



## Electric Heroes, go smart go electric

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**‘Regular’ scooters are very popular these days, but they make a lot of noise. Research has shown that, in cities, noise from scooters ranks very high on the irritation zone. An alternative for regular scooters is an E-scooter, which doesn’t make much noise. E-scooters can help solving noise problems and nuisances in cities. Research has shown that:**

- **In Holland 20% of the citizens is negatively affected by noise, particulates and CO<sub>2</sub> emissions of scooters**
- **Youngsters are the noisiest group**

**A campaign concept has been developed by the NSG (Dutch Noise Abatement Society), in cooperation with R&D Dept. (R&D Dept. is a social communication agency specialized in strategic communication solutions). This campaign includes youngsters to test-drive (2 days) an E-scooter, make a promotion movie and maybe win an E-scooter. The campaign has already been held in 5 cities in Holland. Social media, promotional teams, Green Graffiti, newspapers, radio, posters and flyers are also being included for the distribution and promotion of the initiative. There has been much cooperation with the community, schools, citizens and local enterprises. Our targets are: creating awareness and improving the knowledge about E-scooters. After the campaign, the number of youngsters in the city that would like to buy an E-scooter has risen with over 50%.**

### 1. INTRODUCTION

The NSG (Dutch Noise Abatement Society) was founded in 1970, following from the growing recognition that noise pollution was a threat to human health. The main task of our foundation is placing this (health) issue on the political agenda and providing information - requested or unrequested - to the people.

In the late seventies, the Dutch Noise Abatement Act was issued, addressing the main sources of noise being: road, railway, air traffic noise and industrial noise. Surveys on noise annoyance and other environmental topics however illustrate that, after road traffic noise, neighbour noise ranks highest on annoyance and sleep disturbance. Nevertheless, the Dutch government decided not to implement legislation regarding this source, and to tackle annoyance from neighbour noise by raising public

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awareness. The NSG since then has been the main actor and has developed an information campaign on neighbour noise. This aspect is still one of the main noise issues we are working on.

Another aspect was to inform people about noise-producing devices such as vacuum cleaners, washing machines, lawn mowers, electric kitchen appliances, etc. The demand for information, however, remained limited. Noise-aware behaviour largely determines the degree of annoyance: when, how often, where and at what times the noisy equipment is used.

Today we hardly receive any questions about low-noise household equipment, but we get a lot of complaints about noisy mopeds and scooters.

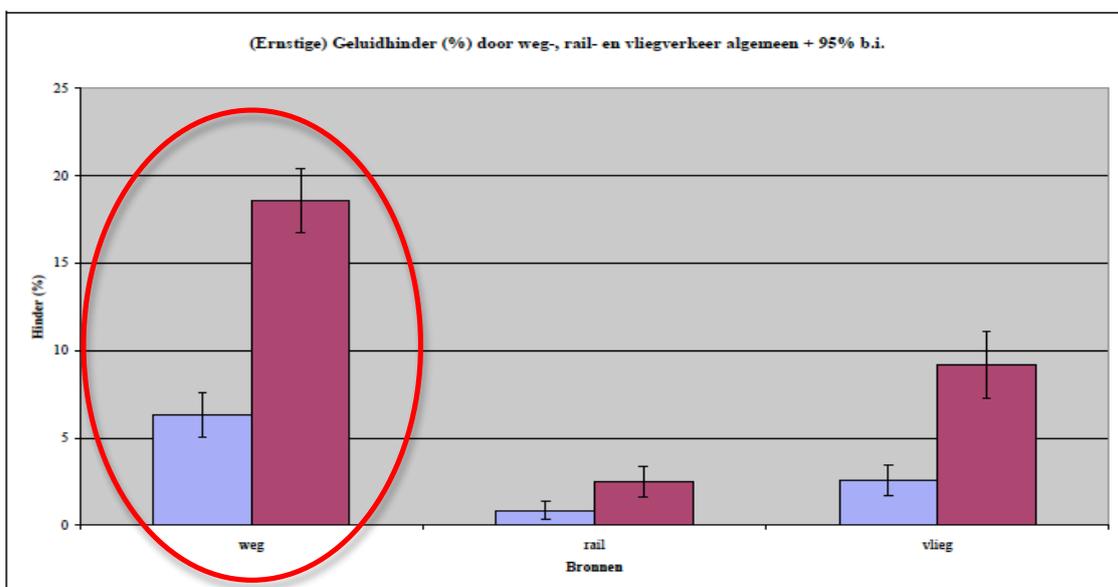
## 2. THE NOISE PROBLEM: NOISE ANNOYANCE FROM SCOOTERS AND MOPEDS

Scooters and mopeds are popular transportation modes these days. Scooters are easy to drive, cheaper than cars, and very convenient in dense cities (no parking place needed nor hindrance from traffic jams). However, in surveys on noise annoyance, scooters and mopeds rank high on the top 3 of most annoying noise sources. Specifically the traditional, petrol engined scooters and mopeds produce significant noise. Since recent years, an alternative for these scooters and mopeds is available, that is the so-called E-scooter (electric – engine – scooter), which hardly produces any noise.

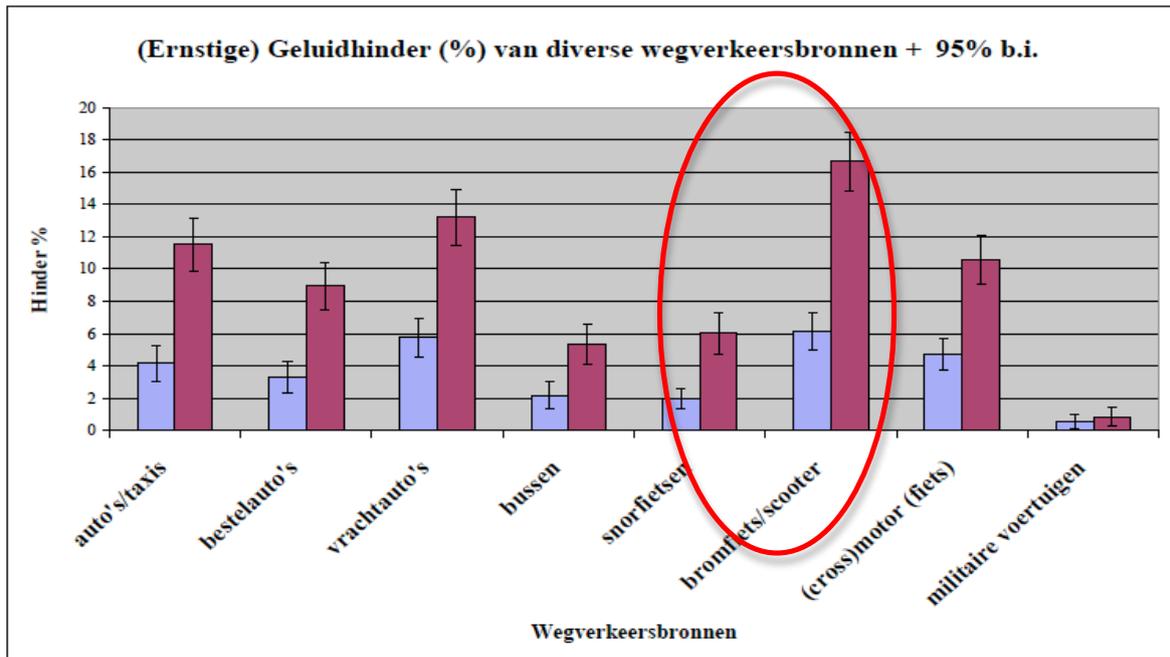
As such the E-scooter can contribute to solving noise problems and noise nuisance in the city. Research has shown that:

- In Holland 20% of the citizens is negatively affected by noise, particulates and CO<sub>2</sub> emissions of scooters. In addition to the negative health effects on humans CO<sub>2</sub> emissions are known to have negative impacts on nature and contributes to climate change. Youngsters are the noisiest group.
- Specifically younger citizens (age group 16 – 25 years) have a scooter, but none is interested in an E-scooter.

In the figures below you see first the noise issue from road traffic (circle) and the other noise sources (railway traffic and plane traffic). In the circle of the 2<sup>nd</sup> figure the annoyance of mopeds and scooters is shown.



Source: Annoyance, concern and residential satisfaction in the Netherlands Annoyance inventory 2008, RIVM 2011



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Amongst other vehicles like cars and trucks you can see scooters score the highest percentage of total serious noise annoyance.

Consequently, the NSG initiated a campaign targeting this group of moped and scooter users, and developed a concept in which young people were given the opportunity to be a test driver of an E-scooter and to win the tested scooter and experience the benefits.

Through the website [www.electric-heroes.nl](http://www.electric-heroes.nl) the participant from this target group can register him- or herself for a contest. After a selection participants are allowed to use a scooter for 2 days, and then they have to make a short movie on driving an E-scooter. This film is presented at the campaign's website. After the campaign, website visitors can vote, and the participant with the most popular movie wins the E-scooter. As an extra stimulus, voters can win a scooter as well. The campaign has already been held in 5 cities in Holland: Den Haag, Zaanstad, Helmond, Dordrecht and Zwolle. Another campaign is being held right now (spring 2012), in 15 cities in the area of West-Holland.

### 3. APPROACH UNDERTAKEN TO UNDERSTAND THE PROBLEM

E-scooters have become a popular form of transportation, although user percentages are still low on average. Around 2.000 E-scooters were sold in 2009 and this number is slowly increasing. Older people are more aware of the (noise and environmental) problems that traditional fuel-engined scooters cause. But the youth is still buying 'ordinary' scooters, and therefore they are an interesting target group. In the last campaign (spring 2012) the E-scooter was promoted as an attractive alternative. In the campaigns this group of scooter users is made aware of the difference between E-scooters and traditional scooters, the advantages of the E-scooter and make them consider buying an E-scooter.

From a qualitative survey under two youth panels, the following issues regarding the use of E-scooters became evident:

- Young scooter users in the age group of 16 to 25 think the environment isn't important when buying a scooter
- The target group has no knowledge of the E-scooter in the broadest sense, and what is unknown, is not considered nor adopted

- The target group is prejudiced regarding E-scooters: “E-scooters are ugly, expensive, musty and slow” \*

\* These prejudices regarding the E-scooter are not true at all. The E-scooter is a bit more expensive to buy, but in using/driving the E-scooter is far cheaper than the traditional scooter. This is because you don't have to pay for gas or motor maintenance. Also the mechanical maintenance is cheaper. Considering noise: an E-scooter has noise levels below 40 dB, whereas a traditional scooter produces over 70 dB.

#### 4. DESCRIPTION OF THE INITIATIVE

Every campaign period held for promoting the E-scooter was very successful. The campaigns are co-organised by municipalities and the scooter branch. All cities provided the scooters during the campaign. The results in terms of participation and reputation were very positive. In total there were over 500 test applications, of which 210 eventually got to test a scooter. Of them, 134 sent in a movie to be uploaded at the dedicated website. This campaign website was visited by 55.000 unique visitors.

An example of the award ceremony: In Den Haag there were 2 prizes. 1) The participant whose film received the most votes, and 2) The selected voter via the website. So far, many Dutch municipalities have shown interest in a next campaign.

The topic ‘E-scooter’, and more specifically this campaign, has been an item on television and even gained interest from the politics. National media show a lot of interest in the topic; for example in newspaper articles, news websites and radio items.

The first campaign was held in Den Haag, aimed at the youth between 16 and 25 years. They were allowed to use the E-scooter for 2 days for free to test it and make a video report about the benefits of the E-scooter compared to the traditional scooter. The films, subsequently, were uploaded on the Internet (the campaign website and on YouTube) and people could vote for the best video. The video receiving most votes and the highest scores from a judging panel from the NSG and the participating municipality, won an E-scooter. In addition, one of the voters was rewarded with an E-scooter as well. The campaign was promoted through Internet, radio, flyers, school boards, GreenGraffiti (with high water pressure cleaning the pavement and through that leaving a message on the pavement) and promotion teams (girls dressed like Electric Wonderwomans driving around on electric scooters).

**Campaign in the Hague** (1/2 million inhabitants)

- 5 weeks testing with 4 scooters
- More than 5 million views online campaign
- More than 10,000 unique visitors (audience of 25,000!)
- 150 applications for testing
- 38 test riders and 30 movies
- More than 2,700 voters
- Two testers and two voters won a scooter

Logo: NEDERLANDSE VERENIGING WELWONNENDE NSG



The civil servants from the municipality play a significant role in the campaigns; we couldn't have done the first 2 without their help. They are our first contact point and actually our messengers. Youth nowadays are commercial savvy; they hardly adopt any messages from the established traditional media but do adopt that through blogs, Facebook and from their friends and immediate peers (70%). This mechanism succeeds in spreading the message by targeting the group itself. Every video has a reach of at least 100 people.

There has also been a lot of cooperation with the community, schools, citizens and local enterprises. For example, local enterprises were responsible for providing the E-scooters to the various drivers during the period of test-driving. The youth did also learn from the campaigns; in the beginning they didn't know much or anything at all about E-scooters. But by the end of the campaign this target group had gained a lot of knowledge and frequently even considered buying an E-scooter. They also learnt how to be creative and unique, as they had to make their own movie about why to buy an E-scooter, and about the differences between a traditional scooter and an E-scooter. This was done very well, and many movies were sent in.

## 5. THE COSTS

Every campaign requires different finances, depending upon the size of the target group of the municipality. This has impact on the number of scooters provided, the media used and the duration of the campaign. The minimum length is 4 weeks, but can easily be extended. The costs vary between € 25.000,- and € 60.000,-.

Driving an E-scooter is really much cheaper! Look at the comparison below.  
The costs for fuel (this really is just power) are 10 to 15 times lower than what you spend for a petrol scooter. A full tank for E-scooters only costs 30 Eurocent. And your parents are paying it!  
You also never have to replace spark plugs or refresh the oil, so the costs for maintenance are much lower. But what you need to do is replace the battery every few years.

| What?                           | Regular scooter        | Electric scooter               |
|---------------------------------|------------------------|--------------------------------|
| Purchase price                  | € 1.150,- to € 3.000,- | € 1.500,- to € 5.000,-         |
| Fuel per 3.000 km               | € 200,-                | € 15,- (parents pay, is power) |
| Motor maintenance per year      | € 150,-                | € 0,-                          |
| Mechanical maintenance per year | € 125,-                | € 75,-                         |
| Replacement battery per year    | € 0,-                  | € 200,-                        |

## 6. IMPACTS AND RESULT OF THE INITIATIVE

### 6.1 Goal

Our primary objective is: “Creating awareness for electric scooters.”

Secondary objectives are: improving the knowledge about the E-scooter and improving the attitude and behaviour regarding the E-scooter. The above-presented campaign proved to be successful in achieving these objectives.

Based upon the ‘problem analysis’ our target group consists of young people between 16-25 years, because they are the largest user group, the most nuisances causing and the next generation of (scooter- and motor) drivers. The goal is to reach 1/3 of our target group. So far, in all cities, the goal has been achieved.

We also expect to reach 1/3 of the target group via our (campaign) website, [www.electric-heroes.nl](http://www.electric-heroes.nl), which currently has a visitor rate of over one hit per 2,5 minutes. Effects through other means of awareness raising, for example in schools and other places in the community, are significant, but have until now not been evaluated. So far, our latest campaign is a great success with 60 test drivers, 46 uploaded movies and more than an hour of consumer generated video content selling the E-scooter in this region.

Recently we performed a qualitative pre- and after-campaign measurement in Den Haag, Zaanstad, Zwolle, Helmond and Dordrecht. This measurement was set up to gain more insight in the campaigns’ effects regarding the awareness, gaining knowledge about E-scooters, its effects, attitudes and (buying and using) behaviour.

The rapport showed us significant changes in:

- The attitude of the target group towards a more positive one. The E-scooter is now seen as “Pretty nice models and very cheap in use”.
- After the test-drive participants in the campaign were even more enthusiastic; “The E-scooter is quiet and fast.”
- Most of the users now consider buying an E-scooter

Below the results of the campaigns in Den Haag, Zaanstad, Dordrecht, Helmond and Zwolle are presented:

Den Haag:

- About 495.000 residents
- More than 5 million hits on the campaign's website
- Over 10.000 unique visitors of the website (target group of 25.000!)
- About 150 applications for test drivers
- 38 test drivers selected and 30 movies uploaded
- Over 2.700 voters
- On average every visitor visited 3 pages during approximately 2,5 minutes. Compared to similar websites these are relatively high scores.

Zaanstad:

- Overall the results achieved are relatively better than in Den Haag
- About 147.000 residents
- Over 5.300 unique visitors
- About 90 applications for test drivers
- 21 test drivers selected and 18 movies uploaded
- Over 2.200 voters
- On average every visitor visited 3 pages during approximately 2,8 minutes

Dordrecht:

- About 119.000 residents
- 31 test drivers selected and 10 movies uploaded
- Over 2.100 voters

Helmond:

- About 88.000 residents
- 20 test drivers selected and 13 movies uploaded
- Over 1.700 voters

Zwolle:

- About 120.000 residents
- 43 test drivers selected and 24 movies uploaded
- Over 2.100 voters

The campaign is being held right now (spring 2012) in 15 cities in the area of West-Holland. The results of this campaign so far are great. So far, the website has had 5.192 unique visitors, and there are 218 applications for test drivers already!

## **6.2 Zero and One measurement**

A quantitative research (0- and 1-measurement) under almost 1.300 youngsters between 16 and 25 years old from the municipalities Zwolle, Helmond and Dordrecht shows inter alia that:

- 40% would like to have a scooter
- By 1 in 3 the scooter is paid by the parents
- More than 50% of the youngsters thinks the noise of regular scooters is disturbing
- A quarter of the youngsters doesn't know the existence of E-scooters
- 50% of the youngsters has never seen an E-scooter before
- 76% wants to try one someday
- After the campaign the number of youngsters that considers buying an E-scooter has increased with more than 50%!

### **6.3 Conclusion**

In Holland noise annoyance by road traffic is the biggest problem.  
The most annoying part of road traffic are petrol scooters and mopeds.  
E-scooters can solve that problem.

We think that the campaign “Electric Heroes” means a lot to the noise problem in the cities and is a very good alternative for the “normal” scooter / moped. Electric Heroes is evolving into a true silent revolution with a growing number of electric heroes all over our country.

Let Electric Heroes spread all over the world!

### **7. REFERENCES**

- Annoyance, concern and residential in the Netherlands Annoyance inventory 2008, RIVM 2011
- Office for vehicle documentation and information (VWE)
- Evaluation Electric Heroes campaign, NSG 2012