TIMON

“Enhanced real time services for optimized multimodal mobility relying on cooperative networks and open data”

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Authors

Name	Organisation
Zane MEZDREIJA	CORTE
Rémy RUSSOTTO	CORTE

Reviewers

Name	Organisation
Hugo LANDALUCE	DEUSTO
Leire SERRANO	DEUSTO
Matija CANKAR	XLAB
Luca FOGLI	INTECS
Giovanni IOVINO	INTECS
Alessandro ROSSI	INTECS
Pau CLOSAS	CTTC
Javier ARRIBAS	CTTC
Carles FERNÁNDEZ	CTTC
Francis IRVING	SCRAPERWIKI
Darjan TOMAŽIN	ISKRA
Tomaž VRČKO	ISKRA
Andrej STIJEPIĆ	JP LPT
Tamás PRAJCZER	GEOX
Yagmur SEVILMIS	FRAUNHOFER
Gwen VAN VUGT	TASS

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BASIC PROJECT INFORMATION

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Executive Summary

The TIMON publishable summary presents the accomplishments achieved throughout the first year of the project.

The TIMON project was launched in June 2015. The ultimate aim of the project is to provide services and applications to all transport ecosystem users that would help improve road transport safety, sustainability, flexibility and efficiency.

Throughout the summer of 2015 actively worked on defining end user needs and system requirements, which would later serve as the basis for all of the work done in the TIMON project. On the basis of the identified system requirements, the TIMON system architecture was developed. Work throughout the first year of TIMON has also been done on defining the open data sources necessary for TIMON and defining the ITS Standard Logical Data Model, which would define a general approach to data handling in complex systems like TIMON.

Now, entering its second year, TIMON project partners are busy developing the technologies behind the TIMON applications and services. A first step in this is a literature analysis to examine the state-of-the-art on traffic prediction, route planning, GNSS positioning, hybrid communications, and artificial intelligence techniques. TIMON project partners are also eagerly awaiting September 2016, when the first TIMON pilot phases will take place at the TASS Mobility Centre in Helmond, the Netherlands. TIMON is also preparing a Hackathon for the TIMON technologies, which is expected to take place either late in 2017 or early in 2018.

1. Introduction

This document presents the first publishable summary for the TIMON project. A total of three such publishable summaries will be issued throughout the course of the TIMON project – the second in September 2017 (M28) and the third at the end of the project in November 2018 (M42).

The publishable summary seeks to present a concise overview of the most important developments within the TIMON Project. This version of the publishable summary concerns itself with the project advances attained throughout the first year of the project, that is, from June 2015 to June 2016.

The publishable summary, once approved by the project consortium, will be submitted to the European Commission and uploaded to the TIMON project website www.timon-project.eu.

2. Publishable Summary v1

Background Information

The TIMON project, launched in June 2015 in Bilbao, Spain, has already been running for a year. The time has flown by as eleven partners from eight different EU countries continue to work towards the aim of improving road transport system safety, sustainability, flexibility and efficiency by delivering a range of services and applications to all transport ecosystem users - drivers, businesses and vulnerable road users. TIMON will establish a cooperative ecosystem integrating traffic information, transport management, ubiquitous data and system self-management to provide the following services:

- Driver assistance services
- Services for vulnerable road users
- Multimodal dynamic commuter service
- Enhanced real-time traffic API
- TIMON collaborative ecosystem

Progress Achieved

The first step in achieving the TIMON objective was to reach out to end users and find out what it is that they require from modern ITS technologies. This was done via a Questionnaire throughout the summer of 2015, as well as several bilateral meetings, e-mail exchanges, and gathering internal TIMON consortium expertise. A comprehensive list of user needs was then produced and validated in a face-to-face meeting between end users and the TIMON consortium on 1st October 2015. The list served as the basis for the definition of the system requirements, which, in turn, have formed the basis of the TIMON system architecture. A series of key performance indicators (KPIs) and metrics to assess the success of the TIMON system have also been identified.

TIMON will seek to leverage available open data sources in the applications and services that the project will ultimately provide and work has already been done to define the open data sources necessary for TIMON. Going a step further, the ITS Standard Logical Data Model has also been developed. This model considers the general approach to data handling in complex systems like TIMON and the existing standards that TIMON will seek to take advantage of.

Now, the TIMON project partners are busy developing the technologies, upon which the TIMON services and applications will be based. This is being done, first and foremost, by performing an analysis of the current literature on the technologies that TIMON will leverage, including traffic prediction and route planning using artificial intelligence techniques, GNSS positioning, hybrid communications, and then building upon the results of this research.

The TIMON consortium has been actively participating in external events and promoting the results already achieved in TIMON to the external world. In the past year, project partners have

taken part in the 6th European Transport Research Conference in Warsaw (Poland) and the Information Society Conference 2015 in Ljubljana (Slovenia), as well as issued several publications in critically acclaimed journals.

Future work

The TIMON consortium is looking forward to testing the initial results in the first pilot phase, which will be held in September 2016 at the TASS Mobility Centre in Helmond, the Netherlands. TIMON is also preparing to host a Hackathon, expected to take place either late in 2017 or early in 2018, which will open the TIMON system to end users, allowing them to play with it and the consortium to assess the possible vulnerabilities of the TIMON system.

Get in Touch

More information about TIMON is available on the project website www.timon-project.eu, as well as on Facebook (www.facebook.com/TIMONProject), Twitter (@TIMON_H2020), and LinkedIn (https://es.linkedin.com/in/timonproject).

List of abbreviations and acronyms

Abbreviation	Definition
EU	European Union
GNSS	Global Navigation Satellite System
ITS	Intelligent Transport Systems
TIMON	Enhanced real time services for an optimised multimodal mobility relying on cooperative networks and open data
M	Month
API	Application Programming Interface
KPI	Key Performance Indicators