

# **C-LIEGE - Clean Last mile transport and logistics management for smart and efficient local Governments in Europe**

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**OUTPUT n. 3.2**

**PILOT FACT SHEET: Szczecin City / Poland**

**Dissemination level: PUBLIC**

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**Work package n. 3**

**Version:** Final

**Date of preparation:** 31/05/2012

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**Grant Agreement n. IEE/10/154/SI2.589407 – C-LIEGE**

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## **1. General description of the city**

### **1.1. Description of the city**

Szczecin is located in North West Poland on the Baltic Sea. It is the capital of the Zachodniopomorskie region, adjacent to the border with Germany. The urban area covers 300.8 km<sup>2</sup>, an average population density of 1350 inhabitants per square kilometre. The number of inhabitants is 406, 000 (2010) thousand.

The city has developed in an arc around the port and waterside areas. The historic city centre has developed a series of lower density residential areas in recent years, around denser inner districts of apartment blocks.

The master plan for the city covers the period 2004 to 2013. The main targets of the plan and policy incorporate environmental protection; improved road safety and security; and improved quality of public transport.

The city adopted general guideline principles and priorities on transport policy direction from 2006, and the public transport development plan up to 2015 was passed in 2010, recognising the importance of the environment, safety and security in any future mobility in the city. Szczecin has been typical of many Eastern European cities in the post-communist period.

After 1989, there was a very rapid increase in car ownership, and this growth has continued after 2000. The growth in car ownership was supplanted onto an extensive public transport network of electric trams and diesel powered bus lines. Szczecin has about 784 km of roads, and private cars are now the dominant mode of mobility.

In 2006, there were 425 vehicles per 1000 inhabitants. By 2009 this had grown to 568 vehicles per 1000 inhabitants - a 34% increase in 4 years.

Szczecin has extensive public transport networks: 96 kilometres of tram lines (47 routes), and 588 kilometres of bus lines (287 routes). Despite this difference, bus passenger numbers are only 22% higher than tram passenger numbers due to the need for bus routes to serve the

newer, lower density areas of the city. As for land use planning, there is a document called “Studium uwarunkowań i kierunków zagospodarowania przestrzennego miasta Szczecina”, and “Polityka Przestrzenna miasta Szczecin” (Spatial Policy for city of Szczecin) for the years 2005 - 2015 which includes description of most important goals of city development. In the city Centre there is Galaxy Shopping Centre and being built Kaskada shopping Centre.

There are some Rother shopping centres but located away from the city Centre. As for industrial zones - Szczecińska Specjalna Strefa Ekonomiczna - SSE, EURO - PARK Mielec (Special Economical Zone) is being created. It will cover 76 ha of terrains around Struga, Lubczyńska - Kniewska Streets, Trzebusz and Dunikowo.

There used to exist Stocznia Szczecińska (Szczecin Shipyard) which is no longer in use. There are also plans to adjust this area to some industrial and economical purposes.

## **1.2. Freight transport Infrastructure**

Hubs are located at the Szczecin harbour. Among them there is Zachodniopomorskie Centrum Logistyczne (Zachodniopomorskie Logistic Centre) which covers 20 ha of area, and which is connected to the road and rail infrastructure.

There are also freight hubs for containers, dry freight and granite blocks. The most important freight hub in Szczecin is the Szczecin Seaport, which is managed by Szczecin and Swinoujście Seaports Authority.

Both ports constitute one of the largest port complexes on the Baltic Sea, which is situated on the shortest path connecting Scandinavia with Central and Southern Europe.

They also lie on the shortest seaway connecting Baltic Finland, Russia, and the Baltic States with Germany and Western Europe. The port in Swinoujście is situated directly on the Baltic Sea shore, whereas the port in Szczecin is located about 65 km inland. Passage through the seaway from Swinoujście to Szczecin takes about 4 hours.

### 1.3. Regulations applicable to Urban Freight Transport in Szczecin

Prior to C-LIEGE, Szczecin didn't apply any administrative incentives to implement measures addressed to a more energy-efficient and effective freight transport.

### 1.4. Major freight traffic problems

It's possible to indicate following problems caused by urban goods transport in Szczecin:

- influence on congestion effect;
- environmental and social negative results of transport operations;
- worse inventory control, product availability and customer service;
- operational complexity resulting from the differing storage and handling requirements of a wide range of products;
- worse control and visibility of the supply chain;
- worse use of resources at delivery locations;
- worse utilization of cargo area of trucks.

The main problems in Szczecin concern environmental pollution caused by freight transport and individual cars. The most traffic congested are roads leading to the harbour, which are Gdańska Street, Energetyków Street, the bridge over Parnica river, as well as roads to other parts of Poland (to Lower Silesia, Poznan, Warsaw) and Europe (A6 and E65).

## 2. Stakeholders: facts about their role in urban transport

### 2.1. List of Stakeholders

| Name                     | Organisation  | Stakeholder Group      |
|--------------------------|---|------------------------|
| Przemysław Koniecznyński | West Pomeranian Marshal Office / Head of Transport Policy Office                                | Municipality Authority |
| Jakub Kujath             | Municipality office of Szczecin / Department of Public Utilities and the Environment Protection | City Authority         |

|                     |   |                               |
|---------------------|---|-------------------------------|
| Tomasz Loga         | Cycling Association of Stettin / Office of the City of Szczecin / Representative of Mayor for Cycling Transport Development | City Authority                |
| Wiesław Makay       | Municipality office of Szczecin / Director of the City Planning Office  | City Authority                |
| Foltyński Marcin    | Institute of Logistics and Warehousing / Logistics Chief  | Businesses                    |
| Daniel Paszun       | West Pomeranian Marshal Office / Manager of Region Office for Passenger Transport   | Municipality Authority        |
| Janusz Pietrewicz   | Szczecin and Swinoujscie Seaports Authority / Specialist for Port Development   | Businesses                    |
| Beata Płatkowska    | Szczecin and Swinoujscie Seaports Authority / Department head of Environmental Protection and Safety                        | Businesses                    |
| Dariusz Pomykalski  | West Pomeranian Marshal Office / Deputy Director the epartment Infrastructure and Transport                                 | Municipality Authority        |
| Andrzej Przekaz     | Selgros Szczecin / Hall manager   | Businesses                    |
| Jadwiga Rajkiewicz  | West Pomeranian Marshal Office / Director of the Faculty. Infrastructure and Transport                                      | Municipality Authority        |
| Romuald Szmyt       | West Pomeranian Association of International Road Carriers and Forwarders / President                                       | Municipality Authority        |
| Krzysztof Żarna     | West Pomeranian Marshal Office / Deputy head of department of regional development  | Municipality Authority        |
| Filip Grega         | SOS sp.zo.o./ Head of training  | Businesses                    |
| Olgierd Geblewicz   | West Pomeranian Marshal Office / Marshal of West Pomeranian Voivodeship   | Municipality Authority        |
| Waldemar Kolasiński | Municipality office of Stargard Szczeciński / Investments Inspector, Department of Engineering and Environmental Protection | Authority of Neighboring Town |

|                              |   |                               |
|------------------------------|---|-------------------------------|
| Robert Krupowicz             | Municipality office of Goleniów / Mayor of City   | Authority of Neighboring Town |
| Maciej Kaczynski             | BTC Sp.zo.o./ Chairman of the Board   | Businesses                    |
| Małgorzata Landsberg-Ucziwek | Regional Inspectorate for Environmental Protection in Szczecin / Head of Environmental Monitoring | Municipality Authority        |
| Agnieszka Leba               | Municipality office of Szczecin / Department of Public Utilities and the Environment Protection   | City Authority                |
| Jarosław Mrówka              | Szczecin and Swinoujscie Seaports Authority/ Port development specialist                          | Businesses                    |
| Mieszko Czarnecki            | Municipality office of Szczecin/ Director of the Faculty. Investors and Business                  | City Authority                |
| Marcin Cebula                | In Post Modern Post/ Director of Sales  | Businesses                    |
| Jakub PISAŃSKI               | Office of the City of Police / Deputy Mayor   | Authority of Neighboring Town |
| Grzegorz Sudakow             | Voivodeship Police Headquarters / Head of Traffic Department                                      | Police Headquarters           |
| Michał Przepiera             | Municipality office of Szczecin/ Department of Public Utilities and the Environment               | City Authority                |
| Anna Szostak                 | Office of the City of Police/ Head of Town Planning   | Authority of Neighboring Town |
| Michał Żukowski              | Selgros Cash & Carry / Manager of Selgros Cash & Carry in Szczecin                                | Businesses                    |
| Malwina Żywot                | MKM/ Environmental Specialist   | Businesses                    |
| Ewa Żmuda-Trzebiatowska      | Polish Parliament / Member of the Parliament  | Political                     |
| Andrzej Feterowski           | Municipality office of Szczecin// Director of the Department of Computer Science                  | City Authority                |

## 2.2. The role of the single stakeholders for city logistics

- City Authority

City administration stakeholders are among the departments of Environmental Protection (Kujath James and his team). Actively join in the selection of operations to the city, and offer their support in introducing some solutions to be discussed. Department of City Planning (Wieslaw Makay) evaluate the spatial possibilities of the city and inform on the activities of the city that are currently in the plan.

The team also includes stakeholders city department of computer science who was invited to the selection stage of concrete ideas for urban transport, where it will be necessary to introduce new devices. A key role in the success of the project objectives is to support the city department in charge of connecting the business community and investors in Szczecin (Mieszko Czarnecki) actively supports the project pushing for businesses that want to take the bilateral benefits.

- Municipality Authority

Regionally, the project is supported by Algirdas Geblewicz Marshal, who proposed a direct co-operation of individual departments of his institution. We're logistically supported by the head of the department responsible for decisions on infrastructure development and transport (Jadwiga Rajkiewicz), a regional office of passenger transport (Daniel paszun).

Any possibilities of introducing solutions and present time plans are already underway immediately informs us of the department head of regional development. Thanks to them we know what tests have been already taken by the head region and the success and failures have occurred in the area of operations.

Active participation in the activities involved the President of the Association of international carriers and shippers. He is a man who has extensive experience and knowledge of the transport which is very readily joined in the project.

- Authority of Neighboring Town



As Szczecin an extensive infrastructure that keeps growing is directly connected with neighboring cities. We have partnered with the Mayors of the neighboring towns because without their support, some solutions do not have to exist. We cooperate with the mayor Goleniów (Robert Krupowicz) vice mayors of Police (Pisański James, Waldemar Kolasinski) with the support (Anne Szostak) being the head of urban planning.

- Business

Stakeholders factor in joining the business activities of the project C-LIEGE offering its assistance to include BTC (Maciej Kaczynski, Raphael Chrabowski) software company working on monitoring traffic in the city with the help of GPS and other systems. (Marcin Onions) represents the company representing Housings and other commercial innovations in the country.

A proposal for cooperation in the implementation of new solutions to the city has taken the company by training drivers (Greg Filip SOS) support in promoting Ekodriving and regional manager of one of the largest supermarkets with a large warehouse (Michael Zukowski) for meetings, represented by the warehouse manager (Andrew Przekaz). Provide information about the number and frequency of supply and road transport.

- Police Headquarters

Any discussion takes a large share of the department head of the provincial traffic police Headquarters. It provides, inter alia, information on the flow of traffic flows and individual tours at select times. Proposes an implementation of solutions which can support the supervision of the police.

- Political

Political support provides us with the regional authority of the party having the most support in the country's deputy of the parliament of the IV Republic (Ewa Żmuda-Trzebiatowska)

### **3. Existing practices**

There is one good practice of urban freight transport in Szczecin – alternative delivery system based on the packstation operated by the In-Post Company. Packstations 24/7 is a system of post office box, used to receive packages 24 hours a day, 7 days a week. Person doing shopping via Internet - after ordering a package to the Packstation 24/7 – receive SMS and e-mail with a code of reception.

To receive the package from the box, type mobile phone number and receive the resulting code, and the expected delivery locker open. Within 2 business days after posting of the parcel, the package will be in the packstation. Receiving packages is possible at any time of day or night. If you do not receive the package within 3 days, it will be transported to the nearest branch of InPost.

The address at which the package will be waiting to receive the customer will be informed via SMS and e-mail. In Szczecin there are 20 packstations 24/7 (the localization is shown on the map).

### **4. Existing ideas about solutions and projects**

Measures based on closed zones are eliminated because of the specific structures of Szczecin. A conclusion is the necessity of integrated implementation of one functional integrated system. Concentration on:

- Implementation of loading slots
- Routing systems (including ITS)
- Alternative delivery systems and activities (promoting environmental friendly solutions)

The MUS team is now initializing several project proposals among other things concentrating on innovative solutions.

The measures will be divided into two groups: the basis solutions and the additional solutions.

#### **4.1. Basis Solutions**

- Advance booking of (un)loading slots
- Freight traffic routing information
- Intelligent freight traffic routing
- Freight Operators Recognition Scheme (FORS)
- Special urban planning conditions

#### **4.2. Additional Solutions**

- Integrated logistics tools
- Alternative delivery systems
- Promotion campaigns for suitable freight traffic
- Local (freight) transport plans, Local Freight Development Plan (LFDP)
- Distribution plan-scheme
- Freight Transport Quality Partnership

#### **4.3. Other Ideas**

Also MUS team will send to Polish National Science Centre the proposal of other project – the analysis of data/information flows and knowledge extraction in integrated urban freight transport system.

### **5. Existing conflicts**

Unknown.

## **6. Previous relevant ideas not put into practice**

Proposal of project named ADVANCE (Auditing and Certification Scheme to Increase the Quality of Sustainable Urban Mobility Plans in Cities). ADVANCE aims to increase the energy efficiency of urban transport and to reduce the demand for transport in European cities.

To reach these goals ADVANCE will develop, test and apply an Audit Scheme for cities (ADVANCE Audit Scheme) that helps to set up and improve the quality of sustainable urban mobility plans (SUMPs) and policies.

## **7. Previous relevant ideas put into practice, whether they were successful or not**

Szczecin downtown bypass – in realization. This implementation will connect northern and southern parts of city and it's realized in 10 stages (stages I to IV are just realized, stage V is under construction). Bypass will help to eliminate big part of freight traffic in the downtown of Szczecin.

There is one alternative delivery system implemented at the moment: the packstation system by the In-Post Company which is (till now) only represented by about 20 % of all deliveries in Szczecin.

Szczecin Municipality implements intelligent transportation systems for analysis and control of city traffic (VMS and traffic flow detection systems) as basis for routing and routing information.

“Brama Portowa”-Project includes the idea of electric vehicle charging systems and plans to promote free parking for this kind of vehicles.

Szczecin, by the reason of the localization, is part of initiative “Central European Transport Corridor (CETC-ROUTE65)”.

The signatories of CETC are currently Skåne Region (Kingdom of Sweden), Zachodniopomorskie, Lubuskie, Dolnośląskie and Opolskie Regions (Republic of Poland), Hradec Králové Region (Czech Republic), Bratislava and Trnava Regions (Republic of

Slovakia), Vas, Zala and Győr-Ménfőcsanak Counties representing the West Transdanubian Region (Republic of Hungary) and Varaždin, Koprivničko-krizevačka, City of Zagreb, Zagrebacka, Karlovačka, Primorsko-goranska Counties (Croatia).

The initiative's aim is to develop a system of multi-modal infrastructure and economic links, allowing sustainable growth and increasing the competitiveness of this region.

Other projects are presented in the table below:

| <b>Project</b>   | <b>National or local/regional or European</b> | <b>Year of finalization</b> | <b>Website</b>   |
|--|---|-----------------------------|--|
| <i>METREX - Network of European Metropolitan Regions and Areas</i> | European                                      | Non defined                 | <a href="http://www.eurometrex.org">www.eurometrex.org</a>   |
| <i>The Integrated Regional Operational Programme</i>               | National                                      | 2007                        | <a href="http://www.zporr.gov.pl">www.zporr.gov.pl</a>   |
| <i>TENCONNECT</i>  | European                                      | 2008                        | <a href="http://www.unikiel.de/ifr/index.php?id=186">www.unikiel.de/ifr/index.php?id=186</a>                       |
| <i>Sectoral Operational Programme - Transport</i>                  | European                                      | 2008                        | <a href="http://www.fundusze-strukturalne.gov.pl/SPOT/Projekty">www.fundusze-strukturalne.gov.pl/SPOT/Projekty</a> |

Municipality of Szczecin also applies to CIVITAS II Program.