



Smart Mobility Services Event and TRACE Validation Seminar

TRACE Behaviour change tools

Daniela Stoycheva, Polis

22 November 2016, Brussels



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 635265.



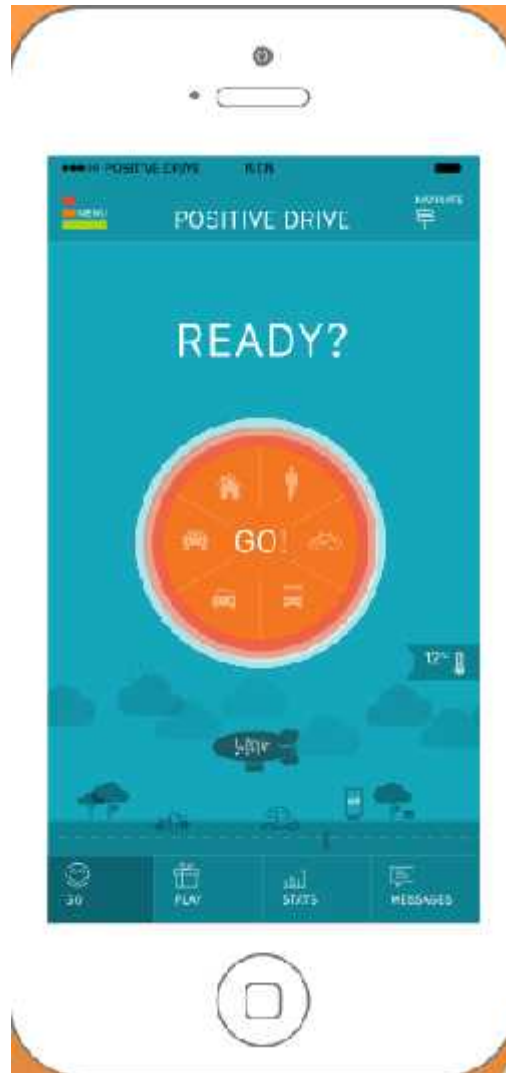
TRACE Mission



**USING TECHNOLOGY TO GET MORE
PEOPLE CYCLING & WALKING**



Positive Drive



Positive Drive is a smartphone app that rewards good behaviour



HOW DOES IT WORK?

ROUTING

To use Positive Drive you need:

- Smart phone with GPS
- Internet connection

Very easy in use:

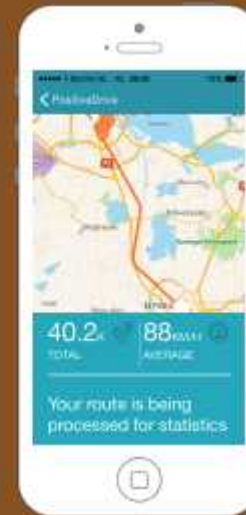
- Open the app
- Press 'GO' and start travelling
- Positive Drive registers walking, cycling, cars and (mostly) public transport
- Arrived? Press 'Finish'



HOW DOES IT WORK

RECORDED ROUTES

- After you pressed 'finish' your route will be shown on a map, together with the distance and the average speed
- Raw data will be send to an external API that defines the chosen modality and helps calculating the rewards
- All your driven routes are visible in the app



HOW DOES IT WORK

STATISTICS

We calculate a lot of statistics that we communicate with our users. All stats are shown in the statistics area in the app.

- Route
- Distance
- Speed
- Burned calories
- Money saved
- CO2 emission
- And (s)miles, earned points with travelled kilometers. The more you travel, the more (s)miles you gain



HOW DOES IT WORK

GAMEROOM

- Users can play with earned (s)miles in the Game room: an exciting lottery game
- It's simple: press PLAY and the user can win prizes
- Every pilot city can add their own prizes to the game room
- Pilot cities have to gather sponsors and prizes to make the campaign attractive and effective
- Sponsors will be visible with their logo
- Depending on the amount of users and prizes we calculate the odds



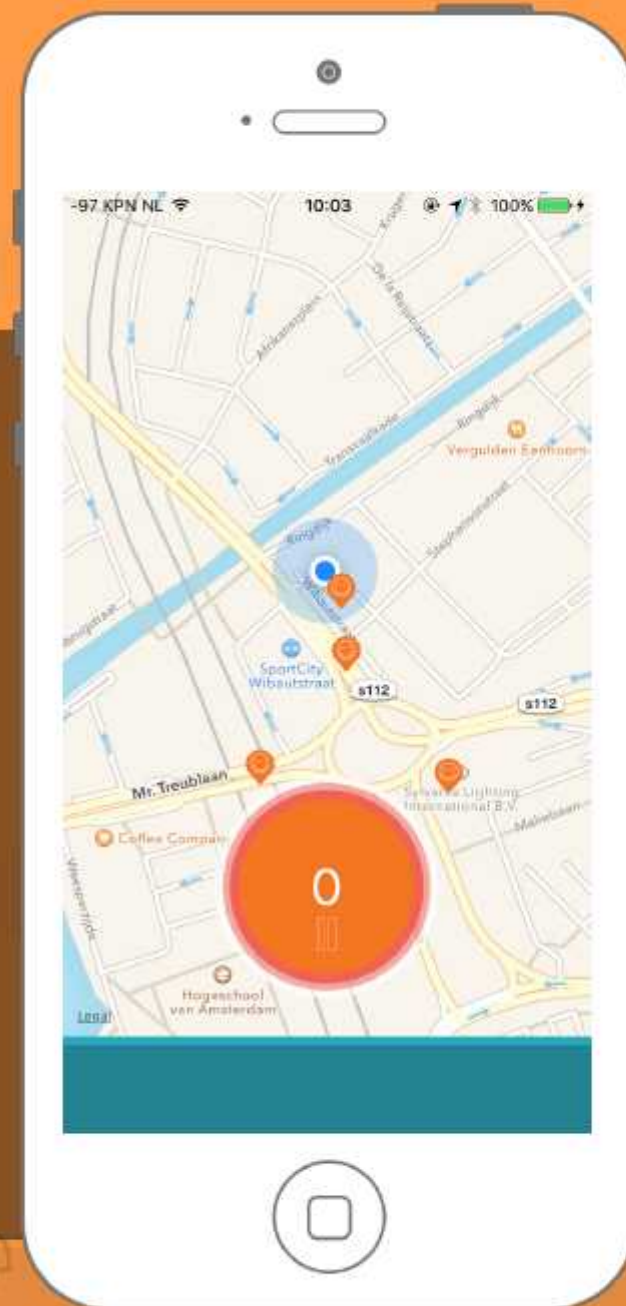
POSITIVE DRIVE & CAMPAIGNS

One app for all campaigns:

- Behaviour change
- Cycling promotion
- Avoid rush hour
- Park & Ride
- Attract specific routes or streets

Think of campaigns like:

- Employees/employers
- Local entrepreneur
- Parking at the station
- Cycling to the gym
- Fast bus lane
- Students from the bus
- Cycle for petrol
- No faster than 50!



Positive Drive: Stakeholders' interest

9



- (Local) authorities - behaviour change mechanisms to reduce congestion, change modal split, make people aware of problematic behaviour, etc., and obtain valuable data
- Companies/ institutions - promote healthy habits among workers and promote their image amongst users
- Users - rewarded for their right choices, coaching



Hi!Cycle

An app which creates a network of recognition and benefits to urban bicycle users, linking them to local businesses and the cycling community

Hi!Cycle

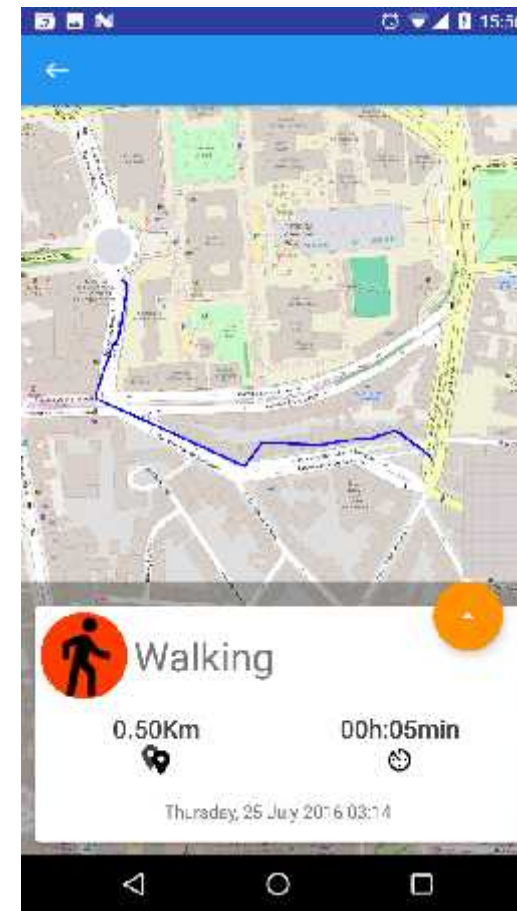
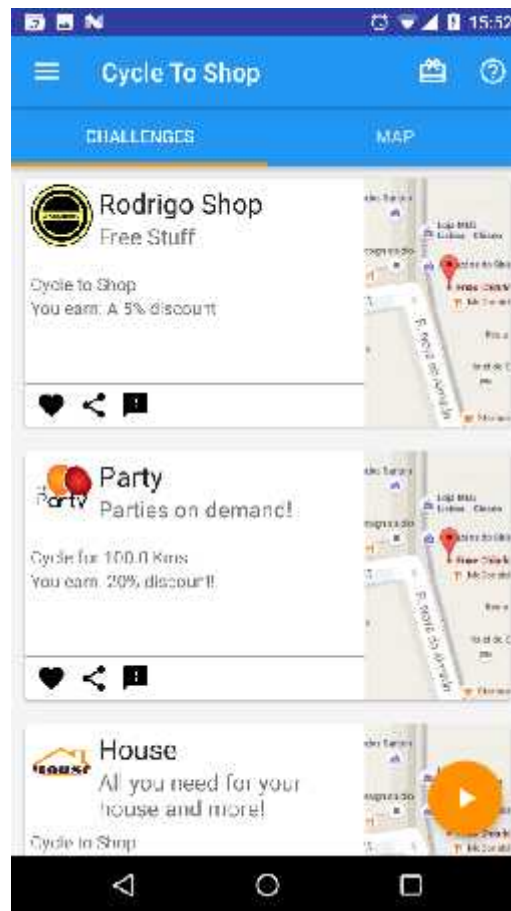


The Hi!Cycle app encompasses **two core challenges**:

- **Cycle to Shop** - user becomes eligible after cycling for 1.5 minutes and ineligible after using any type of motorised transportation or after a 24 hour period without cycling.
- **Distance Travelled** - When defining the distance constraint, the shop owner also defines a validity or expiration date.

Once fulfilled these grant the user **rewards** which can be claimed in participating businesses.

Hi!Cycle: the User's interface



Hi!Cycle: the Shop's interface




TRACE Home Register **Sign in** Downloads Documentation

Rewards


Shops

Register a Reward

Select the types of conditions you wish for your reward and fill the form below.



Cycle to Shop



Travelled Distance

My Rewards

Reward


Shop

Submit

Shop Name	Reward ID	Reward Type	Description	Winners	Edit?	Delete?
Houze	45	Cycle To Shop	3% discount on every decor	-	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
Green Shop	47	Travelled Distance	Free home delivery!	8	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
Party	50	Travelled Distance	20% discount!	3	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>

15:48

Cycle To Shop





user

- recognition / being well treated
- identity / community
- dynamics / novelty
- ... additionally, rewards

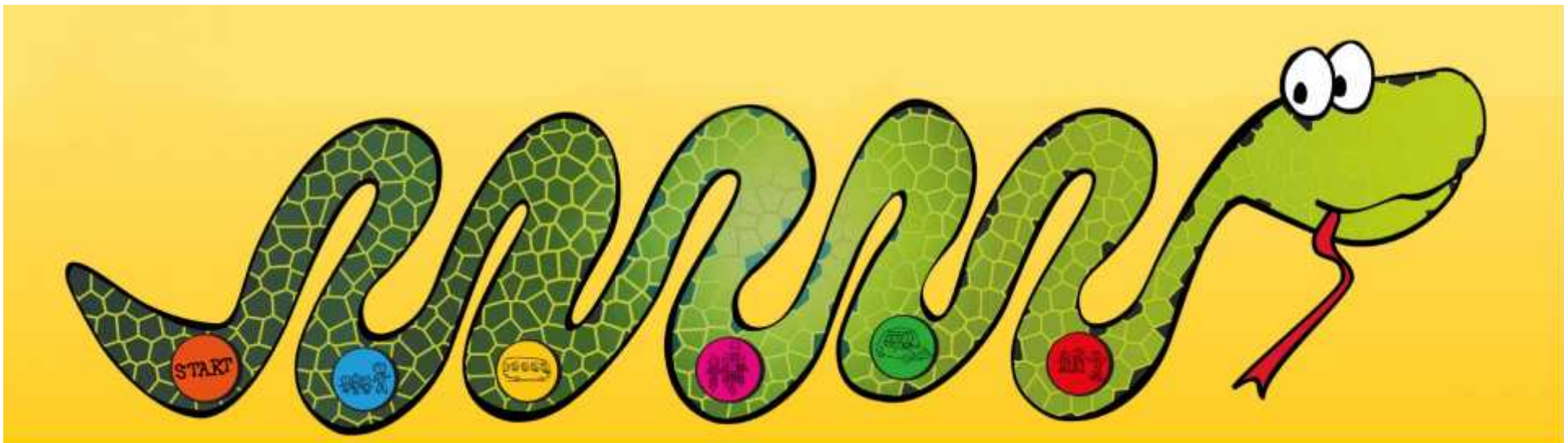


shop

- attract new customers
- personal attitude of shopkeeper
- promote local commerce
- social responsibility / improve image

Traffic Snake Game 2.0

- Aim – to change mobility behaviour of children and their parents by encouraging walking and cycling to school
- Played with primary school children
- Children, parents and teachers are the main target group.

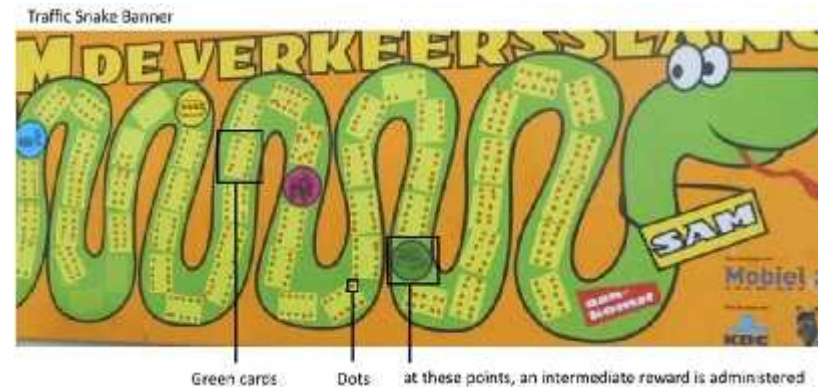
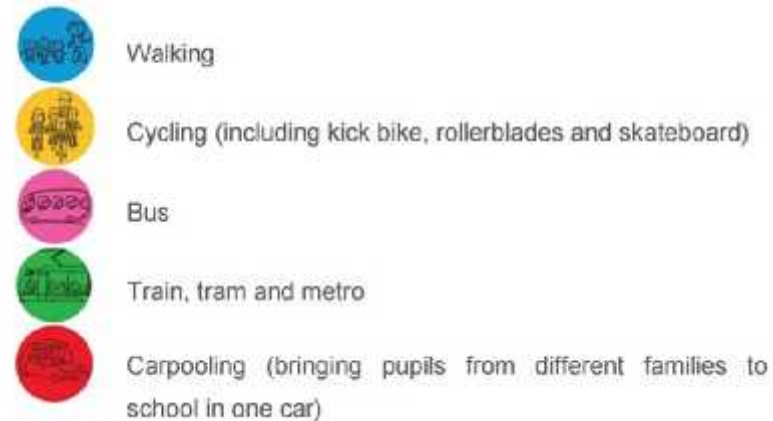


Traffic Snake Game: Standard Campaign

17



- Each school aims at modal shift (e.g. 20%)
- Reward scheme for the pupils
- Consent by parents



Traffic Snake Game: Tracking

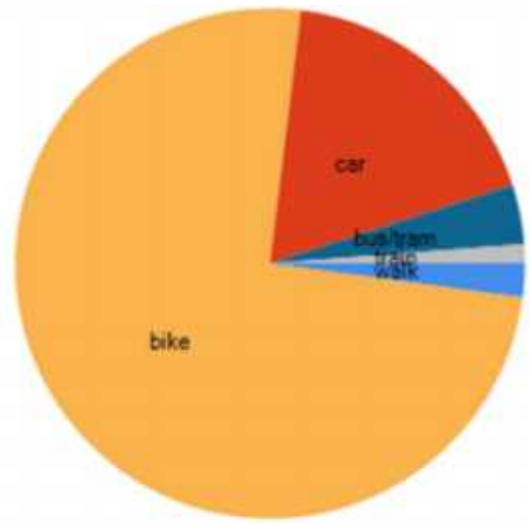
18



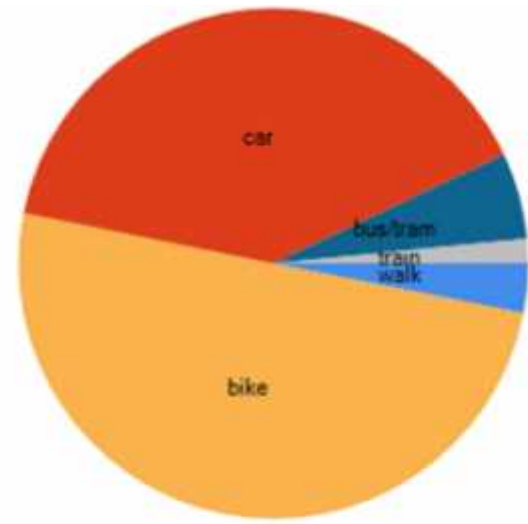
- DEVICE:
 - Can identify mode, trip length, trip duration and route
 - Box: length 98 mm, width 63 mm, and height 36 mm
 - Small power outlet
- USER INTERFACE
 - Front-end for school: dedicated TRACE area on TSG –website
 - Back-end for schools and campaign leader: TSG-website
- DATA
 - Collected via receivers at the school (data-dump via WIFI-signal)
 - Transferred to BFNF-server (via ethernet)



Traffic Snake Game: Data on modal split



modality	Trips	Total Distance	Avg Distance
walk	21	46	2.18
bike	740	5835	7.88
car	179	5344	29.85
bus/tram	37	295	7.97
train	12	713	59.39



modality	Trips	Total Distance	Avg Distance
walk	68	172	2.53
bike	1093	8700	7.96
car	869	27746	31.93
bus/tram	119	645	5.42
train	34	3053	89.78



TRACE Pilots



Pilot site	Partner	1. Positive Drive	2. Traffic Snake Game	3. Cycle to Shop	4. Tracking Tools
Hasselt/Belgium	M21	x	x		x
Belgrade	FTTE	x	x		x
Esch	LuxM	x		x	x
Breda	Breda	x		x	x
Agueda	Agueda	x	x		x
Plovdiv	EAP		x	x	x
Bologna	SRM		x	x	x
Southend-On-Sea	SSBC	x	x	x	x





THANK YOU!

TRACE
WALKING AND CYCLING TRACKING SERVICES

For further information contact the project coordinator at INESC ID:
Paulo Ferreira, Phone: **+351 21 3100230**, Email: **paulo.ferreira@inesc-id.pt**