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**Cestna transportna in prometna telematika – Sistemi za odkrivanje ukradenih vozil  
– 1. del: Referenčna arhitektura in terminologija**

Road transport and traffic telematics - After-theft systems for the recovery of stolen vehicles - Part 1: Reference architecture and terminology

Straßenverkehrstelematik - Systeme zum Wiederauffinden gestohlener Fahrzeuge - Teil 1: Referenzarchitektur und Begriffe

Télématique des transports - Recherche des véhicules volés - Partie 1: Architecture de référence et terminologie

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**Road transport and traffic telematics - After-theft systems for the  
recovery of stolen vehicles - Part 1: Reference architecture and  
terminology**

Télématique des transports - Recherche des véhicules  
volés - Partie 1: Architecture de référence et terminologie

This Technical Specification (CEN/TS) was approved by CEN on 8 August 2005 for provisional application.

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## Foreword

This Technical Specification (CEN/TS 15213-1:2005) has been prepared by Technical Committee CEN/TC 278 "Road transport and traffic telematics", the secretariat of which is held by NEN.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

CEN/TS 15213 "*Road transport and traffic telematics — After-theft systems for the recovery of stolen vehicles*" consists of the following parts:

*Part 2: Common status message elements*

*Part 3: Interface and system requirements in terms of short-range communication system*

*Part 4: Interface and system requirements in terms of long range communication system*

*Part 5: Messaging interface*

*Part 6: Test procedures*

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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**CEN/TS 15213-1:2005 (E)****Introduction**

This Technical Specification was developed by CEN TC 278 "Road transport and traffic telematics" Working Group 14 (WG 14) on the subject of After Theft Systems for Vehicle Recovery (ATSVR).

WG 14 comprised representatives and experts from police, insurance associations (CEA), car manufacturers, transport associations, vehicle rental associations and ATSVR system and product providers. The work was also in cooperation with Europol and the European Police Cooperation Working Group (EPCWG).

This Technical Specification was developed to define an architecture within guidelines from CEN/TC 278 through which a level of interoperability can be achieved between Systems Operating Centres (SOC) and Law Enforcement Agencies (LEA), both nationally and internationally.

This will provide minimum standards of information and assurance to users as to the functionality of systems, thereby enabling the recovery of vehicles, detection of offenders and a reduction in crime.

The other parts of CEN/TS 15213 should be read in conjunction with this document that distils the architecture and terminology profile generated by the internal technical reports of WG 14.

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## 1 Scope

For many years, consumers, law enforcement agencies and insurers have been confronted with an ever-increasing number of vehicle thefts, both genuine thefts and insurance frauds, as well as the growing problem of increasing violence and threats against vehicle drivers.

Manufacturers have and will continue to introduce after-theft systems that will enable the police to recover stolen vehicles. Different techniques are being used for that purpose. This document refers to them by the generic name of After-Theft Systems for Vehicle Recovery (ATSVR).

Standards for Automatic Vehicle Identification (AVI) and Automatic Equipment Identification (AEI) are being developed by CEN/TC 278, WG 12 in parallel with prEN ISO 14814. This ATSVR standard does not prejudice that work and does not seek to establish parameters for future AVI/AEI standards. DSRC and AVI standards are seen as basic technology blocks for types of short-range ATSVR systems.

Certain specialised terms and definitions have been used in writing the ATSVR standards. This preliminary document aims to provide the preliminary framework of ATSVR concepts and definitions for the purpose of following ones. It will therefore:

- define the concepts and global architecture models for ATSVR and the appropriate terminology;
- identify the various elements that may comprise an ATSVR.

The events and associated information that are relevant to the situation prior to the registration of the theft are relevant to the total process, but may be subject to the laws of individual countries. Such events and associated information may be described in the standards to give clarity to the technical processes identified, which obviously does not presume on the prevailing legal conditions.

## 2 Normative references

Not applicable.

## 3 Terms and definitions

For the purposes of this Technical Specification, the following terms and definitions apply.

### 3.1 General definitions

#### 3.1.1

##### **ATSVR**

after Theft System for Vehicle Recovery, a system that comprises various technical elements that communicate and interact through various interfaces in accordance with standard procedures and transmission protocols in order to facilitate the recovery of a Registered Stolen Vehicle

**NOTE** An ATSVR necessarily includes various human elements. For clarity, this document will identify interactions and interfaces that exist amongst the equipment and human elements operating within the system.

**CEN/TS 15213-1:2005 (E)****3.1.2****ATSVR User**

individual, group or organisation that directly uses or interacts with an ATSVR. The main users could be: Law Enforcement Agencies, Insurers, Car Manufacturers, System Service Providers and Vehicle Service Providers

**3.1.3****ATSVR Detection Equipment User**

personnel who operate the *ATSVR Detection Equipment*

**3.1.4****ATSVR Information User**

personnel who use the ATSVR data and information

**3.1.5****ATSVR Service Provider**

organisation that provides ATSVR Services for ATSVR Users. An ATSVR Service Provider can operate all or part of the functions of an ATSVR. It will usually be distinct from a Law Enforcement Agency. It may also be known as a Private Security Company or ATSVR operator

**3.1.6****ATSVR Equipment**

equipment that either, individually or in combination with other equipment, performs one or more functions of an ATSVR or facilitates interfaces between the various elements of an ATSVR

**3.1.7****ATSVR On-Board Equipment (OBE)**

equipment installed in or on the vehicle whose primary purpose is to allow that vehicle to be recovered in the event of theft. It may also indicate theft and record activity relevant to that detection

**3.1.8****ATSVR Detection Equipment (DE)**

equipment used to perform various functions of an ATSVR. This equipment may be stationary, portable or mobile

**3.1.9****ATSVR System Operating Centre (SOC)**

System Operating Centre (SOC) functions as a control and management centre for an ATSVR. It may, for example, be a commercial bureau, a government facility or law enforcement agency office. An SOC is distinct from the communications infrastructure, detection equipment and On-Board Equipment

**3.1.10****Law Enforcement Agency (LEA)**

An Agency or Organisation approved or appointed to have jurisdiction in a territory over the recovery of stolen vehicles. It will usually refer to an official authority such as the Police Force or Customs Service.

**3.1.11****ATSVR Human Interactions**

recovery process cannot be fully automatic. Human interactions are required to link different stages of the process, these human interactions obviously being outside the scope of standards. See Figure 3 — Human interactions for the ATSVR model



**3.1.12****ATSVR “Human Machine Interface”**

interaction mechanism between the user and the equipment, including the set of inputs, outputs and dialogue procedures (that concern all display, sound signals and command user). As technical supports of the Human Interface, the HMIs are subject to standardisation

**3.1.13****Vehicle Operators**

individuals legally operating or driving a vehicle, not necessarily the vehicle's legal owner or registered keeper

**3.1.14****Unauthorised Vehicle Operators**

individuals operating or driving a vehicle who have NOT been authorised by the registered owner or authorised agent of the vehicle to operate or drive the vehicle. Individuals whose legal authority to use the vehicle has been withdrawn

**3.1.15****Vehicles**

wheeled or tracked conveyances including cars, motorcycles, trucks, trolley-buses, trailers, heavy construction vehicles and agricultural plant

**3.1.16****Target Vehicle**

registered stolen vehicle fitted with ATSVR OBE that is being sought

**3.1.17****Registered Stolen Vehicle**

vehicle fitted with ATSVR OBE that has been reported as stolen or being used by an Unauthorised Vehicle Operator to a Law Enforcement Agency by the Vehicle Owner, by an Authorised Vehicle Operator, or by an ATSVR Service and that report having been accepted by the LEA caused the LEA to register the vehicle as stolen or as being used by an Unauthorised Vehicle Operator. This is the official theft registration

**3.1.18****Detected Vehicle**

Registered Stolen Vehicle fitted with an ATSVR OBE that has been detected by an item of DE

**3.1.19****Telecom Operator**

provider of telecommunications services not dedicated exclusively for an ATSVR System, but used in many application areas (e.g. Network Operator of a GSM, RDS, communication satellite, optical cable, PSTN network)

**3.2 Basic ATSVR Functions****3.2.1 General**

There are three basic ATSVR functions of **detection**, **location** and **identification** of a Registered Stolen Vehicle.

**3.2.2****Detection Function**

automatically or semi-automatically to detect the location of a Registered Stolen Vehicle. This may be done by Signalling or by Consulting.

Detection by Signalling is where the OBE has been activated by a signal from an external source. This activation may come from a mobile or stationary source, which may be local to