Small or medium-scale focused research project (STREP)

ICT Call 8

FP7-ICT-2011-8

Cooperative Self-Organizing System for low Carbon Mobility at low Penetration Rates

COLOMBO: Deliverable 6.5

Periodic report on User Community involvement and Dissemination

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Changes	•

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1 Introduction

1.1 Project Context

The COLOMBO project will deliver a set of modern cooperative traffic surveillance and control applications that target at different transport related goals such as increasing mobility, resource efficiency, and environmental friendliness.

The surveillance applications use information gained via vehicular communication technology at low penetration rates (WP1). The traffic control applications are of self-organizing type using swarm intelligence methods (WP2). They are optimised based on simulations-in-the-loop (WP3). To allow the ex-ante appraisal of the applications' impacts, the evaluation framework must be defined. It has design interdependencies with the traffic simulation scenarios which trigger modification and extension requirements to existing simulation tools. Once realized they are implemented into a dedicated software suite which is mainly open source (WP5). Since the work takes into consideration the vehicular population in the year 2020, respective adaptations like the inclusion of electrical vehicles is essential (WP4).
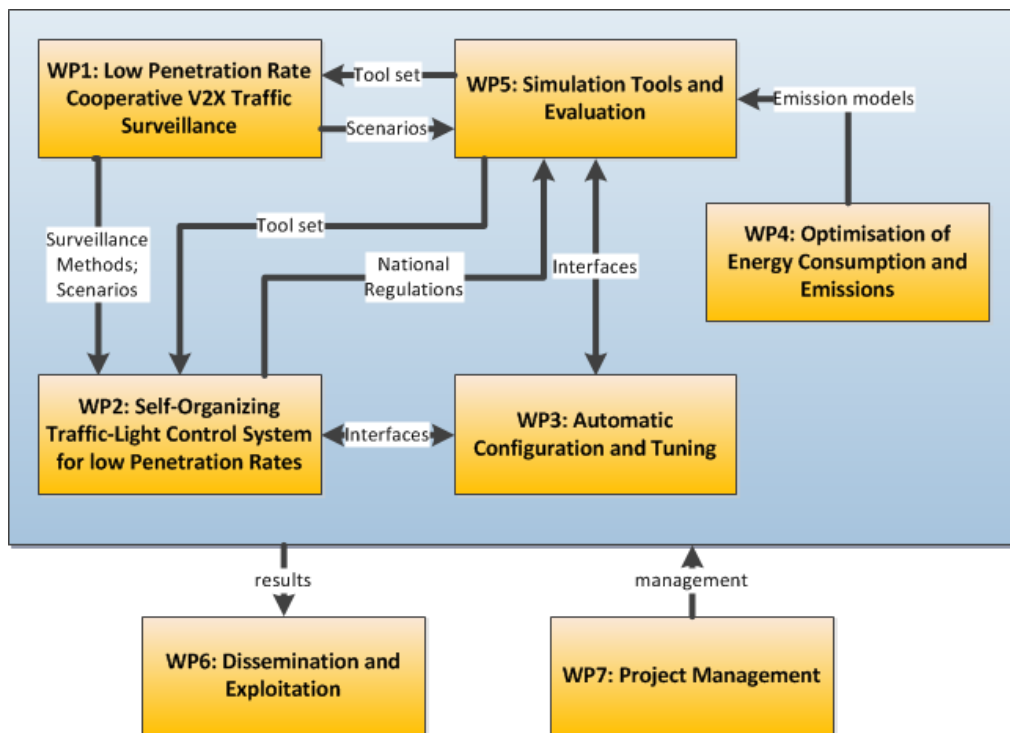
Figure 1.1: COLOMBO work packages

This deliverable is part of WP6 about the dissemination and involves the results of WP1-5. The objective of this work package is to disseminate the results of the project by involvement of the potential user community. Furthermore, increasing public knowledge about the project is also a way to prepare for exploitation.

1.2 Document Objectives

The objectives of this document are to give an overview on the dissemination activities and user community involvement that has taken place during the first year.

1.3 Document structure

The document distinguishes between dissemination in chapter 2 and user community involvement in chapter 3. Within dissemination sections have been made for the website, presentations, publications and dissemination activities that have been started up, but have not yet finished. Within user community involvement there are sections for the SUMO community, the ns-3 community and the traffic engineering community.

2 Dissemination

2.1 Colombo project website

The web page[1] is the first source of information about the project. As such, the entry page shows a short summary and the navigation at the left side of the web pages allows accessing all sub-topics, mainly the organisation of the project and its results. Figure 2 shows the appearance of the web site.
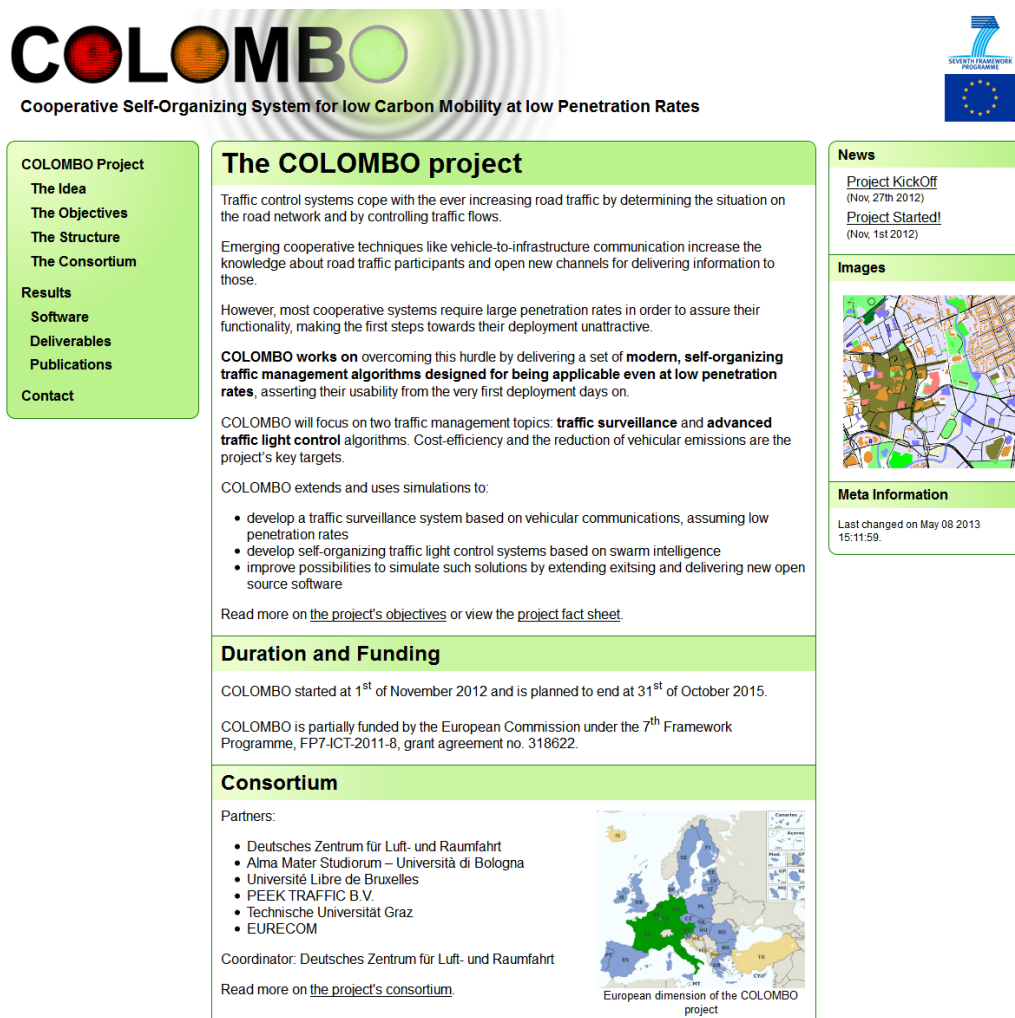
Figure 2: The COLOMBO web site as shown in Mozilla Firefox version 25

The web pages have been put on-line on 30th of November 2012. A user tracker[2] was included six months later, on 20th of May 2013. The visitor statistics (page hits) are given in Figure 3.

Figure 3: Visitor numbers of the COLOMBO web pages over time (1st of June 2013 to 18th of December 2013)

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[1] http://www.colombo-fp7.eu/
[2] tracking regards EU-privacy laws

Quite surprising, most of the visitors come from the United States of America, as shown in Figure 4.
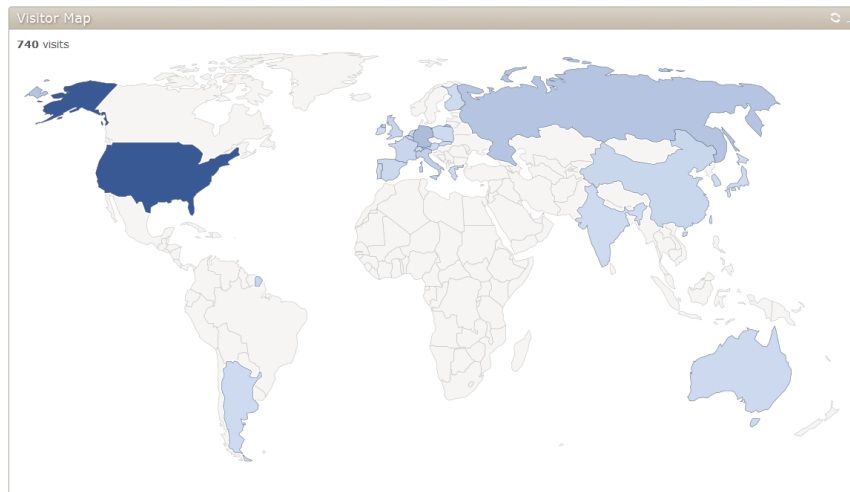

Figure 4: COLOMBO web pages visitors by country (1st of June 2013 to 18th of December 2013)

2.2 Presentations

The project has been presented at the Bologna smart city exhibition in October 2013. A poster outlining the project was presented at the Car2Car CC Forum in November 2013.

2.3 Publications

Two conferences have been visited in which a paper was published and presented:

- Daniel Krajzewicz, Marek Heinrich, Michela Milano, Paolo Bellavista, Thomas Stützle, Jérôme Härri, Thrasyvoulos Spyropoulos, Robbin Blokpoel, Stefan Hausberger, Martin Fellendorf. COLOMBO: Investigating the Potential of V2X for Traffic Management Purposes assuming low penetration Rates. ITS Europe 2013, 04. - 07. Jun. 2013, Dublin, Ireland

- Thomas Stützle and Manuel López-Ibáñez, Automatic (offline) Configuration of Algorithms. In Christian Blum and Enrique Alba, Genetic and Evolutionary Computation Conference, GECCO '13, Companion Material Proceedings, ACM Press, New York, NY, 2013.

The latter conference took place between the 6th and 10th of July 2013.

2.4 Activities in progress

The following papers have been accepted for the Transport Research Arena conference which will be held in Paris from 14-17th of April 2014:

- Extending the iTetris platform for Smartphone sensing and communication simulation (Jérôme Härri, EURECOM).

- Traffic light coordination for minimizing vehicle emissions and energy consumption (Stefan Hausberger, TU Graz).

- Unified Evaluation of Traffic Light Algorithms (Daniel Krajzewicz, DLR).

For the German "Verkehrswissenschaftliche Tage Dresden" a paper was accepted and will be presented during the congress at 20th and 21st of March 2014:

- Large-area simulations of traffic management applications for pollutant emissions reduction; (Daniel Krajzewicz, DLR).

A paper has also been submitted for the 14th European Conference on Evolutionary Computation in Combinatorial Optimisation (EvoCOP 2014) conference which will take place from the $23^{rd} - 25^{th}$ of April 2014. Acceptance notification has not yet been received. The paper is, however, already available as a technical report on the IRIDIA portal:

- An Analysis of Parameters of irace (Thomas Stützle, ULB).

2.5 Fact Sheet

The Fact Sheet is a two-page flyer-like presentation of the project. It is available at the web page. Copies of it are also available from the SVN and the TeamSite for project partners. It is assumed to be printed and made available at conferences, etc. The Fact Sheet is shown in Figure 5.
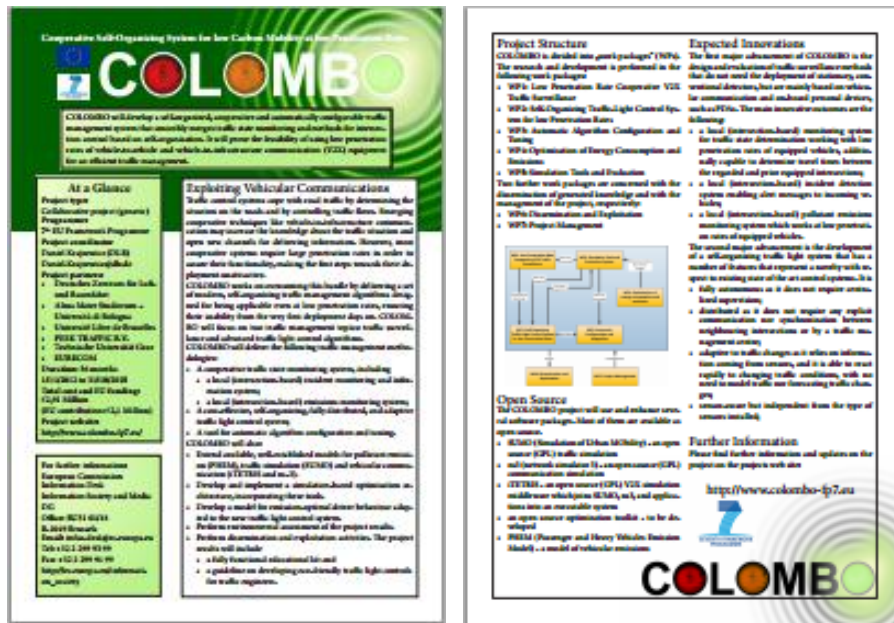

Figure 5: COLOMBO Fact Sheet

3 User community involvement

3.1 SUMO community

COLOMBO itself has not yet been announced on main SUMO's communication channels. Up to now, only the traceExporter script has been added to SUMO's main trunk. The users were informed about this action which also allowed replacing an older tool for generating vehicular trace files for communication simulators. The tool is in use and seems to be accepted. Two problems[3] have been reported that could be fixed. One further problem[4] has not yet been solved by the 18th of December 2013. The documentation on the script[5] notes that the script was implemented within the COLOMBO project. A question raised by the project on further output formats to include, which was posted on SUMO's developer mailing list, was not answered.

In the future, it is assumed that SUMO-users will be informed about the progress in COLOMBO and how they can participate after ending the work on a closed topic. This should be shortly after the according COLOMBO deliverable. As channels, the following ones should be used: a) via publications presented at the SUMO user conference[6] and b) via mails on SUMO's mailing lists. Additionally, acknowledgements will be included in future documentations as described above.

3.2 Traffic engineering community

The traffic engineering community has not been directly involved in this period. Through the dissemination activities, the project has been introduced to the community, but no significant feedback has been received from that. It was also attempted to organize the first workshop at the Polis conference, but the proposal was rejected because it was too technical. Despite the rejection, it did help to increase the publicity of the project. The same holds for the cancelled stand-alone workshop that was advertised through the Ertico network.

Imtech also organized a small internal workshop for sales and distribution representatives. The main goal of the workshop was to acquire input for the exploitation plan, but it did increase publicity of the project. Due to this workshop the Colombo solution was introduced to the local traffic engineers in Sao Paulo and Rio de Janeiro, Brazil. The feedback received on that occasion was that the solution should be integrated with other traffic related products for more ease of use.

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[3] missing information about the interpreter to use ("shebang") and false enumeration when generating numerical ids
[4] negative offsets may occur when exporting to ns-2
[5] http://sumo-sim.org/userdoc/Tools/TraceExporter.html
[6] Up to now, only announced via the mailing list, the web page will be set up soon