



## Editorial

The TRACE project has now been running for two years and a half, and the TRACE tools and apps have been tested in all cities involved in the project, through local campaigns characterized by the enthusiastic participation of many citizens. We are now starting the ex post evaluation of the pilots, to assess the impact of walking and cycling tracking services for behaviour change and planning purposes.

In this issue, you will read about the participation of TRACE in the CIVITAS Forum in Torres Vedras (PT), with a

session jointly organized with the FLOW and EMPOWER projects on the role of data in transport policies, and two exhibition stands. You can also read about the campaigns the TRACE cities have implemented for Traffic Snake Game and Positive Drive, and discover the preliminary impressions and learnings of citizens and decision-makers.

The newsletter also spotlights the TRACE partner Mobiel21, responsible for the Traffic Snake Game campaign, and the Bike2Work project.

If you are from a city administration or a local partner like a cycling association or service provider, we encourage you to get in touch with us to use our apps in your local behaviour change campaigns!

For more information about the project and activities in the cities, make sure you regularly check our website at [www.h2020-trace.eu](http://www.h2020-trace.eu) and follow us on Twitter and LinkedIn. If you enjoy reading this newsletter, subscribe on the website to receive it biannually.

We wish you a pleasant read!

# CIVITAS Forum Conference

27-29 September 2017,  
Torres Vedras (Portugal)

This year, the **CIVITAS FORUM** Conference was held by the warm and friendly city of Torres Vedras. The TRACE project was represented in this event with a session jointly organized with the FLOW and EMPOWER projects, and two exhibition stands within the main tent.

The A2 session was entitled “Decision making in the digital age: The role of data in transport policies and decisions for non-motorised modes”. It focused on how collected data on walking and cycling can feed into decision making, strengthening the case for implementing such measures.

The projects **FLOW**, **TRACE** and **EMPOWER** teamed up to look at various issues related to data on walking and cycling. Brief inputs were provided by the three projects on data and their availability, collection and use in the respective projects. Participants were then asked to contribute their own experiences to discussions in a **World Café format**, to assess to what extent data are available on non-motorised modes in cities, and to what degree they can support decision making on sustainable transport.

During the **Deployment Day**, TRACE partners manned one stand dedicated to the Biklio app, and one stand shared with the partners from the FLOW and EMPOWER projects, where a video of the recently released “tracking for planning tool” from the TRACE project – **“TAToo – Tracking Analysis Tool”** – was continuously playing on the screen.

During the deployment day, the two stands were visited by many conference delegates who were keen to learn more about the project, pilot initiatives, Apps that were developed as a part of the project and to collect the prizes;

visitors at the Biklio stand could pick a bike bell if they showed their application to download!

Also, during the afternoon, TAToo was presented to an interested and enthusiastic audience, who heard about the Key Performance Indicators (KPIs) calculated by the tool and its first tests’ results. Some of these results were accomplished using the data from the Positive Drive campaign in the Cloche d’Or area, so the presence of Martin Kracheel, from the TRACE partner LuxMobility, helped explain more about the potential of TAToo.

This was also a great opportunity for all those present to network with hundreds of professionals, whose experiences should be now a precious input for the remaining steps of the TRACE project.



# Mobiel21 Partner in the Spotlight

MOBIEL 21 SETS PEOPLE INTO MOTION. WE ARE A GROUP OF SUSTAINABLE MOBILITY ENTHUSIASTS WITH A VERY DIVERSE BACKGROUND: TRAFFIC SCIENTISTS, PSYCHOLOGISTS, ECONOMISTS, PEDAGOGUES, SOCIAL WORKERS AND SO ON.

Our drive in life is to bring about a new mobility culture in which sustainable travel modes are the default choices. We manage projects and campaigns, perform research and offer training and workshops.

Mobiel 21 started as Langzaam Verkeer in the 80's and has grown into an international NGO with 25 employees. Along with projects in the European frameworks of CIVITAS, Horizon 2020 and Interreg, we are also working for national and regional governments, companies and schools. Last but not least, working with and for the people is at our core of all our grass roots projects.

## WHY DID YOU PARTICIPATE IN TRACE?

Although Mobiel 21 already co-developed or cooperated with a number of applications and technologies such as Routecoach, From 5 to 4, Flemish Bicycle Counting



Week, M-app and so on, we were, and still are, incited by TRACE's research question: "what is the potential of tracking for behaviour change initiatives?". That question is at the very heart of the project, but is not easy to answer. Next to that, as a laboratory for societal change, Mobiel 21 is always looking for projects that have an innovative edge. Technology is evolving, and so must we.

## WHAT IS YOUR ROLE IN THE TRACE-PROJECT?

We were in charge of one of the preparatory work packages in which we explored the initial research question through literature research, expert interviews, stakeholder and user surveys and good practice

review. Following that, we have been implementing two TRACE tools: Positive Drive and the Traffic Snake Game Tracker. For Positive Drive, we are implementing the tool in an educational campus of 7000 students in the city of Hasselt. So far, we have collected 2044 routes but we hope we can still increase this number towards the end of the campaign. For the Traffic Snake Game, we have developed a tracking service which allows school to have an accurate picture of the modality and route chosen by their pupils. Although we faced a few problems getting the data onto the user interface, we believe that the pilots are a good basis to further develop the Traffic Snake Game into a 2.0 version.

## Challenges ahead

FROM OUR RESEARCH IN THE FIRST STAGE OF THE PROJECT, WE'VE LEARNT THAT USERS EMPHASIZE THE IMPORTANCE OF EASE OF USE, ACCURACY, BATTERY USE AMONGST OTHERS.

From what we have learned from the pilots, we see these criteria still present considerable challenges for the current technology, especially when dealing with multimodal mobility. For example: modality recognition and GPS location are improving but are still at percentages between 75 and 85 percent. When only one mode is used during a trip, recognition is fairly accurate for car, bike or walking, not so for buses or trains. This changes dramatically

when automated tracking is done for a trip in which multiple consecutive modes are used. Another challenge is the high energy demand of automated tracking. Users still report high battery usage when having this feature switched on. These are but a few of the challenges we are still facing, and we are excited to be involved in one of the projects that could answer these challenges!

# 14th International Conference on Urban Health

ON THURSDAY 28 SEPTEMBER 2017 THE TRACE PROJECT WAS PRESENTED AT THE 14TH INTERNATIONAL CONFERENCE ON URBAN HEALTH IN A SESSION TITLED 'WALKABILITY AND THE BUILT ENVIRONMENT'.

The conference, which took place in Coimbra (Portugal) from 26-29 September, brings together researchers, educators, practitioners, policy-makers, health and urban stakeholders every year to exchange ideas and evidence-based policies to promote health and equity in urban settings. TRACE was represented by TRACE's partner Polis (Pasquale Cancellara) who focused the presentation on the projects apps, the benefits of active mobility for cities, and on how the TRACE project fits into the much broader European urban transport goals of smart, green and sustainable transport.

## Contact information

For more information:  
<http://icuh2017.org/conference-programme.asp>

## Project in the spotlight

PROJECT IN THE SPOTLIGHT: BIKE2WORK OR HOW AN EU PROJECT GOT HALF A MILLION PEOPLE OUT OF THEIR CARS



For the past two years, ECF together with twelve other project partners worked on the Bike2Work project, funded by the European Union. The main objective of Bike2Work was to encourage a significant modal shift from motorised commuting to cycling. The project targeted employees and the change of their commuting habits through Bike2Work campaigns, as well as employers, convincing them to meet the needs of cyclists.

As a result, diverse Bike2work campaigns were organised in participating countries, and the results went far beyond impressive emissions savings: **more than 20,000 tons of CO2 saved in one year!**; across the board, employers endorsed bike to work schemes and commuters cycled to work more than 145 million kilometres - that is 3,600 times around the Earth! Bike2Work succeeded in getting half a million people out of their cars.

Bike2Work launched the first **European Cycle Friendly Certification Framework** (CEF) through which approximately 300 companies in 12 European countries became cycle-friendly in 2015-2016, bringing over

half a million commuters onto their bicycles.

By providing advocacy tools and **encouraging policy changes**, the project also gained support from local, regional and national authorities. In some cases significant policy changes were triggered in favour of cycling; in Italy and France, new tax breaks and reimbursement schemes were introduced for cycle commuters, whereas advocates in Croatia leveraged the campaign to get political commitment for better policies and more cycling infrastructure.

The next step is to proliferate these success stories around Europe with a [European Cycling Strategy](#) that will bring together best practices for European businesses. In addition, one harmonised European Strategy would provide common policy recommendations for all the Member States, encouraging national governments to take policy initiatives that favour cyclists.

<http://h2020-trace.eu/news/news-detail/bike2work-or-how-an-eu-project-got-half-a-million-people-out-of-their-cars/>

# Traffic Snake Game

## THE FIRST TRAFFIC SNAKE GAME PILOT IN BELGIUM!

In March 2017, the **first pilot of the Traffic Snake Game** (TSG) with trackers was run in Torhout (a small town of 20.000 inhabitants). The school has played the classic TSG campaign with a snake banner and stickers for several years. Hence, they were familiar with the basic concept of the campaign. After a meeting with the responsible teacher and with the IT expert of the school, information letters were sent to the parents, who were asked if they consent with their child participating in the project. More than **half of the parents signed the informed consent** and 100 pupils were successfully tracked.

Two weeks later, two further Belgian schools successfully participated in the tracking project in Oudenaarde (30.000 inhabitants) and in Zoerle-Parwijs (a small village of 2.258 inhabitants). The total number of participating children in the project was 309.

The motivation for the schools to participate in the project mainly came from **access to mobility data**. Two schools wanted to use the data to ask their city to **change the traffic situation around the school** (i.e., either asking for infrastructural changes or for avoiding heavy traffic around the school when the school starts and ends). Because of the interest in reliable data, the schools preferred not to run the behaviour change campaign simultaneously with the tracking week, but to run it afterwards.

In a follow-up meeting with the involved teachers and school board members, all **schools were excited about the results of the tracking campaign**. The work load was not considered too heavy for the responsible teacher and all schools wanted to participate in similar projects in the future.

The trackers were then ready to travel to Italy, Portugal, United Kingdom, Bulgaria, and Serbia, for the other TRACE pilots!



# News bites from TRACE pilot sites

## TRAFFIC SNAKE GAME ÁGUEDA: INNOVATION AS A STIMULUS FOR SOFT MOBILITY

In June 2017, 180 children from 4 schools participated in the digital version of the Traffic Snake Game. This project has been implemented in Portugal, in its traditional version, since 2014. This was the first time the Traffic Snake Boxes tracked the routes and means of transport used by the participating students **using GPS technology**.

Information about the project was distributed among parents and teachers from the classes and schools involved. All students were enthusiastic to partake in the project. However, the number of parent content letters received was around 65% of the total number of students.

The Municipality of Águeda took advantage of the opportunity provided by the game, a gamification of reality, to highlight the importance of sustainable mobility for the quality of life of the inhabitants of the municipality. Interventions with participating classes have been made to change negative perceptions about cycling so that it is valued as a valid and desirable means of transport for short distances.

In the scope of the game, the **association “Os Pioneiros”** promoted making the journey between the institution and school on foot. This journey, which is usually made by bus, allowed the organisers to take approximately 40 children between the ages of 6 and 11 years, as well as the users of after-school care, on an adventure of discovery in their own village under the vigilant eye of the “Safe School” police force. **The children and supporting staff involved offered a very positive evaluation**. It was possible to locate the more problematic points in the walk, to improve the route, to recognise existing difficulties, with the perspective of continuing to perform these actions, not only to help our planet, but also to assist the health and well-being of each one of the participants.

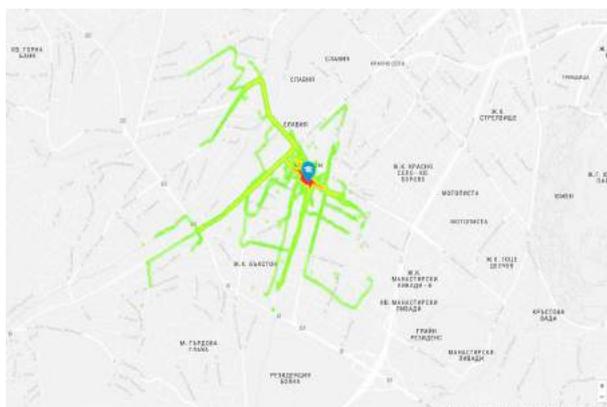
There is still lot of work to do in this matter, yet the message shone through: **walking is easy, biking is fun and everyone wins when we use active mobility!**

## THE TRACE TRACKING APPROACHES TRIUMPH IN SOFIA (BG)

The Traffic Snake Game, as part of the TRACE project, joined the **initiative “Walk to School” in Sofia Municipality**, encouraging primary school pupils and their parents to exercise and travel more sustainably from/to school. The campaign addressed traffic safety, children’s health and air quality issues and introduced game-based approaches to teaching energy and environmental concepts.

During the campaign, TSG was presented to 16 classes in three schools covering more than 400 pupils and 30 teachers. The TRACE tracker testing and validation was conducted among 147 pupils and routes for 94 pupils were acquired. Their **data showed overall reduction of the car use and increase sustainable mobility trips** – walking, bus and metro. TSG was an emotional experience for the pupils triggering their positive behavioral change.

The “Walk to School” campaign proved to be a win-win collaboration between local authorities, schools, and energy agencies. The **data acquired from the tracking will be used by the schools to lobby** for infrastructural changes and safety regulations to reduce traffic congestion and air pollution and increase traffic awareness. Also, the tracking maps will be compiled as **evidence for informed decision-making** on behalf of the local authorities when prioritizing infrastructural improvements around the schools. Data from the modality split for the home/school trips gathered during the TRACE project tracker testing proved that motorized transport polluted significantly the air around the school with NOx, NO2 and particulate matter that slowly dissolves over the school leaving the children learn and play in polluted environment. This results in increased respiratory complaints and diseases among young pupils and teachers. Thus, the use of trackers in the campaign not only provides data for infrastructural changes in support of traffic safety, but **data to raise awareness among parents on impact the private motorized transport has on their children’s health.**



Evidence-based infrastructural decision making



Enforcing safety through school volunteers



Emotional and existing way to change behaviour

## TRAFFIC SNAKE GAME IN SOUTHEND-ON-SEA: LET’S IMPROVE THE TRACKER, BUT PUPILS ARE MORE AWARE OF SUSTAINABLE MOBILITY!

Southend piloted TSG during two weeks in July 2017 in two schools: Chalkwell Hall and Sacred Heart. Both schools were very supportive and accommodating and showed great enthusiasm for the project. They were happy to send out the consent forms and collect them back in and supply the Borough with list of the children that were taking part.

In Chalkwell Hall, out of a potential 108 pupils, 42 parents consented that their child could take place in the pilot. In Sacred Heart, a total of 69 pupils took part in the pilot.

Before handing the trackers to the pupils at both schools, the organisers gave a short talk about the project, what sustainable travel meant to them and the benefits there were for themselves and the environment. The **pupils had many great intelligent questions** which were answered before noting the mode of transport each of them had used to get to school that morning which could be used as a base line assessment. The children were initially excited about receiving a tracker but were disappointed that they could not switch them on or see any evidence that it was actually working and tracking them. **When the children returned the tracker the next day they did not show any enthusiasm** at all as we spoke with them to check the mode of transport they had used that morning for evaluation purposes.

Although not many routes have appeared on the website, because of **some technical problems, it has been a good opportunity to talk to pupils about sustainable travel** and to raise their awareness of the impact their journeys to school have on their health, mental wellbeing as well as the environment.

# Positive Drive

## POSITIVE DRIVE PROMOTIONS IN SOUTHEND-ON-SEA: OVER 100 USERS ARE NOW TRIALLING THE APP

The TRACE team in Southend-on-Sea targeted over 3,000 Southend-on-



Sea employees to encourage use of Positive Drive.

The advertising took the form of posters, displays, leaflets, employer's digital newsletters and intranet as well as one to one contact on open day events based in 2 large employer's offices. Organisers have offered portable phone chargers as incentives to anyone who gave us their email address and agreed to download the app, emailed people with prompts to action at the start of the live campaign, attended wider sustainable active travel workshops and conferences organised in Southend-on-Sea to reach people with an interest already in sustainable travel. Finally, they ran **individual workshops where they asked people to download the app and went on a walk with them** to see the app in action and win smiles! This type of one to one engagement was most effective in user uptake.

Findings show that **people in Southend are attracted to the app due to the prize draw options** rather than that of an interest in tracking and health statistics, indeed with many apps already in use for these purposes it was the gamification element of the app that sets it apart.

Messages through the app with prompts to encourage use would have been useful as enthusiasm wanes the more time the app runs.

Since prizes have started to be distributed it was found that word of mouth is a far more effective marketing tool than any of the above. It has taken longer than anticipated for the campaign to gain momentum, and with that in mind Southend is looking to extend the campaign time.

The results of the post campaign survey will provide with additional useful insights to inform future campaigns.

## "PROMENI TRAG" CAMPAIGN – POSITIVE DRIVE FOR THE BELGRADE STUDENTS



In Belgrade, public transport share in modal split is 52,86%, while for cars is 21,55%. **Share of walking is very high (24,41%), while cycling is very low (0,55%).** The main reasons for this, beside poor topography, are the lack of cycling infrastructure and the lack of a cycling culture among inhabitants. Therefore, within TRACE project, the Faculty of Transport and Traffic Engineering (FTTE) held a **campaign called "Promeni trag", fully supported by the Municipality of Belgrade, targeting students in the city.**

The campaign kicked-off on 22 May 2017, in the biggest student campus "Studentski grad", and it ended on 21 July 2017. More than 300 students in Belgrade actively used Positive

Drive app within the "Promeni trag" campaign.

The marketing strategy of the campaign was designed to overcome two main challenges: getting students to join campaign and download Positive Drive, and getting them to continue using it. The initiative was announced in national newspapers, on students TV and radio, as well as on various internet portals. However, marketing strategy was mainly focused on social networks and other internet communication channels. At the beginning of May 2017, Facebook and Instagram – campaign pages (@promenitrage, #promenitrage) were created and used for posting images and videos, but also to inform general public about events. Positive Drive users and page followers were invited to give their contribution and actively influence the page design.

**Nine companies sponsored the campaign with more than 1,300 prizes** for the users reaching predefined achievements. The final event was held on 14 July 2017 at FTTE. Three main prizes were given to the users with highest achievements: an action camera and two bicycles.

Data is currently being processed to evaluate the effectiveness of the campaign. However, **a result has already been achieved:** the interest shown by students, their enthusiastic participation in the game and willingness to change their mode of travel.



# Upcoming events

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## Polis Conference 2017

"Transport innovation for sustainable cities and regions"- TRACE presentation and stand

**6-7 December 2017,  
Brussels, Belgium**

[www.polisnetwork.eu/2017conference](http://www.polisnetwork.eu/2017conference)

2

## 2018 TRB Annual Meeting

"Transportation: Moving the Economy of the Future".  
TRACE participating in EU-US roundtables, meetings and sessions.

**7-11 January 2018,  
Washington DC, USA**

[www.trb.org/AnnualMeeting](http://www.trb.org/AnnualMeeting)

3

## TRACE Final Conference

"Decongesting Europe - new approaches to freeing our cities"

**13-14 March,  
Brussels, Belgium**

4

## TRACE Take-Up Group (TUG) meeting

Public and private actors interested in the roll-out of TRACE tracking tools - Contact us if you are interested in participating!

**back-to-back with Final Conference  
(date tbd)**

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## Constructing an Urban Future: The Sustainability and Resilience of Cities Conference

**18-19 March 2018, Abu Dhabi,  
United Arab Emirates**

<http://architectureemps.com/abudhabi/>

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## 2018 TRA

"A digital era for Transport"  
TRACE presenting and promoting at stands.

**16-19 April 2018, Vienna, Austria**

[www.traconference.eu/](http://www.traconference.eu/)

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## 5th SUMP Conference 2018

**14-15 May 2018, Cyprus**

[www.eltis.org](http://www.eltis.org)

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## 4th Conference on Sustainable Urban Mobility

"Data analytics: Paving the way to sustainable urban mobility"  
TRACE presentation

**24-25 May 2018,  
Skiathos Island, Greece**

[www.csum.civ.uth.gr/](http://www.csum.civ.uth.gr/)

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## Velocity 2018

"Access to life"

**12-15 June,  
Rio de Janeiro, Brazil**

[www.velo-city2018.rio/](http://www.velo-city2018.rio/)



## For more information:

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