



## U-SMILE Newsletter July 2017

Dear readers, we are most delighted to herewith send you the first U-SMILE Newsletter which will, from now on, appear on a regular basis. We wish you all a great holiday season! The U-SMILE team.

### Outreach

[Managing congestion with tradable permits: The best of both worlds?](#) Blog by Erik Verhoef (U-SMILE project coördinator)

Interview in Vuurwerk: [Actueel: Erik Verhoef over rekeningrijden](#)

Interview with Ewout Spit (De Verkeersonderneming): ["Spitsrijders bewust maken van keuzemogelijkheden"](#) ([www.verdus.nl](http://www.verdus.nl))

### U-SMILE news

How is U-SMILE progressing? Read the [state of affairs](#).

### Update from our academic partners

PhD Boudewijn Zwaal (of the TU-Delft-CITG team, together with Victor Knoop and Hans van Lint)'s research will focus on two parts for the next years. First, Boudewijn will focus on improving traffic flow models that specifically model both urban areas and arterial roads/motorways. An example is the case-study that will take place next year, the Maastunnel construction in Rotterdam, where the urban areas north and south of the city are connected through multiple roads and motorways.

Second, he will focus his research on departure time optimization, a joint effort of TU-Delft and VU Amsterdam. The two teams will try to combine traffic flow fundamentals (such as the Macroscopic Fundamental Diagram) with econometric concepts such as a utility-based departure time optimization.

The **VU-team** (Devi Brands, Yue Bao, Erik Verhoef, Paul Koster and Jasper Knockaert) is currently working on a lab-in-the-field experiment which will be the first of its kind, introducing **tradeable permits in a mobility setting**. It is expected to start coming September and the team aims to have around 500 participants, all experienced car commuters.

Participants will receive an initial budget and a number of permits and are encouraged to make one choice on each working day. They can choose between paying a parking tariff that varies over the days of the week, or use a tradeable parking permit to pay for their parking spot. Permits can be bought and sold against one market price that varies depending on supply of and demand for permits.

The experiment will generate insight into the trading behaviour of individuals and enable the team to study the dynamics of the permit market. It will furthermore be an opportunity to test the developed digital platform. Both knowledge that is generated with this experiment, as well as the design of the digital platform, will benefit the following up field experiments. The first of these field experiments will take place close to Rotterdam and is expected to start in the spring of 2018.

Phd Lizet Krabbenborg (of the **TU-Delft-TPM team**, together with Eric Molin and Bert van Wee) 's research proposal containing her plans for the remaining 3 years of her PhD was approved in June. Her proposal consists of 4 interrelated projects. The first research project has already started and concerns an empirical research into the internal frames of several stakeholders on road pricing instruments. Three groups of stakeholders will be investigated: the public (voters), politicians, and upcoming politicians. Furthermore, Lizet is preparing the interviews that she will conduct before and after the Maastunnel-experiment. The idea is to explore the acceptability, and the factors that influence acceptability, of several stakeholder groups with respect to tradeable peak permits. The group of interviewees is not limited to politicians, but also includes lobby groups and policymakers.

Nadja Zeiske, Ellen van der Werff and Linda Steg (**RUG**) examine how they can design smart incentives which intrinsically motivate people to engage in durable sustainable behaviours. At the moment, they are evaluating a three-week free public transport card for residents from Groningen who normally commute to work by car. They test whether the goal people perceive the incentive to have (to reduce pollution or to increase accessibility of Groningen) might influence their motivation to use public transport in differing ways. In addition, the team is evaluating whether the free public transport card incentive is effective in stimulating the use of public transport beyond the three-week trial period, and whether these long-term effects depend on which goals are communicated. A second project, in collaboration with the **HvA** and the **municipality of Amsterdam** concerns testing which incentives might motivate taxi drivers in Amsterdam to adopt an electric vehicle, and under which conditions such incentives may secure intrinsic motivation to adopt an electric taxi. A final project aims to examine whether it is possible to intrinsically motivate visitors of the Welcome to the Village festival in Leeuwarden to engage in sustainable actions at the festival with different types of rewards that they can gain by using so-called ecocoins.

The **HvA team** (Robert van den Hoed, Jan Dam, and Milan Tanis) has worked closely with the City of Amsterdam to analyze incentives in relation to the voluntary agreement with the taxi sector to become fully electric by 2025. A priority incentive to provide advantage to electric taxis at the Central Station taxistand was evaluated, leading the city of Amsterdam to tighten the rules given the success of the incentive. In parallel the HVA will evaluate the incentive to provide free parking while charging (up to 30minutes) at public charging stations (starting end of 2017). Thirdly the HVA has supported the City in determining the necessity of extra fast charging stations on short notice, as well as evaluating the need for new fast chargers in a number of growth scenarios. Finally, together with the RUG a survey was set up for taxi drivers to evaluate and monitor their attitude and likelihood of switching to electric taxis (targeted September 2017 and repeated annually).

In parallel research with the ArenA is in preparation, mostly focused on incentives related to city logistic streams to switch to electric (incentives and availability of charging infrastructure), as well as evaluating options as a major taxi facilitator to incentivize taxi drivers to become electric.

## Update from our urban partners

### **Amsterdam Zuidas** (Marian Robben):

In 2019, the Zuidasdok project will be launched. This will involve the widening of the southern section of the A10, creating tunnels between s108 and s109 for the motorway, and upgrading the Amsterdam Zuid railway station.

After an intensive tendering process, the contract to design and build Zuidasdok has been awarded to a consortium operating under the name Zuidplus, consisting of the construction companies Fluor, Heijmans and HOCHTIEF. Zuidplus submitted a well thought out and high-quality proposal, which scored well on all evaluation criteria. They will go to great lengths to limit the impact of noise and vibration, and accessibility of the Zuidas district. Road works that will cause a decrease in traffic capacity will be carried out mostly during weekends.

Until spring 2019, the preparation for the actual construction work will be carried out. This involves setting up construction areas, carrying out several tests (soil samples, vibration measurements etc.) and cutting trees. The Zuidplus proposal will also be turned into a so-called pre-design, which is essentially a much more detailed project plan. The actual construction will start in 2019 and last until completion in 2028.

### **De Verkeersonderneming Rotterdam** (Steven Butter):

Built between 1937 and 1943, the Maastunnel is the oldest river tunnel in the Netherlands. Due to necessary renovations, the tunnel has been closed for two years now. Being an important link between the north and south of the city, Rotterdam faces the challenge of diverting traffic. It is the task of Verkeersonderneming Rotterdam to minimize the impact of the closed Maastunnel. A number of measures has been taken in order to do so. For example, biking, the use of public transport, including water transport is stimulated. In addition, local infrastructural adjustments are being implemented by the municipality of Rotterdam: extra driving lanes are created along the detours. De Verkeersonderneming has contracted the ARS company to implement 'spitsmijden' (peak hour avoidance): people who usually travel via the Maastunnel receive an amount of money, if they use alternative modes of transport, or choose to work at home, or otherwise avoid the Maastunnel, thus

relieving the pressure on traffic intensities. A considerable part of the cooperation with ARS involves spitsmijden using *tradeable permits*. ARS, Verkeersonderneming Rotterdam and the U-SMILE team work closely together to set up the Maastunnel experiment, the first experiment introducing tradeable permits in a mobility setting.

## Other SURF news

[Sustainable behaviour in sustainable cities](#) – results of the European research project CASUAL presented.

Surf researcher Harry Timmermans' opinion on [expectations about smart mobility](#).

[Handbook urban living labs](#) published by European research project GUST (free downloadable).

## Upcoming events

14 November, 2017 (location to be announced): U-SMILE meeting. Interested in attending the public programme? Send us an [email!](#)

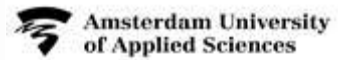
## Meet Yue Bao



Yue Bao, originally from China, joined U-SMILE as a postdoc under supervision of Erik Verhoef as per 1 May, 2017. She succeeded Matthias Schlaeffer. Yue's research topic relates to mathematical and economic theory of traffic management instruments, road pricing and tradable credits in particular. Yue received her PhD entitled 'Traffic management modelling and analysis based on tradable credits scheme' from Beijing Jiaotong University. She worked in Hong Kong University of Science and Technology for about half year and in Utrecht University for one year as a joint-training PhD student during her PhD study.

U-SMILE (Urban Smart Measures and Incentives for quality of Life Enhancement) is a SURF (Smart Urban Regions of the Future) project, which is part of VerDuS (Verbinden van Duurzame Steden - Connecting Sustainable Cities).

Within this knowledge initiative, scientific researchers work together with professionals to develop knowledge that helps address issues relating, for example, to urbanisation, the environment, mobility and transport. VerDuS is an initiative of NWO (the Netherlands Organisation for Scientific Research), Platform 31 and various Dutch ministries. The U-SMILE consortium consists of academic partners from Vrije Universiteit Amsterdam, Rijksuniversiteit Groningen, Delft University of Technology and University of Applied Sciences, Amsterdam, and non-academic partners from the municipalities of Amsterdam and Groningen, Verkeersonderneming Rotterdam, Amsterdam-Arena and Amsterdam Zuidas.



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