



## Fourth BESTUFS Workshop,

*“Changing urban transport due to E-commerce and E-logistics”*

10<sup>th</sup> & 11<sup>th</sup> of May 2001, Chamber of Commerce,  
The Hague, The Netherlands.

### Participants of the workshop

Name of organisation / company	Name of participant
Advanced Railway Research Centre (ARRC)	Mr Phil Mortimer
Belgian Route Research Centre (BRRC)	Mr Johan Schepers
Centraal Boekhuis	Mr Johan Arnts
Certu	Mr Jean Thevenon
Danisch Road Directorate	Mr Ivar Schacke
Deutsche Post AG	Mr Peter Sonnabend
European Commission DG TREN	Mr Mark Major
Expertel Consulting	Mrs Isabelle Joinovici
GART	Mrs Laetitia Dablanc
Goederen Vervoer Randstad (GOVERA) / Provincie Zuid-Holland	Mr Gerard Wesselink
IVECO S.p.a.	Mr Marco Monticelli
MET - D312	Mrs Delphine Soquette
Municipality of Amsterdam	Mrs Esther van Kesteren
NEA Transport research and training B.V.	Dr Marcel Kleijn
NEA Transport research and training B.V.	Miss Sandra Pop
NEA Transport research and training B.V.	Mr Hans Visser
NEA Transport research and training B.V.	Mr Martin Quispel
Planung Transport Verkehr AG (PTV)	Dr Dieter Wild
Planung Transport Verkehr AG (PTV)	Mr Marcel Huschebeck
Polis	Mr Jerome Pourbaix
Railfast (UK) Limited	Mr David Gibson
Rapp AG Ingenieure + Planner	Miss Claudia Glücker
STRATEC	Mr Claude Rochey
Technical University Berlin	Mr Felix Kasiske
Transport & Travel Research Ltd (TTR)	Dr Alan Lewis
University of Sevilla	Mr Jesus Munuzuri
University of Westminster	Mr Stephen Anderson
UPS	Mr Jos Dujardin
Van Gend & Loos Euro Express	Mr Jean Paul Duurland



## **Agenda**

Chairman: Dr Dieter Wild, PTV AG

### **First Day: 10<sup>th</sup> of May 2001, Chamber of Commerce, The Hague**

#### **1. Introduction**

- a) Welcome and introduction by Dr Dieter Wild, PTV AG  
Structure and aims of the workshop
- b) Short self introduction by each participant

#### **2. New E-commerce in Europe: Examples from regions**

- a) Effects of E-commerce in Europe on Energy consumption in the Netherlands, Dr Marcel Kleijn, NEA Transport research and training
- b) B2C E-commerce in the Paris area, Mrs Laetitia Dablanc, GART
- c) E-commerce and Transport - trends, facts and uncertainties, Mr Ivar Schacke, Danish Road Directorate / Euro-CASE

#### **3. E-commerce: single sectors and operational planning**

- a) E-commerce and Logistics in the Grocery Sector: Results of a study in the UK, Dr Alan Lewis, Transport & Travel Research Ltd
- b) E-commerce and Trip planning, Dr Dieter Wild, PTV AG

#### **4. E-commerce: supply chain approach**

- a) SULOLOGTRA – Effects on Transport of Trends in Logistics and Supply Chain Management, Mr Felix Kasiske, Technical University Berlin

#### **5. Open discussion**

Open discussion of promising solutions and identification of good practices, major barriers and possible supporting initiatives. All workshop participants (including also participants without presentation) are asked to prepare a very short statement on their relation, experiences and prospect with regard to E-commerce.



**Second Day: 11<sup>th</sup> of May 2001, Chamber of Commerce, The Hague**

**6. Introduction Day 2**

**7. Logistic operators preparing for E-commerce: Concepts and Solutions**

- a) Logistic and E-commerce, how does it work in practice? Mr Jos Dujardin, UPS Europe.
- b) Joint statement by Mr Peter Sonnabend, Deutsche Post AG and Mr Jean Paul Duurland, Van Gend en Loos (VGL)

**8. New E-commerce in Europe: Examples from regions**

- a) E-commerce: opportunities and threats for logistic networks, Mr Gerard Wesselink, GOVERA / Provincie Zuid-Holland

**9. Group discussion**

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## **DAY 1**

### **Ad 1 'Introduction'**

The chairman, Mr Wild, opens the workshop and welcomes the participants, 29 people are present. He describes the goals, the approach and the current status of Thematic Network BESTUFS. There are two means to collect information on best practices in urban goods transport:

- by means of organising workshops which are focussed on themes
- by means of acquisition of information through members of the Thematic Network.

Next Mr Wild explains the focus of this 4th BESTUFS workshop. The goal is to get a first impression on what is going on in the field of E-commerce in urban distribution and to find out what the influence will be on urban transport, influence on public-side and on private-side.

The public side might be able to make more sustainable policy and take more suitable measures and these measures should not be conflicting with stakes and operations from the private side.

Mr Wild explains the structure of the workshop. Several participants will give a presentation (see BESTUFS agenda on page 2 and 3). After the presentations a discussion is planned in order to get a clear vision on what aspects or issues more attention should be paid on within the BESTUFS project. Mr Wild remarks that all relevant stakeholders groups are present at the workshop (research institutions, private operators and public organisations) and that these groups are also taken to structure the agenda/ sessions for this workshop that highlights the theme "changing urban transport due to E-commerce and E-logistics". Mr Wild says that he hopes that the workshop will be interesting for each participant. After the introduction by Mr Wild, the participants introduce themselves and explain their interest in Thematic Network BESTUFS.



### Ad 2 'New E-commerce in Europe: Examples from regions

a) *Effects of E-commerce in Europe on Energy consumption in the Netherlands, Dr Marcel Kleijn, NEA Transport research and training [Please see annex 1 for this presentation].*

Mr Kleijn from NEA presents the results of the study. He starts with a brief description of the background of the study. On behalf of Novem (the Dutch organisation for Energy and Environment) NEA and ECN (Energy Centre the Netherlands) conducted a study about the effects of different governmental policies on the energy consumption. An important policy aspect is the stimulation of use of ICT-applications to prevent transport movements. ICT-applications considered are: Telecommuting, Teleshopping, E-commerce, Videoconferencing, e-mail, Fleet management systems, Route navigation and Dynamic traffic management. An overview of the types of effect considered is given in the presentation divided in:

- Substitution (avoiding transport due to ICT);
- Efficiency (better use of capacity and infrastructure);
- Generation (more transport due to ICT).

The presentation focuses on the impact of teleshopping (B2C) and E-commerce (B2B) on transport patterns. Due to E-commerce, products may be going from the factory straight to the customers. An alternative is that the delivery of the products will go via a distribution centre (DC). Trucks will bring these products to the customers by doing round trips. However such a transport pattern requires a high volume of goods in the system. If this volume is available, then E-commerce related transport can be more efficient than in the traditional situation and this may save mileage. However consumers will probably use their private car (in stead of shopping activities) more for other purposes (leisure / visits to family and friends). This possibly can decrease the initial positive effects for energy and environment due to more efficient goods transport to the customer. Therefore it is difficult to predict what the overall effect of energy consumption of E-commerce related transport processes will be.

#### *Questions/discussion*

Mr Sonnabend remarks that when looking at energy consumption concerning positive and negative effects, there is mentioned a reduction in transport. However in the presentation there is indicated that more transport, more drop-offs etc will be the result. Mr Kleijn answers that in case more volume is available (less than) truckloads can be combined into larger extent. However this requires a lot of people buying via the Internet. At high volumes to be delivered in an area home shopping can improve the efficiency of (B2C) transports. Mrs Dablanc asks whether food products are taken into account specifically. Mr Kleijn says that no specific flows of goods have been analysed. It has been a rather general study. Mr Schacke remarks that there is a trade-off of volume and speed. Mr Kleijn reacts that there is only looked at this aspect on an abstract level (influence of traffic jams). Mr Monticelli asks how the results are achieved. Mr Kleijn answers that there has been a review on the available literature and that expert's opinions are processed.



Mr Major raises the question why the quick deliveries are necessary in E-commerce. Mr Mortimer answers that the customer's expectations are too high and that the media pushes the demand and expectations regarding quick deliveries. Mr Kasiske remarks that when people buy something on the Internet, they expect that they will receive the product as soon as possible (the next day). The reason for this expectation is that people want to be able to use the product directly after they ordered (or even paid for) the product. Mr Major agrees, customers do not want to wait for a long time for their product.

Mr Sonnabend remarks that the increasing number of drops requires more (parking) space to unload and deliver the product. Clever management is therefore required from city authorities. The need for parking and road space is the problem that occurs at E-commerce. Ms Glücker remarks that the transport costs for the customer should be made time dependent, the customer should be made aware of the delivery costs. It could be possible to link the price to the lead-time of the delivery, highest price for same-day delivery, etc.. Mr Sonnabend remarks that this is already practice at Deutsche Post.

*b) B2C E-commerce in the Paris area, by Mrs Laetitia Dablanc, GART*

*In the next month the results of the survey will become available (in French language only).*

Mrs Dablanc explains that the results of the survey in Paris are not released yet and results are currently confidential. The report will become publicly available in June<sup>1</sup>.

In Paris 1200 households were surveyed on their home delivery behaviour. Two parts were distinguished: food and non-food products. Home deliveries can result of buying by means of E-commerce (B2C) but in the majority it results of the buyer going to a shop to choose the products and pays for it and subsequently lets the products be delivered at home. A lot of supermarkets in Paris offer this home delivery service. Transport is in most cases subcontracted. The impact on city level is:

- More vans and less cars? Or more vans and more cars?
- Need to review time-windows for deliveries;
- Need to help develop local delivery depots in dense commercial and residential areas;
- Greatest expectations are on:
  - food products' home deliveries from physical shops;
  - small retailers' home delivery services.

In Paris, local delivery stores are being established in the city centres and from there customers can pick up their packages at the time that is convenient for them. Also other community services are offered in these delivery stores. Because these delivery stores are located in the city centres, time schedule regulations have to be made for the transport.

*Questions/remarks*

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<sup>1</sup> Therefore the presentation of Mrs Dablanc (GART) isn't added to these minutes and (detailed) results of the survey are not given



Mrs van Kesteren asks how the depots are financed. Mrs Dablanc answers that now teleshopping companies pay for the depots themselves. In future partnerships will arise. Mr Mortimer says that some decades ago the shops also came at home (mobile shops) and a full cycle is now observable. Mrs Dablanc says that only about 30% of the households will be a potential market for (B2C) E-commerce and that the survey is very interesting due to the new facts. Mr Lewis remarks that governments should be interested in the developments but that the scale of home delivery needs to be mass first, before the governments should be really have to become active in this field.

Mr Monticelli asks about the time regulations. Mrs Dablanc says that all cities are now aware that they do have to adapt the time regulations. Mr Wild adds that this will depend on the vehicle size. Ms Glücker remarks that small containers perhaps can be used in this market. Mr Mortimer says that there will be a security problem and Mr Kasiske adds that also conditioned products can be hard to cope with by using small containers. Mr Major remarks that the development of local community services are interesting. Mrs van Kesteren asks what the typical size is of such a depot is and where the depots are located. Mrs Dablanc answers that the depots are located close to the city centre and commercial streets, easy access is essential. Mr Huschebeck raises the question how transport patterns are influenced (less in centres, more in residential areas / suburbs?). Mrs Dablanc answers that offering more options will result in more transport activities as a whole.

*c) Expected Changes in Transport: E-commerce and Transport - trends, facts and uncertainties, by Mr Ivar Schacke, Danish Road Directorate / Euro-CASE [Please see annex 2 for this presentation].*

The study on freight logistics and transport systems in Europe was carried out by Euro-CASE in 1999-2000. The objectives of the study are to:

- Improve understanding of the opportunities for improving freight logistics and transport in Europe;
- To identify obstacles to change;
- To recommend to the EC and national governments measures that lie within the competence which would enhance the competitiveness of European industry and services in an environmentally sustainable way.

The study concentrated on 3 sectors: retailing, pharmaceuticals and automotive, accounting for around 20-25% of Europe's GDP. The study only partially dealt with E-commerce, but did indicate some trends and facts on E-commerce as well as the uncertainties in this market. Mr Schacke points out that other factors than E-commerce may have a bigger influence on transport development. He continues describing the two major trends in the European supply chains. These are (1) from "push" to "pull" economies (i.e. increased customer orientation) and (2) concentration of manufacturing plants and fewer but larger downstream warehousing. The share of transport costs has dropped from 14.3% in 1970 to 6.8% in 2003.

E-commerce is developing (1) between manufactures and retailers (saves transaction costs and improves consumer response procedures) and (2) through direct sales to consumers via TV shopping



and Internet. Direct sales to consumers via Internet is expected to grow from approximately 1% of sales in 1998 to 5-10% of sales in 2003. There are converging trends between different forms of retailing: hypermarkets begin to offer home deliveries based on electronic ordering and on the other side Internet suppliers are establishing display centres to show their goods. The warehousing location becomes less important; replenishment centres can be located at any place that has good access to transport facilities. This development will result in a significant growth of road traffic. E-commerce is supposed to promote outsourcing of logistical activities and an almost exclusively usage of road transport.

The influence of E-commerce on transport will further be that:

- E-commerce eliminates some journeys by allowing certain products to be downloaded electronically (books, music, etc.)
- E-commerce replaces some passenger trips (for shopping) with freight trips
- E-commerce promotes rationalisation of home deliveries as common-carrier parcel firms undertake multiple drops and service several companies
- E-commerce may lead to use of local collection/ delivery points (e.g. post offices, petrol stations or shopping centres) avoiding door-to-door deliveries.

There are some barriers though to e-trade. There is no agreement on EDI standards. Furthermore there are problems with the security and (un)certainly of electronic payments. There are also restrictions on driving hours in most countries which cause problems to deliver the products in time.

The main conclusion is that E-commerce may cause a revolution in retailing logistics, but the precise impact of E-commerce on transport is uncertain. However it is a widespread belief that E-commerce will increase the total number of vehicle movements.

The recommendation of Euro-Case to the European Commission is to promote research into logistics and transport requirements of E-commerce and to monitor rapidly the changing situation. This in order to be able to anticipate quickly by producing policies that effectively respond to developments in the transport market caused by E-commerce.

### *Questions / remarks*

Mr Duurland remarks that different definitions are used for E-commerce and he asks about the change that is predicted. Will there be a real change or just a shift in selling/ ordering channel? Mr Schacke says that all changes are estimated on average and that also shifts in channel are included. Mr Gibson tells that 10% of the high-tech goods are stolen, and asks how this affects the service level to the customers. Mr Schacke answers that this aspect wasn't addressed in the study. Furthermore, Mr Schacke says that the measuring of tonne kilometres is old-fashioned. In order to assess logistical aspects a transport value related measuring should be applied. Another conclusion of this study is that the level of service has become more important than the price.

Mr Mortimer remarks that Thematic Networks THEMIS and BESTUFS should be exchanging information and says that governments should develop policy for depots where goods purchased by means of teleshopping can be picked up by customers.



### **Ad 3 'E-commerce: single sectors and operational planning**

d) *E-commerce and Logistics in the Grocery Sector: Results of a study in the UK, Mr Alan Lewis, Transport & Travel Research Ltd. [Please see annex 3 for this presentation].*

Mr Lewis picked out some issues that are related to E-commerce and E-logistics. The objectives of the study have been:

- Establish form of E-commerce grocery distribution models in UK;
- Investigate influencing factors on home delivery break even point;
- Comparison of industry expectations of demand with national scenarios;
- Review reaction of other market sectors and establish research needs.

There are two current distribution models: a store based picking model (through e-mail/ internet or phone fax the customer gives an order, the call centre gives this order to the store and they bring it to the customer) and the other model is the dedicated picking centre model (again the order reaches the call centre, the call centre gives the order to the order picking centre, trucks will bring the orders to the local van centre which delivers the order to the customer). Both models lead to increased distance travelled by vehicles. In the future it may be that there will be a development of mixed picking centres, central picking and local cross docking. Workplace-, unattended deliveries and order tracking will develop as well. Because of the development of distribution centres in the cities the delivery efficiency increases. By means of collaboration more potential will be offered on delivery rounds thus creating higher efficiency.

#### *Questions / remarks*

Mr Gibson asks how the access to delivery boxes can be controlled and how is dealt with products that need to be conditioned. Mr Duurland explains that usually the access is controlled by means of barcodes. Furthermore there are developed now types of home delivery boxes with three layers, each layer for a different condition (frozen, cooled, non-cooled). Mr Huschebeck mentions that it is important that everyone uses the same definition for E-commerce, because he already heard several different definitions today. Furthermore Mr Huschebeck asks if home deliveries include all home shopping activities. Mr Lewis answers that E-commerce is seen here as commerce related to new technologies such as digital television, Internet and 3rd generation mobile telecom.

Mr Major asks if return loads such as waste are included in the study. Mr Lewis answers that this is not the case. Mr Anderson adds that already systems are developed that facilitate the recycling of material (e.g. package). Mr Monticelli raises the question how the temperature is controlled during transport. Mr Lewis says that insulated boxes are used. Mr Sonnabend remarks that in this way a new logistic cycle is introduced. Due to a question of Mr Mortimer, Mr Lewis explains that the 24 hour economy and 24 hours open shop suit to the concept of shelf picking because this activity can then take place during the



off-peak hours when few customer are in the shop. Mr Kasiske adds that the return logistics are very important to consider due to policy that aims for recycling of package material.

e) *E-commerce and Trip Planning, by Mr Dieter Wild, PTV AG.*

*[Please see annex 4 for this presentation].*

Mr Wild is concentrating his presentation on the B2C market. Trip planning is necessary, when delivery via post-box is not possible (e.g. at delivery of valuable goods). In these cases there will be a delivery via own transport fleet or forwarding agent. There are three variants of trip planning:

- Trip planning with announcement;
- On-line trip planning;
- Ex-post trip planning (the highest level of service).

Depending on the delivery time windows offered to the customer the time of delivery, the number of trips and the number of (fully loaded) trucks in use are influenced. Three stages in trip planning are important: Pre-planning, the Planning server (hosting of the data) and Post-optimisation.

First stage is calculation of frame trip-plan, request via Internet, what is the delivery location and what is the wished time of delivery. In pre-planning a generation of virtual stops on the basis of social demographic data is made. The results are input for the trip-planning module. The planning server is matching the on-line-requests with frame trip-plans, and then the server gives a confirmation of the delivery time in minutes. The result is using the full potential for trip optimisation, taking into account the determined delivery slots. One of the conclusions is that making a www-presentation for a shop on the Internet is not the problem, however the physical transport needs much attention. The cost-effectiveness of the transports triggered by E-commerce is (on short and middle perspective) an area of conflict in relation to the level of service. It is needed to observe alternative concepts and their acceptance (e.g. the delivery to refrigerated boxes at gasoline stations).

### *Questions / remarks*

Mr Major asks how representative the results used in the presentation are. Mr Wild answers that the data are coming form a real case (practice). Mr Sonnabend adds that the presented results are indeed similar to a single-node system in practice. Mr Schacke asks if traffic information is taken into account in the PTV trip-planner. Mr Wild says that this feature is under development. There is however a possibility that the user can adjust the initial situation. E.g. the drivers know the points where it is always busy, therefore travel times can be adjusted by transport companies. Mr Monticelli asks if an algorithm is used on the social demographic data. Mr Wild says that this is indeed the case. Mr Sonnabend says that already the large companies (like Deutsche Post, UPS) use highly sophisticated planning tools. He indicates that Deutsche Post also experiences peaks in demand for the delivery time in late afternoon / early evening. Mr Sonnabend asks if the model can react on short-term demand / changes. Mr Wild says that this is not possible yet but that it is also under development.

### **Ad 4 'E-commerce: supply chain approach'**



- a) *SULOGTRA – Effects on Transport of Trends in Logistics and Supply Chain Management, by Mr Felix Kasiske, Technical University of Berlin. [Please see annex 5 for this presentation].*

Mr Kasiske starts with an introduction of the EC funded project SULOGTRA. It runs under Key Action 2: Sustainable Mobility and Intermodality and has a duration of 24 months (1/00 - 12/01). The overall objectives are the following: (1) promoting supply chain integration at EU level, (2) provide industry with supply chain trends, performance measurement (such as benchmarking tools) and supply chain optimisation/ improvement and (3) identify policy implications. Four different segments in E-Business are distinguished: (1) Vertical B2B Marketplaces - Supply Chain Portals, (2) B2C - Home Delivery, (3) Horizontal B2B Market places and (4) B2B - Platforms for Logistics. Furthermore the trends in supply chains, freight transport efficiency indicators and the trends and developments for some industrial markets are presented.

### *Questions / remarks*

Mr Schacke asks how SME (Small and Medium Enterprises) will develop. Mr Kasiske answers that SME have to accept and adapt since they have limited choice. Mr Schacke remarks that more support should be given to SME to help them solving their logistical problems. Mr Gibson asks if congestion is taken into account in the estimation of trends and developments. Mr Kasiske answers that the traffic situation is not taken into account. Mr Major finally remarks that all reports on the Work Packages will be publicly available.

### **Ad 5 Open discussion**

Mr Major raises the point that the needs of SME have to be taken into account and raises the question what can be done for the SME, how this can be picked up. Mr Huschebeck asks for clarification of the term "SME". Mr Schacke clarifies that small and medium retail companies are meant. Mr Major says that it is necessary to reach them and know their needs, but it is hard to reach those companies due to their lack of capacity to work and invest in these kind of activities. Mr Schacke says that SME really need assistance. Large companies already have the knowledge and capacity to tune and optimise the logistics. Mr Sonnabend remarks that Small and Medium Enterprises are often just a part of the supply chain and a part doesn't control the whole chain. Only in specific branches the SME can control a full supply chain. It is the full supply chain that needs standard regulations, not 3rd parties introduced by individual cities.

Mr Wild asks about the difference between North and South Europe and says that maybe there has to be looked more to the northern countries and less to the Southern countries in Europe. Mr Schacke says that what has been discussed today is not valid for every country. The situation is not the same all over Europe. In the Northern part of Europe the bigger, more advanced and well-structured companies, can be found.



Mr Munizuri says that in indeed in Spain E-commerce has barely been born, the figures regarding in E-commerce in Spain show very low market share. He explains that the Southern people want to feel what they are buying and that in Spain there also is a social aspect in buying (meeting with friends, drinking coffee etc). E-commerce doesn't match to the expectations related to TV shopping at all. Mr Monticelli adds that Italy and Spain are characterised by a very fragmented situation but that there is a trend to consolidation (as described in report distributed earlier in TN BESTUFS). He thinks that the differences between Northern and Southern Europe will decline in the future. Mr Wild adds that it is a fact that there are differences. There are not only differences between the North and the South of Europe but also between different countries within the Northern or Southern part of Europe.



## DAY 2

### Ad 6 'Introduction Day 2'

The chairman, Mr Wild, opens the 2<sup>nd</sup> day of the workshop and welcomes the participants. He gives a short summary of the previous day. He states that the 2<sup>nd</sup> day will focus more on B2C solutions. He points out that customers determine the delivery structure. More transport is expected due to both (private) shopping and home delivery. Also there needs to be looked at time-windows and depots. Furthermore parking areas and (un)loading zones are important issues in order to prevent blockage of roads and traffic jams.

### Ad 7 'Logistic Operators preparing for E-commerce: Concepts and Solutions'

- a) *"Logistic and E-commerce, how does it work in practice?" by Mr Jos Dujardin, UPS Europe.*  
*[Please see annex 6 for this presentation]*

First a short overview is given of the company UPS. Subsequently an introduction on the topic of E-logistics, B2B and B2C logistics is given. The definition of E-logistics of UPS is: "the design and implementation of inventory, warehouse and transportation management processes using electronic business applications and integrated systems as a competitive enabler for customers". The megatrends are: globalisation, technology and customer needs. Technology is changing from specific and customised stand-alone applications into integrated web based ASP solutions for global usage and multiple clients. Also parcel logistics is changing: smaller shipments, higher frequencies, changing package flows, more time-sensitivity, crossing national borders and more shipments to consumers. Due to the changes the processes become more information rich.

The B2C challenges lie in the fact that over 40% of internet users state cost of delivery as a major deterrent to shopping online, furthermore the "customer not at home syndrome" has to be solved and return hassles are a major inhibitor. The B2C requirements are not met by current solutions. UPS and Texaco have developed a solution called "Relaystar". UPS can make use the Texaco fuel stations that serve as a dropping point for UPS packages to be picked up by customers. The packages are tracked and traced during transport. Communication with the customer goes mainly by means of e-mail. Due to the fact that Texaco has a good coverage of fuel stations and fuel stations have large opening hours the efforts of customer and transport operator are balanced. The advantages of "Relaystar" are that it is an added alternative at low costs, products can be returned easily, Texaco is a trusted brand and company and refuelling the car is an activity most consumers need to do anyway in their daily or weekly activity. This solution also solves the "customer not at home" syndrome logistic operators experience. It tackles the B2C problems by using B2B logistics.

*Questions / remarks*



Mrs Dablanc asks which industries are using the “Relaystar” solution. Mr Dujardin answers that especially the spare part industry is interested. Mr Monticelli asks how small retailers can be treated in the system. Mr Dujardin says that only some technical problems could occur (concerning the API system) when connecting them. Mrs Dablanc asks what is done with users without a car. Mr Dujardin says that for this group of people only the home delivery is available, no other alternative is available yet. Mr Mortimer asks what is done with packages at Texaco that are not being picked up by customers. Mr Dujardin answers that such a situation didn't occur yet. Ms Glöcker asks if the solution is seen as B2B or B2C. Mr Dujardin explains that it is B2B because the shipper (Redcorp) pays UPS.

Mr Major asks about the opinion of Texaco on this solution. Mr Dujardin answers that Texaco wants to receive more packages and thus are enthusiastic about it. Mr Schacke raises the question how damaged and unaccepted goods are treated. Mr Dujardin explains that customers can return these goods at Texaco again. This however causes more work for the Texaco employees. Mr Monticelli asks about the difference between B2C and B2B for Texaco? Mr Dujardin tells that the difference lies in between 20 to 40 percent. Mr Visser raises the question how the retail industry thinks about this. Mr Dujardin says that the Internet company “BOL.com” is thrilled with the Relaystar solution due to high customer satisfaction and reduced costs for delivery. Mr Kasiske asks about in what stages the Relaystar solution can be introduced into other EU areas. Mr Dujardin answers that first the system is tested for the Benelux and that the next step is to test it in the UK, where more volume (packages) will have to be dealt with. Subsequently, extension plans for further Europe will come up. Mr Gibson asks how other products can be delivered directly to petrol stations (e.g. regular food products). Mr Dujardin says that this is now difficult due to incompatibility of the dedicated IT/ scanner systems of individual retailers.

*b) Short presentations by Mr Peter Sonnabend, Deutsche Post AG and Jean Paul Duurland, Van Gend en Loos [Please see annex 7 and 8 for these presentations]*

Mr Sonnabend and Mr Duurland give a shared presentation. Mr Sonnabend starts the presentation. He presents the Deutsche Post World Net Corporation and Euro Express (European parcel network). The corporate strategy on E-business is: utilisation of modern information technology potentials, integration of supply chain management, global networking of business processes and improved worldwide access to goods and services. The E-business development at DPWN follows three principal lines: (1) ‘digitising’ of classic postal and logistics products, (2) internet-based internal services and processes and (3) new internet services for business and private customers.

The E-business impact on logistics is:

- E-business induces (new) trends and constraints for logistics (smaller orders at higher frequency, i.e. more drop-off stops, smaller item size as compared with classic products, reduced transit times for B2B and B2C products, demand for pre-arranged pick-up and delivery, demand for online status information);
- E-business favours use of smaller vehicles in distribution (< 3.5 tons);



- E-business mandates increased use of freight and transport telematics;
- E-business triggers (new) concepts for pick-up and delivery.

Next Mr Duurland continues (see annex 8). First he introduces the VGL company. In his presentation he gives an overview on: trends in eLogistics, bottlenecks in the B2C market and solutions for the B2C market. The following external trends have been facilitated and accelerated by the emergence of new technologies:

- Trends influencing the way the market operates (increased technical experience, drive for cost reduction, efficiency and transparency, consolidation of buying power and increased offering information services)
- Trends influencing the way companies do business with their customers (AAA principal (push vs. pull), personalisation of relation between buyer and seller (1 to 1), the customer determines the interaction (alternative services), shift in channelling (B2B/B2C), increase of two persons house holds and extension of types of products.

The problems in B2C are:

- One stop shopping: B2B/ B2C (pick-up and delivery)
- Cash on delivery and PIN (Credit card issues penetration 50% / 50% is afraid of fraud)
- Return shipments/ packaging
- Customers want to be able to see and touch products and lack of confidence in online merchants
- Consumer needs to be at home to receive the package. The courier has to call into the consumer on avg. 2.5 times in order to deliver the package. (60% 1st attempt; 90% 2nd attempt). For the consumer this means inconvenience and a decrease in speed of delivery
- For the carrier it means increased cost of delivery and high cost of shipping (last mile)
- Shift from push to pull (more tight time frames)

There are several solutions for B2C:

- For home delivery: untimed delivery, time-slot delivery, courier delivery and neighbour acceptance
- B2 Employee (B2E): fixed boxes and office delivery
- B2 Lockerpoint (B2L): fixed boxes, convenience stores
- B2 Outlet (B2O): post offices, gas stations, convenience stores

These all are supplier driven (top-down).

If there is looked at the consumer business and the high-density areas, one can see that the E-commerce in the last two years, the B2B and the B2C has increased (only Internet activities). Depots can be a good solution for carrying out the delivery. Criteria for an outlet for deliveries of electronically purchased products are a well accessible place with long opening hours and payment facilities where help is offered.

### *Questions / remarks and panel discussion with operators*

Mr Schacke raises the question if it can be a solution to use alternative fuels and what the influence can be of the government. It is answered that the government's influence can be to stimulate city vehicles on



LPG that might be more environmental friendly. Regarding alternative fuels, there hasn't been a big breakthrough even not with LPG. Mr Schacke also asks how the intercity transport is done. Mr Dujardin explains that intercity transport is done with feeders (large trucks/ trailers). Mr Sonnabend adds that rail is only used during weekends for intercity transport due to the non-driving regulation for trucks on Sundays in Germany. A test is going on at the moment with DB Cargo in Germany to use rail on a particular route for main haulage (during the week). The difficulty is that Deutsche Post has to take over the risk of the whole capacity of the train (not just one or a few wagons) and therefore needs to use the train's capacity completely to run economically. About the clean vans Mr Sonnabend explains that there is a project in Köln and also the European funded ELCIDIS project [see results of 3rd BESTUFS workshop]. However, the automotive industry hasn't developed yet an alternative engine type that is cost neutral compared to the traditional diesel and petrol engines. An important reason for this is that the current transport policy doesn't support green transport sufficiently. Pilot projects show that the technology for alternative drive trains is available and operational but the innovative vehicles are currently far too expensive to be competitive on a commercial market environment.

Mr Wesselink asks if there is a difference between the type of goods transported in B2C and B2B chains. It is answered that only parcels are transported by the transport operators (VGL, UPS and Deutsche Post). As long as the goods are properly packed (capable for automated belt) it is transported. Mr Monticelli asks what the expectations with respect to city policy in the future. The operators think that the regulations will become more strict, like limited time windows for city distribution, fuel regulation and the way to come into the city. Unacceptable solutions for the operators are solutions that only concern one city logistics provider. All regulations need to be equal and not discriminatory. Mr Sonnabend explains that there are problems in La Rochelle with city logistics. He thinks that it is necessary that policy makers should give priority to important commercial road users, especially concerning the allocation of road space. Mr Wild adds that cities should make a clear statement. On the one hand they want to limited traffic but on the other hand they also want to be delivered with goods. This can be contradicting within the city policy.

a) *E-commerce: opportunities and threats for logistic networks, by Mr Gerard Wesselink, Govera / Provincie Zuid-Holland*

Mr Wesselink explains that there are environmental problems in the Randstad region. He explains that the approach of GOVERA is stimulation of companies working together, and using each other's logistic infrastructures. GOVERA also facilitates by means of spatial planning (e.g. logistic parks, and support for set-up of intermodal terminals) and provides advises. Also cities should harmonise time windows. Furthermore co-operation between cities and companies is required. Actors should to think together about solutions and find the real problem owner (customer). The actors in the transport chain have to be made aware of the implications of behaviour. E.g. currently most shopkeepers in The Netherlands open their shops rather late in the morning (10 am) and cause problems for the transport operator regarding the delivery due to tight time frames in the inner city.



### *Questions / remarks*

Mr Sonnabend reacts that there already is a balance between costs and quality for customers. Road pricing will result in higher costs and therefore support co-operation. This might be an option. Furthermore, combined pick up of parcels and mail is thinkable but not possible in cities. Customers require a delivery of 24-hours a day even for small consignments. Mr Duurland says that bundled transport could be the solution when customers have a delivery box at home. Then it can regularly be filled by means of combined transport. However, the problems are: Who pays for this box? Who consolidates? Who is responsible?

Mr Monticelli says that the sensitivity of transport demand on transport costs is very low. Therefore, cost measures will not lead to a significant reduction in road freight transport. Mr Sonnabend asks in general what is offered to transport companies for slots that are paid for. Mr Wesselink explains that priorities are now being developed: dedicated lanes for busses can now also be used for goods transport in some cities in The Netherlands. Shop keepers and consumers are also made aware of transport problems.

Mr Visser remarks that hauliers favour the introduction of road pricing because they expect (after introduction of road pricing) to get more road space on the road. Because private cars will avoid expensive peak hours they expect less traffic jams resulting in a productivity gain for commercial traffic. Apparently they believe that road pricing would generate a net benefit for the transport industry. Mr Wesselink reacts that he doesn't think the road will become less crowded after the introduction of road pricing. He believes that people will not change their behaviour and just keep using the roads, as they would do without road pricing. Mr Dujardin adds that there is a low elasticity on fuel price. It can be seen that during record high fuel prices, the usage of cars doesn't seem to be (relatively) decreasing. Mr Anderson says that the success of road pricing depends on the way it is used.

Mr Huschebeck remarks that more traffic on the road is expected, and asks what can be done with E-commerce. Mr Wesselink explains that E-commerce doesn't seem to be a big booming business as was thought recently. However it is taken into account in policy but currently goods transport is not a high priority for the government. Mr Wesselink furthermore says that a study shows that shops are going to settle out of the city centre and more in the ring of the centre and that more "fun shops" are being located in the city centre. Mr Wild remarks that if time-windows become tighter, it produces negative effects. Mr Wesselink reacts that now policy is made on pick-off delivery. Mr Visser raises the point that operators should charge extra costs if there has to be a delivery under small time windows. Mr Dujardin says that UPS already uses such kind of differentiated prices. Mr Wild finally remarked that it was good to have an administration actively participating and presenting.



### **Ad 8 Group discussion**

Mr Wild invites the participants to give statements on this theme (although there is little time left for discussion).

Mr Roche indicates that there is a freight mobility plan for Brussels. A study proved that the existing system is efficient with small vehicles owned by retailers not wholesalers. However there is a parking problem in Brussels. Double parking causes blockage of streets and urban planning measures can offer the solution. He wants support for an interchange depot (warehouse) where SME can have access.

Mr Dujardin says that he expects that if prices for road use will increase, small companies with private vehicles will disappear and this will provide extra volume to the professional operators. This will result into a more efficient operation.

Mr Monticelli remarks that B2B has an 80% market share and B2C the remaining 20%. However, everybody is speaking about B2C. B2B already showed gain of efficiency. He thinks that maybe a new workshop focussed on B2B experiences should be held. The Texaco-UPS co-operation is a good example of shifting B2C to B2B. Concerning vehicle technologies, there are problems in making alternative vehicles spread in the market. Natural gas vehicles are for example available, but the fuel distribution network is too weak. Public policies are therefore necessary to help the operators to catch the opportunities made available by the technology developments. Another example concerns the low- or free sulphur fuels (especially diesel) . In general the cost effectiveness of measures has to be taken into account. Mr Wild explains that there have been internal discussions about B2B and B2C. There were doubts if B2B significantly affects urban areas. However the idea of a workshop focussed on B2B will be kept in mind.

Mrs Dablanc remarks that she wants to focus more on direct professional delivery to customer. Mr Kasiske says that shifting B2C to B2B isn't that easy because it influences traffic patterns of customers. Mr Sonnabend remarks that road pricing can be the solution to change "bad" customer behaviour. In this way the customer will be more aware of the actual costs and can raise his own efficiency. Mr Gibson remarks that local solutions can cause additional or more severe problems in other areas. A trade-off or compromises have to be found. Perhaps a future workshop should be focussed on these interrelationships.

Mr Schacke says that there should be looked at the customer. Car ownership is low in urban areas. This should be taken into account when speaking about solutions in the B2C segment. His second remark is that there should be a common definition and list of abbreviations. A common view is needed. Furthermore, introduction of road pricing in Stockholm showed no shift in car use. Only parking regulations are really effective (customers will adapt their behaviour quickly due to parking pricing/regulations). Mrs Dablanc says that some French cities are already taking measures on this field. Mr



## Minutes fourth workshop

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Schacke also indicates that the growth of the economy will continue. Therefore something will have to be done about the current infrastructure. Mr Wild explains that the spatial structures have changed little but that the speed of movements has strongly increased the past decades.

Mr Wild thanks everybody for participating and the good and open discussions. The minutes will become available at the Bestufs web site. The next Bestufs workshop will take place on 30 and 31 August 2001 (the theme is "Rail based transport: A disappearing opportunity or a challenge for urban areas?"). Also a workshop is planned on 8 and 9 November 2001 and this workshop will address the theme "(urban) road pricing". Mr Wild especially thanks Mr Wesselink of the Provincie Zuid-Holland / GOVERA for the hospitality and for arranging the room, the additional facilities and paying for the lunches and catering. The workshop is closed.