

DRIVE



Accelerate cooperative mobility

Deliverable D36.1

## Report on implementation of DRIVE C2X fleet/user management to test sites

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## Executive summary

This document reports the results of WP36 on the fleet and user management of the DRIVE C2X Field Operational Tests (FOT). The main added value of WP36 is that harmonized processes for fleet and user management have been introduced to be implemented locally at each test site.

The purpose of this deliverable is to outline the fleet and user management as much in depth as possible.

### Chapter 1 Introduction

This chapter introduces WP36 and its role within the DRIVE C2X project context. WP36 is in charge of the coordination of test fleets and drivers across the national functional test sites. It coordinates local activities on a higher level and is supported by test site coordinators locally.

In order to gather statistically relevant data during the FOT execution, it is crucial that enough vehicles are operated at each test site, and a sufficient number of drivers will be available for the FOT execution. Therefore, WP36 has to ensure both vehicle and driver availability at each test site in order to successfully perform the field operational tests for a selected function set.

### Chapter 2 List of participating vehicles

This chapter provides an overview of participating vehicles at the field operational tests within the DRIVE C2X project. There will be two kinds of vehicle fleets for the execution of FOTs:

- Local vehicle fleet at each test site and
- Vehicles provided by the project partners (i.e. OEMs but also other vehicle providers such as CTAG, FhG FOKUS, IFSTTAR, and VTT).

The information has been gathered from the project partners by means of questionnaires. In addition to the number of vehicles, the vehicle type is reported as well.

### Chapter 3 Fleet Management Tool

WP36 analyzed the need for a fleet management tool. Therefore, the number of required vehicles at each test site has been taken into account. Except for the German test site, intending to operate more than 100 vehicles, all other functional test sites have between 10 and 30 vehicles, which do not require a specific tool for the fleet management. As a conclusion, the fleet management will stay under the full responsibility of the test sites.

### Chapter 4 Report on fleets and users at System Test Site for interoperability testing and validation

This chapter provides an overview of the participating vehicles and drivers for the system integration and validation phase of the DRIVE C2X project at the System Test Site (STS) in Helmond, the Netherlands. In total five integration and validation workshops have took

place. Therefore, the project partners had been requested for provisioning of vehicles and drivers. The planned contribution as well as the actually appearing vehicles and drivers are listed in this chapter. The information has been gathered from the project partners using questionnaires. Additionally, this chapter also provides an overview of the applications that have been tested and validated with the vehicles.

## **Chapter 5 Report on fleets and users for adaptation and piloting at Functional Test Sites**

This chapter provides an overview of the participating vehicles and drivers for the test site adaptation and piloting phase at each of the DRIVE C2X Functional Test Sites (FTS). Therefore, the project partners have been requested again for vehicle and driver participation. The scope of the questionnaires used here has been on the partners' contribution for piloting. The planned numbers as well as the actually appearing vehicles and drivers are listed in this chapter. Additionally this document also provides an overview of the applications that are tested and validated with the vehicles at each test site.

Finally, this chapter also outlines how the fleet and user management is implemented at each Functional Test Site.

## **Chapter 6 User Management**

This chapter outlines the user management in more detail at the System Test Site as well as at the Functional Test Sites.

It is evident to agree and design a common methodology to obtain comparable test results, ensure a sufficient quality of the produced data and to control the various efforts at each test site in a structured manner. Therefore, "Guidelines for User Management" have been created with the intention to secure an optimum of harmonization across the test sites concerning the user management process. Although each test site will perform the operational user management on its own, this document provides common guidelines for all. It is intended to help the test sites organizing the processes of user acquisition, user briefings, data management and survey participation.

The guideline document has been created in a joint work effort of WP35 "Data Management", WP36 "Fleet and User Management", WP45 "Impact Assessment" and WP46 "User Acceptance" [16].

The entire user management process contains various steps:

- 1) User acquisition, including incentives,
- 2) User agreements,
- 3) User briefing,
- 4) User coordination and communication,
- 5) User data, including questionnaires and surveys.

Each of the steps 1 to 4 is within the responsibility of Wp36 and described in chapter 6.2. Step 5 is within the responsibility of WP35 and Wp46 and outlined in detail in the DRIVE C2X User Management Guidelines [16].

## Chapter 7 Conclusions

The conclusions drawn from the work done are presented in Chapter 7.

Providing a sufficient number of vehicles and drivers requires a serious amount of effort and time. Some spare time is recommended for this important part of FOT preparation. Vehicle acquisition is a trade-off between the required amount of vehicles and users in order to gather statistically relevant data and available resources of the project partners on the other hand.

For the user management the need for an additional guideline document came up. This document has been created and provided to the test sites in order to provide support for the test sites as well as to harmonize the user management across the local test sites. The entire user management is not just a task of WP36 but requires close alignment with WP35 (Data Management), WP45 (Impact Assessment) as well as WP46 (User Acceptance).