation of trains. The government should not invest in railway infrastructure, investments should be driven by private interest.

### *d) "Situation in Switzerland", Mr Wicher, IVT ETH Zurich*

Mr Wicher starts his presentation by asking the question what urban transport actually is. According to him, it is the last part of the transport chain. In Switzerland rail has a share of 33% (in tonkilometres), while in other EU states rail has a share lower than 10%. However the share of road has risen. The Gotthard tunnel/ corridor (road) is a political subject for discussion although road has actually the lowest share in transit traffic. Key points in the Swiss rail network are Zürich and Basel. Basel will become a European hub for freight transport. Land use problems in Switzerland are characterised by the closing of railway terminals, while new logistic parks arise at motorways (not multimodal accessible). The Swiss railways actually do develop new services and products (e.g. Cargo Express and Cargo Client) which are promising to attract additional volumes for rail. However, the key to success of railways is to increase the quality of railway at lower costs. Intelligent transport systems can be profitable and help the railways to improve their product.

### *Questions/discussion*

Mr Foyer remarks that also own costs (production and selling) determine the modal choice. A few percents less transport costs doesn't make a difference if the own costs are relatively much higher.

## **DAY 2**

### **Ad 5 "Visit of the Dresdner CarGo Tram"**

The DVB shows the Dresdner CarGo Tram and the traffic control centre. A video (on CD-rom to run on a PC) of the Dresdner CarGo Tram can be ordered at the BESTUFS Administration Centre by sending an e-mail to [bestufs@nea.nl](mailto:bestufs@nea.nl) or sending a fax (+31 70 3988 426) stating your name, organisation and address.

### **Ad 6 "Group discussion"**

Mr Wild gives an overview of issues subject for the discussion. He indicates that the CarGo Tram in Dresden is a very dedicated solution, however it is working and operating in a real environment. There are also ongoing studies and initiatives Amsterdam, Düsseldorf, Nuremberg but no decisions are taken yet. The questions to the participants are:

- What kind of rail transports are feasible, what kind of goods and business fields are interesting for rail?
- Would containerisation be a support for improving urban transport, a bottleneck, a challenge or perhaps not needed?
- Very important is who should initiate and who must be involved and how?
- Introducing new infrastructure is very difficult. What is the commercial feasibility of urban rail?
- Can available capacity be found on existing rail-infrastructure?

The goal of the discussion is to find some important argument and issues to be used by city planners to support them in their decisions. These decisions consider the use of areas which are connected to transport infrastructure (e.g. rail) but not using this infrastructure.

Mr Hilditch remarks that education is also important for city planners. Future transport and planning needs should be clear and known. Furthermore, he indicates that there's not sufficient money available to build new infrastructure. Mr Hilditch asks Mr Foyer about the quality of education in the UK. Mr Foyer answers that civil engineering education in the UK mainly focussed on road infrastructure. In general the contents of education hasn't changed much since the 1960's. Mr Wild says that there are two sides where students go after their graduation, either to a public organisation where they be a city / transport planner or to private company where they will co-ordinate the logistics. Maybe the co-operation between these two groups is a problem. Mr Wild indicates that it is not an educational problem but that it can be a problem due to bureaucracy and procedures. Mr Hilditch says that there are good examples of initiatives in the UK where different parties are brought together and substantial actions are undertaken. Mr Foyer says that it is also a problem that no education is consumed/given any more after students are graduated. Needed is an improvement of skills over the life time, especially concerning transport issues because there are a lot of interest groups and parties involved and

changes have gone fast. Furthermore, the industry is not good in bringing different stakeholders together. Mr Wild says that their willingness to co-operate and involvement in projects and initiatives depends on the costs and prospective results of co-operation. Mr Hilditch says that it is necessary to work together to find common solutions for transport and land use problems.

Mr Huschebeck says that education is a problem in rail transport. A further main questions in setting up new transport services is “who takes the leadership role?”. Here in Dresden with VW it is very specific. VW wants to have a special solution for this typical car manufacturing plant. The CarGo Tram suits to the residential area. In other cities perhaps the same type of powerful key players and suitable circumstances can be found. Mr Foyer says that the transport industry is not good at change management. It is a big problem to get all people moving into the same direction. People should be involved, understand change and see their role in it. The past shows bad examples of top-down changes that are pushed one way through organisations. More benefits can be created by getting people being a part of the change. It is important to get a critical mass of people involved in the change, then they can support it and motivate other people. Ms Glücker says that the problem is that the objectives are very different between parties (e.g. city planners versus transport operators). This causes conflicts which are not easy to solve. Mr Foyer reacts that lacking contact between the parties is even worse than only opposite objectives. Mr Mortimer says that it is the question how and where parties can be pushed or compromises can be found. It is difficult to bring people together, there are different agendas and priorities and interests.

Mr Ebrardt says that suburbs are developing. This results in more car traffic. Bringing parties together takes a long time in France, but common interest can be found and then there is willingness to find a solution. Mr Huschebeck asks Mr Ebrardt whether SNCF takes over the initiative role. Mr Ebrardt answers that this depends on the situation, sometimes a city takes the initiatives (e.g. city of Strassbourg). Mr Foyer says that the creation of a solution is magic being made by different people working together. The consulting profession perhaps don't involve stakeholders very much at their designing & engineering. Mr Ebrardt says that in France parties are willing to work together. Mr Wild says that PPP is important and raises the question that if in the case suitable situations exist are there possibilities for rail based transport in urban areas?. Mr Huschebeck adds the question “how can cities be guided and strengthened in such kind of projects?” Mr Ebrardt says that cities should work together with transport operators. A new type of organisation/operator can then consist of different organisations and companies (e.g. road/rail/city represented in one PPP/organisation). Mr Anderson says that logistic services providers don't have confidence in rail based transport companies. This gap should be closed. Mr Foyer reacts that coping with mistrust takes long time and much efforts, but that having trust will be repaid in the end. However, the industry doesn't talk with other parties sufficiently. Mr Anderson remarks that partnerships are actually now arising in the UK. Mr Mortimer says that rail has fundamental problem due to the low quality and high cost of railway products. If this is the case, why should road transport operators compromise and change? Rail should be better than road and rail should increase market share by means of improving its own products and services at a lower cost level.

Mr Anderson remarks that urban freight transport is getting more and more difficult. Consolidating loads is therefore already taking place. On other hand more frequent deliveries are introduced (e.g. by books shops with low stock). He raises the question “how can rail fit into this?”. Mr Foyer remarks that railway companies are hard to involve and are reluctant to be member of a group working together on solutions. It is a challenge to change their attitude. Mr Huschebeck asks “who has to be involved at the interface of long haul transport and city distribution?” Mr Foyer answers that the end of rail is owned by long distance rail operators, therefore these kind of parties have to be involved in any case. Mr Wild remarks that there is increasing congestion on road which causes increasing unreliability of the road transport operation is there a possibility that rail could step in from this perspective? Mr Mortimer says that a fundamental question in the rail business is a bad perception and uncertainty about the railway products. Mr Anderson adds that rail is far less flexible compared to the truck. Mr Kutesko says that congestion will eventually spread. Mr Anderson indicates that the car ownership paid by the company might be the cause for congestion problem. Mr Hilditch says that rail is not suitable for every type of transport operation, one has to be selective where rail can be suitable. It is evident that at longer distances rail is better than road. Perhaps it is better for distribution to push it outside rush hours or to use a “white van” (common carrier). Mr Anderson reacts that time restrictions do the opposite, time windows makes the delivery process very complex. This is not understood by local authorities, they often haven’t sufficient knowledge about logistic processes.

Mr Foyer says that all dynamics should be brought together in one place. How to bring the people together working on a solution is the crucial question. This can bring the solution that fits to all the dynamics. Ms Glücker remarks that she doubts if there is one solution, it depends on the type of goods and specific circumstances. She has for instance doubts that in Karlsruhe the CarGo Tram can be employed due to capacity restrictions. She recommends that all available modes in the city should be used highly effective and efficient. Perhaps the combibox concept with clean city vehicles can be a promising approach. Big trucks are also possible, because they have the capacity to deliver high quantities of goods efficiently in the city.

Mr Anderson says there is not enough attention for innovative concepts/ solutions like tunnels and conveyors. Future city design isn’t taking these innovations into account. Mr Mortimer says that freight planning gets very low priority and attention. There is still an image that “freight is bad” but this perception threatens the local economy. Still low attention is paid to freight transport in urban transport planning. Mr Hilditch reacts that there are some examples of innovative thinking and integrated transport planning in the UK. Mr Bous remarks that in Amsterdam it is now only the second time that a city plan is made with freight transport integrated in it. However, involvement of market parties is required when doing this integration. Mr Foyer says that it is dangerous to second guess. One should know thoroughly the opinion of each interest group. Furthermore, the creation of trust among each other is a problem that is not solved yet. Town planning is in general done quite remote from daily practise. It is not an easy job and second-guessing peoples opinion can cause much damage. Therefore one should be very careful.

Mr Wild asks in general which transports can be shifted from road to rail? Can hubs be accessed by rail? Mr Anderson says that operators plan their DC's and freight centres already in urban areas, which is already efficient. This decreases the traffic movements in urban areas. Mr Hilditch says that it is the question who wants to pay for a rail link? Logistic companies are currently interested in big distribution centres near motorways and don't take other alternatives into account very much. These big logistics sites hide the opportunity for rail based transport.

Mr Mortimer asks about the role of the EC in this respect? Mr Wild says that the EC doesn't have a direct influence on local aspects. They can only influence local initiatives and decision making by providing subsidies like now is happening within the CIVITAS initiative. Some people also use the results of TN BESTUFS and apply the recommended solutions and approaches on city level, therefore BESTUFS should provide suggestions and best practises. Mr Hilditch says that BESTUFS should be speaking also at conferences. Mr Mortimer remarks that perhaps the European Commission can push railway operators to pay more attention to the interfaces with urban freight transport and urban rail.

Mr Dietrich asks what cities have to do with locations connected to rail but which are not used currently, there comes no answer from the local transport sector. Mr Hilditch says that partners should be found who are interested in the accessibility of your city. Mr Anderson recommends to keep these strategic locations flexible by not allowing the establishment of heavy infrastructure but only building of light infrastructure. Foreseen future problems with transport (congestion) should prevent local authorities from allowing the building of offices and then loosing the sites forever. Mr Foyer recommends to keep the sites preserved until the political will is there to get rail access. There should be no more industry areas planned and build without rail access. Mr Hilditch says that the sites have to stay in public ownership, otherwise private parties will use it for other purposes. Mr Mortimer adds that rail operators should attract businesses at rail accessed locations to feed that location. Furthermore perhaps an integration with passenger and freight is possible. Mr Wild remarks that this depends on the available capacity. Next he says that land use dedicated to railways is an issue but that it is not clear how to proceed. It is difficult to form clear conclusions. Two issues that are mentioned are education and Public Private Partnerships (PPP). PPP will be the subject for a future workshop within TN BESTUFS. Mr Wild says that the results of this 5th workshop will be send to all of the participants for comments. After an iterative process, the final outcome / statement will then be put on the BESTUFS web site.

### **Ad 7 "Round along the table"**

Mr Wild invites all participants to give a statement. The round along table starts at Mr Ruesch. Mr Ruesch says that there is no general answer. Possible solutions depend heavily on local framework conditions. One should analyse the options for the next 25 years. Initiatives should be taken by cities and the railway companies can become involved.

Mr Egger says it was shown in the workshop that there are controversial solutions and approaches. He remarks that there are many parties involved. This is already a big problem apart from technical difficulties.

Ms Glücker states that the CarGo Tram in Dresden is a very good initiative. (Public) Transport companies in other cities should be stimulated in order to find out whether this concept can also be useful for their city.

Mr Huschebeck says that the workshop showed that the subject rail is very complex. Therefore generic solutions are hard to find. What is left is the issue of common national regulations.

Mr Capka says that it is hard to generalise the conditions where rail can be a success. The feasibility of rail always depends on local conditions. Furthermore, the different parties should work more together.

Mr Pokurny says that he prefers to go further with freight traffic and green lorries.

Mr Hilditch states that the solution can be found by means of partnerships. In that case the solution will remain sustainable. More time for preparation and planning is needed. If Volkswagen wants to do the project with the CarGo Tram, perhaps in other cities a similar type of actor can be found.

Mr Quispel states that point-to-point relations such as one exists here in Dresden are hard to find in other cities. Therefore the success of a CarGo Tram in other European cities is doubtful. Regarding distribution by rail it concerns long projects, where there are currently many risks and high technological requirements. Transshipment systems have to be upgraded and speeded up and standardised load units are required. Furthermore a high level of co-operation between parties is needed. Also the level of environmental competitiveness is uncertain. Perhaps in 10 years from now the current problems are overcome due to new technologies (e.g. fuel cells) and the technology is there.

Mr Foyer expresses the importance of planning of land use. Both supply of goods and the transport systems for people in new downtown areas are not well arranged. A big potential might be regenerated by effective land use planning. It is also important to get the opinions of all involved parties, expertise. The process of creating plans and solutions is essential.

Mr Mortimer states that the railways have to go back to the fundamentals and have to reposition itself. Quality of railway products must first improve.

Mr Bous says that he learned new things during the workshop. Amsterdam is looking for interesting segments in the freight transport market. What he learned is that there should be contact between the city and the railway operator. Furthermore, there should be an efficient logistic service provider for the city as a whole and regulations should be adapted to good solutions. Also Amsterdam wants to influence the planning of new logistic parks at the edges of the city.

Mr Dietrich states that regeneration and land use is very important for transport. Problems should be identified and addressed. Furthermore it is important not to mix the type of usage of land too much.

Mr Wild thanks the participants for their attendance and contributions. He announces that the next workshop will take place on 8 and 9 November 2001 and will address the topic "(road) pricing and freight transport in urban areas". The workshop is closed.