



CiViTAS
Cleaner and better transport in cities

ELAN

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Implementation status report on 'lijnsporters' (second person on the vehicle)

Measure 5.7-GEN

Project acronym: ELAN
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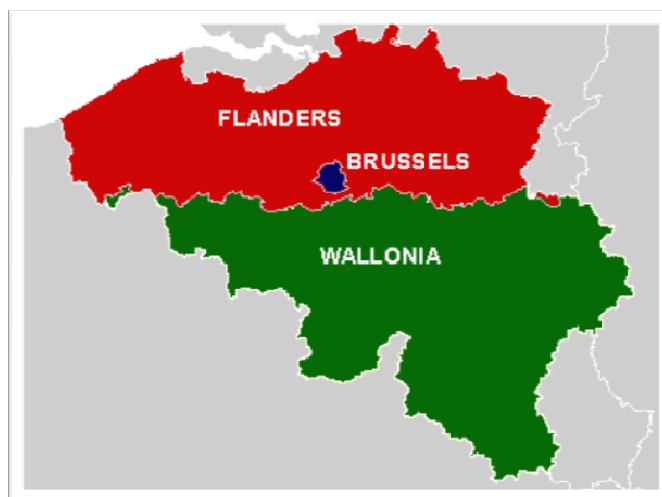
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1. De Lijn and ‘Safe journey’

1.1. De Lijn

Since 1990, De Lijn is the official public transport company in Flanders (Belgium), a territory that beholds 13,531 m² and 6.2 million inhabitants. De Lijn uses the principle of ‘basic mobility’: 90% of all inhabitants need to have a stop of De Lijn at a maximum distance of 750 metres of their front doorstep. The services are provided by bus, tram, premetro and ‘call’ bus.



1.2. Safe Journey

In 2005, Flanders was shocked by a deadly incident on a vehicle of De Lijn in Antwerp. A passenger was beaten and died of his injuries. This unfortunate event was the start for developing a thorough safety & security policy for De Lijn. Politicians, scientist, syndicates, traveller unions and experts were brought together to develop a master plan: ‘Safe Journey’ was born in 2006.

This plan consisted of four core pillars in which all projects of the plan would be subcategorized:

- **Organizational measures** – such as reorganizing the controller service, tracks, registration methods, etcetera
- **(Techno)Preventive measures** – camera’s on the vehicles, campaigns, extra personnel on the vehicles, a youth prevention program, etcetera
- **Training** – Training for personnel in dealing with potential risks, customer satisfaction, self-defence, negotiating techniques, etcetera
- **Collaboration with partners** – the police, justice, schools, neighbourhood workers, cities & municipalities, etcetera

To execute this master plan in each of the five Flemish provinces, a criminologist was recruited, the experts social safety & security. These five experts are centrally steered by the coordi-

nator social safety & security. With the recruitment of these six criminologists De Lijn gave a sign that they wanted a social science based policy on safety & security.

A part of this ‘scientification’ was the start of a *global and integrated approach* on safety & security. A global approach stands for intervening on every part of the security chain:



- Proaction: working on general and structural causes
- Prevention: working on direct and specific causes
- Preparation: interception of the arriving aggression
- Response: taking (repressive) actions
- Recovery: taking care of the victims (and in some cases the offenders)

An integrated approach stands for working together with other partners to establish an environment of safety and security, as described in the fourth core pillar of ‘Safe Journey’.

1.3. The security monitoring system of De Lijn

1.3.1. Tendency for evidence-based policy

De Lijn is aware from the fact that all measures of the safety & security plan cannot be deployed randomly. The maximum of resources should be deployed as efficient as possible. This means that a need has grown to collect data on safety & security at local levels. This need was catalysed by findings in social geography and geographical criminology.

1.3.2. Methodology

The basis of the monitoring system is collecting information about incidents in certain geographical areas or ‘area concentrated information’. For this matter, all stops of De Lijn in Flanders were geo-coded in certain neighbourhoods or so called ‘statistical sectors’, the smallest administrative units in Belgium. On every incident, every detail is collected in a database and connected to the statistical sector. This sector-information about aggression forms, time, date, track, offender, victim, motive and police intervention are the basis for the hotspot-analysis of the security monitoring system.



The map above shows the statistical sectors of the province of East-Flanders, with Gent as yellow marked zone. The province beholds 2,121 statistical sectors, in which there are 1,784 sectors with stops of De Lijn, 8,970 to be precise.

1.3.3. Information gathering

De Lijn describes an incident as “an event on a vehicle or in the near proximity of a stop of De Lijn, implying one of the defined aggression forms of De Lijn (see further on) and occurred between: passengers and personnel, non-passengers and personnel or amongst passengers.

To gather detailed information about the occurred incidents a broad range of sources need to be consulted:

- Aggression report forms (for personnel)
- Controller reports
- Driver reports
- Secondary personnel reports
- Police reports
- Dispatching reports
- Traveler reports
- Camera registration
- Aggression related working incidents

Via these sources every incident is recorded which contains at least one of the following aggression forms defined by De Lijn:

Regular forms

- Verbal aggression
- Insults
- Public use of narcotics
- Vice or exhibitioner violations
- Vandalism/graffiti
- Non-violent theft (pick-pocketing)
- Traffic aggression
- Harassment
- Suicide attempt

Severe forms

- Threatening
- Armed threatening
- Physical aggression
- Spitting
- Violent theft
- Throwing projectiles at people
- Throwing projectiles at vehicles
- Sexual intimidation
- Sexual assault/rape

1.3.4. Hotspot analysis

De Lijn identifies hotspots as a geographical area with a certain concentration of incident within certain timeframes. A hotspot relates to intervention phase 1 to 3. Normal phase is described as phase 0.

- **Phase 0:** normal phase of intervention (no extra measures needed)
- **Phase 1:** temporary increased deployment of security measures
- **Phase 2:** permanently increased deployment of security measures
- **Phase 3:** equals phase 2 + involvement of local authorities and/or local police

These phases are conducted by the analysis of four determining indicators:

- **Total number of aggression forms / neighbourhood**

Per incident multiple aggression forms can be recorded. The security monitoring system takes the sum of all occurred aggression forms per neighbourhood (statistical sector). The indicator is marked when the sum of all forms in a certain neighbourhood is higher than the mean value of all neighbourhoods in the province. For example: when the mean value is 3.21 and the sum of all forms in neighbourhood A is 5, the indicator marks positive.

➤ **Total number of severe forms / neighbourhood**

Same idea of the first indicator. When the total of all severe forms in a neighbourhood is higher than the mean value, the indicator marks positive.

➤ **Local Quotient of Crime (LQC)**

This indicator gets its origin in economics. Brantingham & Brantingham applied this quotient on criminal matters (geographical criminology). It represents the relative severity of certain problems.

For the security monitoring system, the following formula is used for this indicator:

Numerator:
Ratio of severe forms against total number of forms in sector

$$LQC_{i_n} = \frac{\frac{C_{i_n}}{C_{t_n}}}{\frac{\sum_{n=1}^N C_{i_n}}{\sum_{n=1}^N C_{t_n}}}$$

Denominator:
Ratio of severe forms against total number of forms overall

The results reflects the ratio of severe forms against all forms in a sector in ratio on the ratio of severe forms against all forms in a province.

The result should be read as followed:

- LQC < 1: severe forms occur LESS in the neighbourhood than in the analysed province
- LQC = 1: severe forms occur AS MUCH in the neighbourhood as in the analysed province
- LQC > 1: severe forms occur MORE in the neighbourhood than in the analysed province

For example, when the LQC = 2, severe forms occur twice as much as in the analysed province.

The indicator is marked positive when $LQC > 1$.

➤ **Underprivileged Area Index (AI) --> social research data**

This is the only non-dynamic indicator and contains information gathered every ten years in the national Belgian population survey. This indicator contains 7 variables:

- ✓ Average income in the statistical sector
- ✓ Unemployment rate in the statistical sector
- ✓ Level of comfort in buildings in the statistical sector
- ✓ Cultural Diversity Ratio in the statistical sector
- ✓ Absence rate of telecommunication in the statistical sector
- ✓ Household composition (one parent families) in the statistical sector
- ✓ Socio-Economic Status (SES) in the statistical sector

All sectors that are in the lowest 25% in a variable of all neighbourhoods, mark in the variable.

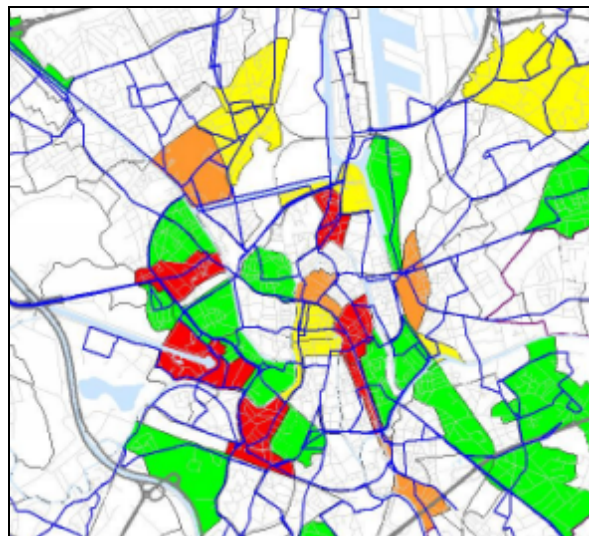
When a neighbourhood has at least 3 marked variables, the indicator marks positive.

When a neighbourhood has at least 5 marked variables, the indicator marks double positive.

The intervention phases in the security monitoring system are conducted as following:

- **Phase 0:** no marked indicators
- **Phase 1:** 1 or 2 marked indicators
- **Phase 2:** 3 or 4 marked indicators
- **Phase 3:** 4 + 1 (double of fourth indicator) marked indicators

Example analysis for Gent (blue lines are the PT-tracks; red = phase 3; orange = phase 2; yellow = phase 1; green = phase 0 with occurred incidents):



2. CIVITAS ELAN: Security enforcement on public transport

September 2008 was the launch of CIVITAS ELAN. De Lijn is a partner of the project, led by the Gent City Council. One of the measures for De Lijn is ‘Security enforcement on public transport (measure 5.7GEN), executed by measure leader Tim Surmont.

No.	Type	Tasks & Planned activities	Month	Allocated to WP
		5.7.1 GEN - Research & development		WP11
5.7 - WD1	WD	Preparation of safety plan implementation	6	WP11
		5.7.2 GEN - Implementation & demonstration		WP5
5.7 - M1	M	Implementation of ‘lijnsporters’ (second person on the vehicle)	10-24	WP5
5.7 - M2	M	Implementation of the Trammelant Education Bus	10-24	WP5
5.7 – M3	M	Implementation of leased cameras	20-36	WP5
		5.7.3 GEN – Data collection		WP5
5.7 – M4	M	gathering interviews and figures	10-30	WP5
		5.7.4 GEN – In-depth data analysis and studies		WP12
5.7 - WD2	WD	Evaluation of the safety plan	15,27	WP12
		5.7.5 GEN - Measure related dissemination		WP5
5.7 - WD3	WD	Incident training for drivers	0-6	WP5
5.7 – M5	M	Youth project training for drivers and controllers	6-18	WP5
		5.7.6 GEN – Dissemination and training		WP13
		/		

In this document we will highlight two innovative aspects of the measure: enhancement of uniform second personnel on the vehicles (Lijnsporters) and the installation of the Trammelant education bus.

2.1. Lijnsporters

2.1.1. History

Extra personnel on vehicles pretends to lower feelings of unsafety on the vehicles of passengers and public transport personnel. More than a decade ago De Lijn East-Flanders started to recruit low educated, long-term unemployed people to train them in becoming ‘stewards’ on the vehicles of De Lijn in the city of Gent. They were trained in track recognition, prices,

helping disabled passengers, signalling defects and vandalism, negotiating between passengers in case of conflict, etcetera. This group of ‘secondary personnel’ on the vehicles were called ‘Lijnhelpers’. These Lijnhelpers had a preventive function: they did not have any repressive duties.

This was not the only possibility for creating more visible personnel on the vehicles of De Lijn. Cities and municipalities that had signed a so called safety & prevention contract with the Belgian Federal Ministry of Home Affairs, had the possibility to recruit ‘community guards’. The guards could be assigned to a broad realm of tasks, such as guiding traffic at market days, signalling problems with road infrastructure, patrolling in neighbourhoods, etcetera. In agreement with De Lijn they could also use the vehicles of public transport for free and also keep an eye on the passengers.

In the meantime, Home Affairs created another option: ‘Lijnspotters’. These were the same community guards, with one exception: cities and municipalities received extra funds to create ‘Lijnspotters’: they were community guards who were 100% deployed at on vehicles of De Lijn. In this way, Lijnspotters had the exact same function of de Lijnhelpers.

2.1.2. “Uniformity” needed

For the city of Gent some problems related to uniformity were detected.

- The Lijnspotters – in service of the Gent city council – wore purple uniforms, as stated in the Safety & Prevention contracts of Home affairs. At the same time, the Lijnhelpers – in service of De Lijn East-Flanders – wore beige jackets. Although these two groups of people did the same job, they could not be seen by the passengers as one group. This was very confusing for the passengers (and even public transport personnel).
- A different employer means different working conditions: both groups did not work as long, the Lijnspotters could not work in weekends, and Lijnhelpers had a higher salary. This caused some frictions between the two groups.
- Gent was the only city were this dual system was still implemented. All other cities and municipalities in Flanders with a Safety & Prevention contract only had Lijnspotters or community guards (in purple).

2.1.3. CIVITAS-ELAN as catalyst

In 2008 Gent and De Lijn became partners in the European Mobility project of CIVITAS-ELAN. This partnership created a platform to start working together on different mobility issues more thoroughly. As a result of this cooperation, measure 5.7 ‘Security enforcement on Public Transport’, managed to unite both partners in a new covenant for Lijnspotters in 2009. The Gent city council would take over the remaining Lijnhelpers of De Lijn, to create more uniformity. In concrete there were 8 Lijnhelpers and 9 Lijnspotters. Applying an extinctive strategy on the Lijnhelpers, this would result in 2010 in a homogenous group of 17 Lijnspotters, employed by the Gent city council, with uniform working times and tasks. De Lijn re-

mained partner in the project, by funding working materials, providing information for the schedules and assisting the Gent city coach of the Lijnspotters.

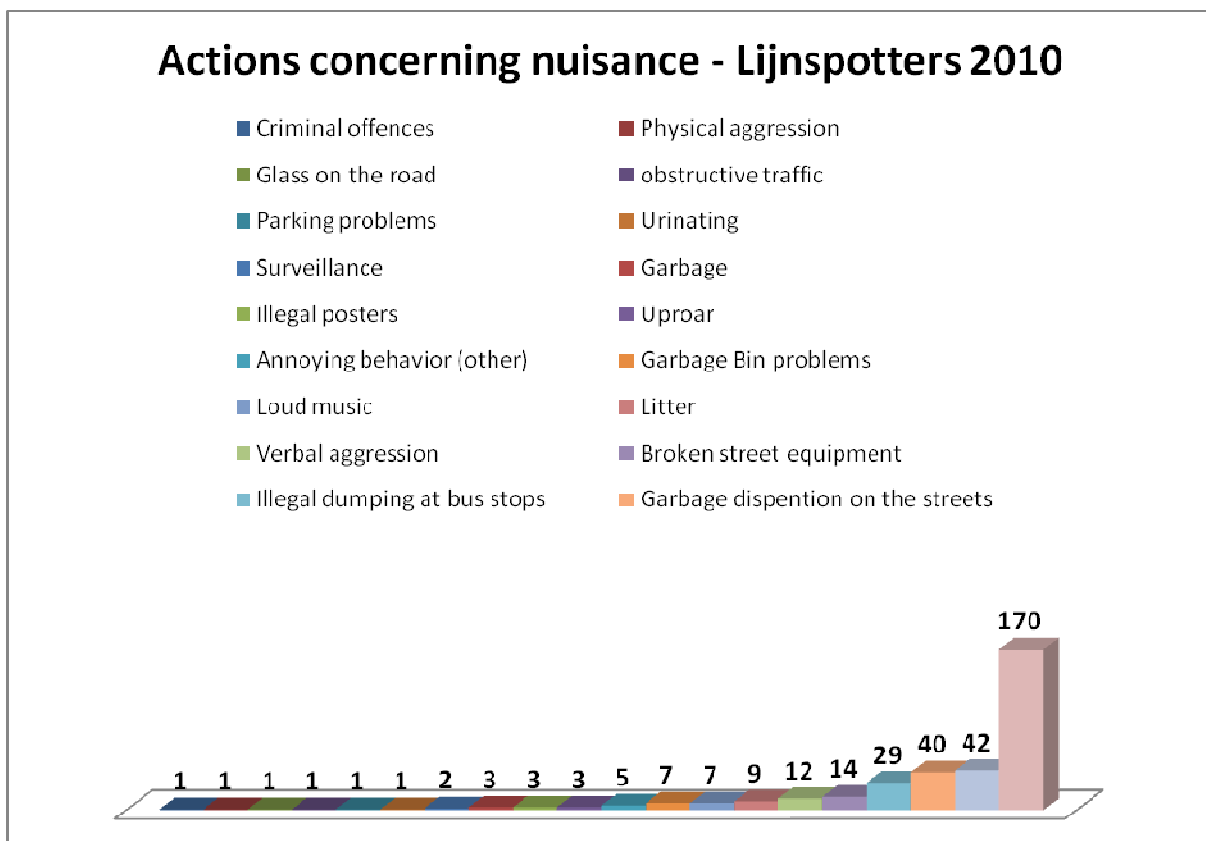
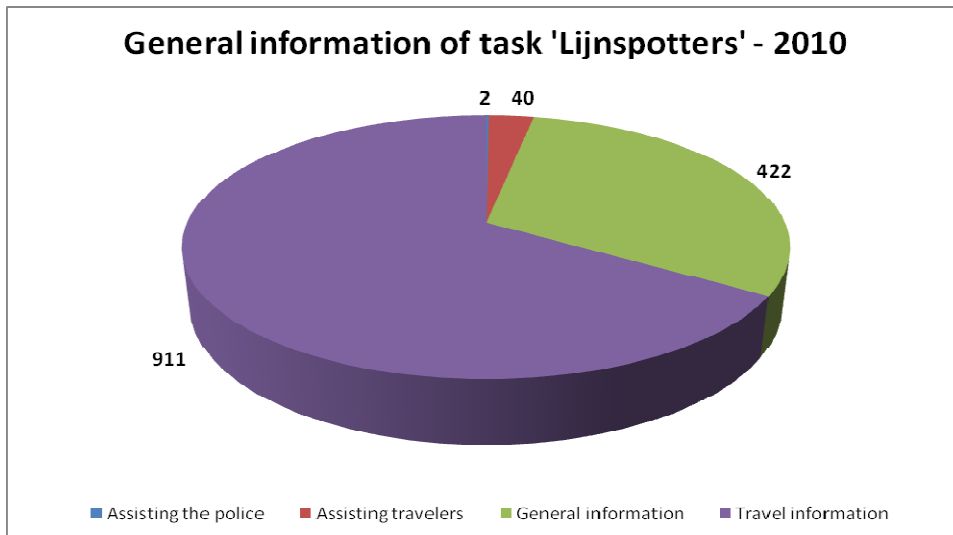
2.1.4. Tasks of the Lijnspotting team

- **Inform passengers** – providing real time information about tickets, track changes, travel routes, etc.
- **Helping passengers** – helping passengers boarding and debarking, helping passengers with carriages or wheelchairs, guarding the flow of passengers inside of the vehicle...
- **Signalling function** – signalling defects and/or vandalism inside the vehicles or at bus stops.
- **Surveillance and conflict management** – approach passengers in case of nuisance, annoying behaviour or violation of the rules on the vehicles (eating, drinking, smoking, leaning against the doors, etcetera). Intervene on a negotiating manner in (possible) conflicts.



2.1.5. Yearly reports

In 2010 the Lijnspotting team provided a First annual report, summarizing their actions in the year 2010.



2.1.6. Conclusion

Thanks to CIVITAS, the Gent City Council and De Lijn are working together in professionalizing their Lijnspotter team, to enhance the visibility of extra personnel on the vehicles. This boosts higher feelings of safety of travellers and public transport personnel.

2.2. The Trammelant Educational Bus

2.2.1. History of Trammelant

Trammelant is the youth prevention project of De Lijn, started in 2004 in the city of Antwerp. The project was developed to reduce large and small conflicts and nuisance on public transport. In these conflicts, secondary school scholars are often seen as cause of this nuisance.

In 2005 the project was also launched in Gent, and in 2009 in all Flemish provinces. The project became a part of the safety and security master plan Safe Journey.

2.2.2. Objective and vision

The objective of the project is to promote general satisfaction of all stakeholders using public transportation, by decreasing the feelings of unsafety. For this matter it is important to enhance the mutual respect between personnel of De Lijn and youngsters.

One must understand that Trammelant is a **prevention** program: actions to intervene in situations before they grow.

The idea and vision is that youngsters should be approached as they are, not as they sometimes behave. Pedantic sermons are not seen as effective: personnel and youngsters should start a dialogue and explain each other why and how they behave like they do. Participation is the key.

2.2.3. Participants

The schools are selected bases on the information of the security monitoring system of De Lijn. Of course that is not the only criterion: there are also strategically based selections, in consultation with other local partners.

In every selected school, one class is selected: this class should be representative for the use of public transport. The aim is on scholars between 14 and 16 years of age.

2.2.4. Activities

The Trammelant activities are three-way:

- ✓ Class conversation: two PT controllers visit the class and have an introductory dialogue
- ✓ Depot visit: the class visits the depot of De Lijn and gets to meet the mechanics, vehicle cleaners, visit the dispatching etcetera.
- ✓ School activity: the project class can bring over the lessons learnt to the other classes using the principle of peer-to-peer tutoring



2.2.5. CIVITAS ELAN and the upgrade of the project

The idea grew fast to upgrade the project through CIVITAS ELAN. The Trammelant Bus became an objective for the measure 5.7-GEN 'Security enforcement on Public Transport'.

A multifunctional bus was installed, with multimedia and multiple gadgets aboard.

- ✓ Cost price game: damaged parts should be tagged with the correct price



- ✓ Presentation possibilities: a beamer, screen and blinds were installed to give presentations on the bus.



- ✓ Basket ring: when the bus visits the school, in the playtime the youngsters can aim at the ring instead of the bus or the driver



- ✓ Pictures of past Trammelant classes: the interior of the bus is surrounded by pictures of youngsters that have participated in the project



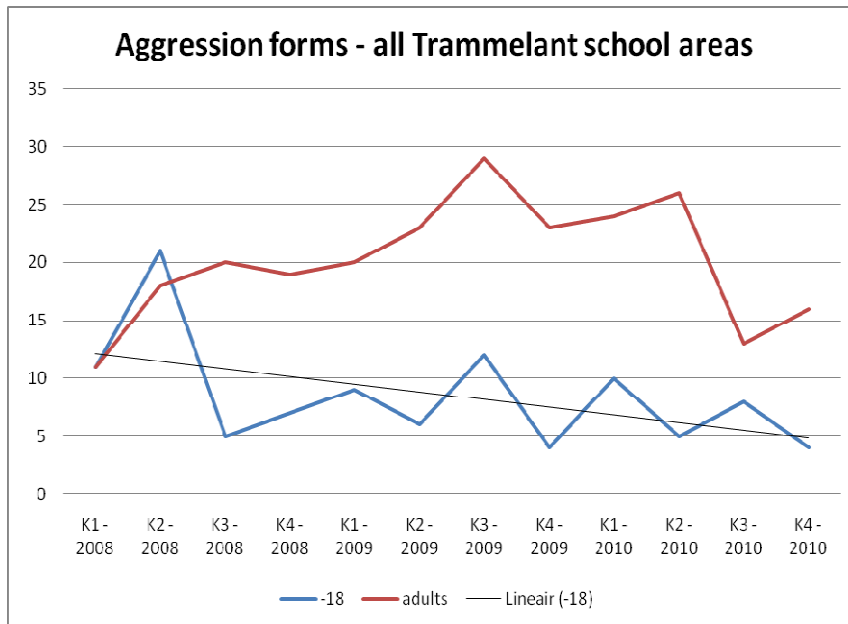
- ✓ Powerfull smoke generator: to simulate fire and smoke development inside the vehicle, a smoke generator fogs 1100 m³/minute to make evacuation exercises more 'realistic'



Due to the success of the Civitas Trammelant Bus, De Lijn committed to install four extra Trammelant Buses in the other provinces.

2.2.6. Short & Long-term effects

The project was recently evaluated and shows (since the start of the project) a significant drop of reports of aggression caused by minors in the environment of the schools that were selected for the project (see below).



Of course the enhancement of mutual respect is not so easy to measure, but we believe this objective is certainly reached. This project also lets the personnel experience that the company is doing something to reduce the nuisance.

Long-term effects are that the personnel keeps driving the vehicles to the participating schools, and that other campaigns about behaviour become more recognizable.

3. To conclude

De Lijn, with its basic mobility, shows to have created a broad realm of measures to maintain the safety & security on its vehicles and at its stops. A global and integrated approach needs to accomplish and maintain this policy.

Working together with other partners is the key. One should not be too humble to try to do things on its own.