



FP7-SMARTCITIES-2013

STREETLIFE

Steering towards Green and Perceptive Mobility of the Future



WP7 - City Pilot Execution

D7.2 – City pilots execution results (final)

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EXECUTIVE SUMMARY

Deliverable D7.2 reports on all the activities that were carried out during the execution of the second iteration of STREETLIFE pilots in the cities of Berlin, Rovereto and Tampere. This report takes the form of an exhaustive log of all those activities, sub-divided in four main categories: engagement, realization, technical deployment and feedback and results collection.

Deliverable D7.2 has a companion in Deliverable D.6.2.2, which covers instead two different phases of the pilot work: i) the planning and preparation phase for the second iteration of the three pilots, and ii) the evaluation phase, with reporting of pilot-specific outcomes and results.

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City pilots execution (final)

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ABBREVIATIONS

AMR	“Azienda MultiServizi Rovereto” – Municipal multi-service company in Rovereto
API	Application Programming Interface
APT	“Azienda Per il Turismo” Tourist Office of Rovereto and Vallagarina
CO	Confidential, only for members of the Consortium (including the Commission Services)
BER	STREETLIFE Berlin-Pilot
CIP	City Intelligence Platform (Siemens)
D	Deliverable
DB	Database
DoW	Description of Work
EULA	End User License Agreement
EXP	Experiment
FP7	Seventh Framework Programme
FLOSS	Free/Libre Open Source Software
FTG	FOCUS Test Group
GUI	Graphical User Interface
ID	Identifier
ITS	Intelligent Transport Systems
IPR	Intellectual Property Rights
MGT	Management
MMECP	STREETLIFE Mobility Management Emission Control Panel
MR	Mixed Reality
MS	Milestone
OS	Open Source
OSS	Open Source Software
O	Other
P	Prototype

PI	Performance Indicator
PU	Public
PM	Person Month
PTA	Public Transport Authority
R	Report
REST	REpresentational State Transfer
ROV	STREETLIFE Rovereto-Pilot
RTD	Research and Development
SW	Software
TRE	STREETLIFE Tampere-Pilot
VBB	Verkehrsverbund Berlin Brandenburg (Public transport authority covering the federal states of Berlin and Brandenburg – the capital area of Germany)
V&V	Verification and Validation
VPN	Virtual Private Network
VSimRTI	Smart Mobility Simulation Framework (Fraunhofer, TU Berlin)
WP	Work Package
Y1	Year 1
Y2	Year 2
Y3	Year 3

EXPLANATIONS FOR FRONTPAGE

Author(s): Name(s) of the person(s) having generated the Foreground respectively having written the content of the report/document. In case the report is a summary of Foreground generated by other individuals, the latter have to be indicated by name and partner whose employees he/she is. List them alphabetically.

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PARTNER

Fraunhofer	Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V.
FBK	Fondazione Bruno Kessler
SIEMENS	Siemens AG
DFKI	Deutsches Forschungszentrum für Künstliche Intelligenz GmbH
AALTO	Aalto University
DLR	Deutsches Zentrum für Luft- und Raumfahrt
CAIRE	Cooperativa Architetti e Ingegneri - Urbanistica
Rovereto	Comune di Rovereto
BPWT	Berlin Partner for Business and Technology
Tampere	City of Tampere
Logica	CGI Suomi Oy
VMZ	VMZ Berlin Betreibergesellschaft mbH

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1. INTRODUCTION

This Deliverable (D7.2) reports on the second iteration of the STREETLIFE pilots in Berlin (BER), Rovereto (ROV) and Tampere (TRE). It has a companion document, that is, STREETLIFE Deliverable D6.2.2. The present document provides a detailed report of all the activities that were carried out by STREETLIFE partners as part of the actual execution of each pilot during the second iteration, whereas D6.2.2 discusses both the planning process and the evaluation results of each pilot during the same iteration.

Given the scope mentioned above, this Deliverable was organized as a log reporting significant event for the execution of each pilot. Each pilot log contains a number of entries, compiled by the partner(s) responsible for each execution activity. Each entry includes date, a short description of the activity, details on the content of the activities, and the list of partners involved.

The type and range of activities is very diverse across pilots, because of the different foci and local contexts, conditions and concerns at each pilot site. Also within the same pilot, a wide variety of activities, involving competences of different kinds, was necessary to successfully organize and manage the pilot throughout its lifetime. For those reasons, the pilot logs we present in the rest of the Deliverables are organized in the following four categories of activities:

- **Engagement activities:** the log entries in this category describe all activities done by each pilot to promote the pilot and its experiments in the local community. Activities of this kind include publicity, recruitment of experiment participants (e.g. focus groups, beta-testers etc.), dissemination of pilot ideas and outcomes, etc.
- **Pilot realization activities:** the log entries in this category describe all activities done by each pilot that are NOT of a technical nature, which were carried out to prepare, manage and supervise the pilot execution within the pilot site territory. Activities of this kind include meetings among STREETLIFE partners in the pilot cluster, meetings between STREETLIFE partners and local entities involved in the pilot and its experiments (e.g. transport operator, public officers), etc.
- **Technical deployment and operation activities:** the log entries in this category describe all activities done by each pilot aimed at the deployment of the STREETLIFE technologies necessary to support the pilot, as well as their integration with other technologies already present in the pilot site. Activities of this kind include release of software, installation of software, technical integration tasks, configuration of deployed software in accordance to experimental needs, operation and maintenance of the technology in the field etc.
- **Results and feedback activities:** the log entries in this category describe all activities done by each pilot to collect data originating from the STREETLIFE experiments in the field included in the pilot, as well as collect, accommodate and follow up on the feedback received by the users involved in those experiments. Activities of this kind include construction and publication of questionnaires or surveys, set-up of proper electronic fora to elicit user feedback, interviews, etc.

Within each of the four categories above, the log entries are listed in temporal order. This way, taken all together, the log entries tell the story of each pilot, and at the same time document exhaustively all the work that was necessary to instantiate and bring each pilot to conclusion.

2. BERLIN PILOT EXECUTION

During the second project iteration with the actions this journal is listing the main focus has been laid on defining, integrating and testing necessary functionalities and technical components for the second iteration field test. All components and functionalities have been either integrated into the backend system (hosted and maintained by Siemens) or applied with the Berlin STREETLIFE App and connected services. Scenarios and use cases planned for the second project iteration in BER have been tested, activated and executed.

For the application of Berlin pilot services five experiments have been planned, integrated and performed:

- EXP-1: App Usability and Performance Tests
- EXP-4: MMECP Visualisation Test
- EXP-5: BER field test on cycling safety
- EXP-6: MMECP integration in the BER VIZ
- EXP-7: Mixed Reality trial

Detailed information on the experiments, its targets, sizes and methods of execution as well as a elaborated analysis of collected data can be found with the BER part of report D6.2.2.

The following subchapters list respective activities performed in order to implement and perform the experiments, recruit users, approach respective audiences and communicate within the Berlin pilot consortium.

2.1. Engagement activities

Table 1: BER engagement activity log.

Date	Event	Description	Partners Involved
March 2015	Tendering user recruitment support	Tendering, coordination, selection of proposals, final decision for YOUSE as partner for user recruitment support	DLR
March 2015	Adjustment EULA BER	Adjustment of EULA from first iteration to second iteration's needs	Fraunhofer, DLR, DFKI, VMZ
April 2015	User group definition	Specification of user group composition	DLR
April 2015 – Jan 2016	User group engagement	Execution and supervision of user recruitment and engagement activities	DLR, all partners
August 2015	End-user Workshop	To investigate end-user requirements in terms of mobility and mobility apps	Siemens

Sept - Dec 2015	Organization and financing of six trees from Berlin city trees initiative	<ul style="list-style-type: none"> • Organization within Siemens • Organization with the city trees initiative Berlin 	Siemens
November 2015	App video	Creation of a video demonstrating functionality and unique features of the mobility app	DFKI
Feb 2016	BER pilot communication	Announcement of the STREETLIFE Berlin field trial on Business Location Centre website of Berlin Partner	Berlin Partner
Feb 2016	BER pilot communication	News about the STREETLIFE Berlin field trial, the App, the game and link to the Google Store on the STREETLIFE website	Berlin Partner
Feb 2016	Press release	Contribution to the elaboration of a press release to announce the Berlin pilot iteration 2	Siemens
Feb 2016	Press Release Berlin Pilot Start	Fraunhofer Press release at the Fraunhofer FOKUS Website based on a document worked out for the Berlin partners	Fraunhofer
Feb – March 2016	BER pilot communication	Initial Facebook and twitter entries	All partners
March 2016	Update of partners communication channels for Radschau	Public information on fair presence	All partners
March 2016	Fabrication of BIKERIDER Dissemination Material	Design and Printing of STREETLIFE Berlin Pilot BIKERIDER flyer, bike-hanger, email-Boilerplate	Fraunhofer
March 2016	BIKERIDER Score list	Development of a public score list for the motivation of the participants of the BIKERIDER	Fraunhofer

March 2016	Distribution of BIKERIDER Dissemination Material	Distribution of BIKERIDER Dissemination Material at Fairs, Bike parking areas, shops, cafés, etc.	Fraunhofer, DLR, VMZ, DFKI
March 2016	Cycle fair Radschau Berlin	Planning and execution of STREETLIFE booth at cycle fair Radschau, preparation and creation of materials	DLR, Fraunhofer, VMZ, DFKI



Figure 1: STREETLIFE booth at Radschau Berlin

March - April 2016	Distribution of BIKERIDER Dissemination Material	Distribution of BIKERIDER Dissemination Material	Fraunhofer, DLR, VMZ, DFKI, Berlin Partner, Siemens
March-April 2016	Information Mailings	Distribution of Information about STREETLIFE Berlin Pilot BIKERIDER Game via mailings towards various local and national mobility stakeholders and STREETLIFE Advisory Board	Fraunhofer
March-June 2016	STREETLIFE Twitter	Continuous update of Berlin Pilot BIKERIDER information in the STREETLIFE Twitter	Fraunhofer

March-June 2016	Facebook site	Creation of the STREETLIFE Facebook site. First posts continued by regular posting of STREETLIFE news, activities and related topics	DFKI
March 2016	Intermediate coordination meeting YOUSE	Coordination of information and motivation of recruited users	DLR
March 2016	BER pilot communication	Information about the STREETLIFE Berlin App available at Google Play Store on the LinkedIn account of Berlin Partner	Berlin Partner
March 2016	BER pilot communication	Information about the STREETLIFE Berlin App available at Google Play Store on the Facebook account of Berlin Partner	Berlin Partner
March 2016	BER pilot communication	Information about the STREETLIFE Berlin App available at Google Play Store on the Twitter account of Berlin Partner	Berlin Partner
March 2016	BER pilot communication	Information about the STREETLIFE Berlin App and link to the Google Play Store on the internal Yammer-Platform of Berlin Partner	Berlin Partner
March 2016	BER pilot communication	News about STREETLIFE at Fahrradschau 2016 fair on STREETLIFE website	Berlin Partner
March - May 2016	External communication	<ul style="list-style-type: none"> • Publication in Siemens Intranet • Presentation at Intertraffic on the Siemens booth 	Siemens
April 2016	Update of partners communication channels for VELO2016	Public information on fair presence	All partners

March-April 2016	Integration of new incentives for BIKERIDER game	Organisation of Sponsors for Prizes for winners of Berlin Pilot BIKERIDER Game: melon Helmets, Cycle Bags, Clarijs, ID-Bracelets von Djuva	Fraunhofer
April 2016	Cycle fair VELO2016	Planning and execution of STREETLIFE booth at cycle fair VELO2016, re-use of materials prepared for event Radschau in March	DLR, Fraunhofer, VMZ



Figure 2: STREETLIFE at Velo2016

April 2016	Poster Presentation at TRA 2016	Presentation of the STREETLIFE Berlin BIKERIDER Game and the corresponding Control Panel Functionality at the Transport Conference in Warsaw 2016	Fraunhofer, VMZ
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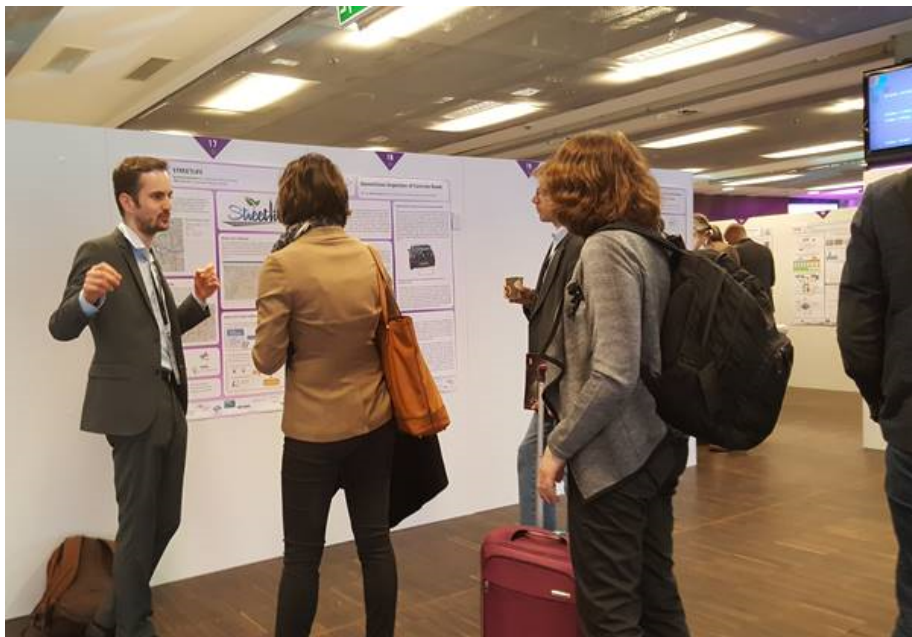


Figure 3: STREETLIFE Poster presentation at TRA

April 2016	Intermediate coordination meeting YOUSE	Coordination of information and motivation of recruited users	DLR
April 2016	Website Information update	News about TV report on Berlin app on STREETLIFE website	Berlin Partner
April 2016	Website Information update	Introduction of a "Berlin Pilot News" page on STREETLIFE website that is dedicated to the test users of the Berlin Pilot. The page is regularly updated with actual information from the pilot	Berlin Partner
April 2016	Website Information update	News about STREETLIFE at VELOBerlin 2016 fair on STREETLIFE website	Berlin Partner
April 2016	STREETLIFE Berlin Pilot Television Broadcast	STREETLIFE has been presented within in a public Berlin TV broadcast about Fraunhofer FOKUS research activities. The App and the main goals of the BER pilot field tests were briefly introduced.	Fraunhofer

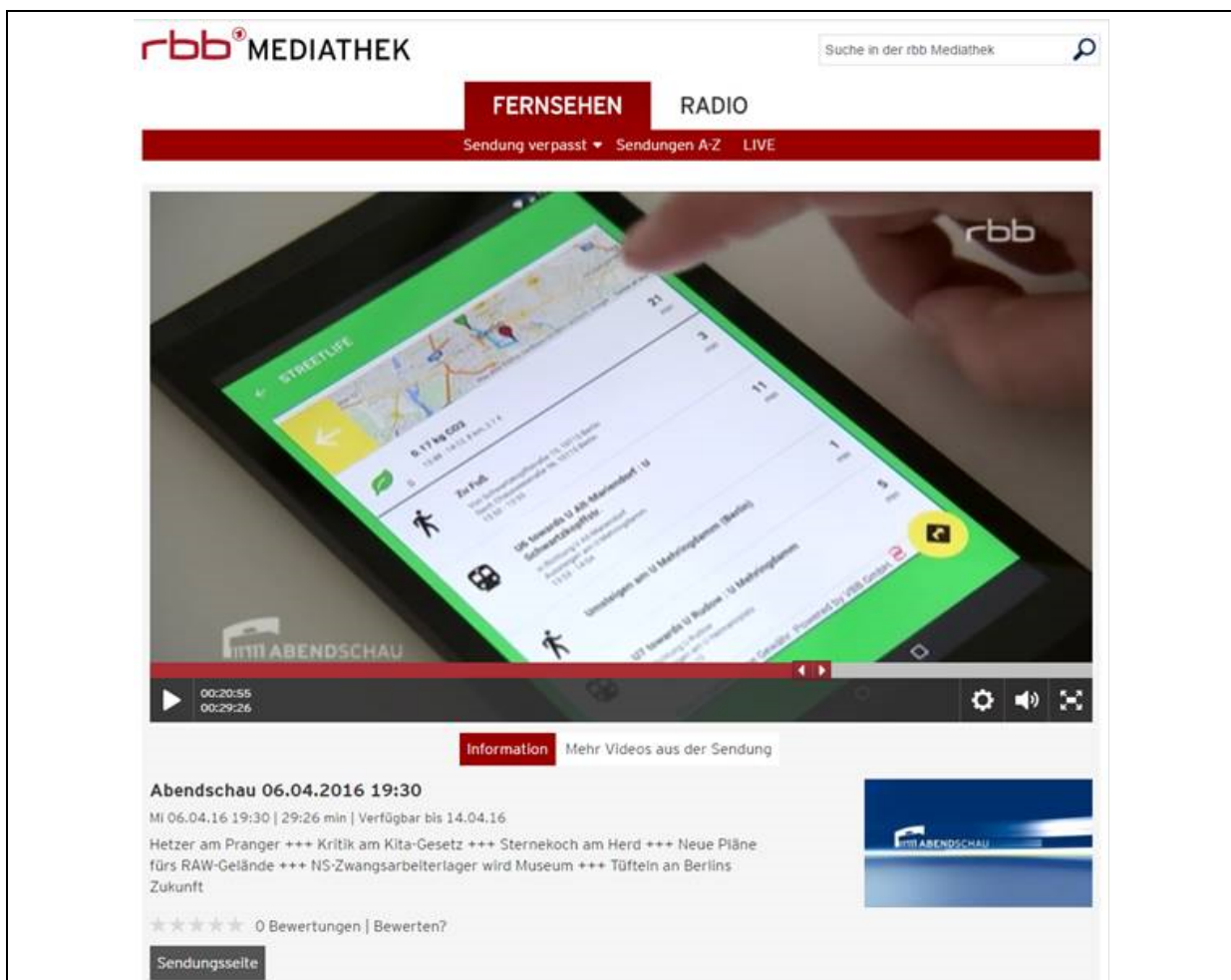


Figure 4: BER STREETLIFE App at the RBB Abendschau

April 2016	STREETLIFE Promotion	STREETLIFE Promotion towards the VDI-Association of German Engineers, Berlin Youth group, in announcing a Berlin city cycling tour using the Berlin Pilot App.	Fraunhofer
April 2016	STREETLIFE Promotion	STREETLIFE online Contribution in the magazine “Wirtschaftswoche”	Fraunhofer
April 2016	STREETLIFE Berlin Pilot Promotion	Teaser on the Umweltbundesamt (Germany’s main environmental protection agency) website	Fraunhofer
May 2016	Mixed Reality experiment tester recruitment	Recruitment of 16 test users for Mixed Reality experiment at station Zoologischer Garten amongst partner companies and networks	DLR

May 2016	Intermediate coordination meeting YOUSE	Coordination of information and motivation of recruited users	DLR
May 2016	Update of partners communication channels for VELO2016	Public information on TV broadcast	All partners
May 2016	Interview and shooting for mobility Apps special of Rundfunk Berlin Brandenburg	<p>STREETLIFE Berlin App appeared and presented again within in a public Berlin TV broadcast (RBB) show on May 23rd, 2016, 6.30 pm:</p> <ul style="list-style-type: none"> • The BER Control Panel was shown and the main goals of the BER pilot field tests and App were mentioned. • The STREETLIFE app was mentioned in that TV show and was rated the best Berlin mobility App (amongst 5 competitors) in this TV feature on new digital mobility services in Berlin. 	DLR, Fraunhofer

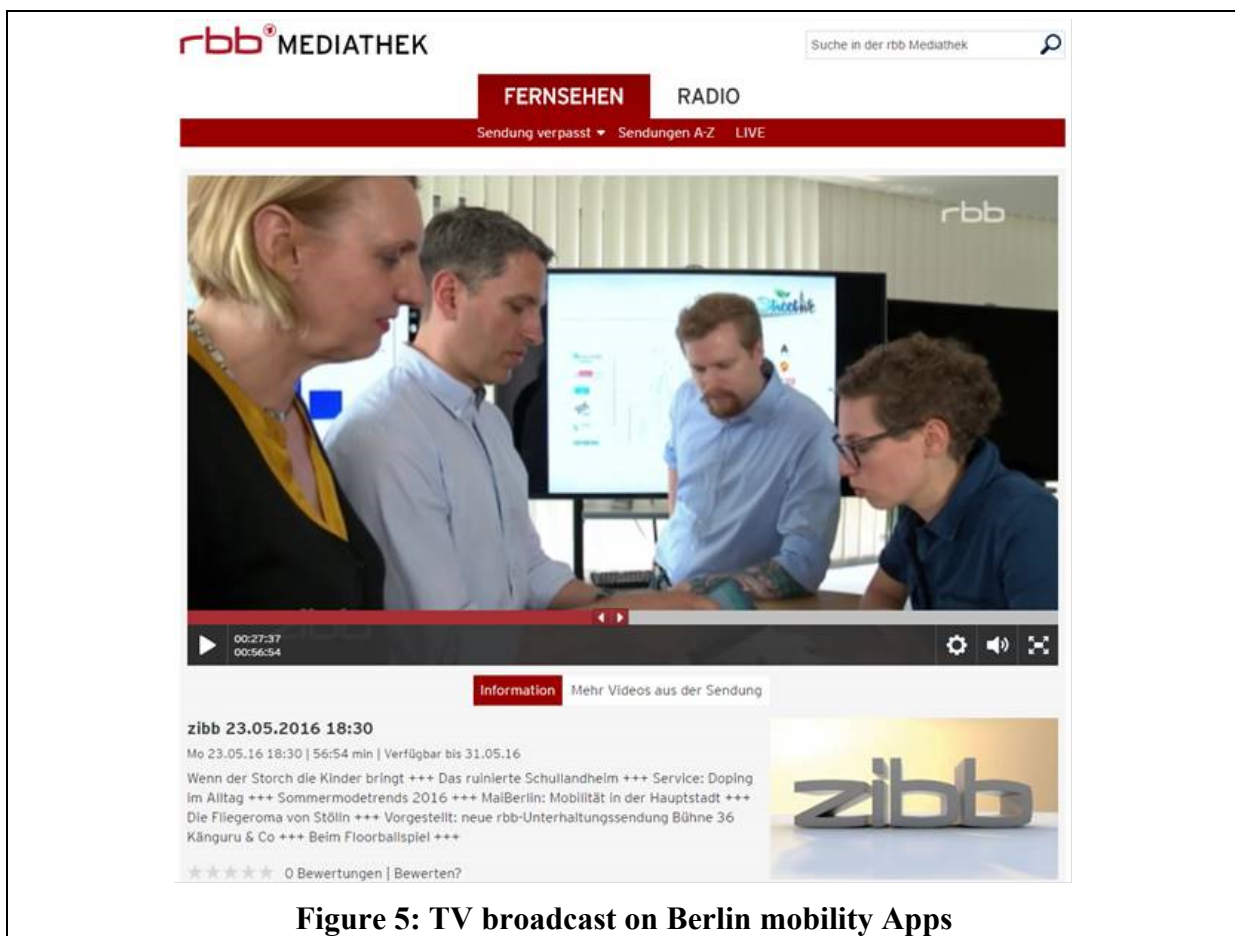


Figure 5: TV broadcast on Berlin mobility Apps

May 2016	SigCHI Workshop Designing Speech and Multimodal Interactions for Mobile, Wearable, & Pervasive Applications	Presentation of STREETLIFE interaction approach	DFKI
May 2016	Online competition	STREETLIFE participation at the competition "Intelligent regions of Germany" of the German Federal Ministry of Economy and STREETLIFE presence on that website	Fraunhofer
May 2016	STREETLIFE Presentations	STREETLIFE BIKE RIDER Game was presented internally to all 400 Fraunhofer FOKUS employees during the FOKUSday (12.05.2016)	Fraunhofer
May 2016	Newspaper interview with Berliner Zeitung	Interview with author of Berliner Zeitung, revision of initial texts and final approval	DLR

May 2016	Fraunhofer internal production of an initial Control Panel Video without spoken text with German subtitles	Production of a short control Panel video showing the loop from data gathering through the BIKE Rider Game and representation of the data in the Traffic Management	Fraunhofer
June 2016	Final coordination meeting YOUSE	Final discussion of lessons learnt, user notification for prizes to be handed over in an official field test closing event	DLR
June 2016	Final BIKERIDER Event, Celebration Awarding Berlin	Organisation, Execution, Post-processing of the BIKERIDER Celebration Award in Berlin	DLR, Fraunhofer, Siemens, VMZ, DFKI
June 2016	ITS Glasgow	Presentation of STREETLIFE Berlin BIKERIDER Game at the ITS Congress in Glasgow	Fraunhofer, DLR

2.2. Pilot realization

Table 2: BER pilot realization activity log.

Date	Event	Description	Partners Involved
March 2015	Stakeholder interviews and discussions	Discussion of 1st iteration results with stakeholders (City Berlin, VMZ, VIZ, Siemens) and definition of 2nd iteration focus	all
April 2015	Pilot preparation	Planning of developments and deployments for second iteration demo phase	all
April 2015	Pilot preparation	Logical BER pilot specification and contribution to D8.1.2 (evaluation plan for second iteration) for technical integration in necessary components	all
April 2015	BER pilot meeting	Planning and coordination meeting, discussion and definition of Action Items and next steps	All partners
May – July 2015	Evaluation preparations	Coordination of evaluation criteria between WP6 and WP8	DLR
June 2015	BER pilot meeting	Planning and coordination meeting, discussion and definition of Action Items and next steps	All partners
June 2015	BER pilot meeting (virtual)	Planning and coordination meeting, discussion and definition of Action Items and next steps	All partners
July 2015	BER pilot meeting	Planning and coordination meeting, discussion and definition of Action Items and next steps	All partners
Oct 2015 – Jan 2016	2 nd iterations experiments	Planning, execution, coordination and supervision of BER-EXP-1 and BER-EXP-4	
Sept 2015	BER pilot meeting	Planning and coordination meeting,	All partners

		discussion and definition of Action Items and next steps	
Nov 2015	BER pilot meeting	Planning and coordination meeting, discussion and definition of Action Items and next steps	All partners
Dec 2015	BER pilot meeting	Planning and coordination meeting, discussion and definition of Action Items and next steps	All partners
Feb 2016	MMECP evaluation	Together with VMZ and DLR it was discussed how the MMECP should be installed at the VIZ	Fraunhofer, DLR, VMZ
Feb 2016	BER pilot meeting	Planning and coordination meeting, discussion and definition of Action Items and next steps	All partners
Feb 2016	WP6/7 telco	Coordination of pilot activities among WP6 partners and pilot leaders	DLR, CAIRE, FBK
Feb 2016	BER Pilot User briefing	Briefing event for field test users	DLR, DFKI, Fraunhofer
Feb – May 2016	BER pilot promotion	Ongoing promotion of BER pilot field test and user engagement	All partners



Figure 6: User Briefing Event of BER pilot

March 2016	WP6/7 telco	Coordination of pilot activities among WP6 partners and pilot leaders	DLR, CAIRE, FBK
March 2016	BER pilot meeting	Planning and coordination meeting, discussion and definition of Action Items and next steps	All partners
April 2016	BER pilot TV event	Contribution to TV recording about the STREETLIFE App	Fraunhofer, all partners
April 2016	WP6/7 telco	Coordination of pilot activities among WP6 partners and pilot leaders	DLR, CAIRE, FBK
April 2016	BER pilot meeting	Planning and coordination meeting, discussion and definition of Action Items and next steps	All partners
May 2016	BER pilot status update April	Brief analysis of field test data for EC status update on BER pilot	DLR, Fraunhofer
May 2016	MMECP introduction at VIZ	Introduction and initial discussion of MMECP integration into daily VIZ operations	DLR, Fraunhofer, VMZ
May 2016	Finalisation of large user survey	Several discussions on survey content, design and implementation in online survey tool	DLR
May 2016	Mixed Reality	Execution of BER MR experiment at station Zoologischer Garten	All partners


	experiment		
 <p>Figure 7: Mixed Reality experiment in BER</p>			
May 2016	Usability and Acceptance survey	Second wave of usability and acceptance survey executed and analysed	DLR
June 2016	Usability and Acceptance survey	Final wave of usability and acceptance survey executed and analysed	DLR
June 2016	Large user survey executed	Execution and analysis of large user survey on acceptance and mobility impacts	DLR
June 2016	MMECP Interviews	Performance of MMECP interviews with VIZ, DriveNow and VBB	DLR
June 2016	Final field test event	Final event for official closing and user awards ceremony	All partners



Figure 8: Final BER field test event

June 2016	Data analysis	Analysis and evaluation of data collected with the field test	DLR, Fraunhofer, DFKI, Siemens
June/July 2016	Report writing D7.2.2 and D6.2.2		DLR, Fraunhofer, DFKI, Siemens

2.3. Technical deployment and operation

Table 3: BER technical deployment and operation activity log.

Date	Event	Description	Partners Involved
Oct 2014 – Feb 2015	App adjustment - Berlin Pilot functionalities added	<ul style="list-style-type: none"> • Re-design User Interface • Follow and record the user's position via GPS • supports two languages: German and English • speech input for the initial search, use generated speech output • selection for ambiguous location names 	DFKI
March 2015	Pilot preparation	Derivation of technical requirements	all
March 2015	Re-training mode validation	Re-training the mode validation with iteration 2 data	Siemens
June – Nov 2015	Planning of backend services	<ul style="list-style-type: none"> • Development of gamification concept to include end user competition for biking in order to reach a high end-user participation • Presentation to Berlin Pilot and discussion with partners • Extension of data model for gamification and crowd-sourcing • Developing sequence communication diagrams between systems involved • Planning additional tools to be included such as mode validation, high score calculation and user statistics • Coordination with all partners involved (Fraunhofer, VMZ, DFKI) 	Siemens
Autumn 2015	Deployment of new routing services	<ul style="list-style-type: none"> • Preparation of the respective DEV / Stage Container • Adaptation of NGINX - Configuration • Generation of certificates for 	VMZ Berlin

		<p>containers</p> <ul style="list-style-type: none"> • Generation of VPN tunnel (configuration) • Transferring Stage system to production system (Management) • Producing new containers images • Transmission of stage version in container image • Generation of production container • Generation of production certificate • Integration of the new container in VPN environment • Generating Monitoring scripts and container management objects • Start of the container and monitoring log files • Adaption of production system regarding new monitoring services <p>Extending of the NGINX production version</p>	
Oct 2014 – May 2016	Operational management	Hosting and operational management as well as monitoring and support of the backend systems and the routing interface since iteration phase 1	VMZ Berlin
Oct 2014 – May 2016	Operational management	Hosting and operational management as well as monitoring and support of the backend systems and the routing interface since iteration phase 1	VMZ Berlin
Oct 2014 – May 2016	Provision of test routing services	For the development tasks of CIP, App and Simulation (MMECP) VMZ provides all related partners with access to the staging (development) router services for integration and testing procedures	VMZ Berlin
Oct 2014 -	Operational	Hosting and operational management, monitoring of	

May 2016	management	STREETLIFE components on CIP	
June 2015 – Oct 2015	App deployment	<ul style="list-style-type: none"> • Including green leaves (points), virtual trees (virtual prizes), high score, etc. • Add questionnaire after trip completion • Login functionality • Weather web service • Smart watch integration • Tracking • Geocoding improved 	DFKI
Nov. 2015 – Feb. 2016	Training and implementation of mode validation	<ul style="list-style-type: none"> • Tracking data collection • Training the mode validation • Implementation and test of mode validation 	Siemens
Nov. 2015 – Feb. 2016	Berlin App Tests	<ul style="list-style-type: none"> • Testing and improving STREETLIFE App • Development and description of BikeRider Rules for the App 	Siemens
Nov 2015 – Feb. 2016	Berlin Pilot System integration	<ul style="list-style-type: none"> • Test CIP interaction with the components of the Berlin Pilot (Multimodal Routing from VMZ, App from DFKI, MMECP from Fraunhofer • Provision and continuous improvement of APIs for data access to DFKI (App) and Fraunhofer (MMECP) 	Siemens
February 2016	Final App deployment	<ul style="list-style-type: none"> • Facebook integration • Error reporting and feedback form 	DFKI
February 2016	Google Play Store	First deployment to a global audience	DFKI
March 2016	Bike Rider Scoretable deployment	Deployment of Bike Rider Scoretable into MMECP installation	Fraunhofer
March 2016-May 2016	Field test iteration 2	Monitoring and conduction of the field tests of iteration 2	Siemens

March 2016-May 2016	User statistics	Provision of monthly user statistics to DLR to monitor end user participation (see also Figure 10 at page 33)	Siemens
April 2016	Add partner and prizes	Stadtbäume für Berlin, Melon – fresh helmets, DJUVA – Just in case, Clarijs, upperbike.com	DFKI
May 2016	MMECP deployment	MMECP installation for evaluation in BER	Fraunhofer



Figure 9: MMECP integration in VIZ Berlin

May 2016	MMECP technical integration at VIZ	Configuration of firewalls and internet connection to allow use of the MMECP at VIZ, provided by VMZ network administration	VMZ
May 2016	DB dump for evaluation	Provision of DB dump with all field trial data to DLR for evaluation	Siemens
From May 2016	Continued operation of Berlin pilot	Decision to keep the system running, even after the official field trial of iteration 2	Siemens

2.4. Results and feedback

Table 4: BER feedback and results collection activity log.

Date	Event	Description	Partners Involved
Spring 2015	Stakeholder interviews and discussions	<p>Several stakeholder interviews have been executed in order to present and discuss first iteration's findings and to adjust the second iteration field test and experiments to the needs and expectations of BER pilot stakeholders.</p> <p>Result: Together with the stakeholder two main unique selling points of the BER pilot and the App have been identified: the integration of i.) "safe" cycling and ii.) gamification and the assessment of its impacts. Main BER stakeholders (Siemens, VMZ/VIZ) plan to integrate those aspects into future operations and need to know possible impacts on main STREETLIFE evaluation criteria.</p>	All partners
March – June 2015	Feedback collection during field test	All available sources and communication channels from the field test have been used to collect feedback. Partly this feedback has been used to adjust the App even during the field test. Detailed information on feedback given and its application for App adjustment is elaborated with report D6.2.2 chapter 3.2.4.5.	DLR, DFKI, Fraunhofer
June 2016	Stakeholder interviews on MMECP	Three interviews have been performed with BER stakeholders (VIZ, VBB, DriveNow) in order to qualify the potential of the MMECP for supporting daily transport management and service operation. Detailed information on feedback given and recommendations for MMECP deployment is elaborated with report D6.2.2 chapter 3.2.4.7.	DLR, Fraunhofer, VMZ

2.5. Observations and lessons learned

The first iteration of the BER pilot had to be considered as a small test case in preparation for the large-scale field test which has been performed from March to May 2016. After realizing the first STREETLIFE iteration of tests, lessons learned have been taken into account for planning, preparing and executing the second iteration field test.

Results have been discussed within the project consortium, but also with Berlin stakeholders and advisors. As a consequence, stronger focus and unique selling point of both the BER STREETLIFE App and the large scale field trial to be executed have been set and applied. Therefore, scenarios and use cases had to be adjusted or even partly newly integrated. Backend and frontend components needed to be developed, integrated and tested with each other and with the main user tool, the BER STREETLIFE App. Especially this process took much longer than expected. In consequence, some planned individual experiment, namely the testing of crowd-sourcing and gamification had to be integrated into the large scale field test – EXP-BER-5.

The regular conducted Berlin Pilot meetings not only enabled all Berlin partners to provide and receive a status update concerning their tasks and components but also to identify significant questions and related action items. In terms of system development and implementation of functionalities, the large scale field test including the integration of above mentioned experiments could be realized very successfully according to expected sizes, data and the planned timeline. The approach of the two-step test trial has been proven to be very appropriate for the given starting situation for the BER pilot.

As a first shortlist of results which are much more thoroughly treated with the WP6 report D6.2.2, the following items can be highlighted:

- A fully successful field test has been executed
- A variety of user recruitment, engagement and information actions performed, which led to ...
 - More than 1,100 App downloads
 - More than 400 active App users
 - More than 200 active gamers
 - More than 132,000 game points collected
 - More than 140 virtual trees planted
- Very stable system performance of technical components
- Huge amount of evaluation data collected
- Promising and valuable feedback from users collected
- Very good media feedback received and used for user engagement approaches

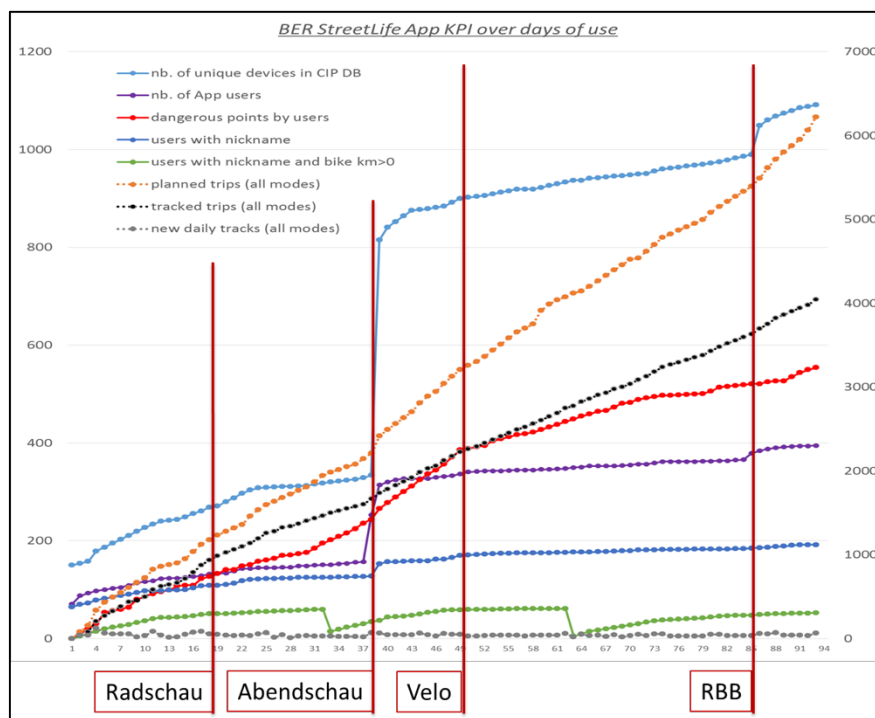


Figure 10: BER pilot usage statistics as results of engagement activities

Figure 10 displays the following indicators determined by the left scale:

- Number of unique devices in the CIP data base: Every individual mobile device is instantiated with a unique identifier in the CIP data base. Thus, this indicator can also be treated as number of downloads of the BER STREETLIFE App.
- Number of App users: This counts the users who have once, several times or constantly used the App and enabled tracking during the field test period.
- Number of users with a game identity (nickname): In order to take part in the game users needed to create a nickname. The storage of an email address was also requested, but was not mandatory.
- Number of users with a nickname and collected bike kilometres: The game started at March 1st. All counts of this indicator -possibly collected during the pre-test phase- have been reset with the start of the test. This count is to be considered as the number of users taking actively part in the BER game “Berlin BikeRider”.
- Number of dangerous points added by SL field test users: After performing a cycling trip users have been asked for a safety assessment and –in case it was negatively assessed- for road segments, junctions or conditions dangerous for cycling. The added map points are counted with this indicator.

The indicators listed in the following are determined by the right scale of Figure 10.

- Total number of planned trips: This count represents the total number of trips requests performed by the field test users for all modes.
- Total number of tracked trips: This count represents the total number of trips performed while using the App companion mode for all modes.
- Number of new daily tracks: This count shows the amount of GPS traced trips performed in companion mode for all modes of transportation.

3. ROVERETO PILOT EXECUTION

The second iteration of the Rovereto Pilot saw the deployment and operation of four experiments:

1. ROV-EXP-1: Beta Test Car Pooling
2. ROV-EXP-2: Park & Ride for Special Events
3. ROV-EXP-3: Long Running Game for multi-modal sustainable mobility
4. ROV-EXP-4: Car Pooling

The STREETLIFE Rovereto Pilot as a whole, and the nature and content of the experiments above, are described in full detail in D6.2.2. For the purpose of this Deliverable, it is important to remark here that the first, third and fourth experiment listed above were open-field experiments involving the general city population, commuters, or tourists. Only the second experiment was a closed experiment, involving selected beta-testers who were asked to provide technical and usability feedback towards improvement of the new Car Pooling service and App to be launched in ROV. For brevity, in the remainder of this Section we will most often refer to each experiment with its mnemonic label (*ROV-EXP- from 1 to 4*).

The second iteration of the ROV pilot, thus, involved a much wider public than the first iteration, as it aimed – among other things - at confirming the good results of the first iteration at a larger scale, during longer time spans, and in a very general city context. Correspondingly, the activities necessary for the execution and continued operation of the experiment had to be scaled up, as well as sustained for long periods of time.

That effort should be evident to readers from the pilot execution log that follows, which lists the activities undertaken by all partners of the ROV pilot cluster, i.e., CAIRE, FBK and the City of Rovereto.

3.1. Engagement activities

Table 5: ROV engagement activity log.

Date	Event	Description	Partners Involved
October-November 2015	Definition of promotional material for EXP-2	Texts and graphics that were going to be published as dissemination for the EXP-2 were defined and designed before their publication.	CAIRE, ROVERETO
November 2015	Advertisement of STREETLIFE pilot on Rovereto touristic web sites	Since tourists were the main target for the ROV-EXP-2 engagement strategy, a meeting with APT (Tourism Promotion Agency) was held in order to publish information on the website www.visitrovereto.it about the experiment and the	ROVERETO

		support provided to it by the ViaggiaRovereto App. Other websites involved were the Rovereto Municipality's and the Camper Association's webpages.	
November 2015	Advertisement of STREETLIFE pilot on APT newsletter	Another great result of the contacts held with the tourism agency is the publication of ROV-EXP-2 in the APT newsletter, which has 100.000 contacts.	ROVERETO
November 2015	Get in touch with the camper drivers' association	The parking lot selected as centre for Park & Ride activities contains an area for camper vehicles. Rovereto contacted the company who runs this area with the goal of adding camper drivers to the engagement target	ROVERETO
November 2015	Publication of shuttle-bus banner on the major access roads	Since ROV-EXP2 aimed at a massive involvement of tourists, one of the engagement channels was advertising the P+R service on the A22 highway as well as on the entry roads to the city (see Figure 11)	ROVERETO
January 2016	Publication of media press release with preliminary ROV-EXP2 results	In order to recognize the effort produced from many different stakeholders, a press release to on the Christmas Markets' organisation was released with preliminary results of the experiment	ROVERETO
03.03.2016	Engagement plan for EXP-3 & EXP-4	Meeting to define the engagement strategies for the Long Running Game and Car Pooling experiments.	FBK, CAIRE, ROVERETO
March-April 2016	Sponsors involvement	Involvement of several private and public entities in Rovereto as sponsors for the Long Running Game experiment, in order to make available weekly and final material prizes for winners of the game.	ROVERETO

11.04.2016	Meeting with Rovereto stakeholders for EXP-4	Meeting with companies and associations from Rovereto to boost engagement of Car Pooling Users; among stakeholders involved, there were members of enterprises, association of artisans, Dolomiti Energia (local energy company), Trentino Sviluppo	FBK, ROVERETO
April 2016	Creation of engagement newsletter for EXP-3 and EXP-4	Creation of a mailing list of contacts that would be potential end-users for Long Running Game and Car Pooling, with more than 300 contacts. E-mails of communication, publicity and invitations were sent to mailing list, to maximize involvement in the experiments	ROVERETO
April 2016	Creation of promotional material for ROV-EXP-3	Different kinds of promotional material were created before the launch of ROV-EXP-3: a flyer to be disseminated across the city (see Figure 12), a press release for newspapers (see Figure 13 and Figure 14 for examples of local press coverage), and texts for radio advertisements	FBK, CAIRE, ROVERETO
April 2016	Creation of promotional material for ROV-EXP-4	Different kinds of promotional material were created before the launch of ROV-EXP-4: a flyer to be disseminated along the city (see Figure 19), a press release for newspapers and other local media.	FBK, CAIRE, ROVERETO
April 2016	EXP-3 Engagement Campaign	The engagement campaign was kicked off, and involved different communication channels: local newspapers and radio stations, web advertisement (see Figure 15), newsletters, posters and flyers. In this way Rovereto tried to reach the whole citizenry	ROVERETO
April 2016	EXP-4 Engagement Campaign	As done for the EXP-3, for the EXP-4 the engagement campaign involved the same communication channels: local newspapers (see	ROVERETO

		Figure 17, radio, web advertisement (see Figure 18), newsletters, posters and flyers.	
May 2016	Social media promotion	Advertisement regarding STREETLIFE experiments were published on Facebook	FBK
16.05.2016	Local schools promotion	A meeting was held in a local technical high school to present the STREETLIFE experiments to students. In the two days following the event distribution of flyers took place in all high schools of the city	FBK, ROVERETO, CAIRE
May 2016	Additional Engagement Campaign ROV-EXP-3 and ROV-EXP-4	<p>In addition to the printing of a larger number of flyers and the re-sending of mails to all the mailing lists available, some other strong engagement activities were carried on, in particular:</p> <ul style="list-style-type: none"> • flyers distribution in nearby municipalities of Ala and Mori • promotion of experiments on a mega-screen outside the biggest shopping mall in Rovereto • radio advertisements on a daily cycle of 8 times per day • TV interview broadcasted for a week on a local television 	ROVERETO
28.05.2016	Rovereto Notte Verde	The Rovereto Green Night is a yearly big event during which the town's associations can show their activities. In this context the Rovereto STREETLIFE team presented the running experimentations to the citizenry, as well as to tourists attending the event	ROVERETO
21.06.2016	ViaggiaRovereto Play&Go award	Organization of media presence to the public closing ceremony of the	ROVERETO, FBK

	ceremony	game Play&Go,	
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Figure 11: Street ad for the P+R service during the Christmas Markets event in Rovereto.



Figure 12: Rovereto Play&Go advertisement flyer.



Figure 13: Local newspaper article on Rovereto Play&Go (example 1)



Figure 14: Local newspaper article on Rovereto Play&Go (example 2)

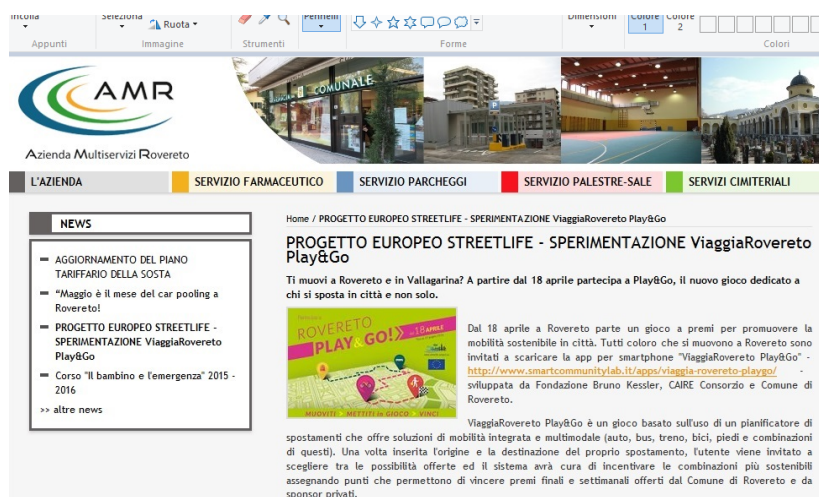


Figure 15: Example of Web advertisement for Play&Go



Figure 16: Winners of Rovereto Play&Go game get together to receive prizes and awards.



Figure 17: Local newspaper article on iPosto App and service (example 1)



Figure 18: Example of Web advertisement for iPosto App and service.



Figure 19: iPosto advertisement flyer.

3.2. Pilot realization

Table 6: ROV pilot realization activity log.

Date	Event	Description	Partners Involved
27.08.2015	Second Iteration Kick Off Meeting	During the meeting the experimentations planned for the second iteration were shown and described administrators and managers of the Rovereto	FBK, CAIRE, ROVERETO

		municipality	
21.09.2015	Internal Meeting Rovereto Pilot	Organisation of actions needed to set up the Christmas Markets Experiment and the Beta Test for Car Pooling Experiment	FBK, CAIRE, ROVERETO
28.09.2015	Meeting with AMR for EXP-2	Sharing and coordination of actions needed to set up the Christmas Markets Experiment with the company in charge of the Parking facilities in Rovereto	FBK, CAIRE, ROVERETO
19.10.2015	Meeting with Christmas Markets' promoters	Meeting with <i>Rovereto in Centro</i> , the civic consortium in charge of the Christmas Markets. To decide the dates for the EXP-2.	ROVERETO
19.10.2015	Shuttle-bus meeting	Meeting with the company that handles public transport in the Trentino region, to decide the, the timetable and the budget of the shuttle bus service for EXP-2.	ROVERETO
28.10.2015	Meetings with ROV enterprises for EXP-1	The Car Pooling service and experiment was presented in three separate meetings with companies Luxottica, Sandoz, Metalsistem three major enterprises on the Rovereto's territory) and their employees in order to solicit participation in the Beta test	FBK, CAIRE, ROVERETO
November 2015	Tender preparation and publication for EXP-2 shuttle bus	The municipality prepared and published the tender to assign duties regarding the shuttle bus for the Christmas Markets	ROVERETO
January 2016	Launch of EXP-1	The launch of the Car Pooling Beta Test experiment in collaboration with Luxottica head of human resources, Mr. Sergio Nave	ROVERETO, FBK
February 2016	Beta Test Car Pooling – ROV EXP-1	Launch of the Beta Test Car Pooling experiment. The experiment involved 10 volunteer users from Luxottica company.	FBK, ROVERETO

10.2.2016	Briefing with Luxottica employees	Meeting in Luxottica with beta testers to discuss the app iPosto and train them	ROVERETO
29.2.2016	Second briefing Meeting with Luxottica employees	Additional training in Luxottica for a second round of beta-testing of iPosto	ROVERETO, FBK
March 2016	Planning of weekly themes for ROV EXP3	Weekly themes (eg: the “bike promotion week”) were planned before the launch of the long-running game to support sustained engagement of players with different facets of sustainable urban mobility	FBK, CAIRE
March-April 2016	Rules communication for EXP3	Before the public launch of the Play&Go game we defined how to communicate the rules of the game to the public in an easy to digest way	FBK, CAIRE, ROVERETO
7.4.2016	Meeting with Administrators of Rovereto Municipality	Meeting with Administrators of the municipality to update them on the on-going activities within the ROV STREETLIFE pilot	FBK, CAIRE, ROVERETO
18.4.2016	Launch of the EXP3 – ViaggiaRovereto Play&Go	On this they officially started the game Play&Go	FBK, CAIRE, ROVERETO
May 2016	Launch of the EXP4 – Car Pooling	May has been defined as “the carpooling month”, the app iPosto has been officially released for Android and iOS devices and the EXP4 started	FBK, CAIRE, ROVERETO
June 2016	Car pooling experimentation continuation	It has been decided to extend the duration of the EXP4 till the end of June	FBK, CAIRE, ROVERETO
19.06.2016	End of the EXP3 – ViaggiaRovereto Play&Go	Official end of the EXP3 period. A decision was made to keep the apps and services deployed for EXP3 active, and to continue to support and collect data from them.	FBK, CAIRE, ROVERETO
21.06.2016	EXP3 – Award	Official award ceremony for Play&Go, during which the main	FBK, ROVERETO

	Ceremony	results of the experiment were presented and winners of the game were awarded their earned prizes (see Figure 16).	
30.06.2016	End of EXP4 – iPosto Car Pooling	Official end of the EXP 4period. A decision was made to keep the apps and services deployed for EXP4 active, and to continue to support and collect data from them.	FBK, CAIRE, ROVERETO

3.3. Technical deployment and operation

Table 7: ROV technical deployment and operation activity log.

Date	Event	Description	Partners Involved
February-March 2016	Customization and configuration of car pooling App i-Posto	App was calibrated and customized based on feedback from beta-test; also, a set of pre-installed in-app user communities were created for easier registration and search of car rides	FBK, CAIRE
February-March 2016	Calibration of green game	Before the finalization and launch of the Long Running Game experiment, the systems and mechanisms of incentives were designed, and configured proportionally to the intended behaviours to be rewarded, deciding for example on Green Points per sustainable Km, bonuses for 0-impact trips, etc.	FBK, CAIRE
March 2016	Selection and calibration of challenges for green game	Before the finalization and launch of the Long Running Game experiment, the systems related to the challenges inside the game were designed and determined	FBK, CAIRE
March 2016	Definition of Car Pooling App Development Plan	Definition of the plan of technical development activities required to have the I-Posto Car Pooling App ready and running for the start of EXP-4	FBK
March-April 2016	Specification and deployment of Rovereto Play&Go game	<ul style="list-style-type: none"> Wrapping of gamifiable actions: start journey action in ViaggiaRovereto Play&Go, action for the invitation and registration of a friend in the game; Specification of game rules for Green 	FBK

		<p>Leaves earning, badge collections and badges, and for weekly and global leaderboards;</p> <ul style="list-style-type: none"> • Specification of challenges templates for the different thematic weeks; • Customization of game status notification to the user: definition of e-mails and in-App notification templates to be used to communicate game results, thematic weeks, prizes and personalized challenges to players; • Design and support for automatic generation of personalized certificates of attendance reporting personal game results (green leaves earned, collected badges, challenges succeeded). 	
March-April 2016	Definition of the game graphical aspects	Design of the graphical aspects of the game: realization of all the icons and graphics to be used for game concepts: e.g., green leaves icons, badge icons, leaderboards, challenge awards, etc.	FBK, CAIRE
March-April 2016	Development and deployment of logging functionalities for data acquisition and storage	<ul style="list-style-type: none"> • Deployment of logging functionality for Rovereto Play&Go game: logging of game state (configuration of gamification framework logging capabilities), logging of saved and tracked trips, • Deployment of logging functionality for the car pooling service: logging of offered trips, required lifts, accepted lifts, confirmed trips. • Definition and deployment of backup procedure for all the data sources above 	FBK
April 2016	Development of pre and post-experiment questionnaires for Rovereto Play&Go	Specification and development of on-line questionnaires to be filled before and after the experiment execution: questionnaire to be filled at registration time and questionnaire to be filled by participants at the end of the game.	FBK
Late March- Early April 2016	Acceptance testing of Rovereto Play&Go	<ul style="list-style-type: none"> • Acceptance testing of App features; • Acceptance testing of game mechanics; • Acceptance testing of challenge generation 	FBK
Early April 2016	Definition of management and maintenance procedures	Specification and approval of a process for monitoring, maintaining and managing the long-running game, with specific care to	FBK

	for long-running game	the weekly procedure of on-the-fly challenges injection without perturbation of the game being played	
April 2016	Release of routing App Viaggia Rovereto Play&Go on public App stores	The routing app Viaggia Rovereto Play&Go was released for public download on Google Play Store and Apple Store	FBK
April-June 2016	Operation of Rovereto Play&Go Game	<ul style="list-style-type: none"> • Daily monitoring of game status and tracked journeys: validation of tracked journeys supported by our itinerary validation tool; • Game status update and communication to players of detected deviations and anomalies in journey validation; • Weekly injection of personalized challenges: analysis of game status and mobility performances of players; specification of constraints and prizes in challenge templates according to weekly objectives and players' performance; automatic generation of personalized challenges and injection in the gamification engine; • Definition and injection of additional rules for badges, corresponding to green leaves levels and trips per transport mode levels, to meet the unexpectedly high performances of top players. 	FBK
May 2016	Release of Car Pooling App i-Posto on public App stores	The Car Pooling app i-Posto was released for public download on Google Play Store and Apple Store	FBK

3.4. Results and feedback

Table 8: ROV feedback and results collection activity log.

Date	Event	Description	Partners Involved
November 2015	Creation of Questionnaire for ROV-EXP-2	A questionnaire was created with the goal of collecting data for evaluation regarding mobility behaviour of the end users and socio-economic data.	CAIRE

21-22-28-29.11.2015 5-6-7-8-12-13-19-20.12.2015	Distribution of questionnaires	During ROV-EXP-2, traffic aides were employed to give questionnaires to people who parked their cars in the parking lot used for Park & Ride. The questionnaires were collected and organized in order to evaluate the end users' opinion on ROV-EXP-2.	AMR
21-22-28-29.11.2015 5-6-7-8-12-13-19-20.12.2015	Collection of questionnaires	People who received the questionnaire in the parking lot were asked to return it to an info point. People who returned their filled questionnaire received a gadget or other types of rewards.	AMR, ROVERETO, Rovereto in Centro
21-22-28-29.11.2015 5-6-7-8-12-13-19-20.12.2015	Occupancy rates detection	During ROV-EXP-2 the traffic aides of the city of Rovereto detected the occupancy levels of the Stadio Quercia parking lot using the Conta Parcheggi app.	AMR
February 2016	Conversion of questionnaires into databases from EXP - 2	Questionnaires collected from ROV-EXP-2 were digitalized and organized in databases to enable analysis and evaluation of the pilot.	CAIRE, ROVERETO
February 2016	Collection of feedback from end users during ROV EXP-1	During Beta Test Car Pooling, the end users were given an e-mail address where they could send feedback about the Car Pooling App. FBK collected feedback and suggestions with the goal of improving the App functionality.	FBK
3.3.2016	Creation of Baseline Questionnaire for ROV-EXP-3	A baseline questionnaire was created with the goal of collecting data for evaluation regarding mobility behaviour of the end users and socio-economic data at the entry of the Long Running Game	CAIRE, FBK
March 2016	Definition of Log requirements from EXP3	Following last year's experience, the requirements about the content and format of log traces of the routing app during the Long Running Game were specified, in order to have a suitable set of data for evaluation purposes	CAIRE, FBK
April 2016	Analysis of game-	During the first week of the Play&Go game the server log traces keeping track of the	FBK

	playing log traces	chosen itineraries and the game evolution were analysed, for the purpose in-the-field V&V of the game software, to understand the game dynamics, and to validate the behaviours of players vs. game results.	
June 2016	Creation of Exit Questionnaire for ROV-EXP-3	An exit questionnaire was created with the goal of collecting data for evaluation regarding mobility behaviour of the end users and socio-economic data at the end of the Long Running Game	CAIRE, FBK
21.06.2016	ROV-EXP-3 Feedback Meeting	A meeting with winners of the Play and Go game took place with the distribution of prizes to winners	FBK, CAIRE, ROVERETO
June 2016	Anonymization of App logs prior to analysis	Via post-processing, references that could help determine the personal identity of ROV-EXP-4 participants (citizens in the focus group, plus traffic aides from AMR) were stripped from all data sets collected, and substituted with anonymous 3-digits user IDs generated via the App	FBK
June – July 2016	Analysis of log data from ROV-EXP-3 and ROV-EXP-4	After the end of the second iteration, the log data from the usage of the routing-app Viaggia Rovereto and the Car Pooling App I-Posto were collected and organized in order to evaluate the results of ROV-EXP-3 and ROV-EXP-4.	FBK, CAIRE,

3.5. Observations and lessons learned

In the first iteration the ROV pilot concentrated largely on controlled experiments, with limited number of users and citizens actively involved; the design of the pilot for the first iteration was purposely oriented towards “getting it right” and obtaining feedback and insights of high quality and reliability (albeit, lower quantity).

In the second iteration ROV has built on those insights and has aimed at “going bigger”, thus organizing mainly large-scale open-ended experiments, and attempting to involve in those experiments as many citizens as possible.

That shift has brought to the forefront in the second iteration an entirely different set of challenges for the execution of the pilot, each of which, in turn, has provided lessons that have been internalized by the ROV cluster partners. Among them, we would like to point out the following:

- a) the ROV partners put a very considerable amount of their WP7 effort in promotion and engagement activities for the experiments;
- b) in the same vein, the experiments and the user-facing technology (such as Apps) supporting them were built with inherent features to facilitate engagement, as well as retainment;
- c) many networking and collaborations activities were organized with local players and stakeholders active in the territory beyond the public administration of the city of Rovereto (ranging from individual companies, to enterprise associations, to schools, to private and non-profit associations, to private sector and commercial entities); they were instrumental in augmenting awareness, acceptance and engagement of the STREETLIFE initiatives and experiments;
- d) the ICT infrastructure and provisions deployed for the pilot were designed and dimensioned to sustain large number of accesses and users, for long durations (as a consequence, ROV-EXP-3 and ROV-EXP-4 are continuing to run past their official end, and are being managed as open-ended services available to the citizenry of Rovereto at the time of writing);
- e) similarly, suitable monitoring and management processes for the ICT provisions were put into place and rigorously enacted, and they were able to ensure uninterrupted operation of the smart mobility information systems involved in the experiments;
- f) data, results and user feedback from the various experiments – as well as the channels through which they became available to the project - were extremely diverse in type; that required significant work in order to properly collect and handle them; it also required to devise ways to properly correlate them and triangulate them for analysis purposes.

The set of items above have made evident how the nature of the ROV pilot is that of a complex socio-technical system. Therefore, its successful execution has required the combination of diverse technological as well as societal competences; the STREETLIFE partners in the ROV cluster are equipped and well balanced with those, and have gained considerable expertise in how to coordinate with one another in a multi-faceted process for pilot execution in a city context like the one documented in the pages above.

4. TAMPERE PILOT EXECUTION

The second iteration of the Tampere STREETLIFE pilot builds on the work done in the first iteration and new functionality was taken into use. Pilot utilized Tampere region passenger information system and journey planner and enhanced it with integration of real-time data feeds. The second iteration introduced People Flow Management tool for the transport authority's mobility manager. Gamification was added to the journey planner to further improve the end user experience and participation. Park & Ride promotion with help of Control panel was introduced and Mixed Reality field trials were made.

In the second iteration of the Tampere Pilot following experiments were deployed. Please note the numbering in the table continues from the first iteration experiments. The journey planner and gamification experiments were accessible in address <http://streetlife.tampere.fi> with any mobile device. In addition the mobility manager had access to the control panel.

Table 9: TRE pilot second iteration experiment recap.

Experiment	Date	Number of users
<p>TRE-EXP-2 Transportation Flow Management</p> <p>Use case “Mitigate congestions in main bus stations”</p> <p>PTA wants to avoid use of certain stops to some extent in order to improve overall flow management of their transport network.</p>	29.8. – 14.10.2015	<p>Stop in the experiment is used by the 20% of Tampere’s bus routes. Stop has around daily 2,400 users. They were directly affected, but also were affected users in surrounding bus routes/stops, potentially affecting thousands of passengers.</p>
<p>TRE-EXP-1: Multimodal real-time Journey Planner improvements – FTG test</p> <p>Use case “Gamification”</p> <p>City Explorer’s game “Zonehunter”, where the idea is to encourage using public transport for also occasional trips. User got points for travelling to different postcodes.</p>	16.11. – 31.12.2015	<p>48</p> <p>Pilot focus test group users, leading to the public pilot.</p>
<p>TRE-EXP-1: Multimodal real-time Journey Planner improvements – Public pilot</p> <p>The Zone hunter game was launched to general public in Tampere region.</p>	14.3. – 31.4.2016	<p>14,000 user sessions, 5,800 unique users, 460 gamers in March-April 2016</p>
<p>TRE-EXP-3: Mixed Reality field trials</p> <p>Use case “Mixed Reality & crowd-sourcing”</p>	May-June 2016	<p>Mixed Reality helps user to navigate and crowd-sourcing (participation).</p>
<p>TRE-EXP-4: Parking situation control panel</p> <p>Use case “Promote park & ride”</p> <p>PTA wants to adjust traffic flows and promote Park&Ride to reduce congestion in the city center.</p>	14.3. – 31.4.2016	<p>This was done in conjunction with the gamification experiment.</p>

4.1. Engagement activities

There have been a lot of engagement activities around the pilot, the key activities are listed in Table 10. Especially based on the experience of the first iteration focus has been on the engagement activities.

Table 10: TRE engagement activity log.

Date	Event	Description	Partners Involved
17.3.2015	Focus Test Group (FTG) activation	Contacting the FTG user group about the upcoming pilot second iteration. Active communication before the actual second iteration pilot. This communication was started right after the first iteration to keep FTG users engaged.	Logica, Tampere
13.7.2015	FTG activation	Follow up on the activation after the summer holiday season. For example personally contacting the chairman of the University's traffic student group and describing the pilot plans.	Logica
14.8.2015	Meeting with the FTG	Describing the upcoming game and game plans the FTG users. Especially showing the game prizes to them as motivation action.	Logica, Tampere
14.8.2015	Transportation flow management planning	Transportation flow management experiment finalizing with city of Tampere. Experiment's final plan was described to the public transport authority and mobility manager. Green light to start experiment	Logica, Tampere
10.9.2015	Planning of marketing activities	Planning of engagement and marketing activities with calls and emails. Leading to the second iteration pilot materials and marketing in TRE. Marketing materials created for two selected groups FTG and Public users. This planning included also a creation of the information website for the game	Logica, Tampere
8-9.11.2015	Ultrahack 2015	Providing API and guidance to third party developers in Ultrahack event, part of Slush hacks www.ultrahack.org .	Logica

16.11. – 31.12.2015	Running the FTG game	Follow up on the game use and encouraging the FTG users to play.	Logica, Tampere
9.2.2016	FTG questionnaire	Creation of the questionnaire with the help of WP8 and getting the FTG users to answer the questionnaire.	Logica, Tampere
22.2.2016	FTG game data collection	Collecting usage data, feedback data and the questionnaire data.	Logica, Tampere
23.2.2016	Finalization of for the public game marketing plan	Finalizing the marketing plan and ensuring all parties technical & marketing are ready for the launch. Everything ready for 7.3 launch.	Logica, Tampere
25.3.2015	Final game plan presentation to CGI and TRE marketing departments	Meetings in Tampere to tune and get final approval to marketing material. Original launch date postponed to 14.3 due to ski holiday season.	Logica, Tampere
3.3.2016	FTG game winners	STREETLIFE Tampere pilot awarded the FTG users who got most game points. Also promoting the upcoming public game and thanking them for the help.	Logica, Tampere
8.3.2016	Activation of Marketing personnel in CGI and Tampere	As planned: Press release and social media plan (Facebook, twitter), contacting newspapers, radio, TV in advance. In addition marketing material for ITS/Smart city network communities (ITS Finland and ITS Factory communities) and LinkedIn promotion.	Logica, Tampere
11.3.2016	Pre-promotion of the game	Newspaper interview with Aamulehti (Aamulehti reaches 488,000 readers according them). Game promotion to Tampere ITS Factory community members	Logica, Tampere
14.3.2016	Go live with the TRE game	TRE pilot game Zone Hunter was released. Distribution of planned marketing and answering questions.	Logica, Tampere

14-16.3.2016	Promotion of the game	Newspaper interviews, internet and social media marketing. In summary, quite a lot of publicity and positive feedback were generated. Clear peak on the usage. About 20 articles were written about the game.	Logica, Tampere
18.3.20016	Promotion of the game to the ITS / smart city community	Participation in ITS area expert seminar Trafi Tieto where active marketing about the game to spread the word among ITS / Smart city experts.	Logica
23.3.2016	Promotion of the game	Radio interview about the game	Logica, Tampere
14.3-30.4.2016	Running the game	Following the feedback and answering questions	Logica, Tampere
May	Planning of Mixed Reality field trials	Planning of Mixed Reality field trials, engaging the FTG users	Aalto, Logica
19.5.2016	Interview with Traffic management	Interview with Traffic management and mobility manager	Logica, Tampere
14.6.2016	Public game winners	STREETLIFE Tampere pilot awarded the travellers who got most game points. Marketing was planned around this event. Aamulehti newspaper wrote article once again about the game.	Logica, Tampere
May-September 2016	Dissemination to show the game results	TRE Game will be presented in two seminars as part of the marketing plan. Project was also presented to major lever visitors from Quebec Canada. Quebec/Montreal visit to Finland 30.5.2016 Nordic Public transport days 15-17.6.2016	Logica, Tampere

	Väylät ja liikenne 2016 seminar 7.-8.9.2016	
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The engagement work described in the previous table resulted for example in the activities shown in the following figures.

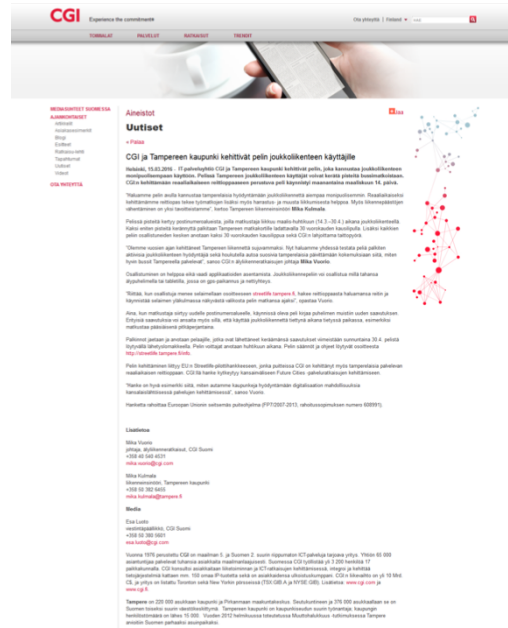


Figure 20: City of Tampere press release about the STREETLIFE public pilot and CGI press release about the STREETLIFE public pilot.

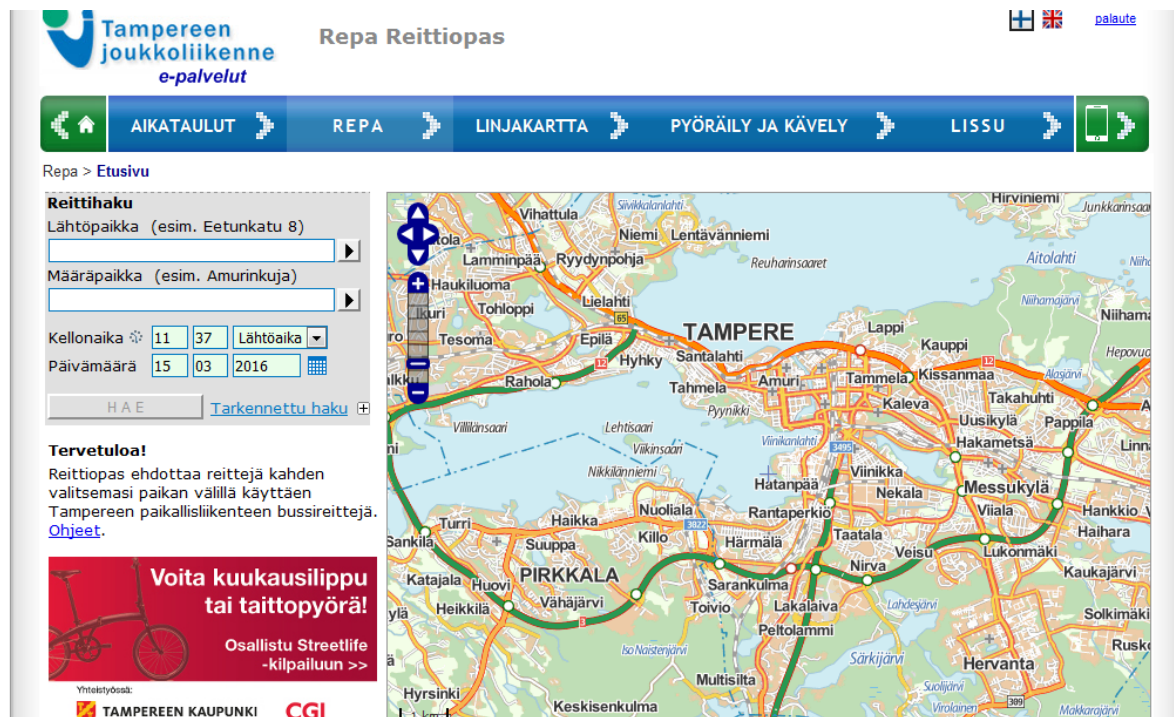


Figure 21: Banner adverts at the Tampere public transport internet pages. Banners are on several pages. Red banner says “Win a bike or 30-day tickets, participate in Streetlife game”.



Figure 22: Social media advertising about the STREETLIFE game in Facebook and Twitter. On the right there is a Figure of STREETLIFE game radio interview promoted in Twitter.

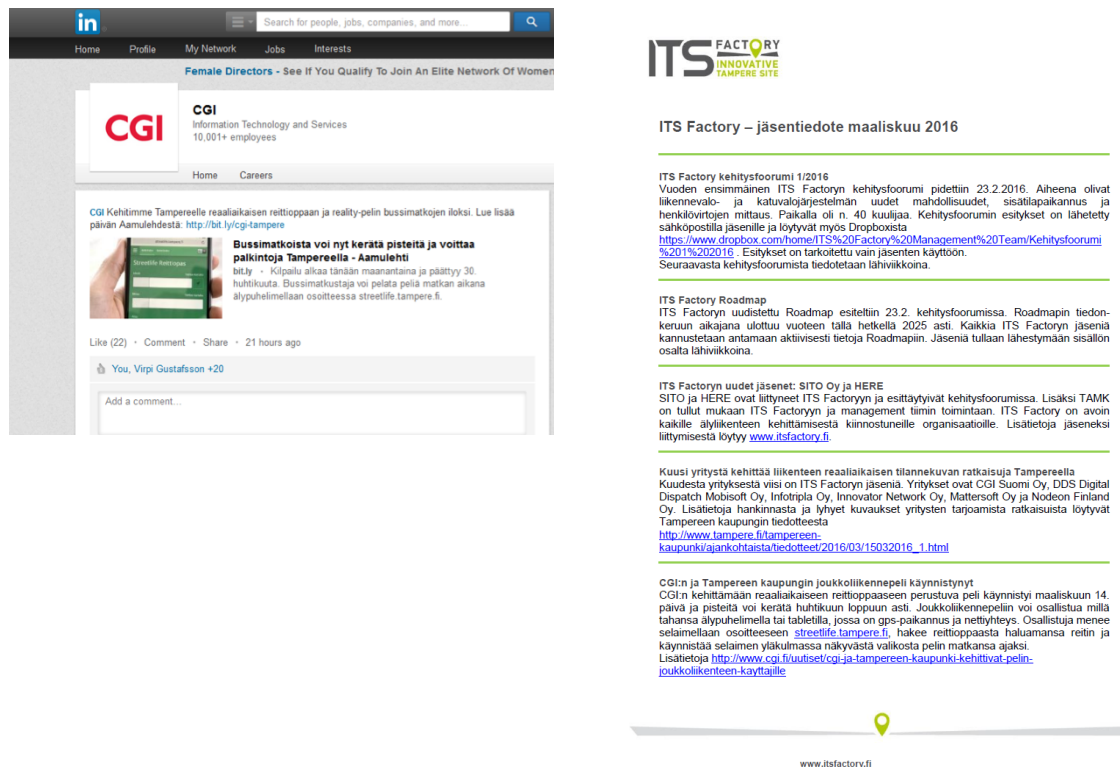


Figure 23: STREETLIFE game LinkedIn marketing and STREETLIFE game in ITS Factory newsletter to the traffic expert collaboration network.

4.2. Pilot realization

Table 11: TRE pilot realization activity log.

Date	Event	Description	Partners Involved
2.6.2015	Preparation for the second iteration pilot	Discussions with City of Tampere which location to select for the Transportation Flow management experiment.	Logica, Tampere
1.8.2015	Finalizing integration tests of the pilot compo	Finalizing integration tests of the second iteration pilot components	Logica
15.8.2015	Planning of deployment	Planning leading to the second deployment of the STREETLIFE pilot.	Logica
29.8. – 14.10.2015	Transportation flow management experiment	Running the Transportation flow management experiment	Logica

15.9 - 10.11.2015	Preparation for the FTG game	Preparation for the FTG game	Logica, Tampere
16.11. – 31.12.2015	Running the FTG Game	Running the FTG Game, operational work.	Logica
7.1- 25.1.2016	Planning of deployment of updated Game components	Planning leading to the second deployment of the STREETLIFE pilot public game. Learned lessons from the FTG game. Updates to the game components.	Logica
2.2-8.2.2016	Finetuning the survey	Finetuning the survey and data collection, ensuring we have the needed information for WP8	Logica, DLR, CAIRE, Tampere
8.2- 28.2.2016	Preparation for the Public game	Preparation for the Public game, integration testing of the updated game components and their deployment	Logica, Tampere
14.3. – 31.4.2016	Running the public Game	Running the Public Game, operational work.	Logica, Tampere
May	Planning of Mixed Reality field trials	Planning of Mixed Reality field trials, engaging the FTG users	Aalto, Logica
May-June	Mixed Reality field trials	Mixed Reality field trials in Tampere	Aalto, Logica, Tampere
19.5.2016	Interview with Traffic management	Interview with Traffic management and mobility manager	Logica, Tampere
1.5-30.5	Data collection and analysis	Collecting the data and the start of analysing leading the work for the results.	Logica, DLR, CAIRE, Tampere
14.6.2016	Public game winners	STREETLIFE Tampere pilot awarded the travellers who got most game points.	Logica, Tampere

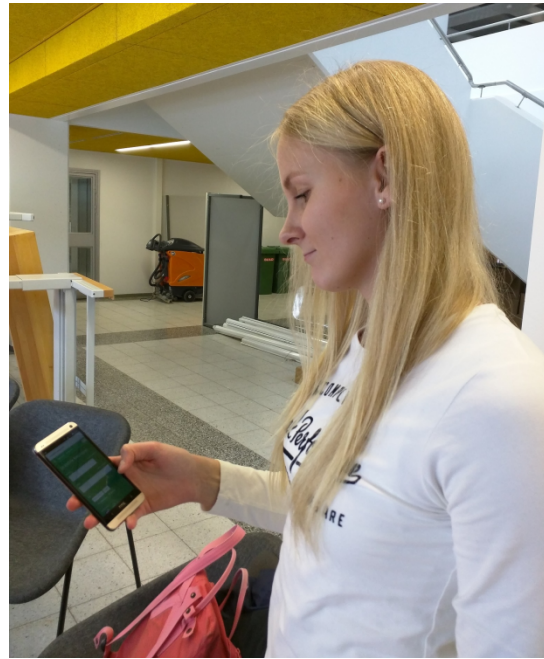


Figure 24: A winner of the STREETLIFE game tester competition, Anni Karelehto, studies construction technology in the Tampere University of Technology. Anni is a true power user of the regional public transit services. Streetlife helps her to plan the daily trips between the university, home and training places for competitive sports.



Figure 25: Winners of the STREETLIFE Tampere public game.

4.3. Technical deployment and operation

Table 12: TRE pilot technical deployment and operation activity log.

Date	Event	Description	Partners Involved
1.8.2015	Finalizing integration tests of the pilot compo	Finalizing integration tests of the second iteration pilot components	Logica
15.8.2015	Planning of deployment	Planning leading to the second deployment of the STREETLIFE pilot.	Logica

29.8. – 14.10.2015	Transportation flow management experiment	Running the Transportation flow management experiment	Logica
1.9-5.9.2015	TRE Parking API	Providing Parking API's to MMCEP Control panel	Logica, Siemens, Fraunhofer
15.9 - 10.11.2015	Preparation for the FTG game	Preparation for the FTG game	Logica, Tampere
8-9.11.2015	Ultrahack	Providing API and guidance to third party developers in Ultrahack event	Logica
16.11. – 31.12.2015	Running the FTG Game	Running the FTG Game, operational work.	Logica
7.1- 25.1.2015	Mixed Reality integration	Mixed Reality App's crowd-sourcing data integration specification discussion based on DatexII and its integration to CGI's side leading to integration between CGI-Aalto work.	Logica, Aalto
7.1- 25.1.2016	Planning of deployment of updated Game components	Planning leading to the second deployment of the STREETLIFE pilot public game. Learned lessons from the FTG game. Updates to the game components.	Logica
2.2-8.2.2016	Finetuning the survey	Finetuning the survey and data collection, ensuring we have the needed information for WP8.	Logica, CAIRE,
8.2- 28.2.2016	Preparation for the Public game	Preparation for the Public game, integration testing of the updated game components and their deployment. Integration of the updated survey and tuned data collection into pilot.	Logica,
14.3.- 31.4.2016	Running the public Game	Running the Public Game, operational work.	Logica, Tampere
1.5-30.5	Data collection for the analysis work	Collecting the data and the start of analysing leading the work for the results.	Logica, DLR, CAIRE, Tampere

24.5.2016	Data evaluation workshop	WP8 workshop about TRE Pilot data	Logica, DLR, CAIRE
24.6.2016	Data evaluation workshop	WP8 meeting about TRE Pilot data	Logica, DLR, CAIRE



Figure 26: Presenting STREETLIFE experiences at the Nordic Public Transport conference.

4.4. Results and feedback

Table 13: TRE feedback and results collection activity log.

Date	Event	Description	Partners Involved
10.11.2015	Pre-survey for FTG gamers	Emailed invitation for FTG game members to fill the pre-survey. After filling the survey they got access to the game	Logica, Tampere
7.1-25.1.2016	Initial analysis of FTG Game	Examining the general feedback and also the feedback from the Y2 review. Learned lessons from the FTG game. Updates to the game components. Finetuning and planning of the	Logica, CAIRE

		survey & data collection.	
9.2.2016	FTG questionnaire	Creation of the questionnaire with the help of WP8 and getting the FTG users to answer the questionnaire. Emailing reminders for the gamers.	Logica, Tampere
22.2.2016	FTG game data collection	Collecting usage data, feedback data and the questionnaire data. Providing data to WP8.	Logica, Tampere, CAIRE, DLR
8.2-28.2.2016	Preparation for the Public game	Preparation for the Public game, integration of the updated survey and tuned data collection into pilot. Re-examining the general feedback and also re-examining the feedback from the Y2 review. Fine-tuning and planning of the survey & data collection.	Logica, CAIRE
14.3.-31.4.2016	Examine general feedback while running the public Game	Feedback sent using the feedback tool of the pilot application analysed so that we can react fast if something arises from the users during the game.	Logica
14.3.-31.4.2016	Survey	Game mechanism included a survey. Users had to answer it to be eligible for the game prizes, but this was built into the game to make the answering really easy.	Logica
10.5.2016	Google Analytics, internal statistics	Service usage analysis using Google Analytics and internal load monitors.	Logica
19.5.2016	Interview with Traffic management and mobility manager	A meeting with Tampere public transport authorities (PTA). General feedback collected from PTA people.	Logica, Tampere
May-June	Mixed reality field trial interviews	Mixed reality field trial survey and interviews	Aalto, Logica
May	Data to WP8	Providing collected data to WP8 for evaluation	Logica, Tampere, CAIRE, DLR

24.5.2016	Data evaluation workshop	WP8 workshop about TRE Pilot data	Logica, DLR, CAIRE
24.6.2016	Data evaluation workshop	WP8 meeting about TRE Pilot data	Logica, DLR, CAIRE

There were a lot of articles written about the Tampere pilot game. A selection of different types of newspapers and magazines is presented in the pictures below.

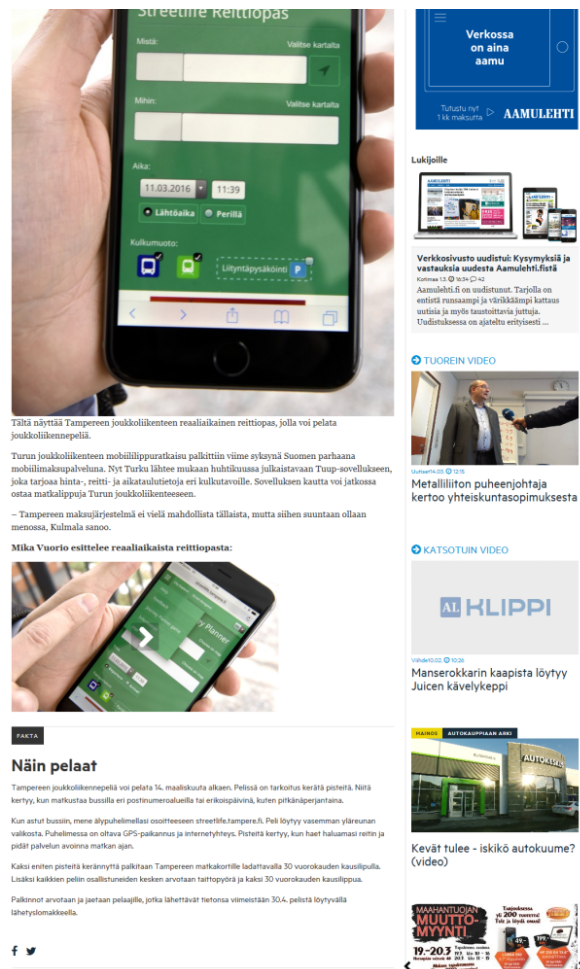
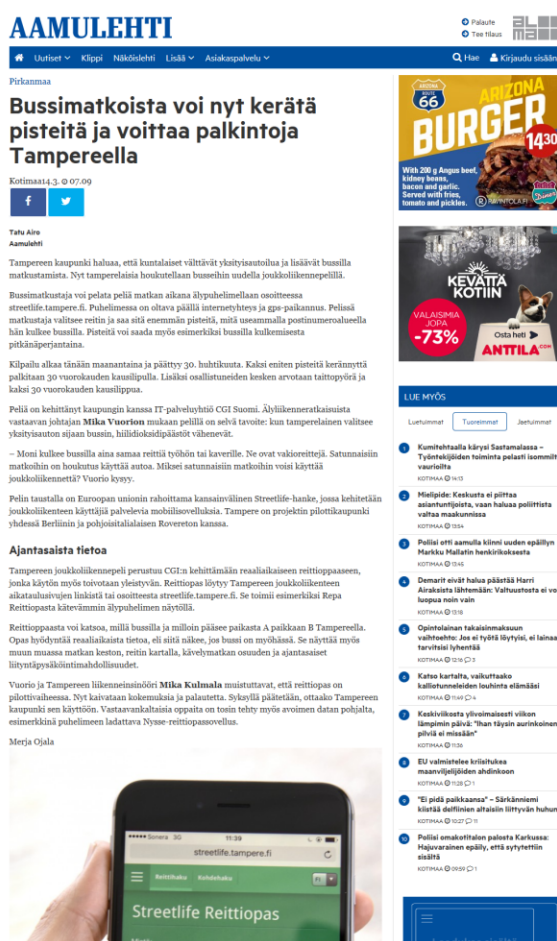


Figure 27: Aamulehti article about the STREETLIFE game. Aamulehti is the second largest newspaper in Finland. It comes from Tampere and reaches about 488,000 readers

tekniikka & talous	TEKNIKAN HISTORIA metallitekniikka	Tilaa lehti	Tilaa uutiskirje	Ilmoita T&T:ssä	SUMMA	f	t
ETUSIVU	UUTiset	PUHEENVUOROT	KUMPPANIBLOGIT	OTA YHTEYTTÄ	T&T PÄIVÄ SUMMA	Q	

PELITEOLLISUUSS | Harri Repo 15.3. klo 14:32

Nyssen hevikäyttäjille uusi peli

Juha S. Kalliolahti

Tämä artikkeli ja muut T&T Päivän lehdet on luettavissa Talentumin Summa-palvelussa.

Suosituimmat

Bell Labs tuottaa jo hedelmää Nokialle eilen

Varsinkin teinejä vaivaava vakava sairaus viimein kuriin? – Tutkimus: aivotoimintaa voidaan korjata eilen

Ford hyötyä rosoisesta ulkonaöstä – Ei ihan SUV, muttei sama vanhakaan 1 h

Ajattelitko kunnostaa venettä? – Keväisen kemikaalin myyntiä rajoitettiin eilen

Volkswagenilta takaisinvento – Perheautosta löytyi akkuvika 2 h

Uusimmat

Autojen myynti ei välttämättä romahdakaan robottikaudella – Päinvastoin 21 min.

HS: FBI mursi iPhonen suojausten – Apple: ”Jatkamme salauksen vahvistamista” 1 h

Oireita yli puolella – Moni myöntää liikkakäytön, muttei silti vähennä 1 h

Figure 28: Tekniikka ja Talous had an article about the TRE pilot game under the gaming economy. Tekniikka ja Talous (Technology and Economy in English) is a Finnish magazine focusing on technological innovations. It reaches about 61,000 readers.



Figure 29: Two STREETLIFE game articles on Tampelainen which publish local news in Tampere and neighbouring municipalities. They reach about 139 000 readers.

Aamulehti // Maanantaina 14. maaliskuuta 2016 UUTiset // A7

Kuljettaja ajoi Tampereella päin poliisiautoa

● Poliisiauto sai osuman, kun poliisi yritti ottaa kiinni päin punaisia ajanutta henkilöautoa Tampereen Paasikiventielle lauantain ja sunnuntain välisenä yönä. Kuskille yritettiin näyttää pysäytysmerkkiä, mutta kuljettaja käänsi oman autonsa kohti poliisiautoa ja osui poliisiauton oikeanpuoleiseen kylkeen. Autoa kuljetti vuonna 1994 syntynyt mies. Puhalluskoe osoitti nolaa, mutta poliisien mukaan mies oli sekavan oloinen. Häntä epäillään törkeästä liikenneturvallisuuden vaarantamisesta, rattijuopumuksesta ja huumausaineen käyttörikoksesta. **AAMULEHTI**

Yksi kuoli rekkakolarissa Kontiolahdella

● Henkilöauton kuljettaja kuoli sunnuntaina iltapäivällä kolaroituaan rekan kanssa Pohjois-Karjalan Kontiolahdella Valtatie 6:lla. Törmäys oli nokkakolari. Kuljettaja oli autossaan yksin. Rekan kuljettaja selvisi vammoilta. **STV**

Heinolan kolari vaati sunnuntaina kuolonuhrin

● Heinolassa lauantaina tapahtunut nokkakolari vaati kuolonuhrin, kun yksi kolariissa loukkaantunut menehtyi sairaalassa, kertoi poliisi sunnuntaina. Henkilöauton ja ukrainalaisen kuorma-autoyhdistelmän kolari sattui Valtatie 5:llä iltaisetsemällä. Henkilöautoissa etupenkeillä olleet aikuiset loukkaantuivat vakavasti ja takana istuneet kolme lasta selvisivät lievemmillä vammoilla. Kuorma-autossa olleet neljä ulkomaalaista miestä loukkaantuivat myös. Poliisi ei kerro, kummassa autossa kuolonuhri oli. **STV**

Mies surmattiin Utsjoella sunnuntaina

● Lapin Utsjoella tapahtui sunnuntai-aiamuna henkiriikos, jossa surmansa sai paikkakunnalla asunut mies, kertoo poliisi. Uhri puukotettiin hengiltä yksityisasunnossa. Poliisi on ottanut kiinni teosta epäiltyä niin ikään Utsjoella asuvaa miehen. **STV**

Nainen hyppäsi Ruotsinlaivalta, ei löytynyt

● Ahvenanmerellä etsittiin sunnuntain vastaisena yönä Viking Linen Rosella-aluksetta mereen hyppänyttä naista. Neljä tuntia kestäneistä etsinnöistä huolimatta häntä ei löytynyt. **STV**



TAMPEREEN kaupungin liikenneinsinööri Mika Kulmala (vas.) ja CGI Suomessa työskentelevä johtaja Mika Vuorio haluavat tehdä bussilla matkustamisesta mahdollisimman helppoa.

Bussimatkoista voi kerätä pisteitä ja voittaa palkinnon

Tampereen joukkoliikennepeli houkuttelee kulkemaan bussilla. Uusi reittiopas suunniteltiin kännykkää varten.

Tatu Airo
Merja Ojala, kuvat
Aamulehti

● Tampereen kaupunki haluaa, että kuntalaiset välttävät yksityisautotilaa ja lisäävät bussilla matkustamista. Nyt tamperelaisia houkuttelevat busseihin uudella joukkoliikennepelillä.

Bussimatkustaja voi pelata pelin matkan aikana älypuhelimellaan osoitteessa streetlife.tampere.fi. Puhelimessa on oltava päällä internetyhteys ja gps-paikannus. Pelissä matkustaja valitsee reitin ja saa siitä enemmän pisteitä, mitä useammalla postinumeraluella hän kulkee bussilla. Pisteitä voi saada myös esimerkiksi bussilla kulkemisesta pitkänperjantaina.

Kilpailu alkaa tänään maanantaina ja päättyy 30. huhtikuuta. Kaksi eniten pisteitä kerännyttä palkitaan 30 vuorokauden kausilipulla. Lisäksi osallistuneiden kesken arvotaan taittopöytä ja kaksi 30 vuorokauden kausilippua.

Peliä on kehitetty kaupungin kanssa IT-yhteistyössä CGI Suomessa.

mi. Älyliikennetarkaisusta vastaavan johtajan Mika Vuorion mukaan pelillä on selvi tavoite: kun tamperelainen valitsee yksityisauton sijaan bussin, hiilidioksidipäästöt vähenevät.

– Moni kulkee bussilla aina samaa reittiä työhön tai kaverille. Ne ovat vakioireittejä. Satunnaisiin matkoihin on houkutus käyttää autoa. Miksei satunnaisiin matkoihin voisi käyttää joukkoliikennettä? Vuorio kysyy.

Pelin taustalla on Euroopan unionin rahoittama kansainvälinen Streetlife-hanke, jossa kehitetään joukkoliikenteen käyttöä palvelevia mobiilisovelluksia. Tampere on projektin pilotointipaikaksi yhdessä Berliinin ja pohjoisitalialaisen Roveretton kanssa.

Ajantasaisia tietoja

Tampereen joukkoliikennepeli perustuu CGI:n kehittämään reaaliaikaiseen reittioppaaseen, jonka käyttöön myös toivotaan yleistyvän. Reittiopas löytyy Tampereen joukkoliikenteen aikataulusivujen linkistä tai osoitteesta streetlife.tampere.fi. Se toimii esimerkiksi Repa Reittiopasta käytävällä älypuhelimella.

Reittioppaasta voi katsoa, millä bussilla ja milloin pääsee paikasta A paikkaan B Tampereella. Opas hyödyntää reaaliaikaisia tietoja, eli siitä näkee, jos bussi on myöhässä. Se näyttää myös muun muassa matkan keston, reitin kartalla, kävelymatkan osuuden ja ajantasaiset liityntäpysäköintimahdollisuudet.

Vuorio ja Tampereen liikenneinsinööri Mika Kulmala muistuttavat, että reittiopas on pilotointivaiheessa. Nyt kaivataan kokemuksia ja palautetta. Syksyllä päätetään, ottaako Tampereen kaupunki sen käyttöön. Vastavankaltaisia oppaita on tosin tehty myös avoimen datan pohjalta, esimerkiksi puhelimeen ladattava Nysse-reittioppasovellus.

Turun joukkoliikenteen mobiililippuratkaisu palkittiin viime syksynä Suomen parhaana mobiilimaksupalveluna. Nyt Turku lähtee mukaan huhtikuussa julkaistavaan Tuup-sovellukseen, joka tarjoaa hinta-, reitti- ja aikataulutietoja eri kulkutavoille. Sovelluksen kautta voi jatkossa ostaa matkalippuja Turun joukkoliikenteeseen.

– Tampereen maksujärjestelmä ei vielä mahdollista tällaista, mutta siihen suuntaan ollaan menossa, Kulmala sanoo.

FAKTA

Näin pelaat

● Tampereen joukkoliikennepeliä voi pelata 14. maaliskuuta alkaen. Pelissä on tarkoitus kerätä pisteitä. Niitä kertyy, kun matkustaa bussilla eri postinumeraluella tai erikoispäivinä, kuten pitkänperjantaina.

● Kun astui bussin, mene älypuhelimella osoitteeseen streetlife.tampere.fi. Peli löytyy vasemman yläreunan valikosta. Puhelimessa on oltava GPS-paikannus ja internetyhteys. Pisteitä kertyy, kun haet haluamasi reitin ja pidät palvelun avoimena matkan ajan.

● Palkinnot arvotaan ja jaetaan pelaajille, jotka lähettävät tietonsa viimeistään 30.4. pelistä löytyvällä lähetysoimakkeella.



"Miksei satunnaisiin matkoihin voisi käyttää joukkoliikennettä?"

MIKA VUORIO
johtaja, älyliikennetarkaisut
CGI Suomi

ALU KLIPPI

Katso, mitä reittiopas näyttää: aamulehti.fi/klippi

Figure 30: Aamulehti, paper version of the article.

LIIKENNE: Uutta joukkoliikennepeliä kokeillaan Tampereella

14.3.2016: bussiuutiset



IT-palveluyhtiö CGI ja Tampereen kaupunki ovat kehittäneet pelin, joka kannustaa joukkoliikenteen monipuolisempaan käyttöön. Pelissä Tampereen joukkoliikenteen käyttäjät voivat kerätä pisteitä bussimatkoistaan.

CGI:n kehittämään reaaliaikaiseen reittioppaaseen perustuva peli käynnistyi maaliskuun 14. päivä.

– Haluamme pelin avulla kannustaa tamperelaisia hyödyntämään joukkoliikennettä aiempaa monipuolisemmin. Reaalitietokonekehittämämme reittiopas tekee työmatkojen lisäksi myös harrastus- ja muusta liikkumisesta helppoa. Myös liikennepestöjen vähentäminen on yksi tavoitteistamme, kertoo Tampereen liikenneinsinööri Mika Kulmala.

Pelissä pisteitä kertyy postinumeroalueista, joilla matkustaja liikkuu maalís-huhtikuun (14.3.–30.4.) aikana joukkoliikenteellä. Kaksi eniten pisteitä kerännyttä palkitaan Tampereen matkakortille ladattavalla 30 vuorokauden kausilipulla.

Lisäksi kaikkien peliin osallistuneiden kesken arvotaan kaksi 30 vuorokauden kausilippua sekä CGI:n lahjoittama taittopyörä.

– Olemme vuosien ajan kehittäneet Tampereen liikennettä sujuvammaksi. Nyt haluamme yhdessä testata peliä palkiten aktiivisia joukkoliikenteen hyödyntäjiä sekä houkuttella autoa suosivia tamperelaisia päivittämään kokemuksiaan siitä, miten hyvin bussit Tampereella palvelevat, sanoo CGI:n älyliikennematkailun johtaja Mika Vuorio.

Osallistuminen ei vaadi applikaatioiden asentamista. Joukkoliikennepeliin voi osallistua tahansa älypuhelimella tai tabletilla, jossa on gps-paikannus ja nettiyhteys.

– Riittää, kun osallistuja menee selaimellaan osoitteeseen streetlife.tampere.fi, hakee reittioppaasta haluamansa reitin ja käynnistää selaimen yläkulmassa näkyvästä valikosta pelin matkansa ajaksi, Vuorio opastaa.

Aina, kun matkustaja siirtyy uudelle postinumeroalueelle, käynnissä oleva peli kirjaa puhelimen muistiin uuden saavutuksen. Erityisiä saavutuksia voi ansaita myös sillä, että käyttää joukkoliikennettä tietyssä aikana, esimerkiksi matkustaa pääsiäisenä pitkäperijantaina.

Palkinnot jaetaan ja arvotaan pelaajille, jotka ovat lähettäneet keräämänsä saavutukset viimeistään sunnuntaina 30.4. pelistä löytyvällä lähetykslomakkeella. Pelin voittajat arvotaan huhtikuun aikana. Pelin säännöt ja ohjeet löytyvät osoitteesta <http://streetlife.tampere.fi/info>

Pelin kehittäminen leimitt EU:n Streetlife-pilottihankkeeseen, jonka puitteissa CGI on kehittänyt myös tamperelaisia palvelevan reaaliaikaisen reittiopasien. CGI:llä hanke kytketty kansainväliseen Future Cities -palveluratkaisujen kehittämiseen.

– Hanke on hyvä esimerkki siitä, miten autamme kaupunkeja hyödyntämään digitalisaation mahdollisuuksia kansalaislähtöisessä palvelujen kehittämisessä”, sanoo Vuorio.

Hanketta rahoittaa Euroopan Unionin seitsemäs puiteohjelma.



TILAA
BUSSIAMMATTILAINEN

TÄSTÄ

Tilaa uutiskirje

Tilaa uutiskirjeemme niin saat sähköpostiisi tietoa uusimmista jutuistamme.

 TILAA UUTISKIRJE!

Avainsanat

biopolittoaine bussimallit ELY Futura HelB

Helsinki hinnat HSL Hämeenlinna

joensuu joukkoliikenne junaliikenne

kaupungit koulutus käytetyt bussit

laatuutkimus lahti liikennekaari

liikennekeskus linja-auto lippujärjestelmä

matkakeskus Mercedes-Benz messut Norrlin plavelut

polttoaine raskas liikenne reittiopas

renkaat Sürviõ sähköbussi sähköbussit

taksiliikenne tienpito tietyöt toimitusjohtaja

Transdev uudet-bussit uutiset uutuuDET VDL

verkkokauppa VLD volvo

Arkistot

Figure 31: STREETLIFE Tampere game in the most read bus magazine in Finland. Their readers consist of bus companies, their personnel, political decision makers and public transport experts. It reaches about 26,000 readers. Game was mentioned also in a logistics area magazine Kuljetus.net.

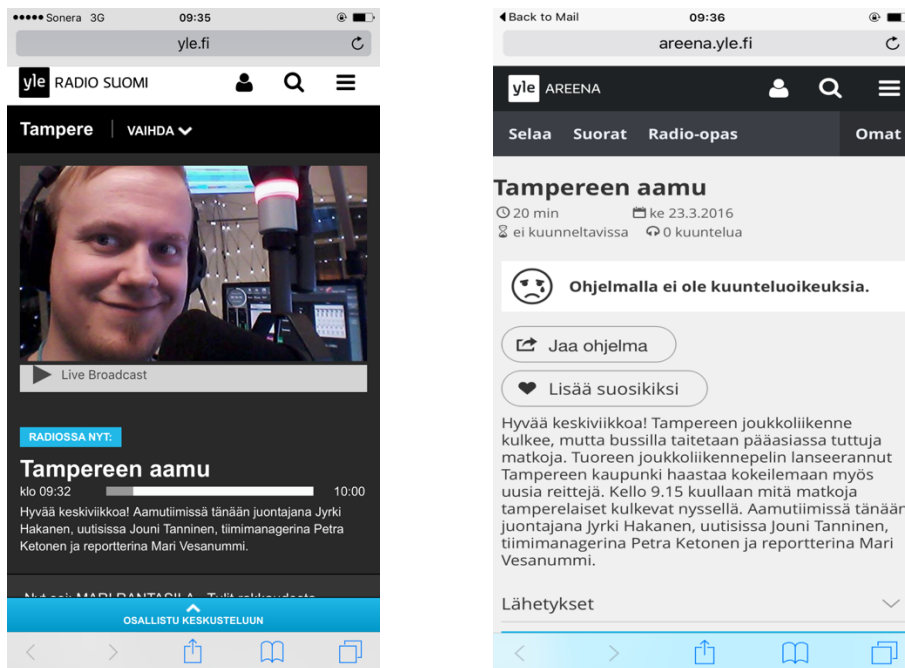


Figure 32: Finnish national Broadcasting company Radio show featured the STREETLIFE game twice on different times.



Figure 33: Tampere university article and radio show about the Tampere game

The screenshot shows the homepage of Dome.fi, a gaming and entertainment website. The top navigation bar includes links for ELOKUVAT, PELIT, VIHDE, KILPAILUT, KESKUSTELUT, and VAIHDA TEEMAA. A search icon is also present.

The main banner features a portrait of Eero-Kaappo Koivisto, a student at LUT University, with the headline: "UUSI TEKNOLOGIA JA GLOBAALI BISNES KIINNOSTI. VALITSIN LUT:N TUOTANTOTALOUDEN." Below the headline is a button that says "» TUTUSTU NYT".

Below the banner, there is a section titled "Ajankohtaista" (Current events) with a date of 15.03.2016, 17:41 and a view count of 980. The main article is titled "Tampere pelillisti joukkoliikenteen – bussimatkaajia palkitaan bussilipuilla" (Tampere gamifies public transport – bus passengers are rewarded with bus tickets). The article text describes a game developed by CGI and the City of Tampere, where players use a mobile app to earn bus tickets by completing tasks. The game is available on both mobile phones and tablets.

On the right side of the page, there is a "TILAA UUTISKIRJE" (Subscribe to newsletter) section with a form for email input. Below this is a "TILAA" (Subscribe) button. Further down is a "KESENNÄKKÖ" (Seasonal offer) section featuring a hot tub advertisement from Tokmanni.fi, priced at 349.00. Below the hot tub ad is a "UUSIMMAT ARVOSTELUT" (Latest reviews) section, which includes reviews for "Tom Clancy's The Division", "Superhot", and "Agatha Christie – The ABC Murders". At the bottom right is a "UUSIMMAT ARTIKKELIT" (Latest articles) section, featuring an article about "Far Cry Primal" and "World of Tanks".

Figure 34: Dome is a gaming and entertainment site. This is first time a public transport app has been mentioned in a gaming site.

4.5. Observations and lessons learned

Tampere pilot ran smoothly, technically it was working well and the pilot game got lot of publicity in media. There were multiple articles in the region's biggest newspapers. This was the first time in which we have had a public transport-related App mentioned in an entertainment and gaming site. Users found the app easy to use and real-time information reduced their stress in travelling. These factors can lead to increased willingness mode change from private car.

In total, during the first and second iteration TRE pilot multi-modal real-time journey planner had over 51 000 user sessions with over 19 000 unique users. The game really made the new real-time journey planner app interesting for the users. The numbers of users doubled during the pilot, if we compare the second iteration to the first iteration pilot. Lot of work put in the engagement activities played their part also in this good attraction of users.

The transportation flow experiment technically worked well and based on the experiences of first iteration, it was planned to have two measurements to mitigate the risk if the experiment measurement does not work properly. Lesson here is that measuring flow in traffic network is challenging as there are multiple factors effecting people's travel patterns. We found out that during our experiment a big shopping centre was having a crazy sale days event, which lead to large number people in the key experiment area. Our people flow experiment tried to reduce number of people in the congested area. In the second try of the experiment, which was done according to our mitigation plan, we saw nice reduction of people in the experiment area. Experiment looked very successful, but later we found that there were school holidays during the experiment. It was quite difficult to separate holiday's effect from our flow measurement.

Technically the people flow management and park & ride promotion were operating as planned, we could observe alternative trip results the system gave to the end user. For the mobility manager and transport authority, these were important experiments for future proofing, but measuring effect was much more challenging than expected. Transport network is affected by multiple factors and a single experiment can be affected by the surrounding environment.

Mixed Reality was an important part to attract user interest for the pilot, and can in the future help users to orient themselves in less known surroundings.

Overall, in the second iteration the communication to encourage active participation was achieved and the game was the highlight which got interest and positive feedback in the Nordic Transport Conference and from the visitors of Quebec Canada area.

5. CONCLUSION

This Deliverable presents an exhaustive report of all activities undertaken by the STREETLIFE partners involved in the execution of the second iteration of the pilots in the cities of Berlin, Rovereto, and Tampere.

The pilot logs that we have presented in the previous sections highlight the amount of effort that has been undertaken at each pilot site to carry out the pilot execution. They also show the effort all pilots have directed towards scaling up during this second iteration the reach and impact of STREETLIFE sustainable urban mobility solutions, once deployed in their city.

This report also highlights the number of diverse competences and skills necessary to run city pilots at this scale, and how involved parties have orchestrated and coordinated their competences and roles in each pilot.

The commitment of that effort and those competences has ensured that pilot execution at all sites was completed in time and according to plan. That is critical, since it has ensured that data has been collected and secured, to enable evaluation both at the local pilot level (reported in D6.2.2), and with respect to the overall project objectives (which will be the subject of upcoming STREETLIFE Deliverable D8.2.2).