Pilot Implementation Strategy

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1. **Overall implementation plan**

1.1 **Official pilot scheme**

The mission of the TRACE project is to assess the potential of movement tracking services to better plan and promote walking and cycling in cities, and develop tracking tools that will fuel the take up of walking and cycling measures.

The project targets established measures to promote cycling and walking to the workplace, to school, for shopping purposes or simply for leisure. More particularly, TRACE assesses the potential of ICT based tracking services to optimise the planning and implementation of such measures and enhance their attractiveness and potential impact. Issues such as data privacy, cost, interoperability, financial/tax incentives, infrastructure planning and service concepts are addressed.

Dedicated TRACE tracking based tools to promote behaviour change and support mobility planning will be tested in eight pilot sites, and evaluated in terms of impacts, success factors and benefits, while preparing for their full commercial exploitation. To that end, common, flexible and open access tools are developed, which address related ICT challenges and enable the development of products based on tracking services tailored to the requirements of specific measures by market-oriented application developers.

During the TRACE project four pilots will be implemented: **Positive Drive**, **Traffic Snake Game**, **Cycle-to-shop** and **Tracking for planning**. Each pilot will be based on a specific tool: Positive Drive and Cycle-to-shop will be based on apps, Traffic Snake Game will use a specific tracking device, while Tracking for planning will be based on a specific backend desktop tool for data exploitation.

This document will describe the strategies that will be adopted in each site for the implementation of the pilots. These strategies can be adapted during the implementation phase, due to unexpected circumstances or to the need of further development of some activities that will be considered of interest by stakeholders or final users. Anyway, this document gives a full and clear overview of each partner’s approach.

More information about the technical aspect of each pilot is provided in the Annexes.

In this document, the fourth pilot, Tracking for planning, will be analysed with only regard to the dataset that will be used in each pilot site, since this pilot has no direct relation or activities to be done with final users.

1.2 **Brief description of pilots**
The four pilots that will be implemented in the eight pilot sites will be based on specific tools, according with the final objective they pursue: three tools will be focussed on behaviour change, while the fourth tool will be aimed at tracking for planning.

The three behaviour change tools are:

- Positive Drive
- Traffic Snake Game
- Cycle-to-shop initiative

It should be underlined that these tools are aimed at enhancing some already existing and potential cycling and walking promotion initiatives, thus making them more successful. Indeed, thanks to the TRACE contribution, such initiatives will benefit from new applications (as in the case of Positive Drive and Cycle-to-shop) and device (as in the Traffic Snake Game) based on tracking, and the project will trigger new potential initiatives that become viable through the use of tracking information.

In the next Table 1, the three behaviour change tools are described in a nutshell, referring to next sections for further information.

**Table 1 - The TRACE behaviour change tools in a nutshell**

<table>
<thead>
<tr>
<th>Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Drive</td>
<td>Positive Drive is based on “doing and rewarding the right transport choice”. It uses only positive incentives, such as coaching, prizes, social status and achievements. TRACE will extend and improve the already existing Positive Drive to offer users better feedback on walking and public transport, in addition to bikes and cars.</td>
</tr>
<tr>
<td>Traffic Snake Game</td>
<td>The Traffic Snake Game encourages primary school pupils to travel more sustainably to school. TRACE will develop a Traffic Snake Game tracking device in order to digitalise the campaign and to improve the campaign’s ambitions and impact.</td>
</tr>
<tr>
<td>Cycle-to-Shop</td>
<td>Cycle-to-Shop (CTS) will become a network of shops and bicycle users which will in a permanent and continuous way promote the use of the bicycle for urban travel. By providing permanent benefits and improving the sense of cycling community, CTS is expected to contribute to a structural increase of cycling. Very simply, the user of the app will receive a notification when he arrives and stays at the adherent shop. The notification will announce that the user is eligible for some benefit in the shop. The user shows the notification to the shopkeeper, who will attribute the benefit to the customer at the moment of payment.</td>
</tr>
</tbody>
</table>

The fourth tool is:

- Tracking for planning
This tool is an instrument for tracking data analysis for urban mobility planning and policy making purposes. Indeed, the common approach suffers from a lack of data on cycling and walking, they are too complex and planners and policy makers often not easily perceive their meaning. The Tracking for planning tool will finally support them in interpreting the most relevant information produced by tracking systems, allowing them to identify and rank issues and monitor specific space and time frames.

1.2.1 POSITIVE DRIVE

Context and aims

Positive Drive (PD) is an already existing mobility behaviour change tool. PD is based on “doing and rewarding the right transport choice”. It uses only positive nudges (coaching, prizes, social status, achievements, etc.). The game originates from the Netherlands and is developed by IJsberg.

Most consumers use different forms of transport at different times and different situations. PD’s philosophy is that only by overseeing different users’ actions in traffic it is possible to change people’s behaviour. As soon as the consumer turns on the app it starts measuring and rewarding good behaviour and giving direct feedback. The user can see all rewards achievements, share this through social media and play for prizes in the game room. The coaching program is also driven by these achievements and is tailored to each individual user. PD is extremely flexible and can be adapted to almost any situation, modality and goal set.

The aim of TRACE is to shift from a local environment to a wide-scale application, involving different countries and a higher number of end-users.

TRACE new features

TRACE will extend and improve PD along the following major lines:

Modality

Most modes of transport are measured and recognized in the system, but it offers users only car and bike data so far. Algorithms will be improved to offer users also better feedback on walking and public transport. All modalities will be added to the reward and coaching system and incorporated in the apps’ design.

Purpose

PD is used in particular for generic movements in urban areas. TRACE will use and test the app for specific cycling/walking groups like commuters and youngsters but also for specific cycling/walking themes like going to the pub, going for shopping, going to school and recreational use.

Gameplay

The game in PD will be adjusted to different goals, countries and users.

Coaching

PD offers prizes and social rewards, but it could help people doing even better through coaching. Indeed, winning and giving prizes in combination with coaching leads to 25% more cycle use than
just giving prizes. That what is showed by research such as the B-Riders, a recent initiative implemented in the Nederland involving commuters in their trip from home to work.

*Open platform*

The platform will be made more open in order to create a system that can be more attractive to users, sponsors, consumes less time, and becomes self-supporting in the near future.

### 1.2.2 TRAFFIC SNAKE GAME

#### Context and aims

The Traffic Snake Game (TSG) campaign originates from Belgium and was created by Mobiel 21. The objective of the campaign is to promote sustainable transport to school for primary school children (age 4 to 12, depending on the country), their parents, and their teachers. The campaign currently runs in more than 1,700 schools across 18 EU countries.

The Traffic Snake Game campaign is traditionally a paper-based campaign. In 2015, a web-based version (TSG 2.0) was developed that can be played on a computer (schools often use a SMART board to play this version of the campaign). The web-based version can run without any physical materials, but schools tend anyway to use the materials (i.e., banner, stickers, and posters) of the paper-based campaign aside the web-based version.

The Traffic Snake Game Campaign is supported by a network of organisations. The network has received funding by the European Commission between 2014 and 2017 to expand the uptake of the campaign across Europe. In general TSG aims at 20% more sustainable trips during the campaign compared to the baseline. In previous years, an increase of 15% is typically observed, of which 7% remains after the campaign. The specific objective for a school is always set within the school based on the data acquired in the Before measurement.

Within TRACE, mobility tracking will be added to the original TSG campaign. Tracking may supply relevant data to the schools that aim to increase traffic safety around the school. For example, the school can learn where it might be useful to ask someone to help children safely cross the street by learning about the routes of children that cycle and walk to school.

The TSG tracking tool will be piloted in six locations across Europe within TRACE: Flanders (Belgium), Belgrade (Serbia), Águeda (Portugal), Plovdiv (Bulgaria), Bologna (Italy), and the Southend on Sea (UK). Taking into account logistics and tool developer’s needs, the planned dates of the TSG implementation in the pilot sites are showed in the following Table 2.
TRACE new features

TRACE will extend the TSG along the following major lines:

Tracking devices

Mobility tracking had not been part of the TSG campaign before. Smartphones or tablets are not suitable to host tracking devices for this target group, since pupils are too young to own or use them frequently. The trackers (i.e., the devices that will track home-school travels) will be adapted for a young audience for the TRACE project. They are robust and waterproof boxes of length 98 mm, width 63 mm, and height 36 mm with a GPS sensor and accelerometer. The box has a small power outlet protected by a watertight cap. It will be equipped with a sticker of the traffic snake (see Figure 1). Each school needs a receiver to read out the tracking data from the trackers. The trackers and the receivers are provided by Mobiel 21.

Data and privacy

The tracker can identify modal choice, trip length, trip duration and chosen route. The data will be aggregated in meaningful graphs to the school. Privacy will certainly be an issue since the target group consists of minors. Parents will receive an informed consent explaining which data are being collected, for what purpose, how long the data will be stored and where, and the right to stop participation in the TRACE project at any time. Children will only be tracked when we have received a signed informed consent form from the parents.

Real-time elaboration

Table 2 - Planned schedule for TSG implementation in pilot sites

<table>
<thead>
<tr>
<th>Date</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>March, 13-17</td>
<td>Flanders</td>
</tr>
<tr>
<td>May, 8-12</td>
<td>Bologna</td>
</tr>
<tr>
<td>May, 29 – June, 2</td>
<td>Águeda</td>
</tr>
<tr>
<td>June, 26-30</td>
<td>Southend on Sea</td>
</tr>
<tr>
<td>September, 25-29</td>
<td>Plovdiv</td>
</tr>
<tr>
<td>October, 30 – November, 3</td>
<td>Belgrade</td>
</tr>
</tbody>
</table>
The collected data will be available on a day-to-day basis to schools and teachers via a user-friendly interface. The tracking data will allow teachers and schools to respond to the collected data during the campaign and encourage pupils further to think about their home-school trips.

1.2.3 CYCLE-TO-SHOP

Context and aims

Cycle-To-Shop (CTS) will become a network of shops and bicycle users which will in a permanent and continuous way promote the use of the bicycle for urban travel. By providing permanent benefits and improving the sense of cycling community, CTS will be responsible for a structural increase of cycling of 5% to 20% in the long term.

The user of the app will receive a notification when he arrives and stays at the adherent shop. The notification will announce that the user is eligible for some benefit in the shop. The user shows the notification to the shopkeeper, who will attribute the benefit to the customer at the moment of payment.

TRACE new features

TRACE will create an open paradigm to promote the involvement of local businesses as checkpoint providers, making it more appealing to join for both citizens as well as local businesses.

Although CTS is an entirely new tool, developed from scratch, we can distinguish the following main features:

- **Open and dynamic network of shops and users**
  Shop owners choose and can edit at any time what the benefit they attribute to cycling customers. The benefit may be a discount in the items purchased, the offer of something, like a drink, or anything else with a minimum perceived value by the user. Shops may be as creative as they like.

- **Information platform**
  The app is an information platform for users, including a local map with the adherent shops, information about the benefits given by each shop and information about other facilities for cyclists at the shops. The app will also provide the user with information about his trips: routes, km’s and calories burnt.

- **Different criteria of eligibility to benefits**
  The basic criterion is to arrive by bike at the site of the shop. The bike trip does not necessarily have to happen just previously to the arrival at the shop – for example, the user who went to work by bike and then at lunchtime walked to a nearby shop will still be eligible. Therefore, not only trips to the shop, but also other types of trips are rewarded.

1.3 Brief description of pilot sites

Eight partners will test TRACE tracking based tools in their city/area: Hasselt/Flanders (BE), Belgrade (RS), Esch (LU), Breda (NL), Águeda (PT), Plovdiv (BG), Bologna (IT) and Southend-On-Sea (UK).
Table 3 - TRACE tracking tools and pilot sites involved per each tool

<table>
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<tr>
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<tr>
<td>Hasselt/Belgium</td>
<td>M21</td>
<td>x</td>
<td>x</td>
<td></td>
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<tr>
<td>Belgrade</td>
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<td>x</td>
</tr>
<tr>
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<td>LuxM</td>
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<td></td>
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<tr>
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<tr>
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<td>x</td>
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<tr>
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<td>SSBC</td>
<td>x</td>
<td>x</td>
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</tbody>
</table>

Figure 2 - Pilot sites’ distribution

1.3.1 HASSELT
The city of Hasselt, with a population of 75,000, is the capital city of the Province of Limburg, Flanders, Belgium.
The share of biking and walking in the city is rather low: 20% for cycling and 5% for walking. 12% uses public transport and 63% travels by car. Hasselt is a main attractive pole in the region for leisure, shopping, employment and education.

At the moment, a lot is changing in the city of Hasselt, step-by-step. At this point, a new parking plan is implemented. This focusses on the use of parking lots outside the city centre, in combination with public transport and cycling. Therefore, the main focus is on:
- Make use of P+R and other parking lots
- Specific use of Hawai parking
- Shift from car to bus and bike for all trips
- Shift from car to bus and bike for the last mile towards the city of Hasselt

Next to the main focus on this new parking plan, sustainable mobility measures are implemented such as bicycle streets, better protection of the pedestrian zone in the city centre.

All need to lead to less car trips and more sustainable trips.

The Positive Drive tracking application and the tracking tool accompanying the Traffic Snake Game, together with Tracking for planning, will be piloted in Hasselt. The tracking tool accompanying the Traffic Snake Game will be piloted in 3 schools in Flanders. Positive Drive will be used to encourage cycling and walking and/or the use of local sustainable mobility solutions that the pilot site wishes to promote in the city of Hasselt.

The Traffic Snake Game tracking tool will support the Traffic Snake campaign. The Traffic Snake campaign encourages pupils, parents, and teachers to travel sustainably to school. The tracking tool allows to collect data during the campaign that can help the school to develop a mobility policy for safer and more sustainable home-school transport.
1.3.2 BELGRADE

Belgrade is the capital and, with a population of 1,659,400, is the largest city of Serbia, the third largest city in South-Eastern Europe, after Istanbul and Athens, and among the largest in Danubian Europe. It covers 3.6% of the territory of Serbia, and 24% of the country’s population lives in the city. Belgrade is the central economic hub of Serbia, and the capital of Serbian culture, education and science.

Since the majority of the cars and transport problems are concentrated in the capital city, the project strategy is to propose targeted interventions in the Belgrade road transport sector, with the main objective of shifting trips to more sustainable modes such as public transport, carpooling, and non-motorised transport, while developing integrated land-use and transport strategies for the long term. However, according to the Newman – Kenworthy classification\(^1\), Belgrade is a typical “public transport city”, with PT share of 53% in modal share.

Belgrade has a monocentric urban form, with a highly concentrated Central Business District (CBD), although the area of Novi Beograd is increasingly becoming a commercial hub.

Nevertheless, the bulk of jobs in Belgrade is in the CBD (32%). In addition, given the city’s geography, with the Sava and Danube flowing just beyond the edge of the city centre, traffic into the CBD faces bottlenecks at the 3 main bridges from New Belgrade.

The main Belgrade’s sustainable urban mobility goals are:

- Strong focus on the attractiveness and competitiveness of the collective passenger public transport system: keep its share at the current high level of 53%
- To contain the growth of private car: reducing private car traffic
- To valorise the use of cycling and walking for regular travel displacements, integrating them in the transport and mobility system, in order to increase the share of walking & cycling
- To achieve a true balanced urban transport system as support to creating a liveable city
- To create a true intermodal system (where information, timetables, tariffs and organisation and institutional issues are really integrated)

\(^1\) Newman, P., Kenworthy, J., 1999. Sustainability and Cities: Overcoming Automobile Dependence. Island Press, Washington, DC, where public transport share in Europe is set to be max 55% - Belgrade is at that end of the scale.
• Strong support for the promotion of sustainable mobility and social cohesion

The City of Belgrade targets established measures to promote cycling and walking to the workplace and to school. Permanent measures implemented are improvement of bicycle network (creation of new lanes, extension, renovation, signposting etc.) and improvement of bicycle facilities (parking, locks etc.). Moreover, City of Belgrade is actively involved in European Mobility Week (EMW), held every year in September. During EMW 2015 a cycling ride campaign was held via newly built cycling route. This campaign is part of European “Do The Right Mix” campaign spread in more than 1,800 cities. A "Car-Free Day" event is organized yearly on 22nd of September by closing one or more streets in city centre for motorized traffic, and instead opening it to pedestrians, cyclists and public transport. Highlight of these activities should be the implementation of Zone restricted for private car in Belgrade central business district which is planned to be finished in next four years. There are many other activities and initiatives for promoting and popularization of walking and cycling organized by number of citizens’ associations and non-government organization.

The Positive Drive, Traffic Snake Game and Tracking for planning pilots will be implemented in Belgrade within the TRACE project.

Implementing TRACE tools can improve these sustainable urban mobility issues and thus contribute to the overall mobility in the city. In year 2017, TRACE TSG pilot in Belgrade will take place during the late October and early November, while Positive Drive pilot will go live from April to June.

1.3.3 ESCH/LUXEMBOURG

The South of Luxembourg can be considered as one of the most active regions in terms of economy. The two main economic urban zones are the city of Luxembourg and Belval, located on the territory of the city of Esch-sur-Alzette. Most of the about 600,000 residents live in this part of the country.

The City of Luxembourg has about 107,000 inhabitants. An important banking and related service sector developed on Luxembourg from the nineteen sixties. Luxembourg has at present one of the highest GDP per capita in the world. The city is the seat of several institutions of the European Union, including the European Court of Justice, the European Court of Auditors, the Secretariat of the European Parliament, the European Investment Bank, the European Investment Fund, and the European Stability Mechanism.

The former steel factory at Belval dominates the city of Esch-sur-Alzette (34,000 inhabitants). Following the abandoning of the local steel production, an extensive regeneration program was set up to help the site and country’s economy to diversify beyond steel production. The redevelopment plan of the site included the creation of a new Luxembourgish scientific and cultural centre. The implantation of the University of Luxembourg, Luxinnovation and LIST, Luxembourgish research institute at the Belval site were part of the plan. Belval is also the location of the Rockhal, Luxembourg’s largest music venue. The Rockhal opened in 2005. As a result of the redevelopment Belval is becoming the 2nd most important activity centre of Luxembourg.

In total 27.5% of mobility within the country is done with sustainable means of transport (i.e. public transport, walking and cycling). The city of Luxembourg has the highest modal share for
sustainable modes. In the area of Esch-sur-Alzette/ Belval this is a little lower. There is a good train connection between the Luxembourg city centre and the Belval site.

Over 30% of the car traffic in Luxembourg is cross border. Almost 60% of the country’s workforce is commuting daily between Luxembourg and neighbouring regions in Belgium, France and Germany. Only 7% of that daily cross-border commuting is done by public transport (i.e. bus and train). For all traffic within the country of Luxembourg public transport accounts for 13%. The modal share of the different modes within the country of Luxembourg are presented in the following graph.

![Modal share in Luxembourg Country (2009)](image)

The objective is to have by 2020 a 25% modal share for the soft modes (walking and cycling). Public transport should cater for 19% of modality by that time.

The four objectives for sustainable mobility are described in the National Transport Strategy (MODU, 2012) and are:

- Improve the coordination between territorial development and mobility
- Reduce the share of motorized transport by improving the infrastructure and promotion of non-motorized means of commuting, especially for short-distance trips
- Offer more attractive transport by prompting users to perform more of their motorized travel via public transport on the longer trips
- Promote an alternative use of the car

Luxembourg city and Esch-sur-Alzette are indicated as the territories of economic attractiveness and demographic growth. In Luxembourg city the increased offer of an attractive public transport consists of a complete reorganization of the public transport infrastructure with as main focus the construction of a tramline connecting the central station with the Kirchberg (first phase). It also includes the construction of a multimodal train station at the "Pont rouge", allowing for direct public transport connections for cross-border commuters with the main business centre of the city (i.e. Kirchberg). An important bicycle network is developed. Better train connections and bus corridors will be developed in Esch/ Belval.

In Luxembourg/Esch the Positive Drive, Cycle to Shop and Tracking for planning tools will be tested. They will allow to better understand the precise usage of the local infrastructure and
mobility offer, yet also contributing to a more sustainable mobility and in-sight in how the objective of 25% of modal share for cycling and walking could be obtained.

1.3.4 BREA

The city of Breda is known as an exciting historic city in Brabant with an attractive city centre. With almost 181,000 inhabitants, 100,000 jobs, a population density of 3,560 inhabitants/km², the Dutch city lies in a strategic position between Rotterdam, Antwerp and the Ruhr area and is easily accessible from Amsterdam and Antwerp.

Breda is a typical car-city. The level of accessibility is still well appreciated but there is an occurring major “crack” in this system. If specific and in-depth measures are not taken soon, traffic within the city will grow exponentially and somewhere between 2020 and 2030 the ability of the transportation system to absorb this growth will come to a stop. This means decline of “urban-values” like climate-adaptation, local economy, spatial quality, air pollution, CO2 emissions and thus public health. Therefore, car accessibility in Breda needs to be radically redefined. This vision is incorporated in Breda’s new Structural Vision 2030 where, for the first time, the city successfully links urban mobility to spatial planning.

Breda has been SUMPed. This new roadmap aims to make motorized trips in the city fewer, shorter and to shift towards greener transport modes. To follow its roadmap, the city has developed several pilots in order to test the efficiency of some innovative measures, including the development of urban high speed cycle lanes as an alternative for inner car-trips in the city, and the testing of behavioural pilots with new techniques (like apps) to change urban mobility in a positive way. The city is also looking for ways to increase bike potential by developing lifestyle-based marketing instead of standard communication. The city has operated a crucial change in the way it communicates around mobility, notably by using storytelling, a new way of approaching mobility representing a strong, consistent and sustainable trend in mobility-policy.

Breda is working with mobility packages, these are coherent measures for a better accessibility. This is a mixture of hardware (multimodal infrastructure), software (digital innovation), orgware (community based) and mindware (a behavioural approach). Breda will test the Positive Drive as a mindware component together with the community Claudius Prinsenlaan. This is a consortium of 6 large institutes and universities working together to improve car accessibility by stimulating

![Figure 6 - Modal share in Breda (2007)](image)
cycling. The **Cycle-to-Shop** tool will be tested in one of the three preliminary roads for the inner-city. New hip shops arise and a cycle culture is growing. Breda will also test the **Tracking for planning** tool.

The city is really keen on testing the impact of tools involving tracking: TRACE will help Breda in exploiting and exploring this new field of expertise.

### 1.3.5 ÁGUEDA

The city of Águeda is part of the district of Aveiro, in the central coastal region of Portugal. It is crossed by several national and regional roads, which gives it an important geo-strategic position. The economy of the city relies for the major part on the secondary sector (manufacturing industry), which provides jobs for about 50% of the employed population of the area. The City of Águeda is well known for the urban art, festival *Agitágueda* (July) and the colourful streets, attracting thousands of tourists during summer time (July to the end of September).

There is still some potential to increase the competitiveness of the city notably thanks to the presence of the School of Technology and Management of Águeda (pole of the University of Aveiro).

In 2013, Águeda completed its *Strategy for Sustainable Mobility 2020 Águeda*, which is following the local and European concerns for the promotion of smart, sustainable and inclusive growth.

In 2015, Águeda received the smart city seal (green business week) for the development of several projects focused on promoting quality of life and the use of technology for the sake of meeting the population’s needs. The biggest mobility challenges in Águeda include the attractiveness of its public transport network, the acceptance of cycling as a daily mean of transportation, the reduction of car usage and the development of carpooling.

![Figure 7 - Modal share in Águeda (source: Query of mobility 2011/2012)](image)

Currently the network of urban cycle paths of Águeda, mostly built in 2011, is about 23 km. It is foreseen, however, the extension of the network in 16 km on a second phase of implementation.

The *beÁgueda*, the electric bicycle of Águeda, is an innovative pilot project of sustainable mobility, implemented by the Municipality of Águeda in 2011 with the aim of encouraging...
citizens to use public electric bicycles in their daily commuting. Up until now, e-bike users have already driven more than 30,000 km.

WalKinÁgueda, created in 2015, is an app that allows hikers to enjoy a different tour on the walking trails of the municipality, by discovering various points of interest and landscapes.

Águeda’s sustainable urban mobility goals:

- **Changing Modal Distribution** – Decreasing the weight of private transportation in travel and increasing the soft mobility split
- **Increase accessibility to Public Transportation** – Increasing public transportation offering, both in frequency of the services and the population covered
- **Increase accessibility to Soft Mobility Means** – Increasing the supply of pedestrian spaces and / or qualified bike lanes and safer roads
- **Road Safety** – reduction road accidents
- **Emission Reduction** – decreasing road congestion, reducing required pathways and increase fleets environmentally friendly

The **Positive Drive, Traffic Snake Game** and **Tracking for planning** pilots will be implemented in Águeda within the TRACE project.

1.3.6 PLOVDIV

The City of Plovdiv is the second largest city in Bulgaria, approximately 152 km south-east of the Bulgarian capital of Sofia. The population is over 376,000 and there are approximately 300,000 visitors per year, including 80,000 foreigners.

Plovdiv is situated in the southern part of the Plovdiv Plain on the two banks of the Maritsa River, connected by bridges. It has six existing hills, some of which are 250 m high. Even though it is situated in a valley, it has good connections with mountains where there are winter resorts and leisure-time activities are carried out. The transport modes are in first place public transport and private vehicle inside the city, and intercity buses and trains outside the city. There are plans for enlarging the bicycle network, as the number of people using bikes is rapidly increasing, thus reaching a critical point.

Plovdiv developed as an industrial centre, but today it is a three-sector city, a business, cultural and historical site. Its economy is growing at an average GDP growth rate of over 13%. It enjoys a constant flow of investments and intensive stakeholder interest. Industries keep their manufacturing plants on the outskirts. Some of the notable companies with a considerable flow of commuters are: Liebherr, the Socotab tobacco processing plant, a few bicycle plants, a Schneider electronics factory, a biodiesel plant, the Bulsaphil textile plant, and the largest electronics plant in the Balkans is located nearby. Plovdiv has a business park on the outskirts. Several hypermarkets have been built.

The main shopping area is the central street with its shops, cafés and restaurants. A number of cafés, craftsmen workshops and souvenir shops are situated in the Old Town and small streets in the centre. They attract thousands of tourists every year.

Plovdiv is also called the cultural capital of the country, bearing numerous historical and archaeological spots that interest locals and tourists. It hosts economic and cultural events - the International Fair Plovdiv, international theatre and music festivals. There are many remains preserved from antiquity, such as the Ancient Amphitheatre, the Roman Odeon, the Roman
Stadium, the archaeological complex Eirene and others. These attract a great number of local and foreign tourists and visitors through the year. Therefore, the city is an important economic, transport, cultural and educational centre where many people gather. Additionally, the flow of people through the city is increasing constantly. Both reasons cause concerns about facilities, information and accessibility.

Transport situation

The city of Plovdiv is a compact urban area, well connected to the smaller cities near-by. The major transport mode is private vehicle, but the city has good PT-network and is strongly developing the bicycle network and improving the pedestrian zones and accessibility. The total road network length is 1,020 km inside the city. The following graph represents the modal shift:

![Modal Shift Graph](image)

The bicycle network was completely renovated in 2014/2015 under national funding and campaigns for bringing the bikers on are ongoing. Currently, the bike network is 48 km of new and renovated lanes, and will reach 55-56 km in 2016 with the renovation of a few boulevards. The local authorities are considering more infrastructural changes to provide for better connection between bike lanes. Figure 9 represents the current situation.
The pedestrian zones are being renovated systematically to the national accessibility requirements. The main street is the longest one in Bulgaria with its 5 km of pedestrian area; biking is not allowed. Plovdiv will be the European Capital of Culture in 2019 so the city is investing efforts in improving its infrastructure and accessibility for both citizens and tourists.

Energy Agency of Plovdiv will pilot three tools within the TRACE project – Traffic Snake Game, Cycle-to-shop and Tracking for planning.

The TSG is an exciting endeavour for the kid that is also their guide to sustainable mobility. Children learn quickly and with a smile – they are the best target group to address the undeniable issue – young parents prefer their own car to the bikes and walking even when the kindergartens are in walkable distance. The game will support children and parents in choosing the best route to the kindergarten and at the same will help them lower transport costs and save emissions.

The Cycle-to-Shop initiative enjoyed great interest in Plovdiv a few years ago. Shopping centres and malls are excited to welcome their customers on bikes. There’s a common preconception that people would go shopping by car, because it provides more space, but bikers shop more often thus making the local economy grow even more rapidly.

The Tracking for planning tools are essential for the further development of the biking and walking network in the city. Currently, the walking and biking networks are well-developed and maintained, but they are not widely promoted and the increase of the share of bikers and pedestrians is not known. The TRACE tools will support the local authorities in determining the number, segmentation and profile of the new wave of bikers and pedestrians choosing the sustainable travel to the private vehicle.

Bearing in mind that the local authorities wish to upgrade the existing infrastructure, and that the realisation of TRACE in Plovdiv is related tightly to its bike development, it will be necessary to take into account some potential challenges arising from the changing status. Even though these are basic challenge assumptions that could be easily applied to any other cities, however, based on them, the local team will need to prepare a proper contingency plan.
Potential infrastructural changes

The Municipality of Plovdiv plans for building more bike lanes along with the renovation of major boulevards. It is also plausible that existing bike lanes will be subject again to renovation or being connected to new lanes, i.e. joints. Such activities will either close some of the bike lanes or the opposite – open new ones.

In the run of the project, attention needs to be paid firstly to the closed lanes – they will represent “natural” gaps in the route datasets, i.e. bikers will not use them for some time. This may be considered under automatic analysis of the Tracking for Planning tool as a part of the route that is disliked by bikers, and thus could affect. Regarding the Cycle-to-shop campaign, such reconstruction works could block some of the shops/cafes participating in the campaign and thus reduce their effect of participation.

On the other hand, new bike lanes need to be defined to the TRACE tools and their effect to be considered on the pilot zone. For example, if businesses around a new bike lane have the potential to participate and bring benefit to the Cycle-to-shop campaign.

Such changes need to be evaluated through the TRACE project, if they occur.

Continuous safety issues

Currently, safety issues are being discussed in the city of Plovdiv due to the shared space between bikers and pedestrians.

The TRACE tools should assure that they will not affect the attention of the bikers or pedestrians – i.e. not requiring them to stare at the screen or alarm them too often.

Weather and other conditions

The Cycle-to-shop campaign will be realised in Summer/Autumn 2017. The weather conditions will strongly influence the summer and winter season edition of the campaign, because Plovdiv tends to have hot summers and humid winters – regular bikers would take precautions, but the early majority (the ones who have just started biking) will probably get discouraged.
The same situation could affect the TSG – rainy autumn days could make the parents drive their kids to school instead of encouraging them to take the public transport, or share a car with another kid.

Recruitment, engagement, and motivation

The campaign on recruitment, engagement and encouragement of the participants will start as early as the software tools are available. Technical time is needed for the EAP team to get familiar with, plan and draw action plan on the activities within the two campaigns.

The communication channels will be based on live meetings and negotiations with businesses and schools – the first contacts could be done via phone or email. All consecutive communication with potential partners will be done face-to-face.

Within the project, budget for awards and dissemination material is available. These will be planned to correspond to the achievements of the playing parties in order to encourage and reward their dedication.

1.3.7 BOLOGNA

Located in the northern part of Italy, Bologna is the capital of the Emilia-Romagna Region. The city is a very important node for train transportation (many major train lines cross Bologna), as well as for highways, and more recently air transportation. In the last few years many efforts have been done on tourism, the city was the European Capital of Culture in 2000 and a UNESCO “City of Music” since 2006. Bologna is also renowned for its University established in 1088, the oldest in the world, which is spread all over the city and attracts about 80,000 students every year.

The main challenges related to mobility in Bologna are mostly linked to the accessibility of the city centre, the improvement of public transport and the promotion of cycling. The so called “Di nuovo in centro” (Back to the downtown) programme foresees a set of measures on accessibility aiming at a more sustainable mobility: new spaces to pedestrians and cyclists, fleet renewal for public transport, specific cycling related measures. Some of the most important among these measures are the construction of a cycling ring-road around the city centre, and improvement to the bike sharing systems and bike parking. Bologna’s achieved sustainable urban mobility goals are:

- In May 2012, the three main roads of the historical centre – the so called T-zone, 20,000 m² area – were pedestrianized during weekends and bank holidays.
- In September 2015, the “Tangenziale delle Biciclette” (Bicycle Ring Road) has been completed, a 8 km cycle lane along the avenues surrounding the old city centre of Bologna, allowing the paths and routes from the different parts of the city to link to the centre and hence creating a continuous network for cyclists.
- An important project called “Safe home-school trips” is under implementation by the City of Bologna and consists in improving walking infrastructure in order to make the path safer for pupils and students.
In the last few years, other areas in the city centre have been pedestrianized, and new cycle lanes have been created in the city.

Figure 11 - Modal share in Bologna (2015)

The Traffic Snake Game, Cycle-to-shop and Tracking for planning pilots will be implemented in Bologna within the TRACE project.

1.3.8 SOUTEND-ON-SEA

The Borough of Southend-On-Sea is located on the north side of the Thames Estuary, approximately 40 miles east of London. The Borough is 417 square km in size and made up of 17 wards, with a total population of 177,900. Southend is an important economic and residential part of the Thames Gateway regeneration area and, with eleven km of seafront; it is a key destination for tourism and leisure. The Borough’s economic links with areas beyond its boundaries are strong, particularly with London, which is within convenient commuting distance and accessible by two railway lines, with journey times of around one hour.

Southend-on-Sea’s Local Transport Plan states the policy goals for sustainable transport as:

- The Core Strategy Development Plan provides the vision, objectives and broad strategy for the spatial development of Southend, with quality improvements to transport infrastructure, accessibility and the promotion of sustainable travel regarded as essential in delivering regeneration and development in Southend.
- Transport related strategic objectives of the Core Strategy are:
  - Secure a ‘step change’ in the provision of transport infrastructure as an essential part of new development.
  - Secure the sustainable use of the River Thames and its Estuary as an asset for transport, leisure and business.
  - Reduce congestion within the Borough.
  - Encourage and facilitate the use of sustainable modes and public transport for travel.
  - Ensure access to London Southend Airport is predominantly by sustainable modes.
Southend-on-Sea Borough Council has won several awards for its behavioural change campaign Ideas in Motion. This campaign sought to ask citizens for their ideas, hints and tips on how to travel sustainably. This work was carried out in conjunction with hugely successful personal travel planning. During this activity over 30,000 households were involved and conducted a questionnaire led conversation with over 10,000. This led to 30% of those asked stating that they used their cars less. Within Ideas in Motion sits Cycle Southend who delivers cycle training, events and activities to all schools and the local community.

In addition to the Tracking for planning tool, Southend-On-Sea will test three TRACE tools:

- **Positive Drive** - Engineers and Transport Planners currently rely on traffic counts to inform policy and strategy. As a side benefit of cycling and walking tracking we will have access to large amounts of data on the journeys made by users. This data will enable information valuable for planning and devising policies on issues like: better linkage between spatial planning and mobility planning, congestion, delays and capacity allocation and studying and taking into account choice preferences of cyclists and walkers.

- **Traffic Snake Game** - This tool is ideal to build on the work delivered by the personal travel planning, Ideas in Motion behavioural change campaign and the general delivery of sustainable transport education in schools. It will seek to further encourage parents, partly via pester-power, to leave the car at home and walk their children to school. This will lead to a longer term behavioural change and have lasting health benefits.

- **Cycle-to-Shop** - This pilot will introduce a tracking-based mechanism to identify cyclists arriving to specific places, i.e. shops, which will be able to confirm their mode of arrival and offer discounts or gifts on that basis. This has a two-fold interest to Southend-on-Sea Borough Council. Firstly, it will encourage additional cyclists to use sustainable means to travel to the shops. Secondly, the tool will demonstrate to business holders the value of the cyclists’ economy. Thus having the result of business holders enticing cyclists into their business by offering further facilities and catering for their needs.
2. Pilot Implementation Strategy

2.1 Positive Drive pilots

2.1.1 HASSELT

2.1.1.1 SCALE OF APPLICATION
Hasselt is a small-scale city, with a medieval city centre. Hasselt has 75,000 inhabitants, in the greater area. Within the medieval centre, there are around 7,000 inhabitants.

2.1.1.2 DESCRIPTION OF PILOT SITE
Hasselt is the main attractive pole in the region, for shoppers, leisure, employers and students. Next to the 75,000 inhabitants, a large number of people travels every day towards and in the city of Hasselt, and still mainly by car.

The inner centre of the city is very small, and very walkable. There are several car-free streets, and parking is expensive and difficult. Just outside the centre there are a lot of cheap and even free parking lots, wherefrom, people can take the bus to the city centre.

Hasselt has also an important train station, with a good connection with the train network in Belgium.

Positive Drive will be implement in Hasselt, for inhabitants, but also for the large number of visitors every day: Shoppers, employees, pupils, students...

2.1.1.3 ENGAGEMENT TARGETS
The aim is to involve at least 3% of the walking and cycling population, which means 496 persons actively participating in Positive Drive in Hasselt (see Errore. L’origine riferimento non è stata trovata.).

<table>
<thead>
<tr>
<th>Number of persons involved</th>
<th>Modal share cycling+walking</th>
<th>Engagement target</th>
</tr>
</thead>
<tbody>
<tr>
<td>75,000</td>
<td>22%</td>
<td>496 people</td>
</tr>
</tbody>
</table>
2.1.1.4. DEFINITION OF STEPS FOR IMPLEMENTATION

2.1.1.4.1. PREPARATION OF LOCAL APPROACHES

Hasselt will introduce two important policy strategies on sustainable mobility: a parking plan and a cycle plan. Both policies aim to have less car trips in the city centre (e.g. by promoting park & rides just outside the centre) and more trips made on a sustainable way, both by inhabitants and by visitors of the city.

2.1.1.4.2. ENGAGEMENT OF STAKEHOLDERS

The most important stakeholder is the City of Hasselt. They will set (1) the target of the Positive Drive Campaign(s) in Hasselt, (2) the target area and (3) the target groups. They will also assist in the communication of the campaign and finding the best prices.

The other stakeholder groups will depend on the target groups set. For each target group, specific stakeholder groups will arise. If we want to reach students, we will include university as a stakeholder group. If we want to reach shoppers, shop owners will be our stakeholder group. The discussion on specific stakeholder objectives will be held when target groups are clear.

Possible target groups are:

- Inhabitants of Hasselt/ specific region of Hasselt
- Students of college/university
- High school pupils
- Primary schools’ pupils and their parents
- Employees working in Hasselt
- Shoppers and other visitors of Hasselt (restaurants, culture...)

When target groups are set together with the city of Hasselt, a plan of action will be developed. For each target group, specific targets, message, prices, channels, etc. will be set up, in cooperation with the city and the relevant stakeholder groups.
Table 5 - Schedule of activities for engagement of stakeholders in PD pilot, Hasselt

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
</table>
| Consultation stakeholders | February 2017 | - Introductions to PD campaign, options and targets  
- Consult stakeholders on their targets – compare with Positive Drive options  
- Consult stakeholders on their possible engagement | -      |
| Involvement meeting stakeholders | Spring 2017  | - Define what is expected from the stakeholders within the Positive Drive campaign  
- Define what stakeholders can deliver. How they can help in promoting PD  
- Define what is offered to stakeholders by PD campaign team | -      |
| Evaluation      | Autumn 2017  | - Evaluate if PD has changed behaviour  
- Define what was the impact of stakeholder involvement  
- Define how they experienced the PD campaign? | -      |

2.1.1.4.3. ENGAGEMENT OF FINAL USERS

In spring 2017 various activities will take place in order to encourage final users to join (install app) and stay in the campaign. And to change their behaviour. All sort of campaign activities will be set up, to promote the app, to explain the app, and to evaluate the app and the campaign.
2.1.1.5. RISKS AND BARRIERS FOR IMPLEMENTATION

2.1.1.5.1. IDENTIFICATION OF RISKS AND BARRIERS

The most important risk will be a low rate of participation in the app and campaign. Other barriers will be the need of having a smartphone to participate, and the need of some technological knowledge.

2.1.1.5.2. STRATEGIES TO MITIGATE AND OVERCOME RISKS AND BARRIERS

Positive Drive in Hasselt will have one general, and several targeted campaigns to have as much as participants as possible.

Positive Drive is available for Android, iOS and Windows Phone, so almost all smartphone users will be able to use Positive drive and participate in the campaign. In Belgium, 74% owns a smartphone in 2016². There is no strategy to involve non-smartphone users.

A helpdesk will be set up to guide users in using the app.

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2.1.1.6. PREVIOUS OR ONGOING EXPERIENCE IN SIMILAR CAMPAIGNS

2.1.1.6.1. PAST EXPERIENCES AND LESSONS LEARNT

Mobiel 21 has important experience in setting up tracking tool campaigns and has the needed knowledge how to reach and guide users.

With RouteCoach Mobiel 21, the city Leuven, the province Flemish Brabant and the University of Ghent started in 2014 with a prestigious project, RouteCoach: this project tries to give a clear view of the mobility in, around and to the city of Leuven.

From the summer of 2014, 3,000 inhabitants of not only Leuven, but also from its surrounding towns and cities, were followed during their trips, among other things via an app. This concerns trips to work, school and recreational trips, using a bike, a car, the public transport or walking. Afterwards, these data was used to make dynamic map of which conclusions can be taken. This information is in handy for the city, so that the cities and towns can try to tune their city and town better to the needs of its inhabitants. In this way, citizens of Leuven themselves can shape the mobility policy.

RouteCoach was a demonstration within the European Interreg project NISTO. Mobiel 21 vzw engages in a consortium of German, British and Dutch partners, the city Leuven and the province Flemish Brabant give their financial support.

There will be an important emphasises on the targeted campaigns, as a lesson learned in previous campaigns.

M-App was another campaign and app that has been set up and disseminated by Mobiel 21, and other partners. M-App was a part of an unique mobility study in the company area Haasrode/Leuven. In this area, almost 90% of the employees travel by car to work, although for 25% of them, the bicycle is the better and faster way of transport. M-App was launched in May 2016.

2.1.1.6.2. POTENTIAL SYNERGIES

Positive Drive will be accompanied by the city campaign to promote the new parking policy in the city.

2.1.2 BELGRADE

2.1.2.1. SCALE OF APPLICATION

The target group for the PD pilot in Belgrade will be the population of university students. Survey sample will include around 950 students.

2.1.2.2. DESCRIPTION OF PILOT SITE

The City of Belgrade is the biggest educational centre in southeast Europe with 5 state and 10 private universities. More than 140 faculties are allocated in the metropolitan area, mainly in central urban municipalities. In school year 2015/2016, there were
129,302 students in total. There are 12 student campuses with total of 10,074 places/beds. The list of campuses is given in Errore. L'origine riferimento non è stata trovata., while Errore. L'origine riferimento non è stata trovata. shows their spatial distribution.

Table 7 - List of student campuses with capacities

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Student campus</th>
<th>Capacity (beds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novi Beograd</td>
<td>Studentski grad</td>
<td>4,406</td>
</tr>
<tr>
<td>Zvezdara</td>
<td>Slobodan Penezić</td>
<td>756</td>
</tr>
<tr>
<td>Zvezdara</td>
<td>Kralj Aleksandar I</td>
<td>525</td>
</tr>
<tr>
<td>Zvezdara</td>
<td>Patris Lumumba</td>
<td>1,021</td>
</tr>
<tr>
<td>Voždovac</td>
<td>4. april</td>
<td>853</td>
</tr>
<tr>
<td>Palilula</td>
<td>Karaburma</td>
<td>1,170</td>
</tr>
<tr>
<td>Čukarica</td>
<td>Košutnjak</td>
<td>301</td>
</tr>
<tr>
<td>Zvezdara</td>
<td>Rifat Burdižević</td>
<td>367</td>
</tr>
<tr>
<td>Zvezdara</td>
<td>Vera Blagojević I</td>
<td>138</td>
</tr>
<tr>
<td>Zvezdara</td>
<td>Vera Blagojević II</td>
<td>183</td>
</tr>
<tr>
<td>Zemun</td>
<td>Žarko Marinović</td>
<td>192</td>
</tr>
<tr>
<td>Voždovac</td>
<td>Mika Mitrović</td>
<td>162</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>10,074</strong></td>
</tr>
</tbody>
</table>
2.1.2.3. ENGAGEMENT TARGETS

The Belgrade PD pilot follows the DoW engagement targets and the deployment potential defined by the WPL. Scale of application is citywide area. The objective of the Belgrade PD pilot is to change existing mobility behaviour among target population, i.e. increase the amount of sustainable (and active) travels during and after the PD campaign. Good behaviour is rewarded by gameplay and winning prices.

Engagement target for Belgrade site will aim to involve at least the equivalent of 3% to the cycling and walking population, i.e.: Number of persons engaged = Population * mode share * 3%.
Table 8 - Engagement target in PD, Belgrade

<table>
<thead>
<tr>
<th>Number of persons involved</th>
<th>Modal share cycling+walking</th>
<th>Engagement target</th>
</tr>
</thead>
<tbody>
<tr>
<td>129,000 students</td>
<td>25%</td>
<td>around 950 students</td>
</tr>
</tbody>
</table>

2.1.2.4. DEFINITION OF STEPS FOR IMPLEMENTATION

2.1.2.4.1. PREPARATION OF LOCAL APPROACHES

The local approach was initiated through the first Focus group meeting (PD pilot) on 4th March 2016. The Focus group allowed the dissemination of the project, as well as a brief explanation of the PD campaign and the pilot. Some useful feedbacks from Focus group attendees were collected.

The local PD approach will be tailored to the city of Belgrade requirements in terms of the game features and the prizes in question. PD will be implemented on students’ population at the whole city scale and, therefore, requires a broad communication campaign for engaging participants. During the initiative, there will be a close support and back office management of the game.

2.1.2.4.2. ENGAGEMENT OF STAKEHOLDERS

The following stakeholder groups will be engaged in PD pilot:

- Students
- University staff
- Students organization
- The city authorities
- Parking authority
- Marketing experts
- Mobile operators
- Users’ (cycling) association
- Student employment organizations, etc.

Initial contact with all of them was made on Focus Group on 4th March 2016. In November 2016 FTTE will send an invitation letter to all stakeholders to join PD pilot, followed by direct (individual and group) meetings with stakeholders. Periodic updating and monitoring meetings will be organized if necessary. Other channels could also be used in parallel, i.e. promotions in student campuses, distribution of marketing materials (leaflets, posters), multimedia dissemination (social networks, students’ journals, radio stations, etc.). Preliminary list of meetings/actions is given in Errore. L’origine riferimento non è stata trovata. below.
### Table 9 - Schedule of activities for engagement of stakeholders in PD pilot, Belgrade

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
</table>
| Focus group | 4th March 2016 | - Promotion of the tracking concept of TRACE  
- Promotions of the PD campaign  
- Connecting with possible partners in pilot implementation | Stakeholders and final users |
| Dissemination of the TRACE PD pilot | November 2016 | - E-mail to all stakeholders and final users with basic info on TRACE PD pilot | All stakeholders and final users |
| Preliminary meeting with stakeholders | February – March 2017 | - Individual and group presentations  
- Short introduction to the PD pilot | All stakeholders |
| Pilot start meeting | April 2017 | - Schedule of awareness actions if needed;  
- Schedule of preparation sessions oriented to the PD as well as the portal to be used | School headmasters |
| Continuous monitoring and control | February 2017 – September 2017 | - Continuous monitoring and control of pilot implementation | All stakeholders |

Students and students’ organization expect efficient and safe home-faculty travels, as well as trips with other purposes. They also expect rewards and prizes for good mobility behaviour and comprehensive gameplay environment.

The city authority is looking forward to achieve an increase modal share of cycling and walking and reduce the car modal share, and thus increase the quality of life of citizens. Another citywide goal is to achieve higher level of air/environmental quality. Parking authority sees TRACE as good opportunity to change its bad image as “car friendly–environment unfriendly” institution. Additionally, they are willing to include TRACE data in decision making process when selecting new parking locations.

Mobile phone operators are looking forward to promoting their corporate social responsibility through TRACE, as well as retaining their customers and gaining the new ones. Similar objectives are shared with marketing companies and student employment organizations.

User organizations expect of TRACE to be a good communication link with public authorities and transport planning experts, which can help them realize their priorities. TRACE is expected to cover daily commuting (to work, to school, etc.).
2.1.2.4.3. ENGAGEMENT OF FINAL USERS

Since the beginning of the second semester of academic year 2016/2017 various activities will take place in order to encourage final users to join and stay in the campaign. Focus groups, meetings, other presentations, invitation letters, distribution of campaign materials (direct and/or indirect through stakeholder groups – students’ organizations, students’ employment organizations, etc.) will be the most used activities in the campaign.

Table 10 - Schedule of activities for engagement of final users in PD pilot, Belgrade

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
</table>
| Dissemination of the project | January-February 2016 | - Distribution of flyers among the students  
- Posters of TRACE and PD on faculties and in campuses | - Students               |
| Initial contact – email, letter, social networks, other | January-March 2017 | - First contact using usual communication channels  
(Email, letter, social networks, other) informing about the PD campaign | - Students               |
| Meetings/sessions with Final users | March 2017 | - Elucidation session for final users about functioning of PD: technical issues, actual game rules, prizes and rewards, at the work place with due authorization of the employers | - Students               |
| Campaign start | April 2017 | - Playing the PD game                                                        | - Students               |
| Final information | July-September 2017 | - Information about the results of the pilot and future challenges.       | - Stakeholders and final users |

2.1.2.5. RISKS AND BARRIERS FOR IMPLEMENTATION

2.1.2.5.1. IDENTIFICATION OF RISKS AND BARRIERS

The following risks and barriers in PD pilot implementation are identified:

- Lack of motivation and interest of final users – students
- Users’ forget to start the app
- Travel distance home-school/other purposes too big to be done by cycling or walking
- Need of space and time to personal hygiene after the realization of some physical effort (bathhouse or similar)
- Lack of resources (smartphone / bicycle / other)
- Software incompatibilities
• Improprate and insufficient rewards/prizes
• Improprate coaching module
• Insufficient support from stakeholders
• Lack of clear business model especially in rewards and prizes schemes

2.1.2.5.2. STRATEGIES TO MITIGATE AND OVERCOME RISKS AND BARRIERS

• Detailed preparation of the marketing campaign with support of marketing experts
• Combining different dissemination channels (workshops, multimedia, leaflets, etc.) for distribution of material to let people aware and inform about benefits of active mobility
• Possibility of renting/rewarding bicycles to final users free of charge (with support of the parking authorities) during campaign
• Customized gamezone environment (collective competition, not only individual) and attractive prizes and rewards for good mobility behaviour
• Reliable and easy-to-use/understand coaching module
• Clear business agreements with stakeholders that are providing rewards and prizes

2.1.2.6. PREVIOUS OR ONGOING EXPERIENCE IN SIMILAR CAMPAIGNS

2.1.2.6.1. PAST EXPERIENCES AND LESSONS LEARNT

FTTE has no experience on this type of projects. However, there are some experiences with behaviour change campaigns. The city of Belgrade is actively involved in European Mobility Week, which includes a cycling ride campaign as part of UNDP-GEF project “Podrška održivom saobraćaju u Beogradu” (“Support to Sustainable Urban Transport in the City of Belgrade”) with more than 300 cyclists; “Do The Right Mix” campaign and “Car-Free Day” event organized yearly.

2.1.2.6.2. POTENTIAL SYNERGIES

Parking authority has implemented a public bike scheme with electric bikes, but the campaign has experienced failure, and currently bikes are in very bad condition. Purchase of 100 new e-bikes is planned for year 2016, and these could potentially be used in TRACE.

Marketing experts have offered to help in campaign design and dissemination. They have extended experience in making creative approaches in behaviour change initiatives. TRACE is seen as one of possible projects they are willing to support.
2.1.3 ESCH/LUXEMBOURG

2.1.3.1. SCALE OF APPLICATION

The pilot will be carried out in the areas of Belval (Esch) and Kirchberg (Luxembourg), with the aim to engage at least 100 users in the demonstration. The test should last for minimum one and maximum three months in order to take into account on boarding and school holidays time and potential weather effects. Positive Drive will be tested with approximately 100 users mainly employees of participating companies and other organisations. Like the Cycle-To-Shop, we will start at the Kirchberg and then extended to the Belval area if possible (after a check at the start of the pilot).

2.1.3.2. DESCRIPTION OF PILOT SITE

Positive Drive is going to be implemented both in the areas of Kirchberg and Belval, both main economic zones of Luxembourg. In the Belval area there are mainly innovation and research organisations, like innovative start-ups, the university of Luxembourg, and the national research centre as well as a large regional shopping area and a cultural event hall. Belval is the second most important activity centre of Luxembourg.

At the Kirchberg area there are the different European institutions such as the EIB, EC, Court of Justice, yet also a living area, a large shopping centre and many large banks and financial services providers. There is also one of the main hospitals. It has a population that is growing fast due to large urban development, yet the number of workers still outnumber the number of residents.

2.1.3.3. ENGAGEMENT TARGETS

The level of walking and cycling in Luxembourg are raw estimates. According to the experts the level in Luxembourg city is the highest with about 13% for the soft modes. Outside of Luxembourg, as for example within and towards the Belval area, this is much lower. Therefore, we have estimated a present average 10% for the Positive Drive demonstration. This leads a 30,000 population in the two areas to a little lower than 100 engagement target for the demonstration (considering the 3% of the cycling+walking.
modal share). However, for the necessary levels of participation of campaigning and results we set the target at 100 participants.

Table 11 - Engagement target in CTS, Esch/Luxembourg

<table>
<thead>
<tr>
<th>Number of persons involved</th>
<th>Modal share cycling+walking</th>
<th>Engagement target</th>
</tr>
</thead>
<tbody>
<tr>
<td>30,000</td>
<td>10%</td>
<td>90 (yet aim at 100)</td>
</tr>
</tbody>
</table>

2.1.3.4. DEFINITION OF STEPS FOR IMPLEMENTATION

2.1.3.4.1. PREPARATION OF LOCAL APPROACHES

Similar to previous projects (e.g. Commutastic), Positive Drive will be offered to an identified group of companies and organisation in the area of Kirchberg and if possible also at least two in the Belval area. In relation to Positive Drive all shop owners local commercial parties interested in participating in the campaign in the specific area are invited to join through sponsorship. Depending on their size and potential offer of prizes and discounts their precise role will be determined. Organisations like the “Fonds de Kirchberg”, “fond de Belval”, neighbourhood associations like Quartier stuff, and a number of companies present in the area are used as multipliers. They will be able to help us to reach out to numerous potential users.

2.1.3.4.2. ENGAGEMENT OF STAKEHOLDERS

LuxMobility will organise, like in a previous phase of the project, two focus groups:

- One - with potential users of Positive Drive wherewith we make use of the networks with our local partners such as the association “Quartier Stuff” and the “Fond the Kirchberg” and if possible “Fond the Belval” in the Belval area.
- One - with shop owners in order to elicit more in detail their respective needs and wishes for Positive Drive campaign in Luxembourg. It should especially be seen if it is possible to find common ground on the precise communication during the campaign in order to create coherence.
### Table 12 - Schedule of activities for engagement of stakeholders in PD pilot, Esch/Luxembourg

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus group</td>
<td>November/December 2016</td>
<td>- Main aim is to get a good feeling what actually the user is caring for, and to which angle on the basis of the technical possibilities of the app will set the final focus of the campaign</td>
<td>- Potential users of the apps</td>
</tr>
<tr>
<td>Focus group</td>
<td>November/December 2016</td>
<td>- With shop owners in order to elicit more in detail their respective needs and wishes for Positive Drive campaign in Luxembourg</td>
<td>- Shop owners</td>
</tr>
</tbody>
</table>

#### 2.1.3.4.3. ENGAGEMENT OF FINAL USERS

Furthermore, we organize kick-off events for users of the app. This will offer an opportunity for interaction between users and might foster the development of relationships. LuxMobility will be present at the launch event, in the role of a coordinator and participant. This double presence will potentially allow us to provide a denser project description, without biasing the user behaviour. This will lead to formulate better grounded recommendations. The timing of Positive Drive campaign should take place in March, May and April. If early next year is noticed that the two campaigns (CtS and Positive Drive) “cannibalise” each other, the Positive Drive campaign will be pushed to after the finishing of the CtS campaign. An earlier discussion meeting might be organised with the main contact points of the involved companies/organisations in which the employees are working. This help to set also the precise goals of these intermediaries. Taking into account their needs will most likely assure a large success do to their augmented support.
Table 13 - Schedule of activities for engagement of final users in PD pilot, Esch/Luxembourg

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion meeting</td>
<td>December/ Early January</td>
<td>- To assess their detailed needs and likening of items to be taken on board in the campaigns.</td>
<td>- Involved employers</td>
</tr>
<tr>
<td>Kick-off events</td>
<td>February/ March</td>
<td>- opportunity for interaction between users and might foster the development of relationships.</td>
<td>- Users of the app</td>
</tr>
</tbody>
</table>

2.1.3.5. RISKS AND BARRIERS FOR IMPLEMENTATION

2.1.3.5.1. IDENTIFICATION OF RISKS AND BARRIERS

There are actually two main types of risks identified. Firstly, there are the campaign related risks and possible barriers that might evolve from it. The campaign has to be designed in such a way that it fits the interest of the local community and participants. On the other hand, the campaign should fit also the functionalities of the standard Positive Drive app that we will use for it.

Other elements that could represent a risk are the number of participants selected and involved, correctness of the upfront evaluation questionnaire and questions, effectiveness and likeability of the campaign, site events, operationalization of the tool interpretation of the results.

The further following main risks have been identified:

- Relationship between and with the local stakeholders
- Decreased interest/support of local stakeholders if the campaign does not work as it should
- Not enough participants
- A potentially low use of SMART phones by target group or actual possibility/permission of the employer to download the app on the phone
- The technical hardware supplier doesn’t full fill the needed quality level
- Bad weather spoils the campaign

2.1.3.5.2. STRATEGIES TO MITIGATE AND OVERCOME RISKS AND BARRIERS

There are many strategies to overcome the different barriers. There are some general measures to be taken, as to say stability of the personnel and organisation involved, thorough upfront testing of the technical tools. In relation to the above-mentioned barriers, the following strategies are adopted:
- Intensified communication and marketing and possibility engagement of celebrities (e.g. the Minister of transport cycling)
- The importance of careful planning with the participating companies will not be underestimated and truthful reporting will be stressed to the participants
- Careful technical testing will take place upfront to make it actually work properly
- The campaigns are planned to be long enough to avoid a short period of bad weather spoiling the campaign

2.1.3.6. PREVIOUS OR ONGOING EXPERIENCE IN SIMILAR CAMPAIGNS

2.1.3.6.1. PAST EXPERIENCES AND LESSONS LEARNT

LuxMobility has extensive experiences with the Intelligent Energy project BtrackB. Planning a tracking campaign is not an easy task. Many hurdles may cause complications, such as weather conditions, mobility cultures, holidays and school vacations. All the local characteristics needed to be taken into account. Especially the strong car culture present can be an issue in Luxembourg, even if we target early adopters and following movers.

2.1.3.6.2. POTENTIAL SYNERGIES

The “Fond de Kirchberg” is very aware of the need for a changing mobility culture in the area and to create more social cohesion between the increasing number of inhabitants. Our TRACE campaigns can contribute to that need.

2.1.4 BREDATA

2.1.4.1. SCALE OF APPLICATION

Positive Drive is going to be implemented in a large urban planning area. The Claudius Prinsenlaan is the porter of urban development and serves education, military, offices and the inner-city. It serves 35,000 cars per day, 15,000 cyclists and every 6 minutes’ public transport. The Claudius Prinsenlaan is part of a mobility program and is currently under construction. The City of Breda is building bus lanes, cycle speed lanes and multi-modal green-waves. These new mobility changes are the starting point for implementing TRACE.
2.1.4.2. DESCRIPTION OF PILOT SITE

Breda is a typical car-city in comparison to comparable cities. Due to extended spatial planning to 2030 the car modal share will increase. The network will reach its limit which will lead to more congestion, more pollution and more CO₂ emissions. Besides that, more car penetration leads to less urban quality.

To solve this issue of a jammed city, Breda is looking for collaborations with several partners. One of the partners is the community Claudius Prinsenlaan. This partnership is a result of a National Accessibility Program (Beter Benutten Vervolg) targeting on reducing so called delayed urban car trips for the period 2016-2018. This is facilitated by the Regional Mobility Board and is accommodated by “Brabants Mobility Network” (BMN).

The community Claudius Prinsen is a collective of five large employers working together to add value towards by avoiding car commuting during rush hours. The partners are the NHTV and AVANS (both Universities of applied science), the Amphia Hospital (largest non-academic hospital of the Netherlands), the Trip van Zoutland army base and the city of Breda. In Table 14, the distribution of potential participants is indicated.
Table 14 - Distribution of potential participant in Breda

<table>
<thead>
<tr>
<th>Community Partner</th>
<th>Employees</th>
<th>Students</th>
<th>Visitors per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Breda</td>
<td>1,200</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Avans</td>
<td>1,500</td>
<td>15,000</td>
<td></td>
</tr>
<tr>
<td>NHTV</td>
<td>500</td>
<td>5,000</td>
<td></td>
</tr>
<tr>
<td>Trip van Zoutland</td>
<td>500</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>Amphia Hospital</td>
<td>5,500</td>
<td>2,000</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>9,200</strong></td>
<td><strong>20,000</strong></td>
<td><strong>3,000</strong></td>
</tr>
</tbody>
</table>

The target group is firstly the employees. This will be the focus. But also students are involved in TRACE.

There is a common sense of urgency to prevent further delay the Claudius Prinsenlaan as one of the main urban corridors. There is also an intrinsic motivation because all partners have plans to grow in the near future: more students, more visitors, more employees, and consequently more traffic.
2.1.4.3. ENGAGEMENT TARGETS

The Breda PD pilot follows the DoW engagement targets and the deployment potential defined by the WP as a guideline. Scale of application is not city wide, it is focused on the Claudius Prinsenlaan. The Trace engagement targets are therefore used as a guideline. The Breda PD pilot follows the “Beter Benutten Vervolg” engagement targets. In this programme the Community Claudius Prinsenlaan has a benchmark of 167 less delayed car trips during rush hours. The community is focused on reducing car trips during rush-hours and on more cycling to work. On 9,000 employees, this is imaginable. The objective will be based on a baseline survey that is being executed in Q4 2016. Together with the Community Claudius Prinsenlaan we define an engagement target.

Engagement target for the Breda site will:

- Aim to involve at least the equivalent of 3% to the cycling and walking population, i.e.: Number of persons engaged = Population * mode share * 3%.
- Aim to involve a nearer to define modal shift based on the modal-split survey (Q4 2016) and the collective ambition of the Community Claudius Prinsenlaan.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Number of persons involved</th>
<th>Modal share cycling+walking</th>
<th>Engagement target</th>
</tr>
</thead>
<tbody>
<tr>
<td>City-wide</td>
<td>180,000 inhabitants</td>
<td>27%</td>
<td>1,458</td>
</tr>
<tr>
<td>Project-based</td>
<td>9,000 employees</td>
<td>tbd</td>
<td>tbd</td>
</tr>
</tbody>
</table>

2.1.4.4. DEFINITION OF STEPS FOR IMPLEMENTATION

2.1.4.4.1. PREPARATION OF LOCAL APPROACHES

First preparations are made in Q1 2016 during the first Focus group meeting with the existing Community. The TRACE objectives are widely supported by the Community. Q2 and Q3 were necessary for defining the opportunities and to inform several members of staff and to gather travel information of employees.

The local PD approach is tailored to the program Beter benutten Vervolg and is embedded in its timeframe. The objectives are geographical specific. Marketing and Communication will be therefore specifically defined for the Community itself. Prices will be arranged from another active mobility program in Breda using PD. Prices will be from local shops and-or can be incentives based on “opportunities” from separate stakeholders. The community manager will lead up TRACE.

2.1.4.4.2. ENGAGEMENT OF STAKEHOLDERS
Stakeholders that will be involved are listed below:

- Avans (university)
- NHTV (university)
- Amphia (hospital)
- Trip van Zoutland (military base)
- City of Breda (Municipality)

All stakeholders are united in the community Claudius Prinsenlaan. Besides regular meetings, specific meetings concerning prizing, marketing and communication will be planned.

Two levels of stakeholders’ objectives can be defined:

- Collective objective: To reduce delayed trips and to enforce a shift towards sustainable transportation by bike
- Specific objectives per stakeholder (to be defined):
  - healthier employees
  - a “greener” corporate image
  - gaming as a positive impulse
  - reducing transportation costs by collaborating
  - introduce flexible working conditions
  - learning by doing (tracing) and knowing (tracking)
  - etc.

The Community Claudius Prinsenlaan is an existing entity. Channels are already up and running.

The city of Breda is in the lead concerning implementation PD TRACE. Preparation has taken place in Q2 and Q3 2016. The start-up of TRACE means intensifying the meeting rhythm. In Q4 2016 more than usual meeting will be planned. In 2016 every two months PD will be monitored. Feedback is a constant process.
Table 16 - Schedule of activities for engagement of stakeholders in PD pilot, Breda

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus Group</td>
<td>2016 Q2</td>
<td>- Introduction TRACE, Positive Drive, possibilities for stakeholders</td>
<td>Stakeholders</td>
</tr>
</tbody>
</table>
| Focus Group     | November 2016 | Next Community meeting:  
- insight in traffic behaviour employees  
- first attempt defining objectives  
- set up campaign conditions and strategy  
- group presentation of PD | Stakeholders |
| Focus Group     | January 2017 | Extra Community meeting:  
- define collective ambition  
- first draft of strategy  
- first draft of game schedule  
- first draft of planning  
- first draft for testing PD | Stakeholders |
| Focus Group     | April 2017  | - Strategy rollout PD  
- Start marketing and communication campaign  
- Test result PD | Stakeholders |
| Focus Group     | April-July, 2017 | Continuous monitoring and control of pilot implementation | Stakeholders |

2.1.4.4.3. ENGAGEMENT OF FINAL USERS

The final users are the employees of the Community. Through internal channels of the stakeholders it is relatively easy to stay in touch and to trigger them to participate. Travel behaviour is known and by using GIS application it is easy to determine the specific employees based on an average maximum cycling distance of 10 km.

Table 17 - Schedule of activities for engagement of final users in PD pilot, Breda

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
</table>
| Dissemination of TRACE PD | Q1 2016 | First announcement (multi-Channel):  
- Posters  
- Intranet newsflash | Employees |
| Recruitment     | Q2 2016  | Gameplay PD Trace campaign:  
- How does “it” works  
- Gaming and prizing  
- Personal challenges  
- Peer-to-peer gaming | Stakeholders, Employees |
### 2.1.4.5. RISKS AND BARRIERS FOR IMPLEMENTATION

#### 2.1.4.5.1. IDENTIFICATION OF RISKS AND BARRIERS

A huge range of risks and barriers can be defined. The most relevant are (in random order):

- Lack of motivation and interest due to mismatching lifestyles
- Bad mobile phones/devices or software incompatibilities
- Mobile Network interferences, a minimum 3G or 4G is needed
- GPS problems
- Non cycling weather, 7% of the time it is raining while cycling
- Inadequate and/or improper prizes
- Inefficient coaching program
- Improper facilities at the destination
- Data storage complications
- Fraud and negative exposure
- Inadequate functioning analyse tool for M&E purposes

#### 2.1.4.5.2. STRATEGIES TO MITIGATE AND OVERCOME RISKS AND BARRIERS

In essence the strategy is detailed preparation. Some examples:

- A good back office for Q&A and technical support
- Define a well-balanced prize-scheme and try different patterns
- Consistent and tailor made campaign materials
- Define fixed feedback moments to bind the user
- Work on an open partnership with stakeholders
- One party responsible for the campaign

### 2.1.4.6. PREVIOUS OR ONGOING EXPERIENCE IN SIMILAR CAMPAIGNS

#### 2.1.4.6.1. PAST EXPERIENCES AND LESSONS LEARNT

Breda has some learnings of combining technique in behavioural studies in combination with tracking & tracing & rewarding. We had pilots for:

<table>
<thead>
<tr>
<th>Campaign start</th>
<th>Playing the game:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q2/3 2016</td>
<td>• Greater picture</td>
</tr>
<tr>
<td></td>
<td>• Roleplay</td>
</tr>
<tr>
<td></td>
<td>• Weekly nudges (multi-Channel)</td>
</tr>
<tr>
<td></td>
<td>• etc</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Free publicity by linking towards:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3</td>
<td>• EU-mobility-week as a sustainable project</td>
</tr>
<tr>
<td></td>
<td>• Beter Benutten newsletters</td>
</tr>
<tr>
<td></td>
<td>• etc</td>
</tr>
</tbody>
</table>

- Employees

- Stakeholders
- Encouraging some parking garages
- Stimulating using high speed cycle lanes
- Using cycling instead of the car for bringing children to elementary school
- Stimulating cycling more often to sport facilities
- Stimulating cycle parking in our garages in the inner-city

Learnings are:

- There needs to be a recognized problem otherwise finding participants is hard(er). This means thinking in terms of a product. Urban mobility is also a product; this means you have to have a good story to tell.
- Know your customer. The story is not generically meant for a certain travel-motive but it is meant for a certain lifestyle. Product thinking means you work on a tailor-made intervention and not confection.
- The “what is in it for me” is a distinguished factor for the success. First of all, for the stakeholders but also for the participants. This can be status, money, processor and advantage (in terms of travel time, etc). Finding the right balance is a matter of time.
- All of this must be wrapped up in a good and adaptive well thought of campaign. Take your time and reserve funding. This is the base-layer for every step you take. One mistake in the beginning of the campaign can be fatal.
- Post and pre-surveys or counting was the way for determining effect. Nowadays we use Bikeprint.nl for analysis. Tracking & tracing is with the correct analyse tool the most cost effective way for campaigning.
- Gaming works. Keep is positive and make it fun. Peer to peer, or just solo.
- The technique must work properly, no beta versions.

2.1.4.6.2. POTENTIAL SYNERGIES

Several synergies will have a positive effect on TRACE:

- The existing community Claudius Prinsenlaan set in for TRACE. The community has separate funding as an extra for prizing or campaigning. Also the community has administrative support.
- More cycling due to roadworks. In 2017 the Claudius Prinsenlaan will be under construction. Which means an extra stimulant. Also the communication concerning these works can be used in TRACE.
- Local campaigns for stimulating cycling will be linked to the community Claudius Prinsenlaan.
2.1.5 ÁGUEDA

2.1.5.1. SCALE OF APPLICATION

Several institutions will be invited to participate on PD pilot. Considering the number of participants that should be involved, it is expected to exceed the proposed goal: considering the number of inhabitants of the implementation area and modal share, the goal is to involve at least the equivalent of 3% to the cycling and walking population, i.e.: Number of persons engaged = Population * mode share * 3% (Table 18). The Municipality, educative institutions and interested companies are located on the surrounding of the city.

Table 18 - Engagement target in PD, Águeda

<table>
<thead>
<tr>
<th>Institution</th>
<th>N.º of persons (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality of Águeda</td>
<td>360</td>
</tr>
<tr>
<td>Secondary Schools and College</td>
<td>2,000</td>
</tr>
<tr>
<td>Total</td>
<td>2,360</td>
</tr>
</tbody>
</table>

2.1.5.2. DESCRIPTION OF PILOT SITE

Águeda is a territory with a long history associated with the use of the bicycle, as usual mean of transportation, but in later decades the automobile has been gaining place, reaching a point of near hegemony.

The number of companies and businesses, located on the several industrial areas of the county, is very large and is the result of a past, associated to the metal industry. However, the network of business, companies and industries is more or less covering the lower altitude part of the territory, being the mountain range more deprived.

It is pertinent to involve on the PD the students and teachers of the schools of Águeda. This portion of the population is permeable to this kind of initiatives, the association of TRACE with other soft mobility projects could maximize them, creating positive synergies.

The split modal of walking and cycling is below of 15% together.

2.1.5.3. ENGAGEMENT TARGETS

The scale of application for this pilot will be the city and also the surrounding areas, considering the concentration of companies occurring on those areas. In this area, with a total of 6 parishes with about 27,980 inhabitants, the modal split is:

- Walking: 11%
The objective of the Águeda PD pilot is to change existing mobility behaviour among target population, i.e. increase the amount of sustainable (and active) travels during and after the PD campaign, contributing to the implementation of the Strategy for Sustainable Mobility of the Municipality.

Engagement target will aim to involve at least the equivalent of 3% to the cycling and walking population, i.e.: Number of persons engaged = Population * mode share * 3%

<table>
<thead>
<tr>
<th>Number of persons involved</th>
<th>Modal share cycling+walking</th>
<th>Engagement target</th>
</tr>
</thead>
<tbody>
<tr>
<td>27,980</td>
<td>12%</td>
<td>100</td>
</tr>
</tbody>
</table>

2.1.5.4. DEFINITION OF STEPS FOR IMPLEMENTATION

2.1.5.4.1. PREPARATION OF LOCAL APPROACHES

On the dissemination activities developed on March of 2016 with the school director of the three Groups of Schools of Águeda, the main characteristics of the project and the pilots were duly explained. Also during the surveys/interviews to the experts, scheduled for the TRACE project, the involved experts where selected among the possible stakeholders, so the project could be known by these potential partners from an early stage.

PD will be implemented among students of the secondary schools and college located in the city, it will be extended also to municipal employees, as well as some interested companies. It will be privileged a closer communication, in order to engage the stakeholders and final users.

2.1.5.4.2. ENGAGEMENT OF STAKEHOLDERS

Stakeholders to be engaged are the companies to be invited to join the project, the secondary schools, high school and college of the city, as well as the Municipality itself.

Objective of the educative institutions:
- Improvement of the management of the parking
- To achieve higher levels of air/environmental quality
- Improve health among the hiking and cycling practitioners
- Improve safety
• Decrease of traffic surrounding the institutions
• Reinforce the implantation of other mobility projects and programs
• To have a “greener” image (associate the idea of sustainability to the image of the school)
• Take advantage of the knowledge coming from this app and experience to other future D&I projects

Objective of the employers:

• To be able to transmit the idea of environmental preoccupation, to associate an image of sustainability to the company or business
• Better management of the space allocated to parking
• Increase the team spirit, leading to a higher level of satisfaction of the employees and therefore improve the quality of life of workers and the quality of the work developed by them

To promote the engagement of the stakeholders, it should be scheduled a set of meetings to explain the expected functioning of the pilot.

Presentation meeting, periodic accompaniment meetings, final meeting and report including the results will be addressed to the involved stakeholders. Eventually through personal communication it could be collected the feedback of stakeholders, beside the more formal moments.
Table 20 - Schedule of activities for engagement of stakeholders in PD, Águeda

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
</table>
| Dissemination and preliminary meeting with employers | October-December 2016 | - Promotion of the Trace Project and PD Campaign  
- Introduce the general characteristics and main objectives of the European project TRACE and the PD pilot, with possible stakeholders  
- E-mail to all stakeholders to request the formal engagement | Stakeholders: Employers and School administration |
| Starting Meeting | January-March 2017    | - Definition of an action plan for the implementation of the "PD" with each stakeholder  
- Definition of specific objectives and goals  
- Schedule of awareness actions if needed  
- Schedule of preparation sessions oriented to the PD as well as the portal to be used | Employers and School administration |
| Accompaniment   | April-September 2017  | - It should be clear for every stakeholder that it would be a permanent support, whenever needed, via email, or other if preferable | Employers and School administration |

Note: The proposed calendaring could be adjusted depending on the response to the request to CNDP (National Commission Data Protection).

2.1.5.4.3. ENGAGEMENT OF FINAL USERS

Several activities will take place in order to catch the attention of targeted people to soft mobility means and their benefits.

Objective of the activities:

- To decrease costs with transport on the dislocation home-work-home
- To have better quality of life
- To improve the level of health, fighting the sedentary lifestyle, develop cardio activity, etc.
- To feel better with him/herself
- Reducing the CO₂ emission, the individual impact for the global climatic change decreases
Table 21 - Schedule of activities for engagement of final users in PD, Águeda

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>action</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMW</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dissemination of the project</td>
<td></td>
<td></td>
<td>Promotion of bicycle as transport mean to the quotidian activities</td>
<td>General population</td>
</tr>
<tr>
<td>Initial contact – email, letter, Facebook, other</td>
<td></td>
<td></td>
<td>Distribution of flyers among the students/employees, Posters of advertising of TRACE/PD</td>
<td>Students and employees</td>
</tr>
<tr>
<td>Meetings/sessions with Final users</td>
<td></td>
<td></td>
<td>First contact using institutional usual ways (Email, letter, Facebook, other) informing the willing of the responsible of the institution to enjoy the project, and extending the invitation to every employer/student to adopt more sustainable means on their movements from and to home</td>
<td>Students and employees</td>
</tr>
<tr>
<td>Accompaniment</td>
<td></td>
<td></td>
<td>Elucidation session for final users about functioning of PD: technical issues, actual game rules, prizes and rewards, at the work place with due authorization of the employers</td>
<td>Students and employees</td>
</tr>
<tr>
<td>Final information</td>
<td></td>
<td></td>
<td>Information about the results of the pilot and future challenges</td>
<td>Stakeholders and final users</td>
</tr>
</tbody>
</table>

Note: The proposed calendaring could be adjusted depending on the response to the request to CNDP (National Commission Data Protection).

2.1.5.5. RISKS AND BARRIERS FOR IMPLEMENTATION

2.1.5.5.1. IDENTIFICATION OF RISKS AND BARRIERS

- Lack of motivation to overcome the extra effort representing the use of smooth mobility
- Sedentary lifestyle
- Distance home-work/school too big to be done by cycling or walking
- Lack of resources (smartphone/bicycle/other)
- Equipment of low quality
- Need of space and time to personal hygiene after the realization of some physical effort (bathhouse or similar)

2.1.5.5.2. STRATEGIES TO MITIGATE AND OVERCOME RISKS AND
BARRIERS

- Distribution of material to aware and inform about benefits of active mobility
- Tear down the prejudices on true distances and the associated effort to cover them using soft mobility
- Gave the possibility of winning equipment of superior quality by travelling using soft mobility means
- Facilitate the realization of medical/health check-up, to ensure the minimum of health conditions to hike/bike

2.1.5.6. PREVIOUS OR ONGOING EXPERIENCE IN SIMILAR CAMPAIGNS

2.1.5.6.1. PAST EXPERIENCES AND LESSONS LEARNT

Águeda has little experience on this type of projects.

The most similar is WalkinÁgueda, created in 2015: WalkinÁgueda is an app that allows hikers to enjoy a different tour on the walking trails of the municipality (set of 7 short trails and another 4 being implemented on 2016), by discovering various points of interest and landscapes. Yet, this project does not give the geographic information on path and trail, just the number of downloads made on a given period of time.

2.1.5.6.2. POTENTIAL SYNERGIES

The range of action of the TRACE project – PD pilot, meets several projects developed and still in phase of development and implementation by the Municipality of Águeda.

Águeda was one of the first municipalities signing the Covenant of Mayors and Mayors adapt, by doing so, there is a compromise assumed by the Municipality to reduce the amount of CO₂ emission. The promotion of smooth/active ways of mobility crosses interest with the global climate change, mitigation and adaptation measures, enhancing the possibility and capability of the city to reduce its impact on the environment, contributing with the reduction of the consume of petroleum and concomitantly to the implementation of the Sustainable Energy Action Plans (SEAP).

Hiking, walking and cycling also benefit the health of the practitioners, improving their quality of life. The quality of life improves because of the decreasing of transit, given for the reduction of use of private car on the usual transport for daily activities. There is in the city a Municipal Centre for Running and Hiking, by which anyone could enjoy physical activity guided by a professional in the area of training. It could also be found a check-up trail, used to promote and to aware citizens to the importance of taking care of their health by doing physical exercises. Both this projects are intimately related with the fundamental of TRACE project, searching for the adoption of more active (and sustainable) approaches to the life style of participants.
In alignment with these principles, the Strategy for the Sustainable Mobility seeks for the progressive change of the split on mobility by the implementation of a set of action and measures. This is a slow ongoing process that needs to be duly spread among the citizens; in this particular TRACE could be another pillar to help out in this path of change.

Municipality of Águeda started at 2011 a soft mobility project, BeÁgueda – electric bicycle of Águeda, promoting the use of bicycle among their citizens and visitors, through a public bike sharing scheme. The fleet is to be reinforced with new bicycles. Is foreseen also the installation of new parking spaces for bicycles in several strategic points of the city.

Annually is celebrated the European Mobility Week, is in the framework of this event that a large program of activities designated Águeda +B(icycle) will take place. This set of actions is diversified and aims to reach a large range of age-target. In that weekend Águeda will be (once again) a city of bicycles, with bike inspired street-theatre, music, also workshops and cyclo-tourism; the final challenge is to make a huge human (riding bicycles) logotype in the shape of a bicycle. Along with this will be sessions of road safe, oriented to cyclists, initiation to the riding of bicycles, awareness sessions, playing and gaming, among other actions.

There are several schools in our council that take part of the program Eco Schools, of ABAE/FEE. These institutions are very much permeable to the principles of sustainability and will most likely participate on the TRACE project being as it is about sustainable mobility, in a win-win situation.

### 2.1.6 SOUTHEND-ON-SEA

#### 2.1.6.1. SCALE OF APPLICATION

This application will be piloted in-house with Council departments and partners including those parties that attended the Focus Group presentation. This target audience will mean we have the potential to reach more than 1,000 people.

#### 2.1.6.2. DESCRIPTION OF PILOT SITE

The Borough of Southend-On-Sea is located on the north side of the Thames Estuary, approximately 60 km east of London. The Borough is 416 square km in size and made up of 17 wards, with a total population of 177,900. Southend is an important economic and residential part of the Thames Gateway regeneration area and, with seven miles of seafront; it is a key destination for tourism and leisure. The Borough’s economic links with areas beyond its boundaries are strong, particularly with London, which is within convenient commuting distance and accessible by two railway lines, with journey times of around one hour.

#### 2.1.6.3. ENGAGEMENT TARGETS

The aim of the Southend Positive Drive pilot is to encourage a modal shift in behaviour particularly focussing on congestion peak commuting times with a bias towards which
incentives are most effective to achieve these changes. We hope that this will be achieved by working closely with the participants of our Focus Group to identify the most persuasive marketing method.

Table 22 - Engagement target in PD, Southend-On-Sea

<table>
<thead>
<tr>
<th>Number of persons involved</th>
<th>Modal share cycling+walking</th>
<th>Engagement target</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 1,000</td>
<td>Not know at present</td>
<td>300</td>
</tr>
</tbody>
</table>

2.1.6.4. DEFINITION OF STEPS FOR IMPLEMENTATION

2.1.6.4.1. PREPARATION OF LOCAL APPROACHES

Following the Focus Group that we held in March 2016, SSBC will be using the valuable feedback we received to ensure that our marketing strategy encompasses the views given by the participants to appeal to a wide audience.

2.1.6.4.2. ENGAGEMENT OF STAKEHOLDERS

The stakeholders are Council departments and partners including those parties that attended the Focus Group presentation:

- Active Life – An organisation providing opportunities to get people active
- Belle Vue Honda Southend - A bike dealer in Southend-On-Sea
- Citizens Advice – A charity company providing advice and campaign on big issues affecting people's lives
- Essex LPC – A clinical commissioning group responsible for health services within the Southend area
- Hadleigh park – A sporting venue
- HMRC – A Government Departments and Agency located in Southend-on-Sea for taxes and revenues
- Parkwood Healthcare - A healthcare solutions provider
- Olympus Keymed - A healthcare and consumer electronics company
- ORBUK – A business membership organisation for small and medium sized enterprises
- SBC – The Southend-On-Sea City Borough Council
- Seetec – A providers of Government funded Welfare to Work and skills training programmes
- Southend University Hospital – A foundation providing health care
- Sustainable Motion – A sport goods retailer
- Talking Cures – A structure providing solution for health, wealth and well being
Stakeholders’ objectives are:
- Healthier lifestyle
- Increase in employment reliability
- Decrease in congestion
- Decrease in pollution

Employees of Southend Borough Council together with local businesses and voluntary organisations and the public health team will be end-users of the PD pilot.
Table 23 - Schedule of activities for engagement of stakeholders in PD pilot, Southend-On-Sea

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>action</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
</table>
| Develop Marketing plan | | November 2016 | - To trail the app in house so we have a full understanding of how the app works  
- Write text for website explaining the purpose of the app and how to take part in the pilot.  
- Promotion through our websites and social media www.ideasinmotionsouthend.co.uk and www.cyclesouthend.co.uk | -      |
| Sponsorship     |        | January 2017 | - Contact sponsors for rewards and prizes                                                                                                                                   | -      |
| Make initial contact local businesses to promote the tracking concept of TRACE and the Positive Drive app | | January 2017 | - Give demonstration/presentation                                                                                                                                       | -      |
| Invite local employers to promote the app to their staff | | March 2017 | - Contact employers to invite them to take part in the pilot.  
- Give demonstration/presentation                                                                                                                               | -      |
| Run pilot       |        | April/May 2017 | -                                                                                                                                                                                                                     | -      |
| Develop Marketing plan | | November 2016 | - To trail the app in house so we have a full understanding of how the app works  
- Write text for website explaining the purpose of the app and how to take part in the pilot.  
- Promotion through our websites and social media www.ideasinmotionsouthend.co.uk and www.cyclesouthend.co.uk | -      |

2.1.6.4.3. ENGAGEMENT OF FINAL USERS

A final focus group will be arranged in order to gather final feedback and decide on the legacy of Positive Drive.
### Table 24 - Schedule of activities for engagement of final users in PD pilot, Southend-On-Sea

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotion of TRACE and Positive Drive</td>
<td>February 2017</td>
<td>- To engage potential users</td>
<td>- Potential users</td>
</tr>
<tr>
<td>Training for users</td>
<td>March/April 2017</td>
<td>- Training sessions to be offered to all users</td>
<td>- Potential users</td>
</tr>
<tr>
<td>Final Focus Group</td>
<td>September 2017</td>
<td>- To gain feedback from users and employers</td>
<td>- All those who were involved in the pilot but also some who did not want to take part</td>
</tr>
</tbody>
</table>

### 2.1.6.5. RISKS AND BARRIERS FOR IMPLEMENTATION

#### 2.1.6.5.1. IDENTIFICATION OF RISKS AND BARRIERS

- Lack of interest and involvement of participants and stakeholders
- Lack of understanding how the product works
- Travel distance not applicable for app
- Lack of resources (i.e. smart phone)
- Rewards are not attractive enough to participants
- Users forget to use the app during pilot
- Forgery of information

#### 2.1.6.5.2. STRATEGIES TO MITIGATE AND OVERCOME RISKS AND BARRIERS

- Target correct participants
- Target specific rewards to certain participants to make them attractive
- Monitoring and reminders to be sent to participants during pilot
- Clear agreements established at the outset

### 2.1.6.6. PREVIOUS OR ONGOING EXPERIENCE IN SIMILAR CAMPAIGNS

#### 2.1.6.6.1. PAST EXPERIENCES AND LESSONS LEARNT
During previous behavioural change campaigns, SSBC has learnt that a personal approach tends to work better rather than cold calling. It is essential to make it easy for stakeholders to take part by removing any barriers including finding a champion in each organisation to keep participants motivated and ensure that it is kept simple and not too time intensive.

2.1.6.6.2. POTENTIAL SYNERGIES

SSBC will be using its Ideas in Motion website together with social media campaigns to work in partnership with TRACE.
2.2 Traffic Snake Game Tracking Application pilots

2.2.1 BELGIUM

2.2.1.1. SCALE OF APPLICATION

The pilot will run in at least three schools in Flanders. We expect to obtain 100 tracked pupils in three schools (300 tracked trips).

2.2.1.2. DESCRIPTION OF PILOT SITE

Our pilot site is not a city but a region: Flanders, the Dutch-speaking region of Belgium. There are 2,596 elementary schools in Flanders with 448,489 pupils in elementary school (ages 6-12), of which 25,579 in a special education program. In addition, there are 269,740 children in nursery school (ages 3-5) of which 1,980 in a special education program. For high school, there are 438,561 pupils (age 12-18) in 1,055 schools. The TSG campaign is focused on elementary schools and nursery schools (i.e., kids aged 4 to 12).

Schools in Flanders are located throughout the region (see the map at http://dataconnect.be/funproject/basisscholen-vlaanderen.html). In all school areas the speed of cars is limited to 30 km/h and there are bike lanes for cyclists. Most schools have infrastructure for bikes, such as bike racks for storing the bikes. In some schools the capacity of the bike racks is not sufficient for the amount of bicycles that are being stored and in some cases this is a barrier for the school to promote cycling to school.

Mobiel 21 has hosted the TSG campaign for many years and hence we are in touch with all schools at the local Traffic Snake website. Schools in which many children come by car to school should in principle be the most interesting schools for the campaign. However, it is often the case for these schools that traffic is too dangerous for children to bike to school and hence the school is not likely to promote sustainable transport. We have thus far confirmation of one school that will join in the TRACE pilot. We will contact other schools as soon as we have all information on the exact way the tool works and the information it can provide to a school.

Freedom of education is a constitutional right in Belgium. Hence any natural or legal person has the right to organize education and can therefore erect an educational institution. The government may not take preventive measures to prohibit the establishment of free schools. The constitution also guarantees freedom of choice for parents. Parents and children must have access to a school of their choice within a reasonable distance from their home. Recent legislation clarifies and protects this freedom of choice. Schools cannot refuse pupils, with the exception of some specific cases. Finally, the government is constitutionally obliged to provide neutral education.

The concept of the governing body (or school board) is a key concept in the organization of education in Flanders. The governing body is responsible for one or more schools. It is a bit like a board of directors in a company. The governing body may take the form of a government, a natural person or legal entity (or entities). The governing bodies have a lot of autonomy. They have the freedom to choose their teaching methods and to base their teaching on a particular philosophy or educational view. They can also make their own
curriculum and timetables and put their own staff. Schools that want to receive recognition or financial support from the government, have to meet the educational goals that have been set by the government and need to be adequately equipped and have sufficient teaching materials. They must be located in buildings that are habitable, safe and sufficiently tidy, and so on.

Often educational networks operate as representatives of the governing bodies and they take over certain responsibilities of the governing bodies, such as setting their own curriculum and timetables. In this way, the governing bodies hand over some of their autonomy to the educational networks.

Traditionally, there are three distinct educational networks:

- The public institution called "Community Education" is organized by the Flemish Community. Community education is required to be neutral by the constitution. This means that the religious, philosophical or ideological convictions of parents and pupils must be respected.
- Subsidized public education comprises municipal education organized by the municipalities and provincial education organized by the provincial governments. The governing bodies of this education are united in two umbrella organizations, the Education Secretariat of Cities and Municipalities of the Flemish Community and the Provincial Education Foundation.
- Subsidized private education is organized by a private individual or private organization. The governing body is often a non-profit organization. This existing form of education mainly consists of catholic schools. They are united in the umbrella body called Flemish Secretariat for Catholic Education. There are also schools linked with other religions (Protestant, Jewish, Orthodox, Islamic, etc.). In addition to these denominational schools, there are schools that are not tied to a particular religion. Examples are the alternative schools (based on the insights of Freinet, Montessori or Steiner), applying specific teaching methods.
- A small number of schools in Flanders are not recognized by the government. These so-called private schools are not funded nor facility subsidized by the government.

Since September 1, 2003 the primary education system in Flanders has a new structure, namely the school community. This is a partnership between several schools that aggregates at least 900 students. This structure reform contributes to a more efficient management of resources.

To summarize, each school is an entity, but embedded in a system. This system can be the municipality or a regional institution (e.g., the community of Flanders), but this is not necessarily the case. The school networks and school boards have important decision power, but also the school has a high autonomy in this system.

The Traffic Snake Game campaign has run for many years in Flanders. Participating schools can be found on the local Traffic Snake website. On April 4th 2016 a survey was launched among the schools asking whether the school would be willing to participate in a tracking project. Several schools across Flanders indicated their interest and Mobiel21 will start with contacting the most interested schools for our pilot. The local TSG team will help Mobiel21 develop a strategy to communicate with the school.
2.2.1.3. **ENGAGEMENT TARGETS**

Within TRACE three schools in Flanders will be involved in the tracking project. Within each school, at least 100 pupils will be tracked.

2.2.1.4. **DEFINITION OF STEPS FOR IMPLEMENTATION**

2.2.1.4.1. **PREPARATION OF LOCAL APPROACHES**

The TSG network is extensive in Belgium and Mobiel 21 is in touch with many schools that have enrolled in the TSG campaign in previous years. As stakeholder involvement has been conducted in the past years when enrolling the original campaign, it was not necessary to develop a specific stakeholder involvement strategy for TRACE.

A detailed description of stakeholders, their objectives and how to involve them can be found in the Campaign and Policy Roadmap of the TSG network ([https://goo.gl/eVQgxq](https://goo.gl/eVQgxq)). The precise engagement of stakeholders will depend on each case (e.g., some schools will appreciate an involvement of the local authority, others will not).

A number of materials will need to be prepared:

- Informed consents for the parents
- Letters for the teachers
- A letter for the school to accompany the above mentioned materials so the school can distribute this to the stakeholders

2.2.1.4.2. **ENGAGEMENT OF STAKEHOLDERS**

The stakeholders of the campaign are:

- Decision makers: school itself (governing body, school, management), but possibly city, municipality, county (which can also be the governing body) and the Community of Flanders
- Parents and parents’ representatives, traffic parents, PTA, traffic school board
- Schools’ representatives: teachers, principal, governing body
- Other stakeholders: city, municipality, county (civil and administrative level), police, prevention, local cyclists, traders in the street, Flanders, working groups such as the extensive Municipal Supervision Committee, public transport operator
We have contact details of the 987 schools that participated in the campaign last year. We will contact them via email or telephone. In several cases schools contact us, because they want to participate in the ongoing campaign of the Traffic Snake Game. We will select the most interested schools for the TRACE project. The parents will be contacted via the schools. We are currently not planning on contacting other stakeholders, but if the school wishes to communicate the data from TRACE (e.g., route information) to other stakeholders such as the municipality then we will support the school in doing so.

When the schools have been selected, we plan to visit each school to check for their eligibility with regard to technical infrastructure. Afterwards we give the school more information about the different steps in the pilot.

We will ask the schools for their feedback on the campaign using a small questionnaire. This questionnaire will include a qualitative assessment of the school’s evaluation of the pilot (i.e., teachers, school board).
Table 26 - Schedule of activities for engagement of stakeholders in TSG, Belgium

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>action</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sending out a survey asking for interest in TRACE</td>
<td>04/04/2016</td>
<td>- Find tree schools that express their interest in participating in the TRACE pilot in 2017</td>
<td>- 3 schools have expressed their interest</td>
</tr>
<tr>
<td></td>
<td>Involvement of the first school via email</td>
<td>09/09/2016</td>
<td>- Asked one school to participate in the project to check whether technical issues would be a problem (i.e., the need for an Ethernet connection)</td>
<td>- Engage 1 school</td>
</tr>
</tbody>
</table>
|                | Communicate to other schools in the TSG network, starting with the most interested schools according to the survey | 30/11/2016| - Engage at least two more schools for the pilot. Potentially three other schools to compare how the campaign is running with and without tracking in the schools  
- Check for technical eligibility of the schools by visiting the schools                    | - Engage two more schools, potentially 5 more schools                                      |

### 2.2.1.4.3. ENGAGEMENT OF FINAL USERS

Schools will be guided closely in the process of executing the TRACE pilot. We will complement clear written information with visits to the school.
Table 27 – Schedule of activities for engagement of final users in TSG, Belgium

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visit the schools and determine which classes will be involved in the pilot</td>
<td>Dec 2016</td>
<td>Visit the schools, explain the project, determine which classes will be involved</td>
<td>Determine which schools and classes will participate in the pilot</td>
</tr>
<tr>
<td>Information e-mail for the schools with the different steps of the pilot</td>
<td>05/01/2017</td>
<td>Inform the school about the detailed course of the pilot</td>
<td>Send an email and a letter to the school with more information regarding the pilot</td>
</tr>
<tr>
<td>Bringing the trackers</td>
<td>06/03/2017</td>
<td>Physically bringing the trackers to the three schools</td>
<td>The schools receive the trackers</td>
</tr>
<tr>
<td>Start pilot</td>
<td>13/03/2017</td>
<td>Pilot of Monday to Friday</td>
<td>Tracking information of 3 schools, 100 pupils</td>
</tr>
</tbody>
</table>

2.2.1.5. RISKS AND BARRIERS FOR IMPLEMENTATION

2.2.1.5.1. IDENTIFICATION OF RISKS AND BARRIERS

- Privacy concerns of parents
- Schools are not always interested in the data

2.2.1.5.2. STRATEGIES TO MITIGATE AND OVERCOME RISKS AND BARRIERS

- Privacy concerns of parents. Mobiel21 TSG survey learned that parents accept tracking that is limited in time (i.e., not the whole semester, but one or several weeks). In addition, Mobiel21 will develop an informed consent for parents in which all relevant aspects of the project are explained in detail (e.g., data handling) as well as the benefits of the project (i.e., regarding improving traffic safety) are described.
- Mobiel21 decided to start the project with forerunners: schools that immediately grasp the benefits of using the data for their school. When
the project has yielded interesting specific results for schools, other schools are more likely to become convinced of the new methods.

2.2.1.6. PREVIOUS OR ONGOING EXPERIENCE IN SIMILAR CAMPAIGNS

2.2.1.6.1. PAST EXPERIENCES AND LESSONS LEARNT

From past experiences Mobiel21 has learned that some activities could be very useful for the implementation of the project, such as:

- Provide ready-made material for the school.
- Make a certificate the school can use to show to the world they participate in new projects on traffic safety and sustainable transport.
- Traffic safety is often more of an issue than sustainability to schools. The angle of the project in Belgium is therefore that more car use leads to a less safe school environment.

2.2.1.6.2. POTENTIAL SYNERGIES

Useful synergies will be found in:

- Traffic Snake Game Network.
- Present TSG campaign in Belgium, which has slightly changed angle this year (i.e., “Every Wednesday is Traffic Snake Day”).

2.2.2 BELGRADE

2.2.2.1. SCALE OF APPLICATION

The TSG pilot will be run on the population of primary school pupils (age 7 to 12), their parents and their teachers. Survey sample will include 3 primary schools with 100 or more pupils.

2.2.2.2. DESCRIPTION OF PILOT SITE

In the Republic of Serbia, primary schools include 8 grades, i.e. children from 7 to 15 years old. Secondary school has maximum 4 grades. There are 207 primary schools in Belgrade metropolitan area, allocated in 17 municipalities, with more than 124,491 pupils in school year 2015/2016. Total number of secondary school students in same school year is 60,205, allocated in 109 schools citywide. The list of primary and secondary schools per municipalities in Belgrade metropolitan area is given in Table 28.
Table 28 - List of primary and secondary schools per municipalities in Belgrade metropolitan area

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Primary schools</th>
<th>Secondary schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barajevo</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Čukarica</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td>Grocka</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Lazarevac</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Mladenovac</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Novi Beograd</td>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td>Obrenovac</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Palilula</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>Rakovica</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Savski Venac</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Sopot</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Stari grad</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Surčin</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Voždovac</td>
<td>18</td>
<td>7</td>
</tr>
<tr>
<td>Vračar</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Zemun</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td>Zvezdara</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>207</td>
<td>109</td>
</tr>
</tbody>
</table>

Only 5 primary schools in Belgrade are equipped with bicycle racks, but far more of them are nearby existing bicycle tracks and/or lanes (most of them are located in Novi Beograd municipality).

In the past few years, Belgrade metropolitan authority has promoted walking and cycling through various campaigns and other measures (“Safety routes to school” campaign among school children, “Cycle the City campaign”, 15 new pedestrian zones, etc.). Therefore, municipality recognizes the tool as one of their own and has shown strong commitment to support TRACE project and all pilots that will be implemented. Areas around more than 50 schools, which makes about one third of all primary schools in the city, are marked as “school zones”. Interviews on the routes that children take to school are already a common practice in these schools, but are marked as high resource consuming, both human and financial.
The Belgrade authorities have direct hierarchical control of the schools. All schools have their management and headmasters, teaching stuff, as well as some kind of parental council (board) usually made out of one parent per each class. These are the stakeholders to be involved in this pilot.

2.2.2.3. ENGAGEMENT TARGETS

The Belgrade TSG pilot follows the DoW engagement targets and the deployment potential defined by the WPL. The aim is to involve 360 pupils (3 schools/4 classes/30 pupils per class) and train at least 12 teachers to practice the game. The objective of the Belgrade TSG pilot is to increase the amount of sustainable (and active) home-school travels during and after the TSG campaign. Generally, an increase of 20% sustainable trips is envisioned, but the school can decide to change the target. The specific objective for each participating school is set within the school based on the data acquired in the before measurement. Another goal is to have at least 5% of increase in sustainable trips after the campaign.

2.2.2.4. DEFINITION OF STEPS FOR IMPLEMENTATION

2.2.2.4.1. PREPARATION OF LOCAL APPROACHES

Preliminary contacts with 6 schools have been made through initial Focus Group, held on 3rd of March 2016. The schools were selected based on some mobility criteria (location, existing infrastructure, traffic volumes in nearby area, school attractiveness – existence of pupils from far away etc.). The Focus group allowed the dissemination of the project, as well as a brief explanation of the TSG campaign and the pilot. Some useful feedbacks from Focus group attendees were collected.

2.2.2.4.2. ENGAGEMENT OF STAKEHOLDERS

TSG pilot will involve school headmasters, teachers, parent councils, as well as the representatives of the city of Belgrade. Initial contact will be made with school headmasters by sending them an invitation letter to join TSG pilot, followed by direct meetings with school authorities and parent representatives. Periodic updating and monitoring meetings will be organized if necessary. Other channels could also be used in parallel. Preliminary list of meetings/ actions is given in Table 29.
### Table 29 - Schedule of activities for engagement of stakeholders in TSG, Belgrade

<table>
<thead>
<tr>
<th>Type of meeting / action</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus group</td>
<td>3rd March 2016</td>
<td>- Promotion of the tracking concept of TRACE&lt;br&gt;- Promotions of the TSG campaign&lt;br&gt;- Connecting with possible partners in pilot implementation</td>
<td>- Stakeholders and final users</td>
</tr>
<tr>
<td>Dissemination of the TRACE TSG pilot</td>
<td>January 2017</td>
<td>- E-mail to 6 schools with basic info on TRACE TSG pilot</td>
<td>- School headmasters</td>
</tr>
<tr>
<td>Preliminary meeting with school 1-6 management and parental councils</td>
<td>February – March 2017</td>
<td>- Individual presentation for each school of TRACE&lt;br&gt;- Short introduction to the pilot to be implemented on schools</td>
<td>- School management / headmasters&lt;br&gt;- Parental councils of school</td>
</tr>
<tr>
<td>Final selection of participating schools</td>
<td>April 2017</td>
<td>- Selection of 3 schools and signing of mutual agreements</td>
<td>- School headmasters</td>
</tr>
<tr>
<td>2nd Meeting with school management and teachers</td>
<td>June 2017</td>
<td>- Selection of classes to involve and class/school coordinators&lt;br&gt;- Definition of Preliminary Action Plan for pilot implementation</td>
<td>- School management&lt;br&gt;- Teachers - coordinators</td>
</tr>
<tr>
<td>3rd Meeting with school management and teachers</td>
<td>First week of September 2017</td>
<td>- Final Action Plan for pilot implementation&lt;br&gt;- Setting rewards and prizes to be given to participants during the TSG pilot</td>
<td>- School management</td>
</tr>
<tr>
<td>Training of teachers – coordinators</td>
<td>Second week of September 2017</td>
<td>- Detail explanation of TSG campaign (paper-based campaign and a web-based version - TSG 2.0)</td>
<td>- Teachers - coordinators</td>
</tr>
<tr>
<td>Meeting with parents</td>
<td>Second week of September 2017</td>
<td>- Detail explanation of TSG campaign (paper-based campaign and a web-based version - TSG 2.0)</td>
<td>- Parents</td>
</tr>
<tr>
<td>Final result presentation</td>
<td>November 2017</td>
<td>- Presentation of TRACE TSG pilot results</td>
<td>- All stakeholders</td>
</tr>
</tbody>
</table>

The city authority is looking forward to achieve an increased modal share of cycling and walking and reduce the car modal share, and thus increase the quality of life of citizens. Safe routes to schools for kids using sustainable transport modes are an important element supporting this process.

The parents usually have low awareness of a more sustainable way of travel to schools (and their work). They only consider the speed and safety of these travels and therefore car modal share is significant. However, healthy child(ren) are of outmost importance for them, as well as for school management and
teachers. An important prerequisite for this is safe and healthy environment around schools.

Primary School “Vlada Aksentijević” is already using mobility patterns interviews among children and their parents, which represents good basis for TSG implementation. Just over 37% of their pupils live nearby the school (walking distance). Other pupils use motorized transport modes, half of them travels on organized PT routes. They even collect routes the kids are using. But the data gathering should be automatized in a simple and smart way, and they see TRACE and TSG as possible solution to this problem. Mode share and routes are minimum data they require from TRACE tools. These data are also interesting for Belgrade Municipality, they want to use them in planning activities and infrastructure improvements in “school zones”.

2.2.2.4.3. ENGAGEMENT OF FINAL USERS

Since the beginning of the second semester of scholar year 2016/2017 various activities will take place in order to encourage final users to join and stay in the campaign. Focus groups, meetings, other presentations, invitation letters, distribution of campaign materials are the most used wide used activities in the campaign.
### 2.2.2.5. RISKS AND BARRIERS FOR IMPLEMENTATION

#### 2.2.2.5.1. IDENTIFICATION OF RISKS AND BARRIERS

Following risk and barriers are identified:

- Non-existence of a national TSG campaign focal point
- Late arrival of the TSG equipment
- Technical issues: installation issues regarding the TSG devices, wrong/missing recordings
- The lack of interest and involvement of participants and stakeholders
- Children do not understand the TSG rules
- Children lose or break equipment, or forget it at home
- Directors/children do not follow the TSG instructions

#### 2.2.2.5.2. STRATEGIES TO MITIGATE AND OVERCOME RISKS AND BARRIERS

- Arrival of TRACE material (templates and paper material) much in advance prior Pilot implementation and localization to Serbian language
- Coordination of TSG equipment and materials shipping with TRACE partners
- Permanent monitoring of the equipment status (working or not?, battery level)
- Close communication with the school decision makers; realization of meetings/trainings/workshops; strict definition of responsibilities and
tasks; providing support for the teachers to manage the game; active involvement of school management and teachers in all implementation phases

- Continuous monitoring and control of task implementation

2.2.2.6. PREVIOUS OR ONGOING EXPERIENCE IN SIMILAR CAMPAIGNS

2.2.2.6.1. PAST EXPERIENCES AND LESSONS LEARNT

FTTE has no experience on this type of projects. However, there are some useful outputs from various campaigns and other measures implemented in Belgrade in past few years (i.e. “Cycle the City campaign”, 15 new pedestrian zones, etc.). “Safety routes to school - Pedibus” campaign among school children basic conclusions could be of a use for TSG pilot. Pedibus campaign research shows that each type of action, and campaigns to improve the safety, environmental and behavioural changes in these areas should take into account the differences between children of different ages of primary school, differences in their attitudes, expectations, opinions and understanding of different things. Generally, campaigns have more success among children aged 7 – 10 years. Walking is very popular mode among both children and parents, while cycling is much more accepted by the kids. They consider it attractive and efficient mode of travel, while parents find it unsafe way of travel although they acknowledge it as a healthy transport mode.

2.2.2.6.2. POTENTIAL SYNERGIES

Interviews on the routes that children take to school are already a common practice in these schools, but are marked as high resource consuming, both human and financial. TRACE is foreseen to replace these and provide more cost and time efficient way to collect this travel data. The TRACE project will support Belgrade municipality in better decision making regarding these school zones, but also regarding the infrastructural improvements, new bike lanes and pedestrian zones.

2.2.3 ÁGUEDA

2.2.3.1. SCALE OF APPLICATION

It is foreseen that TSG pilot would be implemented on three primary schools (1º CEB) of the city according with the following Table 31.
Table 31 - List of schools that will be involved in the TSG pilot in Águeda

<table>
<thead>
<tr>
<th>School</th>
<th>Total n.º students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escola Básica Fernando Caldeira (1º CEB)</td>
<td>264</td>
</tr>
<tr>
<td>Escola Básica de Águeda (1º CEB)</td>
<td>150</td>
</tr>
<tr>
<td>Ecola Básica do 1º Ciclo da Borralha (1º CEB)</td>
<td>124</td>
</tr>
<tr>
<td>Total</td>
<td>538</td>
</tr>
</tbody>
</table>

2.2.3.2. DESCRIPTION OF PILOT SITE

There are 8 schools in the city of Águeda, from kindergarten to college education, a total of 3,820 students on scholar year 2015/2016, being 671 from Primary school (1st to 4th grade).
**Table 32 - List of schools in Águeda**

<table>
<thead>
<tr>
<th>School</th>
<th>Total n.º of students</th>
<th>1º CEB 1º Cycle of Basic Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escola Superior de Tecnologia e Gestão de Águeda – ESTGA (University)</td>
<td>791</td>
<td>0</td>
</tr>
<tr>
<td>Escola Secundária Marques Castilho – ESMC (Secondary School Marques de Castilho)</td>
<td>864</td>
<td>0</td>
</tr>
<tr>
<td>Escola Secundária Adolfo Portela – ESAP (Secondary School Adolfo Portela)</td>
<td>943</td>
<td>0</td>
</tr>
<tr>
<td>Basic School Fernando Caldeira (1º, 2º e 3º Cycle of Basic Education)</td>
<td>666</td>
<td>264</td>
</tr>
<tr>
<td>Basic School of Recardães (Pre-school and 1º Cycle of Basic Education)</td>
<td>120</td>
<td>95</td>
</tr>
<tr>
<td>Basic School of Assequins (1º Cycle of Basic Education)</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>Basic School of Águeda (Pre-school and 1º Cycle of Basic Education)</td>
<td>250</td>
<td>150</td>
</tr>
<tr>
<td>Basic School of Borralha (Pre-school and 1º Cycle of Basic Education)</td>
<td>148</td>
<td>124</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,820</strong></td>
<td><strong>671</strong></td>
</tr>
</tbody>
</table>

Most of the schools of the city is located on the north side of Águeda river, take advantage of the proximity of the central core of the city, main commercial and services spot, as well as the support equipment and infrastructures. It is in this area where you can find a net of cycling lanes that serve the movement source points, among which are the schools.

The bike racks do exist at the preparatory, secondary, high school and university campus.
The Municipality of Águeda is in direct contact with the schools and group of schools in the county, having already implemented several campaigns along with them. On the diverse initiatives developed by the Municipality with the schools, there is always formal contact with the Headmaster of the Groups of Schools, and also of the teachers, when involved on campaigns and specifics programs, like Eco-Escolas, Sustainable Schools, Agenda 21 Local, and Local Plan for the Promotion of Accessibility, among others. The municipality has an Educational Program for the Environment and Sustainability, by which is foreseen a schedule of commemoratives days involving the scholar community, is also provided, annually, to the schools, a set of awareness sessions, speeches, activities, raising several issues for discussion and reflection, and specially adapted to school curricula, educational project, coordinating them with other transversal municipal projects. These sessions could present different scales, such as class, grade, and level of education. In parallel, and requested for the schools, it could be provided other sessions with peculiar characteristics, specially tailored for specific goals, according with the solicitations, and after due analysis and internal approval.

It is intent, within the TRACE project, to use the Educational Program for the Environment and Sustainability and contacts already established in that frame, exploring and detailing active and smooth mobility and their different variables. In a general way, soft mobility and the environmental/individual health dimensions easily arise the interest of students and teachers. The main issues of TSG campaign do not correspond to the theme itself but the actual change of means of transport of
students used in their family daily routines, with implications for individual safety of children between 4 and 12 years old (the involved students in the pilot of Águeda will be on the first cycle of basic school, so it is expected them to have from 6 to 10 years old). These issues are sensitive issues that necessarily imply the involvement of parents and family members to ensure the success of the initiative.

The foreseen schools to take part of the TSG dynamic are referred at Table 31, however this list may vary with the scheduled meetings.

At a municipal level the schools are organized on three Groups of Schools, every one of them counts with an Executive Board, Pedagogic Board, Parents and Tutors Association (one for Group of Schools, including, at least, one representative parent of each class). The Group of School has an Educational Project (a pluriannual document that guides the activities of the scholar community), an Annual Planning of Activities (coordinated with the Educational Project, defines the activities and actions, as well as the means of execution for every scholar year). The Group of Schools has pedagogical, administrative and financial autonomy.

At the city, there are schools belonging to two of the local Groups of Schools: Agrupamento de Escolas de Águeda and Agrupamento de Escolas de Águeda Sul (Group of Schools of Águeda and Group of School of South Águeda), being the correspondent headquarters: Escola Básica Fernando Caldeira and Escola Secundária Marques de Castilho (Basic School Fernando Caldeira and Secondary School Marques de Castilho)

The stakeholders to be involved are the Group of Schools of the schools located at the city, the teachers and parents’ associations. Consequence of former experiences, their commitment is best achieve when the initial and the follow-up contact are made direct and personally, preferring meetings and awareness sessions for small groups, regardless other channels that could be used in parallel.

2.2.3.3. ENGAGEMENT TARGETS

The Águeda TSG tracking pilot follows the DoW engagement targets, aiming to involve 100 pupils, from three different schools, as explained infra.

2.2.3.4. DEFINITION OF STEPS FOR IMPLEMENTATION

2.2.3.4.1. PREPARATION OF LOCAL APPROACHES

The local approach was initiated through the first Focus group meeting on 19th February 2016, as well as the meetings with the Directors of the Group of Schools. These meetings allowed the dissemination of the project and to auscultate the disposability of the schools for the implementation of the campaign. Divulgation material about the project was distributed. The remaining steps to follow are duly described on the table of meetings to have with stakeholders.

2.2.3.4.2. ENGAGEMENT OF STAKEHOLDERS

The stakeholders to involve are:
The following Table 33 presents the goals that will be put to discussion with stakeholders to get further details.

<table>
<thead>
<tr>
<th>Stakeholder group</th>
<th>Objectives</th>
</tr>
</thead>
</table>
| Local authorities | - Increase modal share of cycling and walking and reduce the car modal share  
- Increase the quality of life of citizens  
- Increase of the road safety as well as the perception of safety, associated to traffic  
- Encourage the establishment of a smooth transport network for children |
| Schools           | - Decrease car traffic around the school  
- Increase adherence to traffic rules around the school  
- Increase the perception of the scholar community about benefits about smooth mobility  
- Enhance cohesion among students and other parts of the scholar community  
- Promote the autonomy and the responsibility of students |
| Parents           | - Healthy child(ren)  
- Efficient and safe home-school travels, improving efficiency on travels to the work of the parents  
- A safe and healthy environment for the children  
- Sufficient movement for children, fighting the sedentary lifestyle  
- Reinforce channels of communication between local government, school and guardians, on the prosecution of a more safe and healthy environment |

As explained on 0, the municipality has direct channels of communication with the Group of Schools and schools to be used on the course of the campaign TRACE. However, during the preparation sessions to be carried out, which are to be listed below in Table 34, it is current practice that the directors name an interlocutor teacher for the projects.

The duration of the campaign of TSG (especially if considered the tracking period), is very short, therefore the involvement of the stakeholders should be appropriately worked on a previous stage. During the pre-campaign period, will be held preparatory meetings for demonstration of the game and application (APP), session for awareness-raising and motivation for the use of forms of smooth mobility.

No feedback collection is expected, due to the short time of the campaign.
<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary meeting with school board</td>
<td>12th to 14th January 2016</td>
<td>- Introduce the general characteristics and main objectives of the European project TRACE, in an individualized presentation (face-to-face) with the principal of each one of the groups of schools of the municipality (3 meetings)  - Short introduction to the pilot to be implemented on schools</td>
<td>School boards / principal of the group of schools</td>
</tr>
<tr>
<td>Dissemination of the project to the 3 Group of Schools</td>
<td>January 2016</td>
<td>- Sending powerpoint presentation to disseminate among teachers, the project and TSG, the link to the TRACE website and de information on the municipality of Águeda website</td>
<td>Teachers</td>
</tr>
<tr>
<td>Focus group</td>
<td>19th February 2016</td>
<td>- Introduced the concept of TSG  - Presentation of the pedagogic dynamic and the possibility of having a complement on digital support of the initiative  - Defined the main worries of parents and school representatives on road safety  - Brainstorming on possible solutions for problems that could prevent the use of smooth mobility for children/students  - Awareness about the existence of the project and to the implementation of measures of incentive to cycling and walking within a short time</td>
<td>Stakeholders and final users</td>
</tr>
<tr>
<td>Dissemination of the project to the 3 Group of Schools</td>
<td>School year 2015/16</td>
<td>- Communication about TRACE embedded in awareness actions that took place on the schools this year. Distribution of flyers among the students that attended the sessions</td>
<td>Scholar community</td>
</tr>
<tr>
<td>Meeting with school board - Definition of working groups and coordinators TSG</td>
<td>January 2017</td>
<td>- Selection of schools and classes to involve (subgroups) and class/school coordinators  - Definition of a date the “Meeting with teachers – Action Plan”</td>
<td>School boards / principal of the group of schools  - Teachers</td>
</tr>
<tr>
<td>Meeting with class/school coordinators – Action Plan</td>
<td>January To May 2017</td>
<td>- Definition of specific objectives and goals  - Setting rewards and prizes to be given to participants during the TSG campaign  - Schedule of awareness actions  - Schedule of preparation sessions oriented to the TSG as well as the portal to be used</td>
<td>School boards / principal of the group of schools  - Teachers</td>
</tr>
</tbody>
</table>
### 2.2.3.4.3. ENGAGEMENT OF FINAL USERS

Since the beginning of the scholar year of 2016/2017 several activities will take place in order to catch the attention of target to soft mobility means and their benefits. As examples of these activities to be developed may be referred:

- General distribution of queries to characterize the target population, including some questions on mobility, having special attention to the classes to be involved on the pilot, at the beginning of the school year (September)
- In September, marking the start of the school year and framed in the European Mobility Week, will be developed awareness-raising sessions to the importance of soft mobility for the improvement of quality of life
- Dissemination of Day(s) Without Car school oriented actions, promoted by the school or the municipality
- Inclusion of a program of Education for Road Safety and Sustainable Mobility on the curricular activities of classes, comprising those to be involved on TSG pilot. Coordination between municipality, schools and IPSS (Social Solidarity Private Institutions) to implement this program
- Several communications on diverse format, in order to reach the largest population possible, informing the scholar community about the actions that will take place as well as other relevant contents to improve the receptivity to this matter
- Meetings with parents and tutors of students involved on the game, to explain the functioning of the TSG, on both versions (physical and virtual), looking for a higher level of adhesion

| Meeting with parents’ association | January To May 2017 | - Elucidation session for parents and tutors about functioning of TSG: actual game, portal, GPS boxes, among other point of interest that might arise | - Representative of Parents and Tutors Association |
| Meeting with teachers | January To May 2017 | - Presentation and clarification session on the portal functioning (exemplification of the use and procedures to have) and explanation of the rules and dynamics about the TSG game (with the real game elements at view) | - Teachers of the classes to implement the TSG |
| Meeting with parents | April to May 2017 | - Presentation and clarification session on the portal functioning (exemplification of the use and procedures to have) and explanation of the rules and dynamics about the TSG game (with the real game elements at view) | - Parents of the students involved on the TSG |

Note: The proposed calendaring could be adjusted depending on the response to the request to CNDP (National Commission Data Protection) and considering the final date scheduled for Águeda, from May, 29th to June, 2nd.
• Implementation of strategies to the collective transport of children on their travel school/home, in a format that parents could not only accept but enjoy (e.g. Pedibus oriented by persons of recognized value on the community)
• Dissemination of the list of prizes and rewards for the TSG
• Event of official presentation of the game, banner and other elements that constitute the dynamics to advertise the TSG within the scholar community
<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Description</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Queries</td>
<td>population characterisation</td>
<td>September 2016</td>
<td>- General distribution of queries to characterize the target population, including some questions on mobility, having special attention to the classes to be involved on the pilot, at the beginning of the school year</td>
</tr>
<tr>
<td>Awareness- rising sessions</td>
<td>School year 2016/2017</td>
<td>- Developing and execution of awareness – rising sessions to promote sustainable mobility among students (walking and hiking, realization of games, ludic sessions, gymkhanas, etc.)</td>
<td>Scholar community</td>
</tr>
</tbody>
</table>
| Day Without Car | European Mobility Week | September 2016 | - Framed in the European Mobility Week, will be developed awareness-raising sessions to the importance of soft mobility for the improvement of quality of life  
- Dissemination and execution of Day(s) Without Car school oriented actions, promoted by the school or the municipality | Students, teachers and other staff  
- Scholar community                          |
| Divulgation actions | School year 2016/2017 | - Communication throughout diverse format approaches (letters, newsletter, flyers, posts and feeds on blogs and related web pages, news, roll-up, etc.), in order to reach the largest population possible, informing the scholar community about the actions that will take place as well as other relevant contents to improve the receptivity to this matter. | Scholar community                           |
| Meeting with parents | April and May 2017 | - Meeting to explain the functioning of the TSG, on both versions (physical and virtual), looking for a higher level of adhesion | Parents and tutors of the students involved on the game |
| Meeting with children | April and May 2017 | - Meeting to explain the functioning of the TSG, on both versions (physical and virtual), looking for a higher level of adhesion | Students involved on the game               |
| Presentation of the TSG game | April 2017 | - Event for the official presentation of the physical elements of the TSG game: banner, and other stuff, advertising the TSG within the school | Schools                                      |
| TSG Campaign | 29th May – 2nd June 2017 | - TSG Campaign | Schools/ students and teachers |
| Rewards | June 2017 | - Dissemination of the list of prizes and rewards for the TSG | Schools/ students and teachers               |

Note: The proposed calendaring could be adjusted depending on the response to the request to CNDP (National Commission Data Protection) and regarding the final date scheduled for TSG implementation (May, 29th to June, 2nd), some adjustment could be necessary.
2.2.3.5. RISKS AND BARRIERS FOR IMPLEMENTATION

2.2.3.5.1. IDENTIFICATION OF RISKS AND BARRIERS

- The lack of interest of participants and stakeholders is the principal risk;
- Lack of involvement of parents and tutors, low ratio of registration considering the number of students to be reached;
- Lack of involvement of teachers;
- Fear for the safety of the children;
- Low adaptation to the family reality;
- Laziness;
- Loose the GPS box device/forget the GPS device at home;
- Short implementation time, that could not give time to correct less proper functioning of the system, in case of failure, mistakes or other unforeseen problem.

2.2.3.5.2. STRATEGIES TO MITIGATE AND OVERCOME RISKS AND BARRIERS

- Dully promote the pilot and the game, through a thorough program, so both students and stakeholders are engaged with the game dynamic could tackle the lack of interest of these groups;
- Realization of explanation meetings to parents, send a reminder to parents during the campaign;
- Clarification of teachers’ role, involvement of teachers on the establishment of goals, realization of dedicated workshop about TSG;
- Program of Safety road and Sustainable mobility oriented to the students; coordination of pedi/bike bus on fixed lanes, so parents can delegate the transportation of their children on the hands of someone responsible and worthy of trust;
- Implementation of a query to evaluate the characteristics of the family reality in particular and of the whole scholar community so these barriers could be overcome and tackled in time;
- Establish an adequate program of activities and awareness sessions to overcome the sedentary barrier;
- Sign a responsibility term about the conditions, duties and rights of the participants;
- Consider a “second-round” on the schedule of the pilot implementation.

2.2.3.6. PREVIOUS OR ONGOING EXPERIENCE IN SIMILAR CAMPAIGNS

2.2.3.6.1. PAST EXPERIENCES AND LESSONS LEARNT
Escolas sustentáveis was a project of behavioural change, aiming the energy, and water efficiency, as well as waste-recovery and biodiversity. This project had twofold. By this project, some classes of the schools involved had the opportunity of make sustainability initiatives with specialized technicians. Along with these events, protocols were put at disposal of teachers and parents for the realization of activities related with the mentioned matters. The other part comprises the online portal that allowed the gamification of consumes (rewarding the largest diminution on energy and water consume) and the realization of the proposed (facultative) activities, in this case the registration of the activities on the portal worth points for the school. At the end of the scholar year a prize was attributed to the finest global performance.

The explanation of the functioning of the portal needed more than one session to responsible teachers. The adhesion from parents was very low. The use given to the protocols was mostly for the realization of scoring activities, since the free time for others than the curricular and foreseen activities was very short.

2.2.3.6.2. POTENTIAL SYNERGIES

The range of action of the TRACE project – TSG pilot, meets several projects developed and still in phase of development and implementation by the Municipality of Águeda.

Just as said on PD pilot implementation, in Águeda chapter, the preoccupation of the municipality administration about sustainability assumes several forms, being clear examples the signature of international commitments for preservation of the natural resources, as well as the implementation of measures for the adaptation and mitigation to global climatic change (such as Covenant of Mayors, Mayors Adapt, Smart Cities, construction of by-pass channel of Águeda river, incentive to practice of several modalities related with physical exercises through the Municipal Centre for Walking and Running, implementation of dedicated pathways to bicycles, among others initiatives).

Annually is celebrated the European Mobility Week, is in the framework of this event that a large program of activities designated Águeda +B(icycle) will take place. This set of actions is diversified and aims to reach a large range of age-target. In this weekend Águeda will be (once again) a city of bicycles, with bike inspired street-theatre, music, also workshops and cyclo-tourism; the final challenge is to make a huge human (riding bicycles) logotype in the shape of a bicycle. Along with this will be sessions of road safe, oriented to cyclists, initiation to the riding of bicycles, awareness sessions, playing and gaming, among other actions.

There are several schools in our council that take part of the program Eco Schools, of ABAE/FEE. These institutions are very much permeable to the principles of sustainability and will most likely participate on the TRACE project being as it is about sustainable mobility, in a win-win situation.
The GNR (Guarda Nacional Republicana – National Republican Guard) is responsible for the public safety in the council of Águeda, through its local delegation. It is fundamental to involve GNR on the activities related with awareness of children and parents about good practices on mobility, transportation and road safe, either from the pedestrian, cyclist or driver point of view.

For the establishment of routes for Pedibus and bike-bus is a possibility to engage two citizens’ organizations, one of them is a Municipal Centre of Running and Hiking already introduced, the other one is an informal group of citizens that enjoys walking, and could eventually help or support the orientation of groups of children on their way to school and back home. Trace could help on the information of final users, providing some kind of alarm when the pedi/bike bus is approaching.

Another potential synergy to explore is the maximization of the work developed for the institution “Os Pioneiros” (a non-profit private institution of social solidarity) on safe road education. This institution has a park with a simulation of streets, with vertical and horizontal signalisation, which allows students of primary school and second cycle of basic school (6 to 12-year-old), to contact and to learn how to proceed on transit situation; therefore, their comportment on real life situations is more secure and educated.

2.2.4 PLOVDIV

2.2.4.1 SCALE OF APPLICATION

The TSG will be realised in the city of Plovdiv within the EcoSchools Network. It is comprised of 146 schools with more than 1,400 teachers and 39,000 pupils.

The EcoSchools Network has not participated in the TSG and thus the partnership will broaden the TSG legacy and will include new schools to the national Traffic Snake network.

To secure the run of the TSG, EAP will also communicate its activities to other schools and preschool educational institutions interested in its deployment. In addition, communication with the National Contact point will be established.

2.2.4.2 DESCRIPTION OF PILOT SITE

The EcoSchools Network is an international initiative that is led by the Foundation for Environmental Education. The programme started in 1994 with the aim to address the challenges to unifying the youngsters in the fight against environmental problems and sustainable development.

The EcoSchools has applied the integrated school management system based on ISO 14 001/EMAS. It encourages the participation of pupils and teachers in activities that lead to reduction of the negative effects on the environment and the water and energy consumption. Such savings activities affect positively the school budgets. Priority topics
for the eco schools are water, waste, energy, transport, noise, biodiversity and nature, healthy lifestyle.

The Energy Agency of Plovdiv has previously collaborated with the *EcoSchools network* on various topics related to energy, environment and climate. In addition, EAP keeps contact with preschool institutions that could also participate in the game.

Bearing in mind that there are 90 trackers available, this means that at least three schools could be potential participants in the game. Due to the concern, some parents may not want to sign the Participation consent, we could assume that 20 students per class will participate. For each participation scenario, there’s the recalculation of participating pupils.

**Table 36 - Possible scenarios for participant’s target achievement in TSG, Plovdiv**

<table>
<thead>
<tr>
<th>Number of Schools</th>
<th>Number of pupils to be involved (1 class = av. 25 pupils)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 school</td>
<td>20 pupils - &gt; 4 classes</td>
</tr>
<tr>
<td>2 schools</td>
<td>20 pupils - &gt; 4 classes</td>
</tr>
<tr>
<td>3 schools</td>
<td>20 pupils - &gt; 4 classes</td>
</tr>
<tr>
<td>4 schools</td>
<td>20 pupils - &gt; 4 classes</td>
</tr>
<tr>
<td>Total</td>
<td>80 devices through 320 pupils, +10 devices for replacement of malfunctions, forgotten devices, broken devices, etc.</td>
</tr>
</tbody>
</table>

For the recruitment purpose, EAP will develop a description of the TSG game based on its Teacher’s Manual, including its TRACE activities and timeline, and an invitation letter.

The invitation for the TSG will be addressed to the Directors of the *EcoSchool* and following their approval, a live meeting will take place. During the live meeting, details on the methodology of the game will be shared and agreed upon. If the *EcoSchool* decides to participate, then training among the teachers will be made – a short history of the game, clarification of its rules and conditions to play, a demonstration of the TSG devices, a timeline schedule for participation.

### 2.2.4.3. ENGAGEMENT TARGETS

The Plovdiv TSG pilot follows the DoW engagement targets and the deployment potential defined by the WPL. EAP will aim to involve 80 pupils per school and train at least 5 teachers to practice the game. EAP will also try to encourage the typical TSG target of 20% increase in the sustainable trips and 5% follow-up results.
2.2.4.4. DEFINITION OF STEPS FOR IMPLEMENTATION

2.2.4.4.1. PREPARATION OF LOCAL APPROACHES

The Energy Agency of Plovdiv will deploy the TSG methodology locally by first translating all the relevant materials into Bulgarian – letter to school, teachers and parents, Teacher’s Manual, promotional materials. EAP will develop a customised action plan for the participating school according to the general outline. Time for technical support will be allocated.

Before the deployment of the game, trainings with the participating teachers will be conducted. They will be presented with the general idea of the game and its local rules. They will be required to manage the TSG process and ensure the kids are following the rules of the game.

2.2.4.4.2. ENGAGEMENT OF STAKEHOLDERS

The Energy Agency of Plovdiv will first contact the EcoSchools national contact point to review the potential for the ecoschools in Plovdiv to participate. EAP will assess the potential for participation of the local schools and if they are not enough, then the preschool facilities will be contacted.

Within the educational institutions the major contact person is the Director – he/she will be the person to grant the approval for participation. Each director will be presented in detail with the Traffic Snake Game and its rules within the TRACE project. The Director will allocate the classes to participate. The benefits of participation will be strongly on traffic safety and security issues and how the data on pupils’ routes will be used to justify measures ensuring the safe trip from/to school. Data will be presented to the local authorities.

The communication with the class teachers will be based on the approval and allocation of the School Director. They will be the TSG managers in the schools and will moderate the process per class. They will be trained to communicate the TSG to the children.

The children will be familiarised with the TSG by their teachers or EAP staff member. They will need to demonstrate they understand the rules of the game and their “responsibilities” within the game.
<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
</table>
| EcoSchool Secretariat meeting | May 2017   | - Introduce TRACE project  
- Introduce Traffic Snake Game initiative within TRACE  
- Look for synergies with other events at the start of the school year  
- Define the schools to participate  
- Plan for school visits | - 7 schools defined for participation |
| School visits   | July 2017  | - Introduce TRACE project  
- Introduce Traffic Snake Game initiative within TRACE  
- Discuss the potential to implement the game in the school  
- Propose and agree on win-win collaboration model for the implementation of the actions  
- Agree on implementation framework | - 7 schools visited  
- 4 schools to agree to participate |
| Preparation meetings | September 2017 | - Discuss the implementation framework  
- Build an implementation schedule  
- Explain and forward the TSG materials to the class teachers | - 1 director per school + at least 4 class teachers in the preparation meetings |
| Training meetings | September 2017 | - Discuss the implementation schedule  
- Train the class teachers to operate with the devices  
- Discuss the follow-up activities beyond the project | - at least 4 class teachers in the preparation meetings |
| Pilot run       | End of September 2017 | - Implementation of the tracking | - at least 3 schools covered  
- tracking data of 100 pupils acquired |
| Follow-up meetings | October 2017 | - Wrap-up of the TSG implementation activities  
- Presenting the data collected  
- Preparing a report on the collected data  
- Discussion over using the report by the School as a document stating transport and mobility issues  
- Discussing TSG advocating the traffic and mobility safety of the kids in front of the local authorities | - 1 director per school + at least 4 class teachers in the preparation meetings |
2.2.4.4.3. ENGAGEMENT OF FINAL USERS

The final users of the TSG tools will be encouraged to join and stay in the campaign through lively posters with catchy messages and information materials on sustainable mobility.

Table 38 - Schedule of activities for engagement of final users in TSG, Plovdiv

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
</table>
| Meeting with the parents (if needed) | September 2017 | - Introduce the TRACE project  
- Introduce and explain TSG game  
- Ask for consent | - 100 parents |
| Meeting with the pupils | End of September 2017 | - Present them with the TSG game  
- Instruct them on the rules of the game | - 100 pupils |
| Pilot run       | End of September 2017 | - Supervision of the implementation by pupils | - 100 pupils |
| Follow-up meeting | November 2017  | - Presenting data of the TSG to pupils and teachers  
- Awarding the participants | - 4 presentations  
- 4 award ceremonies |

2.2.4.5. RISKS AND BARRIERS FOR IMPLEMENTATION

2.2.4.5.1. IDENTIFICATION OF RISKS AND BARRIERS

The risks and barriers during the Plovdiv TSG pilot could be identified on various levels.

Project level
- Late arrival of the TSG equipment
- Equipment losses on the way to Bulgaria

Technical level
- Installation issues regarding the TSG devices
- Wrong/missing recordings
- Misunderstanding on behalf of the students to charge the equipment

Management Level
• Directors do not communicate the TSG responsibilities to teachers
• Teachers do not communicate properly the rules to the children
• EAP staff members have difficulty communicating the teachers/children due to high education load on their schedules

Local TSG level
• Children do not understand the TSG rules
• Children lose or break equipment
• Directors/children do not follow the TSG instructions

2.2.4.5.2. STRATEGIES TO MITIGATE AND OVERCOME RISKS AND BARRIERS

The project level challenges could be overcome by replacing missing or broken equipment and late participation could be fixed – there are 6 months till the end of the project since the Bulgarian participation in the game.

The technical issues could be resolved by paying close attention to the installation details, everyday checks of the system, investing additional staff efforts in technical support and supervision.

The management level issues could be resolved by close communication with the school decision makers, strict definition of responsibilities and tasks, regular live communication before and during the game period, investing staff efforts into building trust and faith in the EAP managing team, providing support for the teachers to manage the game.

The local TSG level issues could be overcome by involving children and teachers with “power” activities – games, quizzes, etc. in the sustainable mobility field. Thus, their trust will be built and they will get charged with game enthusiasm.

2.2.4.6. PREVIOUS OR ONGOING EXPERIENCE IN SIMILAR CAMPAIGNS

2.2.4.6.1. PAST EXPERIENCES AND LESSONS LEARNT

Previous mobility campaigns of EAP and education institutions have proven the following lessons and success factors:

• Mobility Campaigns need excellent and precise planning and distribution of tasks
• Each participant in a Mobility Campaign needs to know their responsibilities and rights as such
• Managing entities (staff, teachers, directors) need to be aware of the scope of the action
• Campaigns need to be live, colourful and fun
• Competition elements and gamification boosts mobility campaigns
• Awards are a-must for all participants no matter their achievement
• Presentation of the results to the participants improves the follow-up/hold effects
2.2.4.6.2. POTENTIAL SYNERGIES

The Energy Agency of Plovdiv will build partnerships with the Plovdiv EchoSchools, their directors and teachers, Boards of Parents within the schools, Children Associations, etc..

2.2.5 BOLOGNA

2.2.5.1. SCALE OF APPLICATION

The TSG will be realised at city level. Only primary schools will be involved. In Bologna, 51 primary schools exist, for a total of 669 classes and 15,196 children (data from the school year 2015/2016).

2.2.5.2. DESCRIPTION OF PILOT SITE

In Italy, the school system covers ages from 3 to 19 years, and it is divided into 4 levels: nursery school (4-6 years old), primary school (6-11 years old), 1st grade secondary school (11-14 years old) and 2nd grade secondary school (14-19 years old).

Schools are grouped into 18 “Istituti comprensivi” (IC) on the basis of their geographic distribution in the city. Each IC includes one or more schools per each level, from nursery to 1st grade secondary school, while 2nd grade secondary schools are not part of any ICs. Schools are evenly located throughout the residential areas of the city. Not all schools have a surrounding and accessible bike-lane network. Public Transport service is widely spread all around the city, and the most part of the schools can be reached by bus. Where this is not possible because of a lack of the PT service, a School Bus service exists.

Only one private school in Bologna has already experimented the TSG in the past years.

Figure 18 - Schools' spatial distribution in Bologna
Each IC has its own:

- “IC Director”, who is responsible for the financial resources and staff, and for the service performances
- “Teachers Committee”, chaired by the IC Director and composed of all teachers working in the IC
- “School Council”, composed of representatives of teachers, administrative staff and parents, which is the steering committee for economic aspects and general organization of the IC

Each school of the IC has its own:

- “Interclasse”, namely a board composed of representatives of parents and teachers from that school
- “School Manager”, usually a teacher of that school who is the referent person for practical issues

All people and groups listed above are stakeholders in the TSG Campaign.

There are other important stakeholders, which are not part of the school or of the school board, but will be directly involved and interested by the Campaign.

First of all, the City of Bologna, and in particular its School Department: the School Department coordinates all ICs and its IC directors.

Parents will be the last, but not the least stakeholder. They will be involved at the end of the TSG preparation phase, but they will be probably the key actor of the TSG, since they will help their kids in taking part to the campaign, and without their support it would be very difficult to involve and coordinate children.

2.2.5.3. ENGAGEMENT TARGETS

The Bologna TSG pilot follows the DoW engagement targets, aiming to involve 100 pupils in three schools. SRM will also try to encourage the typical TSG target of 20% increase in the sustainable trips and 5% follow-up results.

2.2.5.4. DEFINITION OF STEPS FOR IMPLEMENTATION

2.2.5.4.1. PREPARATION OF LOCAL APPROACHES

Preliminary contacts with parents, teachers and members of school boards, from different schools, have been made through initial Focus Group, held on 2nd of February 2016. The Focus group allowed the dissemination of the project, as well as a brief explanation of the TSG campaign and the pilot. Some useful feedbacks from Focus group attendees were collected.

2.2.5.4.2. ENGAGEMENT OF STAKEHOLDERS

The stakeholders of the campaign will be:

- IC Directors
- Teachers Committees
- School Councils
- Interclasse
- School Managers
- Teachers
- Parents

Table 39 - Stakeholders’ objectives

<table>
<thead>
<tr>
<th>Stakeholder group</th>
<th>Objectives</th>
</tr>
</thead>
</table>
| Local authorities | - Decrease car traffic around the school  
- Increase modal share of cycling and walking and reduce the car modal share  
- Encourage the establishment of a smooth transport network for children  
- Increase adherence to traffic rules around the school  
- Reinforce channels of communication between local government and schools on the prosecution of a safer and healthy environment |
| Schools           | - Healthy students: this means also a higher number of days at school and then a better level of education  
- Increase the perception of the scholar community about benefits about smooth mobility  
- Enhance cohesion among students and other parts of the scholar community  
- Promote the autonomy and the responsibility of students |
| Parents           | - Healthy children: this means also less days at home and less days off works for parents or less costs for baby-sitting  
- Efficient and safe home-school travels, improving efficiency on travels to the work of the parents  
- A safer and healthier environment for the children  
- Sufficient movement for children, fighting the sedentary lifestyle |

Since the number of schools and pupils is moderate and the hierarchical structure of schools in Italy is very clear and short, the best approach foresees direct contacts with stakeholders, following several steps from the top (City and IC Directors) to the bottom (teachers and parents) in order to define the three schools where the TSG will be implemented through different steps of selection.

The highest level of the School Structures – such as the School department and IC Directors – will be involved in the very first stage: their knowledge of the IC can assess whether a TSG experimentation would be successful.

It will then be crucial the involvement of the School Councils, as a connecting element between SRM and those who will have to manage the TSG campaign on the field, i.e. teachers (at school) and parents (at home). School Councils will also have a supporting role in communicating with Interclasse and School
Managers: Interclasse will have direct communication with teachers, while School Managers will carry out coordination functions of the TSG activities at school level (collection and redistribution of device-logger, management of stickers and materials, etc.).

Then, the contacts and the meetings will be organized with people who will be involved during the Campaign: teachers and parents. These last stakeholders, indeed, will have an operational role and function during the campaign, and a direct contact during all the Campaign period will be necessary and fundamental.

During the preparation of the Campaign, in order to keep it as much efficient and effective as possible, frequent meetings with teachers will be organized, and a dedicated channel of communication will be defined and established.
<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
</table>
| Focus group    | 2nd February 2016 | - Promotion of the tracking concept of TRACE  
- Promotion of the TSG campaign  
- Connecting with possible partners in pilot implementation  
- Collecting impressions and suggestions from stakeholders | Stakeholders                          |
| Presentation of the TSG to stakeholders | November 2016 | - Meeting with School Offices of the Municipality of Bologna  
- Selection of ICs to be involved | City of Bologna (school offices) |
| Meeting with ICs | December 2016  | - Meeting with School Directors from selected ICs  
- Presentation of TSG to School Directors  
- Selection of interested schools (a minimum of 3 primary schools) | City of Bologna (school offices)  
- School Director |
| Final selection of participating schools | January 2017  | - Meeting with selected schools  
- Presentation of TSG to School Boards (School Council, Teachers Committee)  
- Selection of classes to be involved | School Director  
- School Council  
- Teachers Committee  
- School Managers |
| 1st meeting with schools | February 2017  | - Definition of preliminary Action Plan for pilot implementation | Teachers  
- School Managers |
| 2nd meeting with schools | March 2017 | - Final Action Plan for pilot implementation  
- Setting rewards and prizes to be given to participating schools  
- Training of teachers | Teachers  
- School Managers |
| 3rd meeting with schools | April-May 2017 | - Presentation of TSG Campaign to parents | Teachers  
- Parents |
| Meeting with parents | April-May 2017 | - Final setting of TSG Campaign | Teachers |
| Preparation of TSG | 8th - 12th May 2017 | - TSG Campaign  
- Live and continuous contact and exchange of impressions/requests/suggestion with teachers | Teachers  
- School Managers  
- Parents  
- Pupils |
| Final result presentation | October 2017 | - Presentation of TRACE TSG pilot results | All stakeholders |
2.2.5.4.3. ENGAGEMENT OF FINAL USERS

The final users of TSG Campaign are pupils. Even if they are still very young, it will be possible to work on two different levels: a level of game and a level of teaching.

On the game side, all the TSG stuff – posters, the big snake, stickers, etc. – will be at the basis of their involvement. Since TSG already exists for many years and it is nowadays a well-known and an effective format, SRM is confident that positive results will be collected also in Bologna. Pupils will have fun from filling the snake body with coloured stickers and trying to reach its head as fast as possible. Furthermore, incentives that will be provided at group level (to be defined in agreement with their teacher) will even foster their fun in playing the TSG Campaign.

On the teaching side, as already suggested by some teachers during the Focus Group, some specific activities could be organized during the Campaign. As an example, fundamentals of cartography could be taught during the geography lessons, asking pupils to draw their home-to-school path on a map of the area surrounding the school; some first elements about environment and negative effect that the pollution has on it could be provided during the science lesson. This will be analysed in depth with involved teachers, and they will be free to decide what would be better for their classes.

Beside group prizes, SRM is evaluating the possibility to award the participating schools with dedicated awards. This would add an additional goal for pupils: group prizes will give personal satisfaction, but they will be probably lasting for a short period (a free-homework day, some candies, etc.), while a school-prizes could last much longer and be an element of cohesion for pupils, both during and after the Campaign. A first hypothesis, to be evaluated with IC Director, is a new tree or some flowers to be planted in the school garden, so that pupils will have to take care of it in the coming years.

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>action</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting</td>
<td>students with students</td>
<td>April - May 2017</td>
<td>- Presentation of TSG Campaign to involved classes, in collaboration with their teachers</td>
<td>Pupils</td>
</tr>
<tr>
<td>TSG Campaign</td>
<td></td>
<td>8th - 12th May 2017</td>
<td>- TSG Campaign</td>
<td>Pupils</td>
</tr>
<tr>
<td>Awarding ceremony</td>
<td></td>
<td>June 2017</td>
<td>- Reward pupils during dedicated events</td>
<td>Pupils</td>
</tr>
</tbody>
</table>

Table 41 - Schedule of activities for engagement of final users in TSG, Bologna
2.2.5.5. RISKS AND BARRIERS FOR IMPLEMENTATION

2.2.5.5.1. IDENTIFICATION OF RISKS AND BARRIERS

- Lack of interest of participants and stakeholders
- Concern about privacy issue
- Loss of the GPS box device or incorrect use of it

2.2.5.5.2. STRATEGIES TO MITIGATE AND OVERCOME RISKS AND BARRIERS

- Involvement of the whole structure of the school, to give the idea that the project has a wide interest and it not related to some specific classes
- Direct contact with parents and students, to show them that managing structure is reliable and has already experiences in this kind of campaign
- Provide participants and stakeholder with clear and exhaustive information and instruction about how the campaign works
- Give high level reward and involve also the school in the reward system, in order to make the initiative attractive also at school level
- Provide parents and teachers with clear and exhaustive information and instruction about how the data will be collected, stored and treated
- Provide explanation how to use the tracking device and insurance against damage or loss of the boxes

2.2.5.6. PREVIOUS OR ONGOING EXPERIENCE IN SIMILAR CAMPAIGNS

2.2.5.6.1. PAST EXPERIENCES AND LESSONS LEARNT

SRM has no experience on this target of users, but a lot of experience in behaviour change campaigns. In the city of Bologna there are several campaigns devoted to pupils arranged by the Municipality and by NGOs.

General useful outputs from various campaigns and other measures implemented in Bologna in past few years, could be considered:

- Campaigns devoted to pupils have long last effects, since pupils are more likely to participate in gamification campaign and to respect rules.
- Safety related campaigns are more popular among parents and teachers, because safety issues are more directly perceived than other issues.
- Behaviour change campaigns need to be well prepared and introduced, especially if they affect the family management and the time scheduling.
• Cycling is perceived as one of the most dangerous way of travel especially at peak hours. In order to shift people to cycling mode, there need to be overwhelming evidence of the benefits.

2.2.5.6.2. POTENTIAL SYNERGIES
The city of Bologna is very active in behaviour change initiatives. A Pedibus initiative is running since several years, while one of the most known and participated behaviour change initiative (European Cycling Challenge - ECC) is started every year in May.

In 2017 SRM will arrange the 6th edition of the ECC in the same period of the TSG pilot. In the meanwhile, SRM will also arrange a behaviour change initiative related to the project H2020 EMPOWER that will last 6 months from April to September. Both these initiatives will create a friendly and boosting environment towards better travel behaviour. Given the same methodology based on gamification and the same approach based on behaviour change, there will be synergies at communication and implementation level. Other field of synergies will be studied and exploited, if any.

2.2.6 SOUTHEND-ON-SEA

2.2.6.1. SCALE OF APPLICATION
The Traffic Snake Game pilot will be run on the population of primary school pupils, their parents and their teachers. Survey sample will include 3 primary schools with 100 or more pupils.

2.2.6.2. DESCRIPTION OF PILOT SITE
Southend has 29 primary schools, secondary schools, 5 independent and 12 special schools. Southend TSG will be focused on Primary schools (see Table 42). SSBC has very good working relationship with all the Primary schools as they are all engaged in our Bikebility Cycle Training programme. All of these schools have cycle parking facilities on site which the Council funded in 2009-2010 as a part of the Cycle Town project.
## Table 42 - List of schools in Southend-on-Sea

<table>
<thead>
<tr>
<th>School</th>
<th>Classes per year</th>
<th>Num reception pupils</th>
<th>Num year 1 pupils</th>
<th>Num year 2 pupils</th>
<th>Num year 3 pupils</th>
<th>Num year 4 pupils</th>
<th>Num year 5 pupils</th>
<th>Num year 6 pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barons Court</td>
<td>Westcliff</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30?</td>
</tr>
<tr>
<td>Blenheim</td>
<td>Westcliff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>75</td>
</tr>
<tr>
<td>Bournemouth Park</td>
<td>S/end</td>
<td>3</td>
<td>67</td>
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<td>85</td>
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<td>56</td>
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<tr>
<td>Bournes Green</td>
<td>S/end</td>
<td>2</td>
<td></td>
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<td>Earls Hall</td>
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<tr>
<td>Eastwood</td>
<td>E/Wood</td>
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<td>46</td>
<td>51</td>
<td>43</td>
<td>39</td>
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<tr>
<td>Edwards Hall</td>
<td>E/Wood</td>
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<td>59</td>
<td>58</td>
<td>60</td>
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<td>50 50</td>
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<tr>
<td>Fairways</td>
<td>Leigh</td>
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<td>59 60</td>
</tr>
<tr>
<td>Friars</td>
<td>S/bury</td>
<td>2</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60 60</td>
</tr>
<tr>
<td>Hamstel</td>
<td>s/church</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>120 120 120 120</td>
</tr>
<tr>
<td>Heycroft</td>
<td>Eastwood</td>
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<td>60</td>
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<td>59 59</td>
</tr>
<tr>
<td>Hinguar</td>
<td>S/bury</td>
<td>1</td>
<td>30</td>
<td>29</td>
<td>32</td>
<td>31</td>
<td>29</td>
<td>27 29</td>
</tr>
<tr>
<td>Leigh North St</td>
<td>Leigh</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>90</td>
</tr>
<tr>
<td>Milton Hall</td>
<td>S/end</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
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<td>78 90 60 60</td>
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<tr>
<td>Our Lady of Lourdes</td>
<td>Leigh</td>
<td>2</td>
<td>60</td>
<td>60</td>
<td>61</td>
<td>64</td>
<td>59</td>
<td>60 58</td>
</tr>
<tr>
<td>Porters Grange</td>
<td>S/church</td>
<td>2</td>
<td>66</td>
<td>54</td>
<td>77</td>
<td>49</td>
<td>51</td>
<td>50 57</td>
</tr>
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<td>2</td>
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<td>59</td>
<td>60</td>
<td>51</td>
<td>46</td>
<td>54 42</td>
</tr>
<tr>
<td>Richmond</td>
<td>S/bury</td>
<td>2</td>
<td>53</td>
<td>40</td>
<td>45</td>
<td>56</td>
<td>60</td>
<td>59 59</td>
</tr>
<tr>
<td>Sacred Heart</td>
<td>S/church</td>
<td>1</td>
<td>30</td>
<td>30</td>
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<td>30</td>
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<td>30 31</td>
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<tr>
<td>St George's</td>
<td>S/Bury</td>
<td>1</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
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<td>30 30</td>
</tr>
<tr>
<td>St Helen’s</td>
<td>S/end</td>
<td>1</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>29</td>
<td>30</td>
<td>30 30</td>
</tr>
<tr>
<td>St Mary’s</td>
<td>S/end</td>
<td>2</td>
<td>90</td>
<td>90</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60 60</td>
</tr>
<tr>
<td>Temple Sutton</td>
<td>s/church</td>
<td>3</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>90 90</td>
</tr>
<tr>
<td>Thorpe Greenways</td>
<td>S/church</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td>120</td>
<td>120</td>
<td>120 120</td>
</tr>
<tr>
<td>Thorpedene</td>
<td>T/Bay</td>
<td>4</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>75</td>
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<td>75 100</td>
</tr>
<tr>
<td>Westborough</td>
<td>Westcliff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>87</td>
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<tr>
<td>West Leigh</td>
<td>Leigh</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>128 128 128 128</td>
</tr>
</tbody>
</table>

### Independent Schools

<table>
<thead>
<tr>
<th>School</th>
<th>Classes per year</th>
<th>Num reception pupils</th>
<th>Num year 1 pupils</th>
<th>Num year 2 pupils</th>
<th>Num year 3 pupils</th>
<th>Num year 4 pupils</th>
<th>Num year 5 pupils</th>
<th>Num year 6 pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alleyn Court</td>
<td>T/Bay</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>39</td>
</tr>
<tr>
<td>College St Pierre</td>
<td>Chalkwell</td>
<td>1</td>
<td>16</td>
<td>13</td>
<td>15</td>
<td>11</td>
<td>9</td>
<td>13 7</td>
</tr>
<tr>
<td>Crowstone Prep</td>
<td>Chalkwell</td>
<td>1</td>
<td>4</td>
<td>7</td>
<td>4</td>
<td>3</td>
<td>7</td>
<td>10 8</td>
</tr>
<tr>
<td>St Michael’s</td>
<td>Leigh</td>
<td>2</td>
<td>70</td>
<td>40</td>
<td>28</td>
<td>39</td>
<td>39</td>
<td>39 39</td>
</tr>
<tr>
<td>Thorpe Hall</td>
<td>T/Bay</td>
<td>2</td>
<td>16</td>
<td>21</td>
<td>14</td>
<td>20</td>
<td>20</td>
<td>33 17</td>
</tr>
</tbody>
</table>

### Secondary schools

<table>
<thead>
<tr>
<th>School</th>
<th>Classes per year</th>
<th>Num reception pupils</th>
<th>Num year 1 pupils</th>
<th>Num year 2 pupils</th>
<th>Num year 3 pupils</th>
<th>Num year 4 pupils</th>
<th>Num year 5 pupils</th>
<th>Num year 6 pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belfairs high</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cecil Jones High</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chase High</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Futures College</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shoeburyness High</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.2.6.3. ENGAGEMENT TARGETS

The Southend TSG pilot follows the DoW engagement targets and the deployment potential defined by the WPL. The aim is to involve 300 to 360 pupils (3 schools/4 classes/30 pupils per class) and train at least 12 teachers to practice the game. The objective of the Southend TSG pilot is to increase the amount of sustainable (and active) home-school travels during and after the TSG campaign. The target % increase in sustainable/active trips will be based on discussion with each of the school to assess the travel practices and access to infrastructure. The specific objective for each participating school will be set after the completion of the pre-monitoring. We aim to engage three schools with different levels of access to infrastructure, current mobility patterns and convenience of location.
2.2.6.4. DEFINITION OF STEPS FOR IMPLEMENTATION

2.2.6.4.1. PREPARATION OF LOCAL APPROACHES
The first local approach in Southend on Sea is based on the following points:

- SSBC has organised a session with the Whyte Young Green organisation (WYG) to plan implementation in schools and demonstrate the game.
- We have agreed with Council Health team that participation in TSG will contribute towards the school’s ‘Healthy School’ status. This will encourage schools to participate.
- We are also working on incentives for the pupils to participate.

2.2.6.4.2. ENGAGEMENT OF STAKEHOLDERS
TSG pilot will involve school pupils, headmasters, teachers, parents and cycle instructors working in these schools. Initial contact will be made with school headmasters by sending them an invitation letter to join TSG pilot, followed by direct meetings with school authorities and parent representatives. Periodic updating and monitoring meetings will be organized if necessary. Other channels could also be used in parallel. Preliminary list of meetings / actions is given in Table 43 below.
Table 43 - Schedule of activities for engagement of stakeholders in TSG, Southend-On-Sea

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recruiting schools</td>
<td>September 2016</td>
<td>- Email all primary schools an invitation letter to participate in TRACE</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Shortlist the schools that are suitable to participate and organize meetings with them</td>
<td>School headmasters/Teachers</td>
</tr>
<tr>
<td>Demonstration of TSG</td>
<td>November 2016</td>
<td>- Individual presentation for each school of the TRACE</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Short introduction to the pilot to be implemented on schools</td>
<td>School management / headmasters</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Parental councils of school</td>
</tr>
<tr>
<td>Final selection of participating schools</td>
<td>December 2016</td>
<td>- Selection of 3 school and signing of mutual agreements</td>
<td>School headmasters/Council Health Team</td>
</tr>
<tr>
<td>Meeting with school management and teachers</td>
<td>February 2017</td>
<td>- Selection of classes to involve and class/school coordinators</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Definition of Preliminary Action Plan for pilot implementation</td>
<td>School management</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Teachers - coordinators</td>
</tr>
<tr>
<td>Meeting with parents</td>
<td>February 2017</td>
<td>- Detail explanation of TSG campaign (paper-based campaign and a web-based version - TSG 2.0)</td>
<td>Parents</td>
</tr>
<tr>
<td>Meeting with school management and teachers</td>
<td>March 2017</td>
<td>- Final Action Plan for pilot implementation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Setting rewards and prizes to be given to participants during the TSG pilot</td>
<td>School management</td>
</tr>
<tr>
<td>Training of teachers – coordinators</td>
<td>May 2017</td>
<td>- Detail explanation of TSG campaign (paper-based campaign and a web-based version - TSG 2.0)</td>
<td>Teachers – coordinators, cycle instructors</td>
</tr>
<tr>
<td>TSG- campaign</td>
<td>June 2017</td>
<td>- Main campaign</td>
<td>All stakeholders</td>
</tr>
</tbody>
</table>

2.2.6.4.3. ENGAGEMENT OF FINAL USERS

The target group for the TSG will be pupils in the primary schools (ages 7-11). We will be encouraging the take up of active and sustainable transport modes in September, which is the start of the new academic year. Start of school is an important transition point and can be an effective time to encourage change in mobility behaviour.
Table 44 - Schedule of activities for engagement of final users in TSG, Southend-On-Sea

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Distribute feedback forms, make telephone calls or go to the schools</td>
<td>Head Teachers, school staff, parents and pupils</td>
</tr>
<tr>
<td>Distribute</td>
<td>July 2017</td>
<td>To gain feedback of TSG</td>
<td></td>
</tr>
<tr>
<td>feedback forms,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>make telephone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>calls or go to</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delivery of tools</td>
<td>June 2017</td>
<td>Deliver trackers and train school staff on how to use tracker, website</td>
<td>Schools staff &amp; teachers</td>
</tr>
<tr>
<td>Support</td>
<td>June 2017</td>
<td>Maintain a hotline to support schools and users</td>
<td>Users Parents School staff</td>
</tr>
</tbody>
</table>

2.2.6.5. RISKS AND BARRIERS FOR IMPLEMENTATION

2.2.6.5.1. IDENTIFICATION OF RISKS AND BARRIERS

Following risk and barriers are identified:

- The lack of interest and involvement of participants and stakeholders
- Parents are unwilling or concerned about the use of trackers on the pupils
- Pupils do not understand the TSG rules
- Pupils lose or break equipment, or forget it at home
- Pupils do not follow the TSG instructions

2.2.6.5.2. STRATEGIES TO MITIGATE AND OVERCOME RISKS AND BARRIERS

- Most schools in Southend are competing and keen on getting the ‘Healthy School’ status. We have agreed with the Health Team at the Council that participation in TSG will contribute towards the school’s Healthy School status. This is likely to encourage schools to take part.
- The parent meetings and the demonstration session will help parents raise any concerns which can then be suitable addressed.
- Regular monitoring of the equipment to ensure a quick response/replacement can be arranged.
- Selection of a champion in each school (teacher/cycle instructor) who can drive the campaign on a day-to-day basis and report any issues.

2.2.6.6. PREVIOUS OR ONGOING EXPERIENCE IN SIMILAR CAMPAIGNS

2.2.6.6.1. PAST EXPERIENCES AND LESSONS LEARNT

There is commitment and leadership in place and a clear recognition, in terms of health and wellbeing, as to the importance of cycling and walking in supporting a healthier lifestyle. New development is being planned with cycling and walking embedded in the planning and development policies. Partnerships with stakeholders are in place with Council departments, businesses, NHS, schools, older peoples’ groups, schools and colleges and transport providers. This has been in place since the original “cycle towns” project and more recently supporting the LSTF project. This has helped with the development of infrastructure, travel plans, PTP, training, campaigns and surveys. Alongside this, the award winning behavioural change programme, ‘Ideas in Motion’ now underpins and provides encouragement for people thinking about making the change to sustainable transport in a friendly and interesting way. Since the PTP intervention, Southend has seen 10% decrease in car use, 14% increase in walking and 30% increase in cycling.

The Borough Councils involvement in the Interreg Two Seas project “Bike Friendly Cities” has refreshed the local cycling strategy and much of this experience can be shared with other towns and cities in the UK.

The new social enterprise, ‘The Comfy Saddle’ is providing a service to the community and working in partnership with volunteers, employers and health providers, demonstrating a different model for encouraging the take up of walking and cycling. The Recycle Centre, part of the social enterprise, has received 4,052 bikes as donation and repaired and sold 2,611 recycled bikes between November, 2009 and January, 2015.

2.2.6.6.2. POTENTIAL SYNERGIES

Moving forward, we see a continuation and further development cycle training and behaviour change campaigns matched with a commitment to support communities and health with a strong focus on infrastructure, particularly on better routes linking to schools, stations and new development, plus also creating the better network of safer local streets linking with green spaces and the seafront.

We have been trying to encourage schools to get travel plans. The TRACE projects is way to get schools excited about active travel and sustainable transport and an innovative way to collect travel data.
2.3 Cycle To Shop Incentive Pilots

2.3.1 ESCH/LUXEMBOURG

2.3.1.1. SCALE OF APPLICATION
The pilot will be carried out in the areas of Belval (Esch) and Kirchberg (Luxembourg), the aim is to engage at least 100 users in the demonstration. The CtS App will be tested with approximately 100 users and eight shops. Kirchberg area will be focused as a priority for the Cycle to Shop pilot in order to a) use existing local contacts, b) create a “dense zone” of participating shops and users, c) focus on the business area of Luxembourg with the highest concentration of workforce. The test should last for minimum one and maximum three months in order to take into account the time needed to take on board shops and participants and potential weather effects on users.

![Figure 20 – CtS test area in Luxembourg](image)

2.3.1.2. DESCRIPTION OF PILOT SITE
Cycle-To-Shop is going to be implemented in the area of Kirchberg. At the Kirchberg area there are mainly the different European institutions such as the EIB, EC, Court of Justice, yet also a living area, a large shopping centre and many large banks and financial services providers. There is also one of the main hospitals. It has a population that is growing fast due to large urban development, yet the number of workers still outnumber the number of residents.
At the Kirchberg area there are three types of commercial activities. Firstly, there is a big shopping centre that takes most of shopping demand. Secondly there are smaller shops and restaurants. Thirdly there are the cultural and sports facilities. In our campaign the focus will especially on the last two types of commercial activities.

2.3.1.3. ENGAGEMENT TARGETS

The level of walking and cycling in Luxembourg are raw estimates. According to the experts the level in Luxembourg city is the highest with about 13% for the soft modes. Outside of Luxembourg, as for example within and towards the Belval area this is much lower. We have estimated it therefore for the cycle to shop at 13% within the Kirchberg area. Which leads with a 20,000 engage population and employees to a little lower than 80 engagement target. However, for the necessary levels of participation of campaigning we set the engagement target for the cycle to shop campaign at 100 participants.

<table>
<thead>
<tr>
<th>Number of persons involved</th>
<th>Modal share cycling</th>
<th>Engagement target</th>
</tr>
</thead>
<tbody>
<tr>
<td>20,000</td>
<td>13%</td>
<td>78 (aim 100 participants)</td>
</tr>
</tbody>
</table>

2.3.1.4. DEFINITION OF STEPS FOR IMPLEMENTATION

2.3.1.4.1. PREPARATION OF LOCAL APPROACHES

Preliminary contacts with local stakeholders and potential sponsors have been made through one-on-one meeting between July 2016 and October 2016. These meetings allowed the dissemination of present results of the project, as well as a brief explanation of the envisaged campaign and the pilot. Some useful feedbacks were collected and initial engagements allowed the local partner to draw this first implementation plan.

2.3.1.4.2. ENGAGEMENT OF STAKEHOLDERS

Similar to previous projects (e.g. Commutastic), Cycle-To-Shop will be offered to all users and shop owners interested in participating in the campaign. In Luxembourg, there will be made use of companies as multipliers to reach out to numerous potential users. Like in Positive Drive there will be organized two focus groups:

- One - with potential users of the app and another
- One - with shop owners in order to elicit their respective needs and wishes for the test of Cycle-To-Shop app in Luxembourg

Furthermore, it will be proposed to organize a kick-off event for users of the app. This will offer an opportunity for interaction between users and might
foster the development of relationships. The project leader will be present at the launch event, in the role of a coordinator and participant. This double presence will potentially allow us a denser project description, without biasing the user behaviour. We believe it will lead us to formulate better grounded recommendations.

### Table 46 - Schedule of activities for engagement of stakeholders in CTS, Esch/Luxembourg

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>action</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus group</td>
<td></td>
<td></td>
<td>- Main aim is to get a good feeling what actually the user is caring for, and to which angle on the basis of the technical possibilities of the app will set the final focus of the campaign</td>
<td>- Potential users of the apps</td>
</tr>
<tr>
<td>Focus group</td>
<td></td>
<td></td>
<td>- With shop owners in order to elicit more in detail their respective needs and wishes for Positive Drive campaign in Luxembourg</td>
<td>- Shop owners</td>
</tr>
</tbody>
</table>

### 2.3.1.4.3. ENGAGEMENT OF FINAL USERS

Furthermore, we propose to organize a kick-off event for users of the app. This will offer an opportunity for interaction between users and might foster the development of relationships. It will lead us to formulate better grounded recommendations. That will give the first group of participants. Furthermore, making use of the communication channels of the shops, public authorities and participating companies it will be possible to attract the additional participants.

### Table 47 - Schedule of activities for engagement of final users in CTS, Esch/Luxembourg

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>action</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion meeting</td>
<td></td>
<td>December 2016/ Early January 2017</td>
<td>- To assess their detailed needs and likening of items to be taken on board in the campaigns</td>
<td>- Involved employers</td>
</tr>
<tr>
<td>kick-off events</td>
<td></td>
<td>February/ March 2017</td>
<td>- Opportunity for interaction between users and might foster the development of relationships</td>
<td>- Users of the app</td>
</tr>
</tbody>
</table>
2.3.1.5. RISKS AND BARRIERS FOR IMPLEMENTATION

2.3.1.5.1. IDENTIFICATION OF RISKS AND BARRIERS

As for PD pilot, there are actually two main types of risks identified. Firstly, there are the campaign related risks and possible barriers that might evolve from it; The campaign has to be designed in such a way that it fits the interest of the local community and participants. On the other hand, the campaign should fit also the functionalities of the standard app that we will use for it.

The number of participants selected and involved, correctness of the upfront evaluation questionnaire and questions, effectiveness and likeability of the campaign, site events, operationalization of the tool interpretation of the results all elements that could be of risk.

The following main risks have been identified:
- Relationship between and with the local stakeholders
- Decreased interest/support of local stakeholders if the campaign does not work as it should
- Not enough participants
- A potentially low use of smart phones by target group or actual possibility/permission of the employer to download the app on the phone
- The technical hardware supplier doesn’t full fill the needed quality level
- Bad weather spoils the campaign

2.3.1.5.2. STRATEGIES TO MITIGATE AND OVERCOME RISKS AND BARRIERS

As for PD pilot, there are many strategies to overcome the different barriers. There are some general measures to be taken, as to say stability of the personnel and organisation involved, thorough upfront testing of the technical tools. In relation to the above-mentioned barriers the following strategies are adopted:
- Intensified communication and marketing and possibility engagement of celebrities (e.g. the Minister of transport cycling)
- The importance of careful planning with the participating companies will not be underestimated and truthful reporting will be stressed to the participants
- Careful technical testing will take place upfront to make it actually work properly
- The campaigns are planned long enough to avoid a short period of bad weather spoiling the campaign
2.3.1.6. PREVIOUS OR ONGOING EXPERIENCE IN SIMILAR CAMPAIGNS

2.3.1.6.1. PAST EXPERIENCES AND LESSONS LEARNT

LuxMobility have extensive experiences with the Intelligent Energy project BtrackB. Planning a tracking campaign is not an easy task. There are the weather conditions, mobility cultures, holidays and school vacations. All the local characteristics needed to be taken into account. Especially the strong car culture present can be an issue in Luxembourg, even if we target early adopters and following movers.

2.3.1.6.2. POTENTIAL SYNERGIES

The “Fond de Kirchberg is very aware of the need for a changing mobility culture in the area and to create more social cohesion between the increasing number of inhabitants. Our TRACE campaigns can contribute to that need.

2.3.2 BREDA

2.3.2.1. SCALE OF APPLICATION

City of Breda, visitors and customers’ shops in the Boschstraat road.

2.3.2.2. DESCRIPTION OF PILOT SITE

The Boschstraat is an old street in Breda, it’s the old connection to the city of Den Bosch. It is Breda’s first bicycle street (opened in July 2016). Shop owners in the Boschstraat (approximately 50 shops) are determined to get more people on bicycles in their streets. The support of the shop owners is the key to success of Cycle to Shop. The Municipality adapted the street to primarily facilitate the bicycle traffic, and as a secondary user, cars.

Figure 21 - Boschstraat in Breda
2.3.2.3.  ENGAGEMENT TARGETS

The Breda CTS pilot follows the DoW engagement targets and the potential defined by the WP as a guideline. Scale of application is not city wide, it is focused on the Boschstraat. The Trace engagement targets are therefore used as a guideline. The Boschstraat community is focused on more bike trips during rush-hours and more cycling to shop. Together with the shop owners the Boschstraat we define a engagement target.

Table 48 - Engagement target in CTS, Breda

<table>
<thead>
<tr>
<th>Number of persons involved</th>
<th>Modal share cycling</th>
<th>Engagement target</th>
</tr>
</thead>
<tbody>
<tr>
<td>6,000 (visitors of Boschstraat per day)</td>
<td>75%</td>
<td>To be defined (with the stakeholder)</td>
</tr>
</tbody>
</table>

2.3.2.4.  DEFINITION OF STEPS FOR IMPLEMENTATION

2.3.2.4.1.  PREPARATION OF LOCAL APPROACHES

To facilitate the campaign, the municipality of Breda converted the Boschstraat to a cycle street, with cars as secondary users instead of primary. This will allow for the campaign to have the required infrastructure for a successful campaign.

Negotiations should be held with all willing shop owners/keepers, to ensure that there will be enough incentive for the participants to join the campaign.

It creates a centralised communications network between stakeholders. This will ensure all concerns and ideas will be heard and shared.

Local media will be informed of the campaign. This will provide an additional opportunity to promote the campaign and entice more individuals to participate in the campaign. In addition to this, promotional teams will hand out flyers in the target area during the kick-off event. This will also increase the number of participants.

2.3.2.4.2.  ENGAGEMENT OF STAKEHOLDERS

The Boschstraat and the Korte Boschstraat have been shopping streets with rich history. This can clearly be seen from the 8 national monuments in the area. The Boschstraat is, and will be the most important corridor to get to the station or commute from Breda north to Breda east. The most noticeable thing about the Boschstraat is the variety of specialty shops. Apart from these charming stores, you can also find a museum and art galleries. Of course, the hospitality sector is well represented with a wide variety of Bistro’s, restaurants and cafes.
The shop owners in proximity to the Boschstraat will be the primary stakeholder. Another stakeholder (as well as final users) is the general visitors of the Boschstraat.

Most involved shop holders:

- KAMU (café and bicycle enthusiast gathering place)
- Beyerd (café)
- Schietercat (bicycleshop)
- City of Breda (Municipality)

The objectives in Breda are primarily focused to diminish the upcoming and growing problem of parking shortages. It will also focus on diminishing the CO₂ released, and promoting the health benefits of using bicycles as a mode of transport, while simultaneously reducing the number of cars that are used. By providing consumers with a discount when they participate in the campaign, is also a good way of increasing the number of customers, an entrepreneur has a day.

A large portion of the stakeholders have already been involved via Platform Boschstraat. This collective consists of around 50 entrepreneurs, who will be informed. The Boschstraat already has its own Facebook page. This channel can be used to inform the (potential) participants about CTS.

Periodic meetings (once every two months) will be arranged. We will be collecting feedback during the meetings. Secondly we will receive feedback via our person of contact/ambassador of the companies in question. Inviting the participants to contribute in a Questionnaire, using the application.

Table 49 - Schedule of activities for engagement of stakeholders in CTS, Breda

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness</td>
<td>October/NNovember</td>
<td>- Awareness creating</td>
<td>- More awareness</td>
</tr>
<tr>
<td>Promotional materials</td>
<td>January</td>
<td>- List of receptive stakeholders complete. Determining what promotional materials are needed. Testing the application</td>
<td>- Agreement on needed materials</td>
</tr>
<tr>
<td>Pre-Start</td>
<td>March</td>
<td>- Pre-Start event meeting</td>
<td>- Awareness</td>
</tr>
</tbody>
</table>
2.3.2.4.3. ENGAGEMENT OF FINAL USERS

The campaign will initially be announced via a promotional starting event. Promotional flyers will be distributed on the Boschstraat to potential participants. The local media will be informed of the campaign to raise awareness even more.

Promotional tool kits (flyers, Posters, social media artwork) will be distributed amongst participating entrepreneurs, this will allow them to promote the campaign themselves.

“076 fietst”, the cycling community in Breda, has a large audience in the cycling community, with a significant number of likes on their Facebook page (1500). This can be used as a promotional tool.

Table 50 - Schedule of activities for engagement of final users in CTS, Breda

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissemination of TRACE CTS</td>
<td>March</td>
<td>First announcement (multi-Channel): - Posters, flyers, social media - (Local) media attention</td>
<td>Inhabitants Breda</td>
</tr>
<tr>
<td>Recruitment</td>
<td>April</td>
<td>Gameplay CTS Trace campaign: - How does “it” works - Gaming and prizing</td>
<td>Shopholders/visitors Boschstraat</td>
</tr>
<tr>
<td>Campaign start</td>
<td>May</td>
<td>Playing the game: - Weekly nudges (multi Channel)</td>
<td>Users CTS</td>
</tr>
<tr>
<td>Evaluation</td>
<td>August</td>
<td>Free publicity by linking towards: - EU-mobility-week as a sustainable project - Newsletters</td>
<td>Stakeholders</td>
</tr>
</tbody>
</table>

2.3.2.5. RISKS AND BARRIERS FOR IMPLEMENTATION

2.3.2.5.1. IDENTIFICATION OF RISKS AND BARRIERS

The low interest of shop keepers/owners would greatly diminish the effectiveness of the campaign as there would be less incentive for the consumer to take part in the campaign. The same would go for the interoperability of the CTS app. If it doesn’t work, the shop owner would be unable to provide the incentive to attract participants of the campaign.

It could also be possible that the participants complain about their increased battery usage due to the use of CTS, or due to bugs and crashes.

Another obstacle could be the short duration of the campaign. As people would want to keep benefitting from CTS.
Individuals might be inclined to question the privacy of their routes and data. They would like to be sure that their sensitive information is in capable hands.

The fact that Positive Drive is active in Breda as well might result in conflict of the two projects. It may result in losing participants.

2.3.2.5.2. STRATEGIES TO MITIGATE AND OVERCOME RISKS AND BARRIERS

By informing the local shop owner/keeper about the potential benefits of participating in the campaign, more might be inclined to join the campaign.

By continual technical improvement, we will reduce the amount of battery needed to run the application. Additionally, we will do extensive testing of the application to ensure minimal bugs or crashes. A possible extension of the campaign could be attached to the current one if it is successful and all stakeholders would benefit from the extension of the campaign. The conflict with Positive Drive can be solved by making the CTS campaign local to a specific area such as the Boschstraat.

2.3.2.6. PREVIOUS OR ONGOING EXPERIENCE IN SIMILAR CAMPAIGNS

2.3.2.6.1. PAST EXPERIENCES AND LESSONS LEARNT

Lessons from Positive Drive and other behaviour change campaigns:

- Consumer friendly
- Marketing and communication are very important
- Don’t approach everyone, focus on a specific target group
- Technology must be solid
- Arrange the right award for the right target group

2.3.2.6.2. POTENTIAL SYNERGIES

- Infrastructure: road works so there is more urge to change
- CO2 targets: rewards from the Climate Bureau
- Re(use): existing marketing campaigns
- National Works: join national campaigning strategy about modal shift

2.3.3. PLOVDIV

2.3.3.1. SCALE OF APPLICATION

The CTS initiative in the city of Plovdiv will be focused on the city centre as a major spot for regular pedestrians and the bike network as a major spot for regular bikers.

A list of the potential stakeholders is being prepared. They will include major businesses in the two defined pilot areas. Depending on the release of the CTS tool, the list will be re-defined according to the specific features and capabilities of the TRACE tool.
2.3.3.2. DESCRIPTION OF PILOT SITE

The Pilot site in Plovdiv will be split into two – the first one focused on pedestrians and the second one focused on regular bikers.

The first pilot area will be the area around the Main Street in Plovdiv – it is the longest pedestrian street in Bulgaria, app. 5 km. It is strictly a pedestrian zone, busy with locals and tourists alike. It has shops, cafes, restaurants, take-aways, and leisure and sightseeing facilities.

The second pilot area will be the Bike Network in Plovdiv – it is 48 km of bike lanes covering the whole city. It connects residential areas with the city centre and nearby areas. It is planned around leisure and recreation sights, with shops and take-aways on the way. Bike stands are available densely. The only place not covered by it is the city centre – the pedestrian area. Thus, the two pilot zones cover essential parts of the city and provide high-level of business spots that could be potential TRACE users.

2.3.3.3. ENGAGEMENT TARGETS

The Plovdiv CTS pilot follows the DoW engagement targets and the deployment potential defined by the WPL. EAP will aim to involve 20 shops/cafés and other local businesses and institutions and will try to cover 3% of the cycling and walking population.

The DoW defines the following formula for target calculation:

\[
\text{Number of persons engaged} = \text{Population} \times \text{mode share} \times 3\%
\]

Table 51 - Engagement target in CTS, Plovdiv

<table>
<thead>
<tr>
<th>Number of persons involved</th>
<th>Modal share cycling+walking</th>
<th>Engagement target</th>
</tr>
</thead>
<tbody>
<tr>
<td>370,000 people</td>
<td>0,5%+1%=1,5%</td>
<td>167 people</td>
</tr>
</tbody>
</table>

2.3.3.4. DEFINITION OF STEPS FOR IMPLEMENTATION

2.3.3.4.1. PREPARATION OF LOCAL APPROACHES

The Energy Agency of Plovdiv is making a list of potential businesses in the two pilot areas. The list will be defined to a greater level once the TRACE CTS app is available.

2.3.3.4.2. ENGAGEMENT OF STAKEHOLDERS

The engagement of stakeholders stage of the Cycle-to-shop initiative will be based on preliminary list of potential businesses in the two pilot areas. The main focus will be young business, visited by young people, with fresh and
catchy looks. Small local businesses will be strongly encouraged to join highlighting the innovative approach and the potential to build regular customers.

The campaign will be aimed at the businesses and users alike. The campaign will offer awards for joining the game for the end users on lottery principal. For the businesses, EAP as a campaign manager will sign an agreement with them – on one hand, the businesses that want to participate will offer discounted items, and on the other EAP will provide them with TRACE take aways to further promote the project.

Initial meetings with the shortlisted businesses will be made. They will be presented with the idea of the TRACE projects and its tools as well as the terms and conditions to participate in the Cycle-to-Shop initiative. Demonstration of the tool will be made with them. A training for using the tool will be made, upon request. There will also be a monitoring scheme established to support and get feedback from the business users. Technical support for the TRACE devices and software tools will be provided.
Table 52 - Schedule of activities for engagement of stakeholders in CTS, Plovdiv

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build CtS business profile</td>
<td>Till October 2016</td>
<td>- To prepare description of the local businesses that could be potential users of the CtS app and participate in the initiative</td>
<td>- Available business profile of the potential participants</td>
</tr>
<tr>
<td>Identify potential businesses</td>
<td>November 2016 – February 2017</td>
<td>- Identification of businesses (names, addresses, clients, etc.)</td>
<td>- 30 businesses identified</td>
</tr>
<tr>
<td>Build the CtS campaign and local image</td>
<td>November 2016 – February 2017</td>
<td>- Defining the scope and features of the local CtS campaign</td>
<td>- General outline of the campaign prepared</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Defining the management procedures of the businesses and CtS users</td>
<td>- Campaign rules prepared</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Preparation of paper and online materials explaining the rules and terms of the campaign both for businesses and users</td>
<td></td>
</tr>
<tr>
<td>Shortlist businesses</td>
<td>February 2017</td>
<td>- Selection of the of the potential businesses with highest potential of participation</td>
<td>- 20 businesses shortlisted</td>
</tr>
<tr>
<td>Start media awareness</td>
<td>March 2017</td>
<td>- Prepare online materials for the CtS users</td>
<td>- Outline of the dissemination materials and channels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Plan for posts and articles in the local media to promote TRACE</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Build online communication channels – Facebook and mailing lists</td>
<td></td>
</tr>
<tr>
<td>Start communication with businesses</td>
<td>March – May 2017</td>
<td>- Contact the shortlisted companies via email or phone</td>
<td>- 20 businesses to get involved in the CtS campaign</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Arrange eye-to-eye meetings with CtS businesses to present TRACE project and CtS initiative</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Define the scope of participation and awards</td>
<td></td>
</tr>
<tr>
<td>Campaign preparation</td>
<td>April – May 2017</td>
<td>- Training of the businesses to use the CtS application</td>
<td>- 20 business representatives trained</td>
</tr>
<tr>
<td>Implement the CtS campaign</td>
<td>May – October 2017</td>
<td>- Promotion of the CtS application to users</td>
<td>- 200 users reached</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Management of businesses in the campaign</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Communication with users and businesses</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Keeping up the social media campaign</td>
<td></td>
</tr>
<tr>
<td>Follow-up of the campaign</td>
<td>November 2017</td>
<td>- Present the results to the businesses</td>
<td>- 10 businesses interviewed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Get the businesses feedback on the implementation of the CtS initiative</td>
<td></td>
</tr>
</tbody>
</table>
2.3.3.4.3. ENGAGEMENT OF FINAL USERS

The final users of the Cts tools will be encouraged to join and stay in the campaign through lively posters with catchy messages and information materials on sustainable mobility. They will be asked to join the communication channels of the TRACE project and share their experiences with the TRACE tools.

Table 53 - Schedule of activities for engagement of final users in CTS, Plovdiv

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
</table>
| Start media awareness | March 2017 | - Prepare online materials for the Cts users  
- Plan for posts and articles in the local media to promote TRACE  
- Build online communication channels – Facebook and mailing lists | - 250 users reached  
- 50 businesses reached  
- Local press releases |
| Kick-off the Cts campaign | May – October 2017 | - Organising opening event for the campaign  
- Promotion of the Cts through social communication channels and businesses  
- Encouragement of the users to download and use the app  
- Management of the campaign run, incl. communication with businesses, communication with users, securing following the rules, etc. | - 250 users reached  
- 50 businesses reached  
- Local press releases |
| Follow-up of the campaign | November 2017 | - Presenting the TRACE results to the local community  
- Making a lottery with all users who joined the campaign | - 50% awareness of the end results |

2.3.3.5. RISKS AND BARRIERS FOR IMPLEMENTATION

2.3.3.5.1. IDENTIFICATION OF RISKS AND BARRIERS

The Energy Agency of Plovdiv has previously successfully realised a Shop-by-Bike campaign, but has noted some challenges in the preparation and implementation stage:

- Low interest on behalf of the businesses to join
- Long negotiations for the Campaign parameters – number of people engaged, promotions and awards to customers, etc.
- Technical difficulties to install and maintain the equipment
- No long-lasting motivation to participate
2.3.3.5.2. STRATEGIES TO MITIGATE AND OVERCOME RISKS AND BARRIERS

The challenges listed in the previous section are best mitigated through continuous communication and dedication to the tasks, building trust and confidence in the results of the TRACE tools, giving additional information and arguments in favour of the campaign, asking for feedback.

If the level of interest of behalf of the businesses is low and the target cannot be met, then EAP will address local institutions and other businesses (libraries, museums, galleries, etc.) that are also frequently visited by locals. They will be contacted through the local authorities as Plovdiv will be the EU capital of culture in 2019 and such visits statistics will be of great interest to the local authorities.

2.3.3.6. PREVIOUS OR ONGOING EXPERIENCE IN SIMILAR CAMPAIGNS

2.3.3.6.1. PAST EXPERIENCES AND LESSONS LEARNT

From previous bike campaigns, the Energy of Plovdiv has learned that

- Distribution of tasks and responsibilities must be clear among local partners so that unrealistic expectations are lowered
- Technical support must be provided to the businesses
- Negotiations and win-win partnerships need to be established
- Customers must be familiar with the campaign before its actual start
- Communication through media and social channels is essential
- Support of the local community is also crucial – most campaigns go from mouth to mouth, etc.
- Awards and recognition for the achievements within the campaign is a must

2.3.3.6.2. POTENTIAL SYNERGIES

The Energy Agency of Plovdiv will seek partnerships with young local business, collaboration partners of the Plovdiv EU Cultural capital, the Together 2019 Consortium, local authorities and recreation and leisure time institutions (galleries, libraries, the Regatta Channel businesses, etc.).

2.3.4 BOLOGNA

2.3.4.1. SCALE OF APPLICATION

The scale of application will be the Great Area of Bologna, which includes the City of Bologna and the surrounding municipalities, for a total amount of about 450,000 people.

2.3.4.2. DESCRIPTION OF PILOT SITE

The Greater Area of Bologna is characterized by many different land uses and different kind/size of shops. In the urbanized area, which covers around half of the area (the other
part is hilly in the southern and farmed in the northern), both residential areas and industrial/commercial areas exist, but they don’t overlap.

Small shops are mostly spread all over the residential areas, with a higher concentration in the Bologna city centre. Malls and big shops can be found in the external part of urbanized areas: supermarket, hi-tech stores, sport stores, furniture stores, etc.

The most part of shops are members of Shops associations. The two biggest ones are Confartigianato (www.confartigianatobolognaimola.it) and Ascom-Confcommercio (www.ascom.bo.it) representing 16,000 shops.

At local level, two similar campaigns are running. They both use an app to keep track of personal activities and get points to convert into discounts.

- **FeatApp** is an App created by a company based in Bologna and available since September, 2015 on the stores. With FeatApp, people track their walking and running activities and get a point each 500 steps. Points can be used to get discounts in a network of local food shops, just before paying (the system to burn used points is based on QR codes in the shops, close to the cash register).

- **WeCity** was developed a couple of years ago by a group of researchers in collaboration with the University of Modena and Reggio Emilia. People can track their trips selecting among four different means of transport: walking, cycling, carpooling, public transport. Through a specific algorithm, trips are supposed to be checked to detect the real use of the selected means of transport and validated (anyway, some wrong detections occur) and the saved CO₂ is converted into points. Points can be used to get discounts on an online shop, managed directly by the app developers.

Number of users of these apps is not known.

### 2.3.4.3. Engagement Targets

In 2017, another app-based local campaign will be implemented in Bologna. In order to avoid an overlapping of these campaign and confusion among users, it will be necessary to address these two campaigns to different target users and stakeholders.

While the other campaign will be addressed to companies’ employees and students from University, the CTS campaign will be addressed to customers of predefined shops, in order to focus the communication efforts on a specific target of users through the existing and performing channels of communication already used by the shops.

This choice also wants to maximize the positive effects coming from the synergy between a direct and focused communication campaign and the interest of people for valuable products. Indeed, SRM is in front of two different approaches. On one side, it would be possible to contact all members of Shops association through their mailing-list, but there would be no direct contact, and shops answering to this sort of “call for partnership” would be very inhomogeneous and difficult to manage for a small company like SRM. Furthermore, communicating the initiative to the population would be very demanding both in term of time and resources needed, and then very difficult to be managed by SRM.
On the other side, a strict collaboration with big shops could significantly reduce the efforts: usually, big shops have fidelity programmes through which they profile usual customers, collecting their email, phone numbers and addresses. This allows a direct communication with them, and this would maximize its effects. Another important and, in that case, more widespread channel of communication consists of the monthly flyers with special offers and discount, which are delivered to almost all families in the cities through the ordinary email.

Given these elements, SRM is confident to get positive and interesting results from this Campaign.

Table 54 - Engagement target in CTS, Bologna

<table>
<thead>
<tr>
<th>Number of persons involved</th>
<th>Modal share cycling+walking</th>
<th>Engagement target</th>
</tr>
</thead>
<tbody>
<tr>
<td>450,000</td>
<td>17%</td>
<td>2,300 people</td>
</tr>
</tbody>
</table>

2.3.4.4. DEFINITION OF STEPS FOR IMPLEMENTATION

2.3.4.4.1. PREPARATION OF LOCAL APPROACHES

SRM is making a list of potential shops to be contacted in the pilot area. There are already some good relationships ongoing between SRM and at least a couple of the shops to be involved in the campaign. The list will be defined to a greater level once the TRACE CTS app is available and compatibility with fidelity programmes assessed.

2.3.4.4.2. ENGAGEMENT OF STAKEHOLDERS

The CTS Campaign in Bologna will involve big shops. Anyway, also the Municipalities where these shops are located are stakeholders of the Campaign, even if their involvement will not be relevant.

In the following table a not exhaustive list of big shops located in the Greater Area of Bologna is provided:
Table 5.5 - Stakeholders’ objectives

<table>
<thead>
<tr>
<th>Stakeholder group</th>
<th>Objectives</th>
</tr>
</thead>
</table>
| Local authorities | - Decrease car traffic around big shops in particular during “peak-days” for shopping (weekends)  
                     - Increase modal share of cycling and walking and reduce the car modal share |
| Shops             | - Get new customers and encourage current customers to buy new products  
                     - Reduce the number of cars in their parking by increasing the number of cyclists, and consequently improving the level of service for customers who cannot choice anything but private car  
                     - Give a “green image” of their shop by promoting green and sustainable actions |

Since no contact with these shops already exists, except for a couple of them which joined the preliminary Focus Group, it will be necessary to establish a first contact with them.

As done in past similar occasions, a personal visit to these shops and a one-to-one meeting with the Shop Manager will be the first step to investigate a potential interest. Once a relation will be established, other operational meetings will be organized, both for the organization of the campaign and for collecting feedback during the campaign itself.
Table 56 - Schedule of activities for engagement of stakeholders in CTS, Bologna

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus group</td>
<td>10th February 2016</td>
<td>Promotion of the tracking concept of TRACE - Presentation of the CTS initiative general concept: the App-based campaign, the data collection - Collecting impressions and suggestions from stakeholders</td>
<td>Shopkeepers and Shop managers</td>
</tr>
<tr>
<td>Presentation meetings with Shop Manager</td>
<td>2017 Q1</td>
<td>- Personal meetings with Shop Managers of all potential interested Shops - Presentation of the CTS initiative and investigation of their interest</td>
<td>Shop managers</td>
</tr>
<tr>
<td>Operational Meetings</td>
<td>2017 Q2</td>
<td>- Definition of personal strategies and discounts for each participating shop - Analysis of possible barriers and solution to overcome them - Etc.</td>
<td>Shop managers - Shop staff</td>
</tr>
<tr>
<td>Preparation of the Campaign</td>
<td>2017 Q3</td>
<td>- Preparation of the graphical materials (flyers) and other communication systems (SMS, emails, etc.)</td>
<td>Shop Managers</td>
</tr>
<tr>
<td>Training to shop staff/clerks</td>
<td>2017 Q3</td>
<td>- Training on the App: how to “discard” used point and apply discounts</td>
<td>Shop staff</td>
</tr>
<tr>
<td>Campaign</td>
<td>2017 Q4</td>
<td>- Delivering of informative material (flyers, SMS, emails, etc.) - Implementation of the campaign - Live and continuous contact and exchange of impressions/requests/suggestion with Shop Managers</td>
<td>Customers - Shop Managers</td>
</tr>
<tr>
<td>Final result presentation</td>
<td>2017 Q4</td>
<td>- Presentation of TRACE TSG pilot results</td>
<td>All stakeholders</td>
</tr>
</tbody>
</table>

2.3.4.3. ENGAGEMENT OF FINAL USERS

Final users are shop's customers. They will be contacted directly through focused communication campaigns. The idea of SRM is to use existing communication channels such as mailing lists and SMS coming from fidelity programmes and promoting the initiative through flyers delivered house-to-house.
### Table 57 - Schedule of activities for engagement of final users in CTS, Bologna

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road show</td>
<td>September 2017</td>
<td>- Presentation of CTS Campaign to the public</td>
<td>General public, mass media</td>
</tr>
<tr>
<td>Dissemination of materials</td>
<td>2017-Q4</td>
<td>- Delivering of informative material (flyers, SMS, emails, etc.)</td>
<td>Customers</td>
</tr>
<tr>
<td>CTS Campaign</td>
<td>2017-Q4</td>
<td>- CTS Campaign</td>
<td>Customers</td>
</tr>
</tbody>
</table>

#### 2.3.4.5. RISKS AND BARRIERS FOR IMPLEMENTATION

##### 2.3.4.5.1. IDENTIFICATION OF RISKS AND BARRIERS

Risks and barrier can be found both on stakeholders’ side and on participants’ side.

- Low interest from shop keepers/owners
- Lack of interoperability of the CTS app with internal system of shops
- Possible complaints from participants due to the need of tracking their trips on the technical side: battery, need to start/stop, app crashes
- Short duration of the campaign and low visibility for shops
- Possible complaints from participants due to the need of tracking their trips on the personal side: privacy issues

##### 2.3.4.5.2. STRATEGIES TO MITIGATE AND OVERCOME RISKS AND BARRIERS

The choice of implement the CTS campaign among big shops goes in the direction of a risk mitigation. The short duration of the campaign could probably find a low interest from small shops due to a low visibility. On the contrary, big shops are used to discounts’ campaigns with a 3/4-week duration and have their own and effective communication channels that are ready-to-use.

The CTS tool should foresee a simple and easy system to verify points collected and reward/discounts eligibility, to overcome a need of interoperability with shop internal system which could be very difficult to be implemented for a short-period campaign.

TRACE will put a lot of emphasis on App reliability and quality. This will be the basis for users’ trust in the tool used for the campaign. The campaign arranged by TRACE is a pilot campaign. The app will be created with a legacy view in order to guarantee replicability and scalability of the initiative.
2.3.4.6. PREVIOUS OR ONGOING EXPERIENCE IN SIMILAR CAMPAIGNS

2.3.4.6.1. PAST EXPERIENCES AND LESSONS LEARNT

SRM has no direct experience in direct-rewarding campaign, but the five edition of the European Cycling Challenge are an example of wide communication campaign and promotion of cycling mobility.

The ECC has demonstrated how difficult is to communicate an initiative to many people at the same time and to convince them to participate, especially if these people are part of heterogeneous groups. ECC gave also the opportunity to SRM to create and work with an effective network of NGOs and other groups active in cycling promotion at local level.

To be attractive, this kind of campaign must reward participants in a tangible or motivational way and must be worth it. Tracking personal trips over a long period can be demanding for some participant, and the goal must then be clear, accessible and valuable.

A very important lesson learned from the ECC is that if the communication and the invitation to join the campaign comes from friends, relative, colleagues, and any other “trustable” people, it can give better results than an institutional campaign.

2.3.4.6.2. POTENTIAL SYNERGIES

SRM will seek partnerships with campaigns of local business and local authorities. SRM will play another behaviour change campaign in 2017 that will end in September 2017. Since it will be based on a similar methodology, it will be the occasion to create synergies, at least in communication channels and stakeholders involved. The European Mobility Week will be used as a first event to spread dissemination materials.

2.3.5 SOUTHEND-ON-SEA

2.3.5.1. SCALE OF APPLICATION

The Borough of Southend-On-Sea is located on the north side of the Thames Estuary, approximately 65 km east of London. The Borough is 41 square km in size and made up of 17 wards, with a total population of 177,900. Southend is an important economic and residential part of the Thames Gateway regeneration area and, with seven miles of seafront; it is a key destination for tourism and leisure. The Borough’s economic links with areas beyond its boundaries are strong, particularly with London, which is within convenient commuting distance and accessible by two railway lines, with journey times of around one hour.
2.3.5.2. DESCRIPTION OF PILOT SITE

SSBC will be targeting independent shops and cafes in a designated area of London Road, Southend on Sea which is near to local shared space infrastructure as well as Leigh on Sea town centre as there is good cycle parking within the Broadway area.

2.3.5.3. ENGAGEMENT TARGETS

SSBC will be engaging with small local shops and cafes in the two areas including our ‘Bike Friendly Cafes’ that we have worked with during a previous EU Project (Interreg 2Seas project Bike Friendly Cities).

Table 58 - Engagement target in CTS, Southend-On-Sea

<table>
<thead>
<tr>
<th>Number of persons involved</th>
<th>Modal share cycling</th>
<th>Engagement target</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,000</td>
<td>2%</td>
<td>100</td>
</tr>
</tbody>
</table>

2.3.5.4. DEFINITION OF STEPS FOR IMPLEMENTATION

2.3.5.4.1. PREPARATION OF LOCAL APPROACHES

2.3.5.4.2. ENGAGEMENT OF STAKEHOLDERS

As stakeholders of the campaign, SSBC will be approaching local cafes and shop within certain areas of Southend on Sea and Leigh on Sea.

The objectives of the stakeholder groups will be:

- Healthier lifestyle
- Decrease in congestion
- Decrease in pollution
- Welcome cyclists
- Attract new customers

Stakeholders will be involved thanks to the good communication links with the Southend on Sea BID Team, Southend Business and Tourism Partnership as well as our ‘Bike Friendly Cafes’.

Periodic meeting with committed stakeholders will be arranged in order to collect support and feedback. The schedule of the meeting will be established in a later stage, according with their availability.
Table 59 - Schedule of activities for engagement of stakeholders in CTS, Southend-On-Sea

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop marketing plan</td>
<td>November 2016</td>
<td>- To write text for website and social media. Prepare and print any marketing flyers etc and emails/texts etc., - Promotion through <a href="http://www.cyclesouthend.co.uk">www.cyclesouthend.co.uk</a> and <a href="http://www.ideasinmotionsouthend.co.uk">www.ideasinmotionsouthend.co.uk</a> - We aim to run the pilot for 60 days as this is the recommended period of time to make a lifestyle change</td>
<td>Ourselves/shop managers</td>
</tr>
<tr>
<td>Make initial contact with shops</td>
<td>January 2017</td>
<td>- Contact shops to raise awareness of TRACE and CTS. - Promote the benefits of taking part - Gain rewards and prizes</td>
<td>20 Local shops through the Business partnership and the BID team.</td>
</tr>
<tr>
<td>Meet with shop manager</td>
<td>February 2017</td>
<td>- Training of app and website</td>
<td>Shop managers/shop staff</td>
</tr>
<tr>
<td>Rewards</td>
<td>January 2017</td>
<td>- Confirm discounts for each participating shop</td>
<td>Shop managers</td>
</tr>
<tr>
<td>Branding</td>
<td>April 2017</td>
<td>- Add logo etc., for participating shops</td>
<td>Ourselves</td>
</tr>
<tr>
<td>Promote CTS</td>
<td>June 2017</td>
<td>- Promote as per our marketing plan getting as many people to take part as possible</td>
<td>Local residents of the town</td>
</tr>
</tbody>
</table>
2.3.5.4.3. ENGAGEMENT OF FINAL USERS

Table 60 - Schedule of activities for engagement of final users in CTS, Southend-On-Sea

<table>
<thead>
<tr>
<th>Type of meeting</th>
<th>Date</th>
<th>Objectives</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run pilot</td>
<td>June 2017</td>
<td>- Start pilot at the beginning of Cycle to work week.</td>
<td>-</td>
</tr>
<tr>
<td>Maintain support</td>
<td>June/July 2017</td>
<td>- Have a dedicated hotline for shops and users in addition to push notifications</td>
<td>Shop managers and users</td>
</tr>
<tr>
<td>End of pilot feedback</td>
<td>July/August 2017</td>
<td>- Obtain feedback</td>
<td>users and shop manager</td>
</tr>
<tr>
<td>End of campaign results</td>
<td>August 2017</td>
<td>- Presentation of TRACE TSG pilot results</td>
<td>SBC staff</td>
</tr>
</tbody>
</table>

2.3.5.5. RISKS AND BARRIERS FOR IMPLEMENTATION

2.3.5.5.1. IDENTIFICATION OF RISKS AND BARRIERS

• Lack of interest and involvement of participants and stakeholders
• Lack of understanding how the product works
• Lack of resources i.e. smart phone
• Rewards are not attractive enough to participants
• Users forget to use the app during pilot
• Forgery of information

2.3.5.5.2. STRATEGIES TO MITIGATE AND OVERCOME RISKS AND BARRIERS

• Target correct customers
• Target specific rewards to the shops to attract new customers
• Monitoring and reminders to be sent to shops/cafes during pilot
• Clear agreements established at the outset
2.3.5.6. PREVIOUS OR ONGOING EXPERIENCE IN SIMILAR CAMPAIGNS

2.3.5.6.1. PAST EXPERIENCES AND LESSONS LEARNT

During previous behavioural change campaigns, we have learnt that a personal approach tends to work better rather than cold calling. It is essential to make it easy for stakeholders to take part by removing any barriers including finding a champion in each organisation to keep participants motivated and ensure that it is kept simple and not too time intensive.

2.3.5.6.2. POTENTIAL SYNERGIES

We will be using our Ideas in Motion and Cycle Southend (please see section 1.3.8) websites and social media to work in partnership with TRACE.
2.4 Tracking for Planning pilots

TRACE project will develop a Tool for tracking data analysis for urban mobility planning and policy making as horizontal pilot.

In this pilot, local urban planners will apply the tracking for planning tool to better understand the needs of the cycling and walking users, performance of the current infrastructure, leading them to a more informed planning process. The tool will go beyond the state of the art of the existing applications available by providing a lightweight, interoperable and multi-purpose information tool that can be coupled with any existing commercial or open source transport planning and/or GIS tool. The final aim is to exploit GPS data in an easier and more fruitful way.

2.4.1 DATA SOURCES

Each pilot site involved in the project is asked to provide at least 2 different data sets coming from different sources in order to test the tool. The more the data is heterogeneous in terms of content and source, the more the tool will be subjected to stress and able to respond to as many queries as possible.

Table 61 - Overview of data sources to be provided by partners

<table>
<thead>
<tr>
<th>Partner</th>
<th>Data Source 1</th>
<th>Data Source 2</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>M21</td>
<td>Positive Drive</td>
<td>Traffic Snake Game</td>
<td>European Cycling Challenge 2016</td>
</tr>
<tr>
<td>FTTE</td>
<td>Positive Drive</td>
<td>Traffic Snake Game</td>
<td></td>
</tr>
<tr>
<td>LuxM</td>
<td>Positive Drive</td>
<td>Cycle to Shop</td>
<td></td>
</tr>
<tr>
<td>Breda</td>
<td>Positive Drive</td>
<td>Cycle to Shop</td>
<td></td>
</tr>
<tr>
<td>Águeda</td>
<td>Positive Drive</td>
<td>Traffic Snake Game</td>
<td>European Cycling Challenge 2016</td>
</tr>
<tr>
<td>EAP</td>
<td>Traffic Snake Game</td>
<td>Cycle to shop</td>
<td></td>
</tr>
<tr>
<td>SRM</td>
<td>Traffic Snake Game</td>
<td>Cycle to shop</td>
<td>European Cycling Challenge 2015 and 2016 EMPOWER campaign</td>
</tr>
<tr>
<td>SSBC</td>
<td>Positive Drive</td>
<td>Traffic Snake Game</td>
<td>Cycle to Shop</td>
</tr>
</tbody>
</table>
3. Annexes

3.1 Positive Drive
This annex describes the features for the Positive Drive pilots that will be implemented in the context of the TRACE project. Anyway, the information included here could be further adjusted and improved considering the preparatory activity that will be undertaken in the next steps of the project, and the possible requirements and needs that could emerge locally by the pilot sites.

### 3.1.1 POSITIVE DRIVE - STEP 1: MARKETING

The first step of Positive Drive is about Marketing:

- Decide how and when you are going to invite (potential) participants
- Decide how you are going to promote this campaign
- Who do you want to reach?
- What is the message you want to distribute?
- What will the design look like?
- What is the budget?
- What means will be deployed?
- When do you want to promote the campaign?
- Create an action list-to-launch
- Approach the local retailers
- Set up social mediapage(s)

Make sure you can check all these boxes. Then go on to the next step.

**Explanation:**
Depending on how the campaign is executed, it is crucial to consider promotion of the campaign. What means will be deployed when, what will it look like and what do we want it to achieve?

It begins with recruiting participants. Decide how you are going to invite them. Are you going to send them a letter? Or are you going to achieve them by employers?

It’s important to answer the following questions for yourself:

1. Who do you want to reach?
2. What is the message you want to distribute?
3. What will the design look like?
4. What is the budget?
5. What means will be deployed and where?
6. When do you want to promote the campaign?

Consider for example posters that can be hung in businesses. Flyers that are distributed and bus stop posters. But also involve the local press for some free publicity.

Design a clear planning with what needs to be done before what time to ensure you will not be overtaken by events. Clearly state this to all other parties involved in producing the promotional materials.

### 3.1.2 POSITIVE DRIVE - STEP 2: TRANSLATIONS

Before you can start a campaign, there are a few essential elements that need to be translated:

- The app
- Game room
- Push Notifications
• Website
• Social Media

You will receive a file with all the English texts.
When all the translation work is done, you can go on to the next step.

Explanation:
The app - An excel sheet will be provided that contains all communications within the application. It is of grave importance that the document is translated as carefully as possible. It is imperative that the order of the document is not altered. Column C contains the original words and sentences that translation. The translation can be placed in Column E. All sentences need to be translated in order to let the app function properly.

Game room - Whenever a participant wins a prize in the game room, that person will automatically receive an email in which the prize can be claimed. Various email formats have been produced to ensure it matches the type of prize won. The prize sponsor will receive an email stating one of their prizes has been won and who the winner is.

Push notification - To provide additional motivation for participation in the campaign, push notifications will be sent. A base has been established concerning the content of these notifications. These will similarly be provided in an excel sheet. The push notifications may never exceed more than 98 characters. This ensures proper display on all devices. The messages are always motivational and positive.

Website - The website requires translation to provide additional information to the users of the application. The website is linked to the application, FAQ’s displayed in the application are the same as the website. The website already supports a multilingual format. Therefore, only translations need to be provided. These will be provided in the same excel format.

Social Media - Facebook provides the translation of the page. The content should be edited by the pilot city itself.

When you are sure all the translations are done, you can go to the next step.

3.1.3 POSITIVE DRIVE - STEP 3: GAME ROOM AND PRIZES

Step 3 is adding prizes to the game room:

• Decide the odds, depending on the estimated number of participants and prizes
• When sponsors are interested ask for:
  • A logo
  • An image of the prize
  • A short description of the prize (50 characters)
  • Decide together with the sponsor how the prize can be cashed
  • Make sure the images have the right size (use photoshop/powerpoint)
  • Put all the input in a .xls file as shown in the example
  • Send the .xls file and the images to us

When all these steps are taken, you can go on to step 4.

Explanation:
The application contains a game room where participants can win prizes. It is highly advisable to have the game room filled with prizes before the start of the campaign.
We advise you to contact local retailers with the request to offer prizes. In Breda the prizes consist of items such as theatre tickets or vouchers for free ice-cream. It is imperative to involve local retailers as much as possible. In return the local retailer will be provided with attention within the application as well as on the website. The winning of prizes might introduce new customers to the prize providing entrepreneur.

Upon interest from companies, they will be requested to provide the following materials:

- Logo
- Image of the prize
- Short description of the prize in one sentence

Decide together with the sponsor how the prizes can be cashed:

- With a unique code
- Send the prize by mail by pilot site
- Send the prize as a package by pilot site
- No verification needed
- Send the giftcard/code by email by the sponsor
- Send the prize by mail by the sponsor

Provided with this information prizes can be processed in the application and website. Additionally, it is important the image is of the proper proportions:

- Logo: 272 x 154 px (7,19 x 4,07 cm)
- Image prize: 320 x 356 px (8,46 x 9,42 cm)

You have to put all the information about the prizes in a .xls file, so we can add the prizes to the app. An example of the file is added (sheet Example Prizes). Just give the prize a name (here you can fill in the short description), fill in the amount of prizes, the prize type, the mail type, and the information about the prize providing entrepreneur.

### 3.1.4 POSITIVE DRIVE - STEP 4: CAMPAIGN

Step 4 is the last step and is about what to do when the campaign is launched.

- Produce the promotional materials and invitations
- Invite the participants
- Promote the campaign
- Write social media content
- Set up Helpdesk (email, telephone)
- Create awareness (media, promo)
- Analyse routes (CMS)
- Send push messages about the campaign or functionalities within the app itself
- Newsletters (weekly? monthly?)
- Follow up sponsors
- Keep on searching for new prizes

**Explanation:**

Upon kick-off of the campaign it is vital to create awareness. The first communication will go through the push notifications channel. The content will be about the campaign and the different functionalities within the app.
Set up a helpdesk so you can answer the questions of the participants. Make sure participants can send you an email or can call you. When there is a new prize sponsor you can post a message about it on social media. Also involve the participants by sending them a newsletter. Decide whether you send it weekly or monthly. Analyse the routes and adapt the communication when needed. When there are issues, try to solve these. And last but not least, follow up sponsors and keep on searching for new prizes to add in the Game Room.
3.2 Traffic Snake Game

3.2.1 INTRODUCTION

This annex describes the features for the pilots of the tracking campaign for primary school children that will be executed in the context of the TRACE project. Anyway, the information included here could be further adjusted and improved considering the preparatory activity that will be undertaken in the next steps of the project, and the possible requirements and needs that could emerge locally by the pilot sites.

The campaign will be embedded in an existing European campaign to promote sustainable home-school travels: Traffic Snake Game. The tracking campaign will be piloted in Belgium, Portugal, Serbia, Bulgaria, Italy, and the United Kingdom.

This document will first provide an overall implementation plan, comprising:

- The definition of steps for implementation (preparation of local approaches, engagement of stakeholders, engagement of final users).
- The identification of risks and barriers for implementation.
- A discussion of strategies to mitigate and overcome risks and barriers for implementation.

The Traffic Snake Game (TSG) campaign originates from Belgium and was created by Mobiel 21. The objective of the campaign is to promote sustainable transport to school for primary school children (age 4 to 12), their parents, and their teachers. The campaign currently runs in more than 1,700 schools across 18 EU countries.

Within TRACE, mobility tracking will be added to the original TSG campaign. Tracking may supply relevant data to the schools that aim to increase traffic safety around the school. For example, the school can learn where it might be useful to ask someone to help children safely cross the street by learning about the routes of children that cycle and walk to school.

The TSG tracking tool will be piloted in six locations across Europe: Belgium (Flanders), Serbia (Belgrade), Portugal (Águeda), Bulgaria (Plovdiv), Italy (Bologna), and the UK (Southend on Sea). The responsible TRACE partners and their contact details are presented in Errore. L'origine riferimento non è stata trovata..
<table>
<thead>
<tr>
<th>Location</th>
<th>TRACE partner</th>
<th>City</th>
<th>Street</th>
<th>TRACE contacts</th>
<th>Mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serbia (Belgrade)</td>
<td>University of Belgrade (FTTE)</td>
<td>Beograd</td>
<td>Saobraćajni fakultet, Vojvode Stepe 305</td>
<td>Predrag Živanović, Ana Trpkovic, Stanko Bajcetic, Branko Milovanovic, Vladislav Maras, Andrea Djorojevic, Slaven Tica</td>
<td><a href="mailto:p.zivanovic@sf.bg.ac.rs">p.zivanovic@sf.bg.ac.rs</a>, <a href="mailto:a.trpkovic@sf.bg.ac.rs">a.trpkovic@sf.bg.ac.rs</a>, <a href="mailto:s.bajcetic@sf.bg.ac.rs">s.bajcetic@sf.bg.ac.rs</a>, <a href="mailto:b.milovanovic@sf.bg.ac.rs">b.milovanovic@sf.bg.ac.rs</a>, <a href="mailto:v.maras@sf.bg.ac.rs">v.maras@sf.bg.ac.rs</a>, <a href="mailto:andrea@sf.bg.ac.rs">andrea@sf.bg.ac.rs</a>, <a href="mailto:slaven.tica@sf.bg.ac.rs">slaven.tica@sf.bg.ac.rs</a></td>
</tr>
<tr>
<td>Portugal (Águeda)</td>
<td>Municipality of Águeda</td>
<td>Águeda (3754-500)</td>
<td>Praça do Município</td>
<td>Célia Laranjeira, Marina Ascensao, Isabel Belchior</td>
<td>celia.laranjeira@cm-Águeda.pt, marina.ascensao@cm-Águeda.pt, isabel.belchior@cm-Águeda.pt</td>
</tr>
<tr>
<td>Bulgaria (Plovdiv)</td>
<td>Energy Agency of Plovdiv floor 3, suite 301</td>
<td>Plovdiv</td>
<td>139 Ruski Blv</td>
<td>Ina Karova</td>
<td><a href="mailto:ina.karova@eap-save.eu">ina.karova@eap-save.eu</a></td>
</tr>
<tr>
<td>Italy (Bologna)</td>
<td>SRM Bologna (Authority for Public Transport)</td>
<td>Bologna (40128)</td>
<td>via A. Calzoni, 1/3</td>
<td>Marco Amadori, Giuseppe Liguori, Mauro Borioni</td>
<td><a href="mailto:marco.amadori@srmbologna.it">marco.amadori@srmbologna.it</a>, <a href="mailto:giuseppe.liguori@srmbologna.it">giuseppe.liguori@srmbologna.it</a>, <a href="mailto:mauro.borioni@srmbologna.it">mauro.borioni@srmbologna.it</a></td>
</tr>
<tr>
<td>United Kingdom (Southend on Sea)</td>
<td>Department for Place</td>
<td>Southend on Sea, Essex (SS2 6ER)</td>
<td>Victoria Avenue</td>
<td>Neil Hoskins, Carolyn Hutcheon, Collette Kemp, Elaine Swallow</td>
<td><a href="mailto:NeilHoskins@southend.gov.uk">NeilHoskins@southend.gov.uk</a>, <a href="mailto:CarolynHutcheon@southend.gov.uk">CarolynHutcheon@southend.gov.uk</a>, <a href="mailto:ColletteKemp@southend.gov.uk">ColletteKemp@southend.gov.uk</a>, <a href="mailto:ElaineSwallow@southend.gov.uk">ElaineSwallow@southend.gov.uk</a></td>
</tr>
</tbody>
</table>
3.2.2 THE TRAFFIC SNAKE GAME CAMPAIGN

In this section we provide a general description of the TSG campaign. We introduce the campaign materials, the campaign network, and the campaign storyboard. We add information on the tracking materials and the steps that will need to be undertaken to set up the tracking-based part of the campaign.

3.2.2.1. CAMPAIGN MATERIALS

The Traffic Snake Game campaign is traditionally a paper-based campaign. In 2015, a web-based version (TSG 2.0) was developed that can be played on a computer (schools often use a SMART board to play this version of the campaign). The web-based version can run without any physical materials, but schools tend to use the materials (i.e., banner, stickers, and posters) of the paper-based campaign aside the web-based version. The campaign materials are described in Table 63. The snake banner (see Figure 22) can be reused, all other materials need to be renewed before each campaign period. It is hence recommended to let the school keep the snake banner for the campaign of the next years.
The posters described in Table 63 are regular A2 format posters that can be used to decorate the school area. The bike stickers (see Figure 23) are rewards that the pupils receive at a given point in the campaign (e.g., when the banner is filled until an intermediate reward point). Other rewards are typically provided by the school. Examples of other rewards are extra play time, no home work for a day, ice cream, etc. The website www.trafficsnakegame.eu has become an important part of the campaign for registration, communication, and evaluation purposes. Its role will be explained further in Section 3.2.5 (Overall implementation plan).

The campaign slightly varies across countries: In Belgium the green cards are rectangle; in the EU version the green cards are round. In Belgium, the dots children receive when using a sustainable travel mode are orange; in the EU version the dots are either pink or in five different colours (one colour for each travel mode, see Figure 23). In Belgium the campaign lasts one week; in the EU version the campaign lasts two weeks.

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3 Can be retrieved online: https://goo.gl/qj3WhX
4 Can be retrieved online: https://goo.gl/o6qwhV
The trackers (i.e., the devices that will track home-school travels) will be an additional element to the original TSG campaign. The tracker is a robust and waterproof box of length 98 mm, width 63 mm, and height 36 mm. The box has a small power outlet protected by a watertight cap. It will be equipped with a sticker of the traffic snake (see Figure 24). Each school needs a server to read out the tracking data from the trackers. The trackers and the servers are provided by Mobiel 21. Each partner receives 90 trackers and 3 servers that they will distribute across the three participating schools (i.e. each school will receive one server and 30 trackers). The trackers will be passed on from classroom to classroom to reach the target of tracking at least 100 pupils in each of the three schools (see Section 3.2.5 Overall implementation plan).
3.2.3 THE CAMPAIGN NETWORK

The Traffic Snake Game Campaign is supported by a network of organisations. The network has received funding by the European Commission between 2014 and 2017 to expand the uptake of the campaign across Europe. In the following sections, we describe the role of the different organisations in the network. Although the network will only receive funding until January 2017, the goal is to keep the TSG network going after that point.

3.2.3.1 NATIONAL FOCUS POINTS

There are currently 20 national focal points (NFP) across 18 EU countries. Each national focus point has its own webpage in the local language. The national focal points are organisations that champion the project, disseminate information about the campaign and steer the implementation of the TSG campaign. At the webpage of the national focus point, schools can register for participating in the campaign. Cities, regions, and organisations can use the website to find the contact details of their NFP. The NFP distributes the materials described in Table 63.
3.2.3.2. MOBIEL 21

Mobiel 21 coordinates the TSG network. In addition, Mobiel 21 is the NFP of Belgium and hosts the TSG secretariat, which processes requests for new National Focus Points. During the period in which the TSG network is funded by the IEE programs (2014-2017), Mobiel 21 offers support and training to National Focus Points of Southern and Northern Europe for implementing TSG. Within TRACE, Mobiel 21 provides the trackers and servers for the pilots and supports the partners that implement a pilot.

3.2.3.3. DTV CONSULTANTS

DTV consultants host the TSG website. In addition, DTV is the national focus point in The Netherlands. During the period in which the TSG network is funded by the IEE programs (2014-2017), the organisation offers support and training sessions to other National Focus Points, more specifically to the focus points of Central and Eastern Europe. Within TRACE, DTV will develop the tracking tool and servers.

3.2.3.4. WYG CONSULTANTS

During the period of IEE programs funding (2014-2017), WYG offers support and training sessions to the National Focus Points in Western Europe for implementing TSG. In addition, WYG is responsible for processing the measurement forms of schools that do not use the website to fill in their before, during, and after measurement data using the TSG website: Schools can forward their measurement forms to WYG and they put them in to the website.

3.2.3.5. LOCAL PARTNERS

The TSG campaign is supported by 37 local partners, such as city councils and commercial organisations, across Europe. Errore. L’origine riferimento non è stata trovata. presents the local partners in the TRACE pilot countries.
Table 64 - Local partners in the TRACE pilot countries

<table>
<thead>
<tr>
<th>Pilot country</th>
<th>Local partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>KBC Bank</td>
</tr>
<tr>
<td>Serbia</td>
<td></td>
</tr>
<tr>
<td>Portugal</td>
<td>APSI - Associação para a Promoção da Segurança Infantil</td>
</tr>
<tr>
<td></td>
<td>Câmara Municipal de Évora - Divisão de Juventude e Desporto</td>
</tr>
<tr>
<td></td>
<td>Câmara Municipal de Odivelas - DGEJCA</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>DSK Bank - Банка ДСК</td>
</tr>
<tr>
<td>Italy</td>
<td>Viterbo, Narni, Provincia di Bergamo, Torino, Novara, Reggio Emilia, Bologna, Padova, Palermo, Brancalone, Palizzi, Reggio Calabria</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>JMP Consultants</td>
</tr>
</tbody>
</table>

3.2.3.6. SCHOOLS

There are currently 982 TSG schools in Belgium (827 in Flanders), 33 in Portugal (0 in Águeda), 43 in Bulgaria (0 in Plovdiv), 54 in Italy (3 in Bologna), 23 in the United Kingdom (0 in Southend-on-Sea), and 0 in Serbia. The locations of the participating schools can be found at http://www.trafficsnakegame.eu/participants.

3.2.4 CAMPAIGN STORYBOARD

3.2.4.1. THE OBJECTIVE

The objective of the TSG campaign is to increase the amount of sustainable (and active) home-school travels during and after the TSG campaign. In general TSG aims at 20% more sustainable trips during the campaign compared to the baseline. In previous years, an increase of 15% is typically observed, of which 7% remains after the campaign. The specific objective for a school is always set within the school based on the data acquired in the before measurement.

3.2.4.2. COMMUNICATION TO STAKEHOLDERS

3.2.4.2.1. TEACHERS

Teachers should be informed about the campaign as soon as possible to give them the chance to integrate the campaign into their lessons. The teachers manual (available at https://goo.gl/H00120) can help in explaining the different steps of the campaigns to teachers.

3.2.4.2.2. PARENTS
A letter (available at https://goo.gl/XUGeVz) explains the TSG campaign to parents. The school needs to fill in some data to complete the information in the letter:

- We will be playing the TSG from _____ to _____ (fill in the dates).
- All the dots are collected on a large TSG banner which you can see in our school _____ (fill in name of school).
- Our school has the target to increase sustainable travel by ___ % (fill in target).
  
Best regards, _____ (fill in name of teacher / school principal).

Please check your local website for an example of an information letter for parents in your local language. If no such letter exists, you can translate the English example.

More information on engaging stakeholders for the tracking campaign can be found in Section 3.2.5 the Overall implementation plan.

### 3.2.4.3. THE BEFORE MEASUREMENT

Two weeks before the game starts, each school measures its baseline mobility profile. The TSG network offers forms to complete the measures (available at https://goo.gl/G5e5gq) . The before measurement occurs in three steps:

- The school prints one Class measurement form for every class participating in the Traffic Snake Game Campaign and distributes the forms among the teachers.

- The teacher of every class asks his/her pupils how they usually travel to school: walking, cycling (cycling includes scooters, roller skates, inline skating, and skateboarding), bus, train, tram, metro, carpooling (i.e., car sharing with students from different families). In the EU version only sustainable means of transport are measured; in the Belgian version also car use is measured (using a slightly different measurement form - available at https://goo.gl/wCYAVx). Children raise their hand when they have used this mode of transport. All data are entered to the class measurement form.

- All class measurement forms are collected and the school data are entered to the school measurement form. The data of the school measurement form are entered on the school page of the TSG website that can be accessed via a specific login and password of the school by the responsible for the TSG campaign.

### 3.2.4.4. SETTING THE SCHOOL TARGET

The TSG website offers a target calculator for schools to set their own target based on the current number of sustainable trips. Generally, an increase of 20% sustainable trips is envisioned, but the school can decide to change the target (for instance, when the number of sustainable trips is already very high and the 20% target is not realistic). The TSG website offers a target calculator (Figure 26) to easily calculate a specific target for the school from the numbers obtained from the (class and school) measurement forms (entered in the green fields). You can also calculate the target for the school manually by using the following formula:
3.2.4.5. THE GAME

The TSG campaign can run for one or two weeks. Since the campaign has an individual target for each school, the specifics of the campaign will slightly differ for each school. We specify the different aspects of the campaign below.

3.2.4.5.1. DAILY COURSE OF THE CAMPAIGN

Each school day the campaign has a similar course:

- Children travel from home to school
- The teacher asks the children in his/her class how they travelled to school. He enlists the different sustainable means of travel one by one and asks children to raise their hand when they have used this travel mode:
  - Walking
  - Cycling (cycling includes scooters, roller skates, inline skating, and skateboarding)
  - Bus
  - Train, tram, metro
  - Carpooling (i.e., car sharing with students from different families)
- All pupils that have travelled sustainably receive a dot. In the EU version there are different dots for each travel mode (see Figure 23).
- (optional) You can choose to hand out bonus dots. Bonus dots reward various other behaviours of the children, such as safety behaviour
(wearing a helmet and/or fluorescent jacket), or sustainable home school travels of the teacher.

- Pupils paste their dots onto the green class sticker. Importantly, the total number of dots for each class sticker differs across schools and classes (see Figure 27). If one green sticker is ‘full’, the remaining dots are pasted onto the green sticker of the next day.

> Figure 27 - Calculating the number of dots for each class sticker

\[
\text{number of dots for my class sticker} = \text{number of pupils in my class} \times \text{target}
\]

- All data are entered onto the class measurement form.
- ‘Full’ green class stickers are pasted onto the traffic snake banner. Importantly, the amount of stickers that is required to fill the snake banner will depend on the number of classes in the school that participate in the game and the number of days the game is played.
- The school can administer a reward when a certain point of the snake (or the end of the snake) is reached (see Figure 22). This reward can be a bike sticker for all children of the school (see Figure 24) or any other reward that the school administers, such as extra playing time, no homework, or ice-cream.
3.2.4.6. **AFTER MEASUREMENT**

At least three weeks after playing the game, another hands up survey will be carried out. The aim is to assess the long term effects of the TSG. The results of this final hands up survey data are recorded on the class measurement form.

3.2.4.7. **TSG DELUXE**

The basic Traffic Snake Game can be extended with additional actions that the schools take to put sustainable (and safe) home school transport in the spotlight. TSG schools are encouraged to implement Deluxe actions during the campaign period as well as during the rest of the school year.

Examples of deluxe activities are:

- Extra traffic and mobility education in the class rooms (mobility can be linked to various classes and activities, such as maths, physical education, geography, history, reading and writing, etc.)
- Mapping the safe routes to school
- A car free day
- Cycle training on the school playground or in the school environment.
- Puppet show or theatre about mobility
- Pimp your bike workshop
- Cycle parade
- Bicycle repair
- Police teaching at school
- Shoe polish and bike wash
- Exhibition of children’s drawings on the theme
School play on sustainable mobility

3.2.5 OVERALL IMPLEMENTATION PLAN

3.2.5.1. RESEARCH ETHICS

It is crucial for all research activities on human subjects to respect certain ethical principles. Minors are generally considered more vulnerable than adult participants because (a) their limited understanding, (b) their dependence on others and the power imbalance between children and adults, and (c) they are more liable to (psychological and physiological) harm than adult subjects. Due to the lack of understanding, children may not be able to give a valid consent for participating in the study. Finally, their dependence on others has the risk that their participation in the study is not voluntary.

We use the European textbook on ethics in research (available at https://goo.gl/a8cpBG) as a guide for the ethical decisions and procedures in the TSG pilots. We start by describing the first assessment every researcher needs to make: Are there any risks for participants when participating in this study? Next, we discuss the need for acquiring a valid informed consent.

3.2.5.1.1. RISK ASSESSMENT

If there are risks, it is important to adopt procedures to reduce those risks. In addition, one needs to think about whether the study is sufficiently important in terms of potential benefits for the study population. The methodological reliability of the study needs to be sufficiently good to justify that the study will be conducted.

3.2.5.1.2. INFORMED CONSENT

Ethical research in most cases requires obtaining a consent from participants. The consent guarantees that participants have been informed properly, that they understand the information, and that they participate voluntarily in the study. Importantly, a simple ‘yes I want to participate’ is not sufficient. The consent is valid when it is of high quality only, meaning that accurate information was provided, participants understood the information, and no coercion was applied.

3.2.5.1.3. INFORMATION

The information for the participant of the study, must adhere to a number of principles:

- Should include all relevant risks for participating in the study.
- Should be correct.
- Should be presented in a way that participants understand the information (i.e., not too technical, in their language).
- There should be time to process the provided information and to consult others about it.
• Should make clear in information leaflets that a decision not to participate will not adversely affect the prospective research subject’s access to services, and that research subjects are free to leave the study at any time without penalty.
• Should avoid information overload.
• Cannot be too manipulative, for instance, when describing the benefits of the research one can exaggerate the benefits by using arguments such as ‘your participation saves lives’ or ‘your participation makes you a hero’. Manipulative information is considered to reduce the quality of the consent given.

3.2.5.1.4. REWARDS

Rewards may invalidate an informed consent when they are excessively high. The idea is that people may not be able to think rationally when a reward is extremely attractive. This issue is especially problematic when targeting populations with financial issues. Of course, it is allowed to reward participants for their efforts to participate in a study. Figure 29 presents the multitude of reasons to reward participants presented in the European textbook on research ethics.

• There are lots of areas of life (notably employment and shopping) where modifying people’s behaviour through monetary reward is thought to be unproblematic. So why should research be any different?
• Researchers themselves normally get paid for doing the research so why should the research subjects remain unrewarded?
• There are many occupations where people get paid, or paid extra, for undertaking especially dangerous work (e.g. diving, military, mining). Why should research be any different?
• Rewarding research subjects is often good for them, especially if they really do need the money or the medical treatment that is on offer.
• If research participants are paid too little (or not paid at all) would this not be a form of exploitation, or a case of unjust underpayment?

Figure 29 - European textbook on ethics in research, reasons to reward participants
3.2.6 TIMING OF THE PILOTS

The global schedule of the TRACE pilots is presented in Table 65. We added the timing of the IEE program of the TSG Network and a number of deadlines for a successful completion of the pilot in orange.

<table>
<thead>
<tr>
<th>Time</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 1, 2016</td>
<td>Contact your NFP</td>
</tr>
<tr>
<td>Sept 1, 2016</td>
<td>Start contacting schools for participating in the TSG pilot</td>
</tr>
<tr>
<td>Nov 30, 2016</td>
<td>Deliverable Pilot implementation strategy in pilots (D6.1)</td>
</tr>
<tr>
<td>Nov 30, 2016</td>
<td>First version of the TSG tool for testing (M5.1)</td>
</tr>
<tr>
<td>Jan 31, 2017</td>
<td>Final version of the TSG tool (D5.3)</td>
</tr>
<tr>
<td>Jan 31, 2017</td>
<td>Stop funding TSG network by IEE program</td>
</tr>
<tr>
<td>March 1, 2017</td>
<td>Start TSG pilots (M6.2)</td>
</tr>
<tr>
<td>Nov 30, 2017</td>
<td>Stop TSG pilots</td>
</tr>
<tr>
<td>Dec, 31, 2017</td>
<td>Deliverable report on activities and results in pilots (D6.2)</td>
</tr>
</tbody>
</table>

It is important to respect this timing of the TSG pilots, since we need to transport the trackers and servers from one country to another. The schedule took into account the local school holidays (including one- or two-day holidays) and by planning the campaign carefully around these holidays, we ensure that the target of tracking 100 pupils in three schools during the campaign period can be met.

Roughly, we plan one month for each pilot:

- Week 1: The tracker package is send to the local partner
- Week 2: Partner receives trackers and charges trackers, the trackers are tested and send to the school
- Week 3: Campaign week
- Week 4: Trackers are send back from the schools to the partner and are send to the next pilot location

We suggest to conduct the first pilot in Belgium in order to have room for feedback from the involved schools, parents, teachers, and children. In addition, it might be good to have some time for technical fixes (trackers, servers, integration with website).

3.2.7 BUDGET AND ESTIMATED COSTS

In this section we detail on the budget for the pilots and the estimated costs of the local pilots.
### 3.2.7.1. BUDGET

The budget of 16,300 € for the TSG pilots is allocated mainly to IT equipment: 2,100 € for trackers, 6,000 € for servers, and another 2,200 € for a server and 3 smartphones. In addition, 3,000 € can be spend on campaign materials and 3,000 € on rewards (see Table 66).

**Table 66 - Budget for the TSG pilots**

<table>
<thead>
<tr>
<th>Equipment</th>
<th>WP</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IT equipment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 server and 3 smartphones</td>
<td>5</td>
<td>2,200 €</td>
</tr>
<tr>
<td>Tracking Servers for pilot sites</td>
<td>6</td>
<td>6 × 1,000 €</td>
</tr>
<tr>
<td>TSG tracking hardware</td>
<td>6</td>
<td>6 × 350 €</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10</td>
<td>3,000 €</td>
</tr>
<tr>
<td><strong>Campaign materials and rewards</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSG campaign materials</td>
<td>6</td>
<td>6 × 500 €</td>
</tr>
<tr>
<td>Rewards for participants</td>
<td>6</td>
<td>6 × 500 €</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>6,000 €</td>
</tr>
<tr>
<td><strong>Total budget for pilots</strong></td>
<td></td>
<td><strong>16,300 €</strong></td>
</tr>
</tbody>
</table>

### 3.2.7.2. COST OF THE TRACKING HARDWARE

The costs of the tracking hardware turned out to be higher than initially estimated because only few devices combine the strict user requirements for the tracking devices for children (i.e., a tamper-free device that automatically tracks the route and determines the travel mode, with sufficient battery life and without laborious registration procedures for the teachers/parents). Table 67 shows the cost of the tracking hardware. Given the high costs of the trackers, we opt to use the same trackers for all pilots and to send the trackers from one pilot site to another. The costs of the trackers will be paid mainly from the development budget of 70,000 €; the costs for transportation will be covered using the budget of the local pilots.
### Table 67 - Costs of the tracking hardware

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
<th>Amount</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracker box</td>
<td>129 €</td>
<td>90</td>
<td>1,610 €</td>
</tr>
<tr>
<td>Receiving server</td>
<td>49</td>
<td>5</td>
<td>245</td>
</tr>
</tbody>
</table>

#### 3.2.7.3. TRANSPORTATION COSTS

A package with trackers and servers will be send to the TRACE partners (addresses presented in Table 62) that will host the local pilot. Each partner will send three packages to the participating schools. In addition, the schools need to send the material back to the partner. Below we detail on the different transportation costs.

##### 3.2.7.3.1. TRANSPORT OF THE TRACKER PACKAGE BETWEEN PARTNER COUNTRIES

To estimate the transportation costs, we need an estimation of the size of the package with trackers and servers. Based on the size of the trackers and the fact that the package should contain three servers, we estimate that the package will be at least L 58 cm, H 30 cm, and L 20 cm. The weight of the package will be around 30 kg.

![Tracking package size](image)

#### 3.2.7.3.2. TRANSPORT OF THE TRACKER PACKAGE TO THE LOCAL SCHOOLS

The partners should bring the trackers to the schools themselves in order to guarantee a correct installation of the devices.
3.2.7.4. CAMPAIGN MATERIALS

The cost of the campaign materials will depend strongly on whether the school will play online (using the smartboard) or offline using stickers and a banner.

3.2.8 GETTING STARTED

In this section we present a short guide on how to get started with the TSG pilot. It is a good idea to keep Mobiel 21 informed about all steps of the pilot. For instance, you could add Mobiel 21 in CC in the initial emails to the NFP. In this way, we can follow-up on the state of the pilot and provide you with further assistance when needed.

3.2.8.1. DETERMINE WHO IS RESPONSIBLE FOR THE PILOT IN YOUR ORGANISATION

Before the campaign is started, it is a good idea to determine who will be responsible for the TSG pilot. Please verify that the responsible person and his/her contact details are included in Table 62. If not or if the responsible person changes after this deliverable has been finalized, you can send the contact details of the responsible person to Mobiel 21. If multiple persons are responsible for the pilots, it is a good idea to think about the roles of each person in the project. For instance, you could think about who will take up the following two roles:

- Contact person for the NFP
- Contact person for the schools (who will contact the schools, who will supply the schools with materials, who will offer technical assistance in setting up the tracking system, who will offer organisational assistance with passing on the trackers from one class room to another, etc.).

3.2.8.2. FIND YOUR NFP

The first step in the campaign is contacting your national focus point (see section on National Focus Points). The contact details and website for each pilot country are presented in Table 7. All TRACE partners should start the campaign with this step, except for Serbia who does not have a NFP. It will not be possible to create a new NFP for Serbia with the support of the IEE programmes, because Serbia is not eligible for the 2014-2017 IEE programmes that support the TSG Network. Serbia can join the network without the IEE funding support. Mobiel 21 will guide Serbia to take this first step.
Contacting the NFP is also the first step when cities, regions, and organisations wish to run the campaign for their schools. Schools can simply sign up for the campaign at the NFP page. Your NFP can help you find schools that are interested in piloting the tracking tool. Ask your NFP if they are prepared to share contact details of the schools in your country or if they want to forward your message. An example email could be:

Dear [mr./ms. name],

Our organisation [Name] joins Mobiel 21 in a pilot project that will add tracking of home-school travels to the Traffic Snake Game campaign. In this pilot, we want to test if tracking could be an asset to the traditional campaign, by offering the school and the local authority mobility data that can be used to increase traffic safety around the school. This pilot will be free of charge, as it is part of the TRACE project (see http://h2020-trace.eu). It will be run in [pilot period]. We are responsible for the pilot in [country]. We will organise all aspects related to the tracking ourselves but we were wondering if you could help us reach the schools that are already familiar with the campaign and invite them to participate in this pilot project.

Thanks in advance for any help.

In a second email or in an attachment to the first email, the project can be explained more in detail.

### 3.2.8.3. DEVELOP A LOCAL IMPLEMENTATION STRATEGY WITH THE NFP

Together with your NFP you can develop a local strategy to implement the TSG campaign with tracking. The first step is to learn about the local TSG campaign in order to fit the pilots within the local campaign:

- When does the TSG campaign usually run in my country? (often during the EU mobility week in the third week of September and/or April/May).
• Which schools in my country are involved in the TSG network? Does the NFP think it is possible to involve new schools?
• What is the usual timing of the campaign in my country? (when is which information communicated and when could I add information on the tracking part of the campaign?)
• Which version of the TSG campaign is typically run in my country? (regular, web-based, deluxe,...)

An important aspect of the local strategy will be whether schools that are already involved in the TSG campaign will be contacted or new schools will be invited to join the network.

3.2.9 ENGAGING STAKEHOLDERS

3.2.9.1 COMMUNICATION TO SCHOOLS

3.2.9.1.1 CONTACTING SCHOOLS

A first step in engaging schools will be contacting those schools that have been involved in the campaign and asking them whether they are interested to participate in the tracking project. Our stakeholder surveys showed there are huge differences between TSG schools with regard to how interested they are in the tracking project. Ideally, the most motivated schools are selected for the pilot. Alternatively, for pilot sites that do not have TSG schools (see Section 3.2.3.6 on schools), one could consider contacting new schools.

It will be very important to help the schools along the process with ready-to-use materials (such as a letter for the parents, a press release,...). In addition, it can be relevant to link the pilot to other projects of the school (e.g., projects about increasing traffic safety in the area surrounding the school). Importantly, you cannot expect the schools to take the lead and contact you, it is important to keep the schools informed and to communicate about the state of the project (e.g., present them with news about other pilot sites). An important date to keep in mind is 16-22 September (European Mobility Week), because the TSG network motivates schools to play the game during that week.

3.2.9.1.2 CHECKING THE ELIGIBILITY OF THE SCHOOLS

When a school is interested in hosting a TSG pilot, the next step is to check the eligibility of the school.

*Infrastructural requirements*

The participating school will need:

• An internet subscription
• An Ethernet outlet (see Figure 31) that allows to connect a server using an Ethernet cable with an RJ-45 connector. Please note that the server needs to be located within 300m of the trackers (which will be attached
to the backpacks of the pupils). In addition, a power socket has to be present to connect the server.

![Ethernet outlet](image)

*Figure 31 - An Ethernet outlet needs to be present at the school to connect the TSG server*

**Planning requirements**

When selecting the schools, please check three aspects:

- **Timing:** it is possible for the schools to host the TSG campaign in the planned week (e.g., no special school holiday or other activities such as exams or small travels that are organized during that week).
- **Location:** check the location of the schools and whether you will be able to get 30 trackers and 1 server to the school. Ideally, the schools are located closely to the offices of the TRACE partner for minimizing transport costs and time.
- **Organization:** check with the school whether they think it is possible to transfer the trackers from one class to another on a day-by-day basis.

**3.2.9.1.3. DATA TO BE ACQUIRED FROM THE SCHOOLS**

Finally, when a school is selected for the project, you will need to acquire some additional data from the schools. For privacy reasons, it will be important to filter the tracked trips to only include home-school travels. For ordering campaign materials, we need additional information on the number of pupils and classes. Hence, you need to collect the following information from each school:

- **Week schedule:** Which days are school days (Mon to Fri?), are there ‘part time’ days?
- **What are the school hours:** For discriminating between home-school transport and other travels it will be important to get to know the school hours (start and end).
- **Number of pupils & classes:** You’ll need to enter this information on the TSG website.
3.2.9.2. COMMUNICATION TO PARENTS

Parents will receive a letter, comparable to the original TSG letter for parents, but with an explicit informed consent form to approve the tracking project.

3.2.9.3. COMMUNICATION TO TEACHERS

A manual for teachers will be constructed once the tracking tool and website are fully operative.

3.2.9.4. COMMUNICATION TO CHILDREN

A story board for the communication to children will be constructed once the tracking tool and website are fully operative.

3.2.10 SETTING UP THE TRACKING SYSTEM

The trackers will be sent to the TRACE partner (addresses in Table 62). Upon arrival of the box with the trackers, these steps should be followed:

- Count everything carefully and inform M21 if the shipment was (in)complete. You should receive 90 trackers (+ 90 chargers), 5 receivers, and 3 Ethernet cables, a check list will be included in the package to help you determine whether the package is complete.
- Charge all trackers. It takes 5 to 6 hours to fully charge the battery of a tracker. A full battery lasts for 20 days (with two hours of detecting movement a day, in other words, it can detect 40 hours of movement). It is likely that the battery of the trackers is completely empty from travelling to you, and that the battery uncharges while travelling to the school. Please check the length of the travel to the schools, if 40 hours or longer, it might not be useful to charge the trackers and the trackers will need to be charged within the school.
- Check if the trackers work.
- Make three packages for the participating schools, containing:
  - 30 trackers
  - 1 server
  - 1 Ethernet Cable
  - 1 letter for the school

At the school, the first step is to install the server, plug the server to the grid and connect the Ethernet cable (Figure 32).
3.2.10.1. **SETTING UP A SCHEDULE FOR PASSING ON THE TRACKERS**

The trackers need to be passed on from one classroom to another. Importantly, we aim to track the same pupil once for travelling from home to school (in the morning) and once for travelling from school to home (in the evening). We have developed a schedule to maximise the number of participating classes in the project (see Table 68).

*Table 69 - Tracking schedule for one-week TSG campaign.*

<table>
<thead>
<tr>
<th>Day</th>
<th>Tracking travel home to school</th>
<th>Actions</th>
<th>Tracking travel school to home</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>/</td>
<td>Explain use trackers in Class 1</td>
<td>Class 1</td>
</tr>
<tr>
<td>Tuesday</td>
<td>Class 1</td>
<td>Read out data Class 1</td>
<td>Class 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Present data in Class 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Explain use trackers in Class 2</td>
<td></td>
</tr>
<tr>
<td>Wednesday</td>
<td>Class 2</td>
<td>Read out data Class 2</td>
<td>Class 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Present data in Class 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Explain use trackers in Class 3</td>
<td></td>
</tr>
<tr>
<td>Thursday</td>
<td>Class 3</td>
<td>Read out data Class 3</td>
<td>Class 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Present data in Class 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Explain use trackers in Class 4</td>
<td></td>
</tr>
<tr>
<td>Friday</td>
<td>Class 4</td>
<td>Read out data Class 4</td>
<td>/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Present data in Class 4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Send trackers back to M21</td>
<td></td>
</tr>
</tbody>
</table>

3.2.11 **SENDING THE TRACKERS**

By optimizing the schedule of the pilots, we foresee that express deliveries will not be necessary when the trackers are send to the next pilot location. Please ensure that all equipment is included in the package for the next partner, using the check list that was included when receiving the box. It is very important to send the trackers as soon as possible to the next...
location. Please check the estimated arrival time of the trackers at the next location and check with the partner if the estimated time of arrival fits with their planning. Keep Mobiel 21 updated about the process of sending the trackers to the next partner.

### 3.2.12 LOCAL PLUG ISSUE

The local implementation plans deal with issues related to the local pilots. A first issue that arises are the technical aspects of the tracking system. The servers in the schools will need to be connected to the grid. The server was built in The Netherlands (grid: 230V 50Hz, plug type C/F). We enlist the different power outlets in the participating countries in Table 70. The power sockets can be an issue for the servers as well as for charging the trackers.

![Figure 33 - C (left) and F (right) type plugs](image)

**Table 70 - Electricity data for each partner country**

<table>
<thead>
<tr>
<th>Country</th>
<th>Volt/HZ</th>
<th>Plug type</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>230V / 50 Hz</td>
<td>C/E</td>
<td>Compatible</td>
</tr>
<tr>
<td>Serbia</td>
<td>230V / 50 Hz</td>
<td>C/F</td>
<td>Compatible</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>230V / 50 Hz</td>
<td>C/F</td>
<td>Compatible</td>
</tr>
<tr>
<td>Italy</td>
<td>230V / 50 Hz</td>
<td>C/F/L</td>
<td>Compatible except for socket L which is not compatible with F plug</td>
</tr>
<tr>
<td>Portugal</td>
<td>230V / 50 Hz</td>
<td>C/F</td>
<td>Compatible</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>230V / 50 Hz</td>
<td>E</td>
<td>Incompatible M21 will include send transfer pieces to UK (or provide budget for the purchase).</td>
</tr>
</tbody>
</table>

We do not foresee any difficulties with regard to the Ethernet cable and the RJ-45 connector.
3.3 Cycle To Shop

This annex describes the implementation strategy for the Cycle-to-Shop pilots that will be implemented in the context of the TRACE project. Anyway, the information included here could be further adjusted and improved considering the preparatory activity that will be undertaken in the next steps of the project, and the possible requirements and needs that could emerge locally by the pilot sites.

3.3.1 CTS – THE VISION

Cycle2Shop (CTS) will become a network of shops and bicycle users which will in a permanent and continuous way promote the use of the bicycle for urban travel. By providing permanent benefits and improving the sense of cycling community, CTS will be responsible for a structural increase of cycling to the order of 5% to 20% in the long term.

3.3.2 CTS - HOW DOES IT WORK?

Very simply, the user of the app will receive a notification when he arrives and stays at the a adherent shop. The notification will announce that the user is eligible for some benefit in the shop. The user shows the notification to the shopkeeper, who will attribute the benefit to the customer at the moment of payment.

Benefits to users: Shop owners choose and can edit at any time what the benefit they attribute to cycling customers. The benefit may be a discount in the items purchased, the offer of something, like a drink, or anything else with a minimum perceived value by the user. Shops may be as creative as they like.

Information platform: The app is an information platform for users, including a local map with the adherent shops, information about the benefits given by each shop and information about other facilities for cyclists at the shops.

Criteria of eligibility to benefits: The basic criterion is to arrive by bike at the site of the shop. The bike trip does not necessarily have to happen just previously to the arrival at the shop – for example, the user who went to work by bike and then at lunchtime walked to a nearby shop will still be eligible. Therefore not only trips to the shop, but also other types of trips are rewarded.

Special campaigns: Both the shops and the local CTS manager may create special campaigns. Special campaigns occur within a timeframe and may have different awarding criteria, like number of km’s cycled, or cycling in a given area or path within a given timeframe.

User information: The app will provide the user with information about his trips: routes, km’s and calories burnt.

What to shops do? Basically three things:

- A very simple online registration process and a quick validation by the tool manager will put the shop in the network within a few hours. Relevant information to introduce are the rewards given and the location of the shop.
- Validate eligibility and attribute awards: The notification received by the user will be the certification he has to present to the shopkeeper. An image will be shown saying something like “User x, congratulations! You’re eligible for a reward from shop Y!”.
Information and Guideline
s on tracking
data for planning

- Avoid fraud, the image will show something dynamic, like the current date and time (with seconds passing).
- (Optional:) Create special campaigns with selected criteria.

More details about the functioning of the app will be released following its development. Until September a first version has been provided intended to be tested with real users and shops in a MVP (Minimum Viable Product). In the meantime, this user story can give a concrete picture of how it works (even though not all elements are available in the first version):

CTS user story

Amanda is 25 years old and has recently started to ride the bike for leisure. When going to a nearby grocery store she noticed a sign announcing Cycle2Shop: ride your bicycle and get discounts!

She got intrigued.

At home she downloaded the app and began looking at the advantages.

“If I go to these shops by bike I can get discounts? Well, I’ve never really used my bike for other than fun, but this seems like a good opportunity to begin.”

And so it was.

Two days later she needed to buy some toothpaste. She looked at the app’s map and saw that there was a convenience store that belonged to the network, 10 minutes away from her house. She turned the GPS on and rode her bike to the store.

When she got there, she received a notification stating she was eligible for a discount. She showed the notification to the store clerk, who activated the discount: 5% off.

Amanda was pleased, especially because she noticed that going by bike had been faster than any other alternatives.

She started studying the shops that offered discounts and she saw that her favourite clothing store was one of them. Unfortunately, cycling to that shop’s location was not very pleasant for beginners like Amanda.

“Haven’t you noticed, Amanda? The app offers an alternative”, explained Sarah, when Amanda complained about it. “You can get discounts for ride your bike to the shop, but also by being a regular user of the bicycle.”

“Well, that’s interesting too.”

So, the following weekend, before leaving on her usual bike ride, Amanda turned the GPS on. The app tracked her whole journey. At the end of the day, with her face red of enthusiasm, Amanda looked at her phone: she had done 32 km cycling around the city. It had been an amazing day!

And so the following day she rewarded herself with a new dress from her favourite shop, 10% off!

Amanda knew herself. She knew that after that initial rush of motivation caused by the discovery of something new, she might eventually stop using the app, even though the discounts were always present.

Luckily, CTS seemed to know this too, and soon Amanda received a notification:

“You city challenges you: come explore our new cycling lanes!”

She opened the notification and read the rules of the challenge: “During the next week ride at least 10 km on the new cycling lanes on the oriental part of the city. You’ll be rewarded with a monthly travel pass.”
Amanda embraced the challenge. After completing the required 10 km she won a virtual badge, which she showed to the worker when she bought the travel card for the next month.

Some days later, Amanda received a notification announcing a challenge from the local pet shop, offering a special discount on baths for dogs.

“Too bad I don’t own even a gold fish”, Amanda thought while deactivating notifications from that shop.

Fortunately, most of the campaigns were appealing to Amanda, both in terms of challenges (bringing a friend, cycling longer distances or specific areas, visiting certain shops) and rewards (additional discounts, small prizes, lotteries for big prizes), and Amanda kept participating in those challenges.

And one day she noticed she had become used to ride the bike everywhere. Even to that one clothing store!

### 3.3.3 CTS - WHAT IS THE TARGET AUDIENCE?

The first key target of **app users** is the current bicycle users, for two reasons:

- They provide the critical mass which is necessary to make the initiative economically sustainable, living beyond the scope of the public funding provided by TRACE.
- By trying and enjoying the benefits of the app, through peer influence they will incentivize their family, friends or colleagues to use the app and ride their bikes.

The group of yet non-bicycle users is therefore a conditional target, which will be attracted if we manage to attract current bicycle users.

The motivations of the user will differ from site to site. An important distinction is between bike beginner and bike champion cities:

- **Bike beginner cities**: Bicycle users have a *cyclist* identity, feel that they belong to the *cycling community* and enjoy the recognition for their travel choice more than the material rewards. They like to be well treated as bicycle users and are concerned about the existence of local facilities for cyclists, including parking.
- **Bike champion cities**: Cycling is normal, therefore cyclists are common people with no specific identity. They may be interested in the material benefits of CTS, but also on the fun side of it and on being made aware that their travel choice is valuable for society.

Shops belonging to the network may in principle be any kind of shop, even though there are some characteristics which make it more likely for a shop to be willing to belong to the network. The efforts should be prioritized over shops and areas with the highest potential. The driving factors may be several and should be considered according to the local context, but three general relevant factors according to our consultation of stakeholders are:

- **Proximity to cycling infrastructure/high volumes of cyclists**. The initiative may concentrate on specific areas of the city of the cycling potential is higher.
- **Overlapping of the shop’s values to CTS’s values** – green oriented, focus on lifestyle, niche/community, etc.
- **Attitudes of shopkeeper** – this is difficult to know in advance, but if the values of the shopkeeper coincide with CTS’s, this highly increases the likeliness of adoption independently of the type of shop.
3.3.4 CTS - MESSAGES TO EACH TARGET

The branding, including the naming, of CTS is still being prepared and the prioritization of messages to convey are still part of this exercise.

Considering the contextual differences mentioned above, it is possible that the messages will have to be adapted locally.

Users:
- Recognition: For doing something good for your city
- Community: Enjoy being part of the cycling community
- Benefit: Get material benefits for choosing the bicycle

Shops:
- Customers: Attract and segment new customers
- Image: Improve your business’ image
- Local community: Contribute to reinforce your local community, including shop local

3.3.5 CTS - PHYSICAL INTERVENTION AREA

The area to be covered should be defined by the pilot site manager. Anyway, some advises could be considered:
- Focus firstly on areas with more cyclists and cycling potential
- Focus firstly on areas with more shops which correspond to the values of CTS
- Use CTS to promote new infrastructure or specific cycling facilities/services (e.g. a new bike sharing service, new parking)

3.3.6 CTS - CHANNELS

For shops:

There are several possibilities to try to engage shops. We have yet no experience on what could be the most effective method. We suggest following one or ideally several channels based on your resources and context perceptions, starting by going personally to some shops.

Possibilities:
- Go personally to shops. This is more time consuming, but will allow you to receive feedback for the shopkeepers, giving you precious information to understand your market and how your following approaches could work better. It also increases the chances of each shop adhering and, through your personal contact, feeling more committed to the initiative. At least at an initial stage, we recommend you do take one day to take this approach.
- E-mail and telephone. Normally the best approach is to call presenting the scheme and then meet personally the contact person.
- Channel announcement through commerce umbrella organizations – for higher success mention that it is a European project which will benefit local shopping by promoting local lifestyles.
- Go to any local event gathering shopkeepers.
We expect that, after a given local critical mass (20-100 shops, >~500 users), shops will engage based on word of mouth, with no additional campaigning efforts needed.

For users:

- Cycling community groups (direct) – approach local cycling community groups and ask them to communicate about the app to their members. You can also build a partnership with them and associate them to the initiative.
- Cycling community groups (social media) – find local open community groups related to utilitarian cycling and post (or ask to post) information about the CTS campaign.
- Social media (particularly Facebook) – target your audience and send paid advertisements.
- Local authority’s communication channels – if you’re a local authority/if not, try to engage the local authority into the initiative.
- Media – send a press release announcing the CTS initiative.
- Events: any events which provide a good access to the target group (cycling community, app users, shopping related, green related...).
- Bloggers/opinion makers – identify relevant bloggers or opinion makers and make them aware of the CTS initiative.
- Use (if possible) newsletters or databases of other related campaigns
- Create local Facebook page.

### 3.3.7 CTS - MATERIALS

The following materials will be provided:

- Flyers (target: Shops)
- Stickers (to give to adherent shops, who can stick it to their entrance)
- Posters (for email and social media)
- Press release model

### 3.3.8 CTS - ELEMENTS OF LOCAL CAMPAIGN PLAN

Some elements should be considered when planning the local campaign:

- Consider your local context and define your targets (users and shops, location).
- Select channels to promote CTS (use the more channels you can).
- Recruit initial network of shops (some weeks before launch day).
- Launch day: Disseminate app in all chosen user channels / send press release to local media.
- Build audience: Following the initial results, send feedback to the community and the media on what is happening, including statistics on number of users. To build the interest among the community, you may create a Facebook page to spread news and interesting stories about the campaign. Until the critical mass numbers are reached, keep communicating the campaign through the above channels.
- Create special campaigns: As a local CTS manager, create your own CTS campaigns where you give rewards to users in return for some selected accomplishments.