D7.2 –SAFERtec Website

Security Assurance Framework for Networked Vehicular Technology

Abstract

SAFERtec proposes a flexible and efficient assurance framework for security and trustworthiness of Connected Vehicles and Vehicle-to-X (V2X) communications aiming at improving the cyber-physical security ecosystem of "connected vehicles" in Europe. The project will deliver innovative techniques, development methods and testing models for efficient assurance of security, safety and data privacy of ICT related to Connected Vehicles and V2X systems, with increased connectivity of automotive ICT systems, consumer electronics technologies and telematics, services and integration with 3rd party components and applications. The cornerstone of SAFERtec is to make assurance of security, safety and privacy aspects for Connected Vehicles, measurable, visible and controllable by stakeholders and thus enhancing confidence and trust in Connected Vehicles.

DX.X & Title:	D7.2 – SAFERtec Website
Work package:	WP7 Dissemination and Standardization
Task:	T7.2 Project Web site and Online Presence
Due Date:	30 June 2017
Dissemination Level:	PU
Deliverable Type:	R

Authoring and review process information		
EDITOR		**DATE**
Dimitra Christopoulou / ICCS		14-July-2017
CONTRIBUTORS		**DATE**
Dimitra Christopoulou / ICCS		14, 17-July-2017
Panagiotis Pantazopoulos / ICCS		17-July-2017
REVIEWED BY		**DATE**
Alessandro Marchetto/ CRF		28-July-2017
Oliver Kannenberg / TOM		31-July-2017
LEGAL & ETHICAL ISSUES COMMITTEE REVIEW REQUIRED?		
NO		

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 732319

Page **2** of **24**

Document/Revision history

Version	Date	Partner	Description
V0.1	13/07/2017	ICCS	First draft
V0.2	17/07/2017	ICCS	Use cases, first edit
V0.3	18/07/2017	ICCS	Updates on Section 3
V0.4	20/07/2017	ICCS	Addition of figures, Section 3
V0.5	21/07/2017	ICCS	Use cases, final edit
V0.6	26/07/2017	ICCS	Update of figures, complement to Sections 2 and 3
V0.7	27/07/2017	ICCS	Proofreading, subsection 3.3 updated Submitted for internal review
V0.8	28/07/2017	CRF	Revised version submitted
V0.9	31/07/2017	TOM	Revised version submitted
V1.0	02/08/2017	ICCS	Final version

Table of Contents

Table of Figures

List of Tables

Acronyms and abbreviations

Abbreviation	Description
D	Deliverable
CPU	Central Processing Unit
DoA	Description of Action
EU	European Union
HTTP	HyperText Transfer Protocol
Glosa	Green Light Optimal Speed Advice
ICCS	Institute of Communication and Computer Systems
PHP	Hypertext Preprocessor
T	Task
V2I	Vehicle-to-Infrastructure
V2X	Vehicle-to-Everything
URL	Uniform Resource Locator (web address)
WP	Work Package

Table 1: List of Abbreviations

Executive Summary

The present deliverable provides a brief description of the developed SAFERtec website and its main functionalities, explaining the rationale behind the layout and structure choices. Furthermore it describes the content of the different pages and sections, and the way that project developments will be communicated through the website.

This deliverable is closely related to D7.1 Dissemination and Exploitation Plan, and is addressed to all interested parties, either within the consortium, the European Commission, or the public. Once approved, it will be uploaded to the project website and will be available to the general public.

The website will serve as the main channel for the project's online communications. It will hold information about the project's concept, the consortium, relevant activities, and it will allow for the broad dissemination of project results.

The SAFERtec website will present the project brand and provide essential project information, using a user friendly layout and navigation structure. The content of the website will be managed and updated on a regular basis by ICCS.

1 Introduction

The present deliverable, entitled D7.2 SAFERtec Website is a key document within Work Package (WP) 7, describing the main tool of the SAFERtec online communications. The deliverable also provides a brief description of the main website functionalities.

In line with the SAFERtec communications objectives as set out in the Description of Action (DoA), the partner responsible for the project's online presence and author of this deliverable, ICCS, has developed a dedicated SAFERtec website to serve as the main channel for the project's online communications. The website will hold information about the project's concept, the consortium, and relevant activities, and will allow for the broad dissemination of knowledge, material and project results.

The SAFERtec website URL is www.safertec-project.eu, emphasizing the links to the European Union.

1.1 Purpose of the Document

The purpose of this deliverable is to provide a brief description of the developed SAFERtec website and its main functionalities, as it is foreseen in Task 7.2 Project Web site and Online Presence of WP7 Dissemination and Standardization.

1.2 Intended readership

This deliverable is addressed to any interested reader (*i.e.*, PU dissemination level).

1.3 Inputs from other projects

No input from other projects was considered during the drafting of this deliverable.

1.4 Relationship with other SAFERTEC deliverables

This deliverable is closely related to deliverable D7.1 Dissemination and Exploitation Plan (M06). The work described in the D7.1 plans will leverage the herein described functionality of the SAFERtec web-page to serve (most of) the dissemination purposes.

2 Infrastructure

2.1 Hosting and Running

The web portal of SAFERtec website is running on a server with the following characteristics: 4 x CPU: Intel(R) Xeon(R) CPU E5530, Memory: 8GB, Storage: 200GB. Software wise the website is served by an Apache HTTP server 2.4.7 with PHP 5.5.9 and is compatible with all available web browsers (Internet Explorer, Mozilla Firefox, Google Chrome, etc.). The server is hosted in the premises of the Institute of Communication and Computer Systems (ICCS) in Athens, Greece. The website has been developed in a mobile friendly mode by using Wordpress Content Management System. The Content Management System as well as the design are developed and customized by ICCS for the purposes of SAFERtec.

3 Website structure

The SAFERtec website has two horizontal navigation bars as depicted in the following pictures:
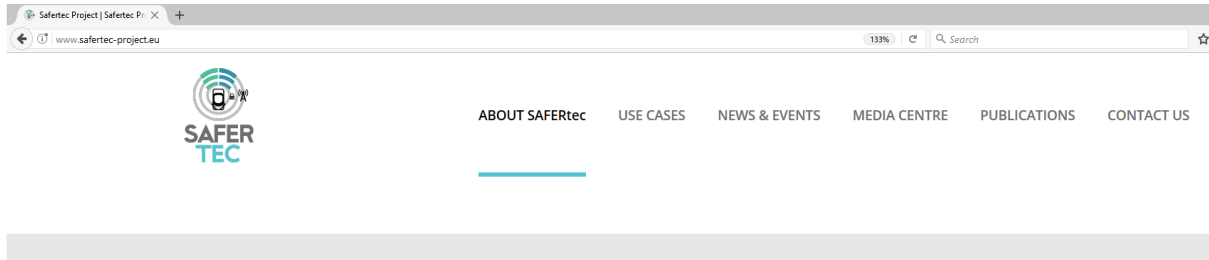
Figure 1: Upper horizontal navigation menu
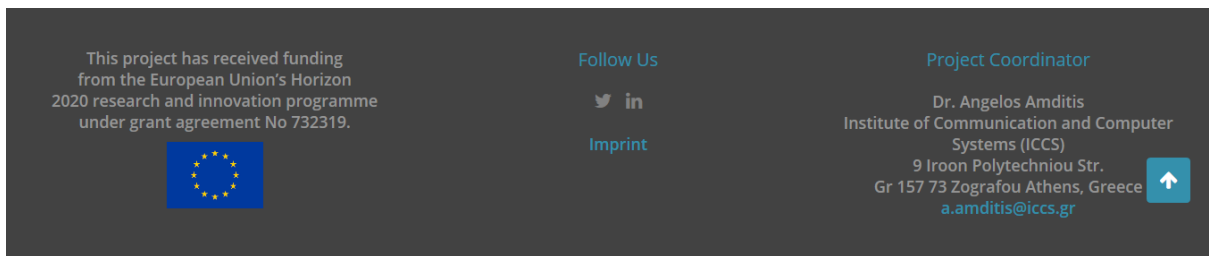
Figure 2: Lower horizontal navigation menu

The upper dropdown navigation menu comprises the following pages:

- ABOUT SAFERtec
- USE CASES
- NEWS & EVENTS
- MEDIA CENTRE
- PUBLICATIONS
- CONTACT US

The lower navigation menu comprises the following pages:

- Imprint
- Follow us (links to social media)
- Contact information

The upper menu remains visible on the screen even when the user scrolls down the page to facilitate navigation for site visitors; the lower menu appears when the visitor scrolls the page down.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 732319

Page **10** of **24**

The different sections of the pages, included in the navigation menus, are described in detail in the following sections of this report.

3.1 Homepage

The homepage (see Figure 3), being the point of entry for site visitors, presents essential project information and uses a simple layout to place focus on the branding and to facilitate navigation. The header area contains a large project logo and the "sticky" main navigation menu.

Right below the header, the full project title and an image representing a basic concept of the project, namely the "connected vehicle system", are presented. In addition, information about the SAFERtec concept, objectives and use cases (also included in the main menu) are provided in the homepage, in order to provide visitors with direct access to main project information without further search in the website. Also, information about the latest project news and activities, as well as links to the social media platforms is provided through the "News Feed" section. Moreover, the homepage provides information about the consortium, through a dedicated "Partners" section.

At the bottom of the homepage the EU flag and the respective acknowledgment text are placed. Finally, the lower navigation menu also contains an imprint section (see Figure 4), which includes a disclaimer notice and website information, links to the SAFERtec social media channels, and contact details of the project coordinator. This lower menu appears not only on the homepage but in all website pages, providing quick access to communication with the SAFERtec project (social media, contact details) and ensuring visibility of EU funding.

Visitors can be easily redirected to the homepage by clicking on the SAFERtec logo that appears on the top left side of the website.
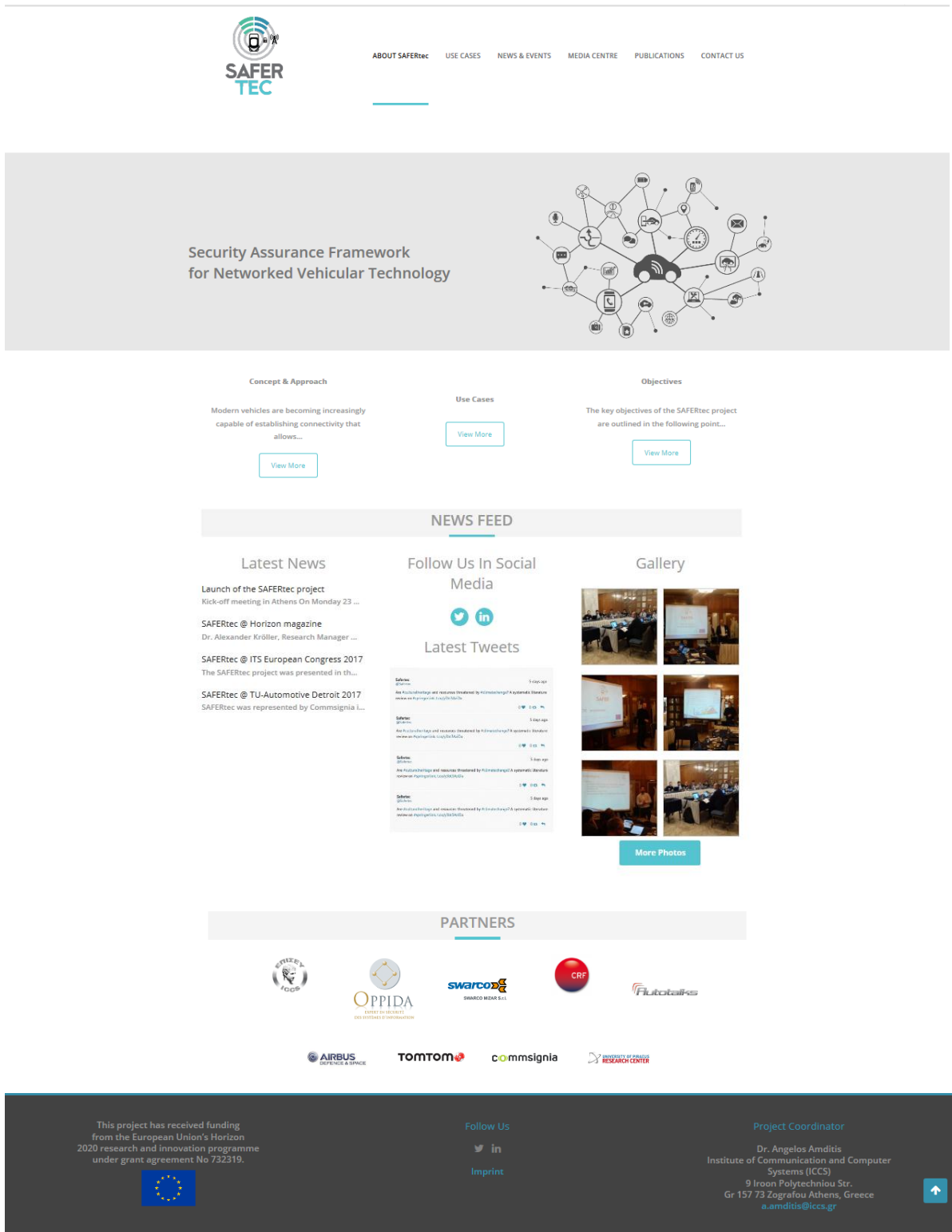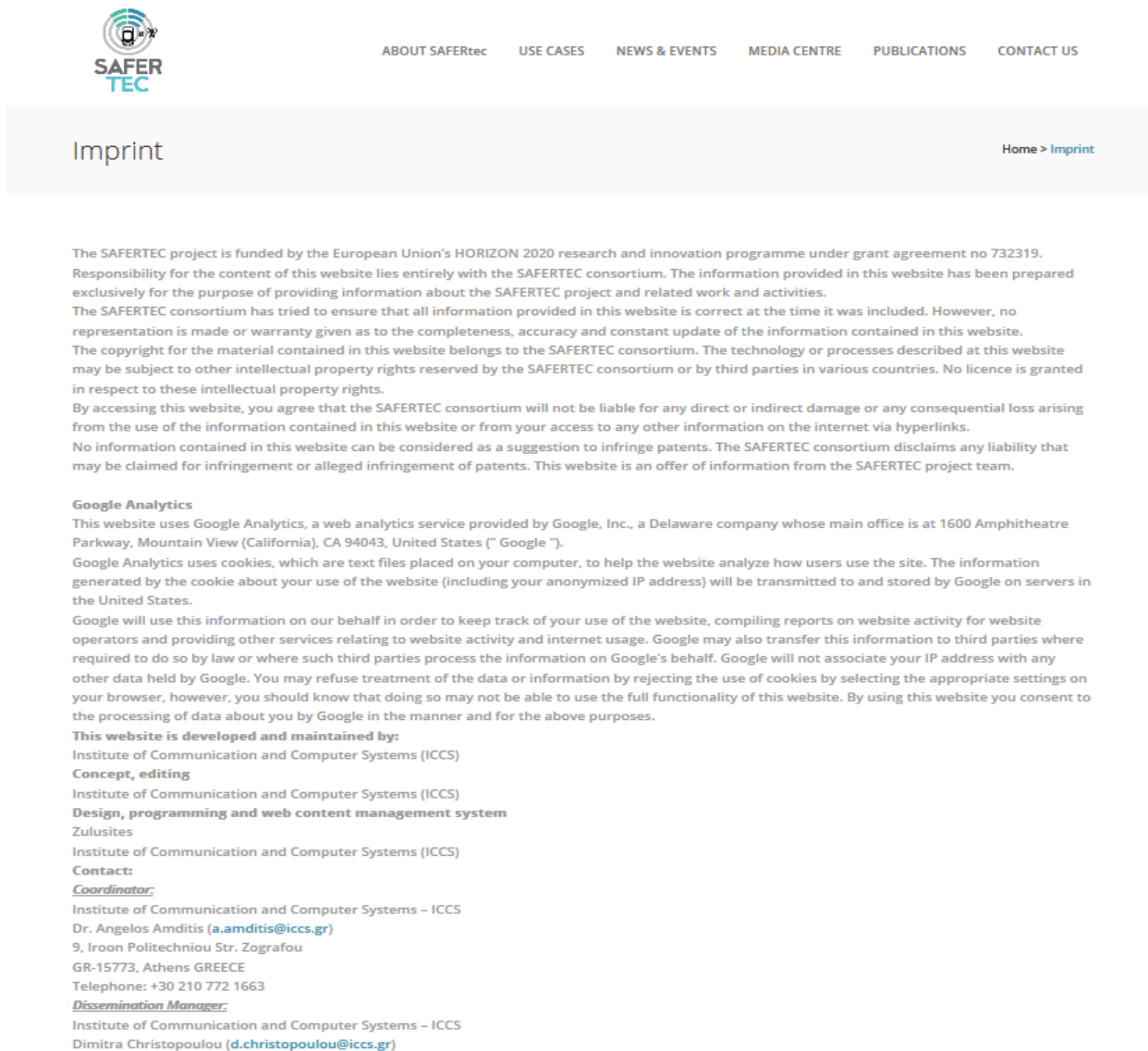
Figure 3: The SAFERtec Homepage

Figure 4: The "Imprint" subpage

3.2 ABOUT SAFERtec

The menu item entitled "ABOUT SAFERtec" (see Figure 5), which can be reached via the upper horizontal navigation menu, includes the following subpages:

- Concept & Approach
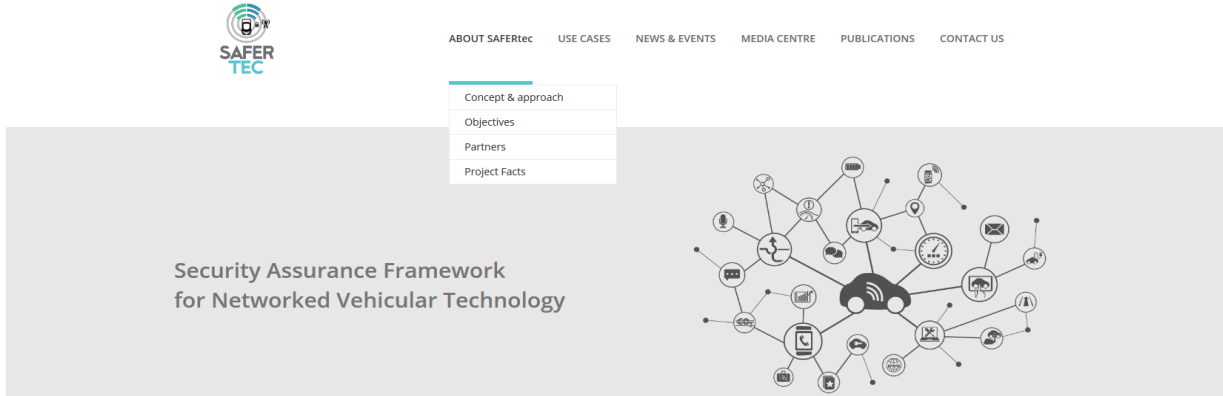- Objectives
- Partners

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 732319

Page **13** of **24**

- Project Facts

Figure 5: The "About SAFERtec" dropdown menu

A detailed description of the content of the aforementioned subpages is provided in the following sections.

3.2.1 Concept & Approach

The first subpage in the dropdown menu of "About SAFERtec" presents the project's concept and its approach (see Figure 6) towards delivering a flexible and efficient assurance framework for security and trustworthiness of Connected Vehicles and Vehicle-to-X (V2X) communications.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 732319

Page **14** of **24**

ABOUT SAFERtec   USE CASES   NEWS & EVENTS   MEDIA CENTRE   PUBLICATIONS   CONTACT US

Concept & Approach

Home > ABOUT SAFERtec > Concept & approach

Modern vehicles are becoming increasingly capable of establishing connectivity that allows the rich-information exchange between them and road infrastructure units. The so-called 'connected-vehicles' paradigm can bring-about an enormous potential towards safer transportation only if the involved security needs against a variety of 'new' threats are confidently satisfied.

The SAFERtec project seeks to in-depth explore the involved vulnerabilities of connected vehicles, apply innovative techniques for attack modeling, experimentally validate the quantification of security assurance levels and also contribute to relevant standards. With a total budget of 3.8 million Euros funded by the European Commission, 9 partners of industrial, SME and academic profile coming from 6 different countries join their expertise to contribute to the vision of introducing a security assurance framework tailored for future networked vehicular technology.

The area of Automotive technology is one of the most prominent to have experienced the trend of developing a plethora of (hardware and software) modules provided by numerous 3rd party entities and having them integrated into an ICT products of advanced functionality.

The emerging Connected Vehicles paradigm shift is expected to dramatically change the way drivers interact with their vehicle and improve significantly traffic safety and efficiency. While introducing new electronic systems, sensors, embedded devices, services, connectivity to the internet, navigation, safety and mobile applications a complex new eco-system is build including among others new vulnerabilities and risks. Vehicle manufacturers (OEMs), infrastructure providers (cloud, telecom), third parties systems and component providers as well as application and service providers are facing immense challenges towards the design, development, implementation, integration and operation of highly connected ICT components, services and applications for Connected Vehicle systems. All these new possibilities increase the complexity and risk with potential fatal consequences if security, safety and privacy are not adequately addressed.
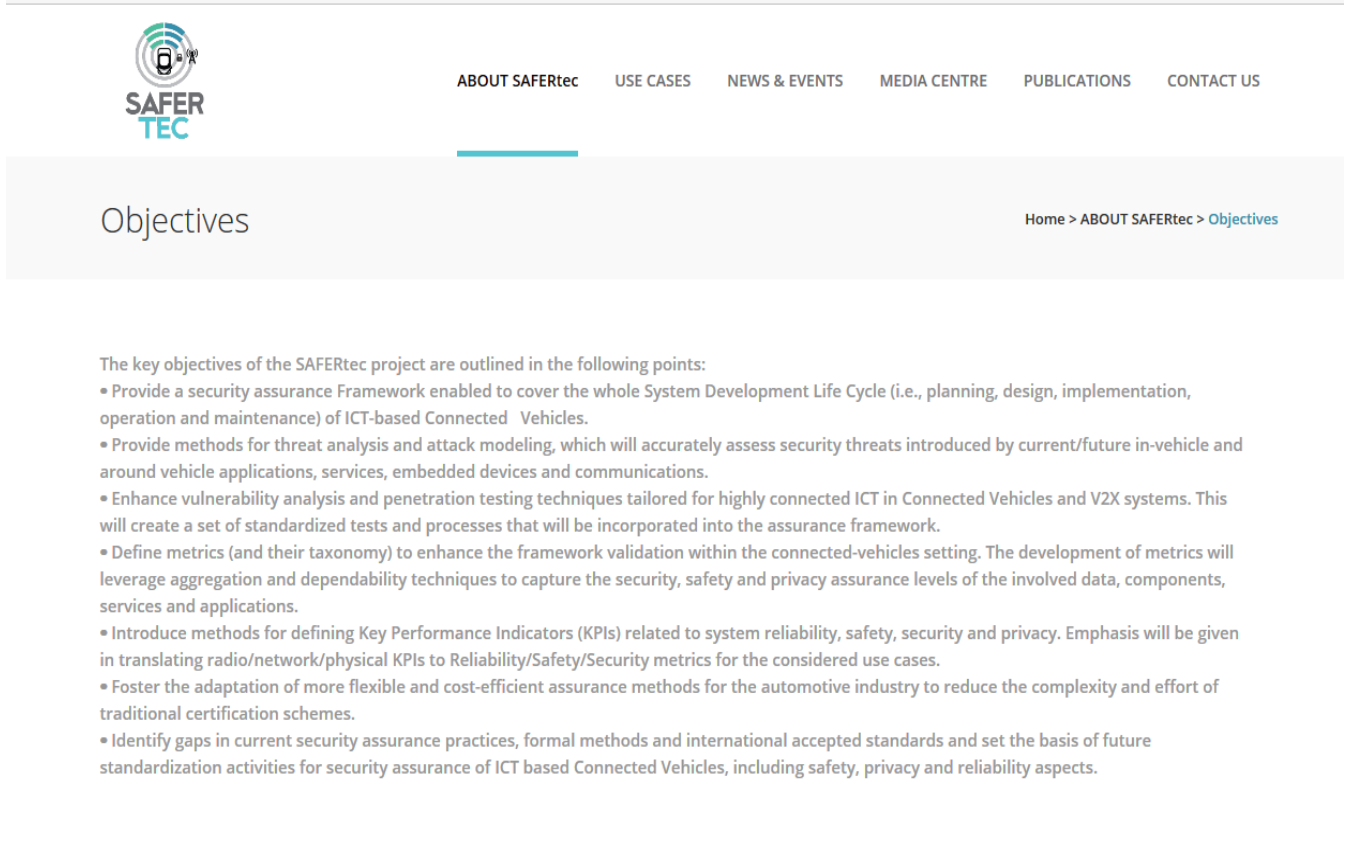
What is then of the utmost importance is to establish links of trust to foster innovation, societal acceptance and market uptake. Formal procedures for assuring and certifying products, systems and services adherent to relevant standards and practices, is one relevant key enabler. The SAFERtec concept is based on those key findings and thus aims to propose an Assurance Framework for enhancing trust by providing formal methods, processes, techniques and tools that will facilitate the assurance of security, safety and privacy.

SAFERtec will design an agile security assurance framework tailored for V2I Automotive settings and evaluate the results of its application relying both on careful comparison with current standardized frameworks, best practices and recommendations but also experimentation means. A Connected Vehicle System (i.e., vehicle connected with infrastructure) developed and integrated by the consortium partners will cover a wide range of the respective stakeholders (OEM, On board units, SW, application and service providers). SAFERtec will then incorporate the designed framework in a modular and extendable Assurance Framework Toolkit to provide estimations of security assurance levels for a range of automotive scenarios.

Figure 6: The "Concept & Approach" subpage

3.2.2 Objectives

The second subpage outlines the key objectives of the SAFERtec project.

Figure 7: The "Objectives" subpage

3.2.3 Partners

The third subpage contains information about the SAFERtec consortium. Partners are presented through a list which provides their names, linked to their official websites, logos, and country as depicted in Figure 8.
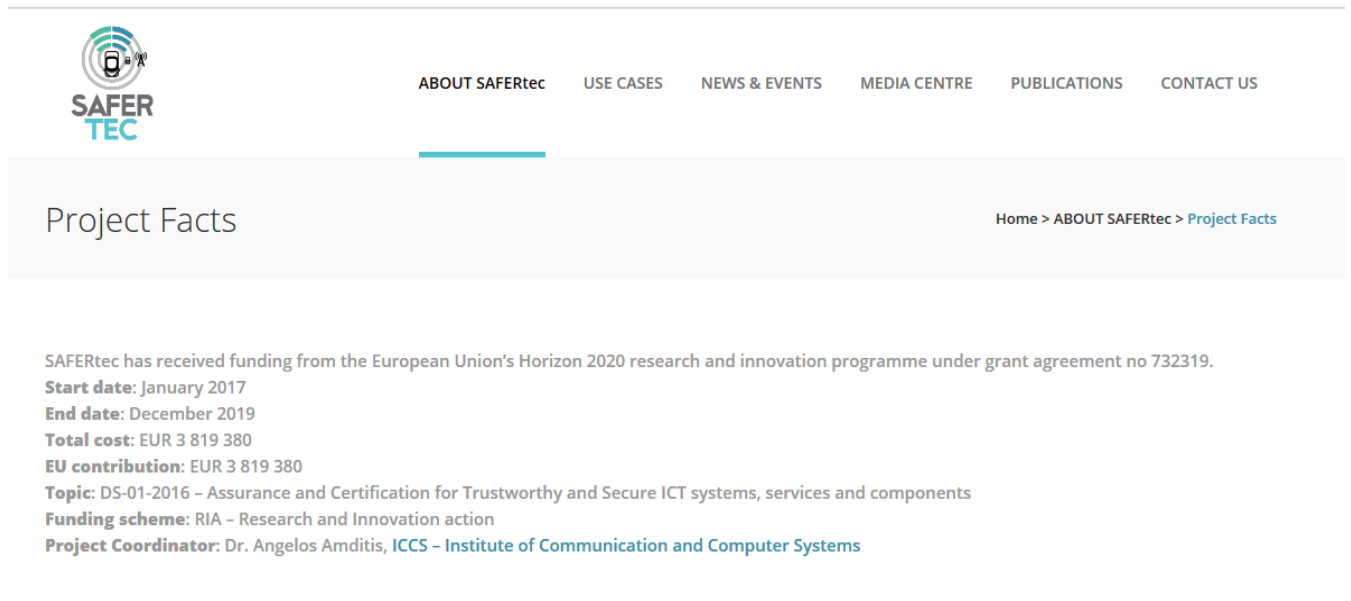
Figure 8: The "Partners" subpage

3.2.4 Project Facts

The Project Facts subpage provides basic information about the duration, budget, funding and coordination of the project.
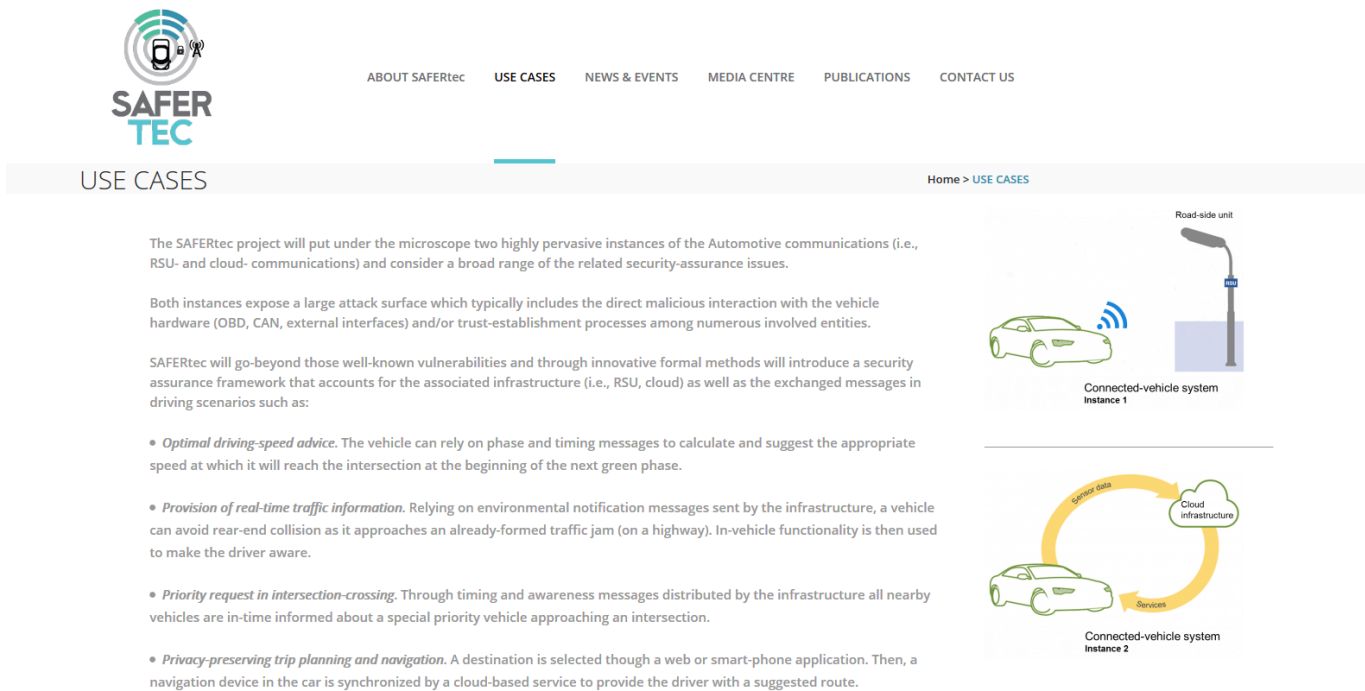

Figure 9: The "Project Facts" subpage

3.3 USE CASES

This subpage aims at presenting in brief the considered SAFERtec use-cases. The current description includes the two general V2I instances that the project work focuses-on (see Figure 10); it stays in high-level abstracting the involved details of the different scenarios that will be put under the SAFERtec microscope. Both considered instances essentially include numerous details in terms of the involved hardware and software modules as well as communication protocols that will be thoroughly investigated within the project.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 732319

Page **18** of **24**

Figure 10: The "USE CASES" page

To ease the understanding of our web-page visitors and clearly mark the scope of our technical work we have provided a 4-bullets list to generally describe the use-cases that SAFERtec will focus-on.

What we have tried to avoid is to go-into many technical details in this page (that can be visited by interested people of non-technical background). For instance, we do not explicitly mention that in the case of a vehicle-RSU communication SPaT (Signal Phase and Timing) messages are considered for informing or actively supporting the driver to drive through an intersection without stopping (e.g., first use-case usually called GLOSA). All relevant technical issues and corresponding terms will appear in our corresponding deliverables.

3.4 NEWS & EVENTS

The main purpose of this page (see Figure 11) is to keep the website visitors up to date with all project-related news, such as organization of and participation in meetings, workshops, conferences and other events/activities. The "NEWS & EVENTS" page consists of two distinct subpages namely News, and Project events. Both subpages will be continuously updated throughout the project duration.

ABOUT SAFERtec   USE CASES   NEWS & EVENTS   MEDIA CENTRE   PUBLICATIONS   CONTACT US

News   Home > NEWS & EVENTS > News

SAFERtec @ ITS European Congress 2017

The SAFERtec project was presented in the SWARCO stand at ITS European congress 2017 (http://strasbourg2017.itsineurope.com/). A SAFERtec poster and a questionnaire (on SAFERtec use-cases/modeling issues) were the main dissemination means to outreach the broad ITS audience. Furthermore, the project was discussed in a talk entitled…

Read More

SAFERtec @ TU-Automotive Detroit 2017

SAFERtec was represented by Commsignia in the overseas 17th Annual Connected Car Conference and Expo TU-Automotive 2017 (7-8 June), held in Detroit, USA (http://www.tu-auto.com/detroit/) and gathered around 3000 attendees. The project was presented through a digital poster in Commsignia's booth and partners provided…

Read More

SAFERtec @ Horizon magazine

Dr. Alexander Kröller, Research Manager at -Consortium partner- TOM TOM gave an interview, featuring the SAFERtec project, to the Horizon magazine, the European Union's Research and Innovation Magazine. The interview, entitled "Hackers could blackmail owners of self-driving cars" was published on 16 March 2017. The…
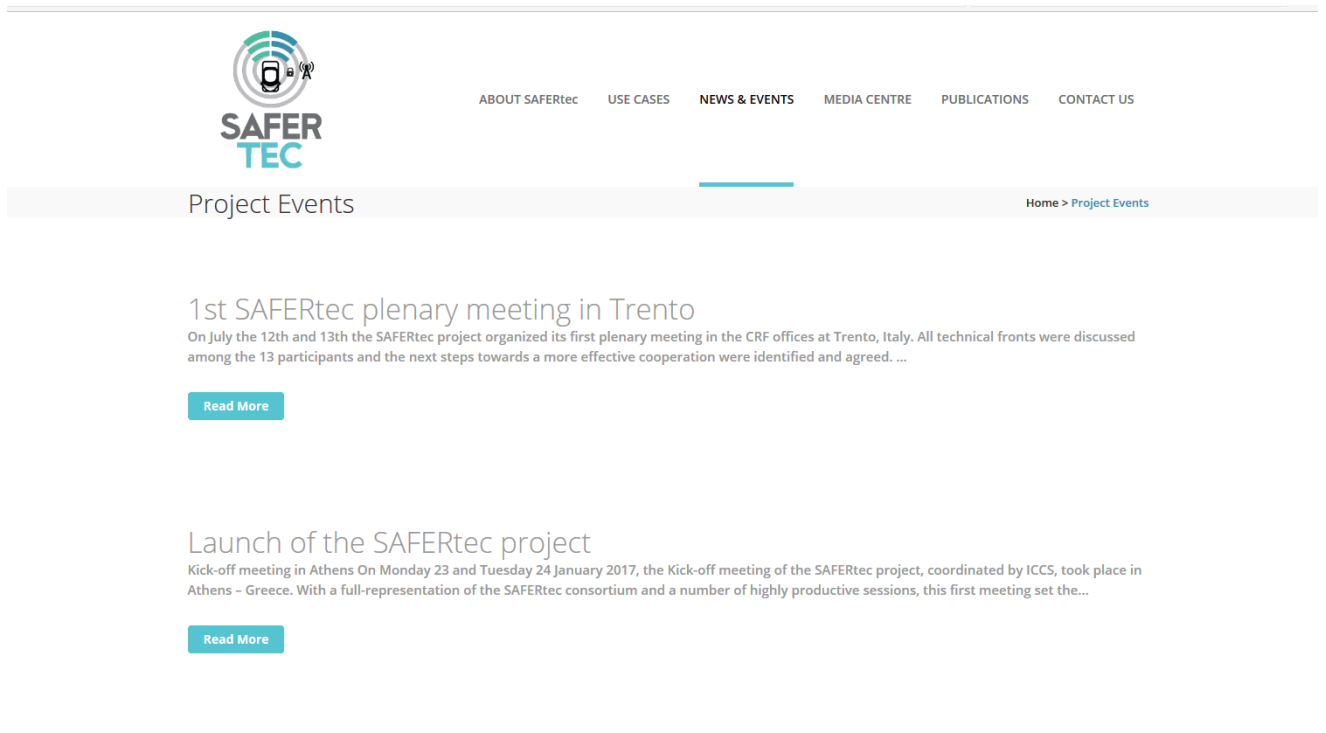
Read More

Launch of the SAFERtec project

Kick-off meeting in Athens On Monday 23 and Tuesday 24 January 2017, the Kick-off meeting of the SAFERtec project, coordinated by ICCS, took place in Athens – Greece. With a full-representation of the SAFERtec consortium and a number of highly productive sessions, this first meeting set the…

Read More

Figure 11: The "News" subpage

Figure 12: The "Project Events" subpage

3.5 MEDIA CENTRE

This page comprises the following subpages:

- Press Releases
- Press Clipping
- Dissemination material
- Public Deliverables
- Video
- Photos

These subpages will contain the SAFERtec media communications and relative press reports, the project's audiovisual promotional material, available for download, as well as all public deliverables of the project.
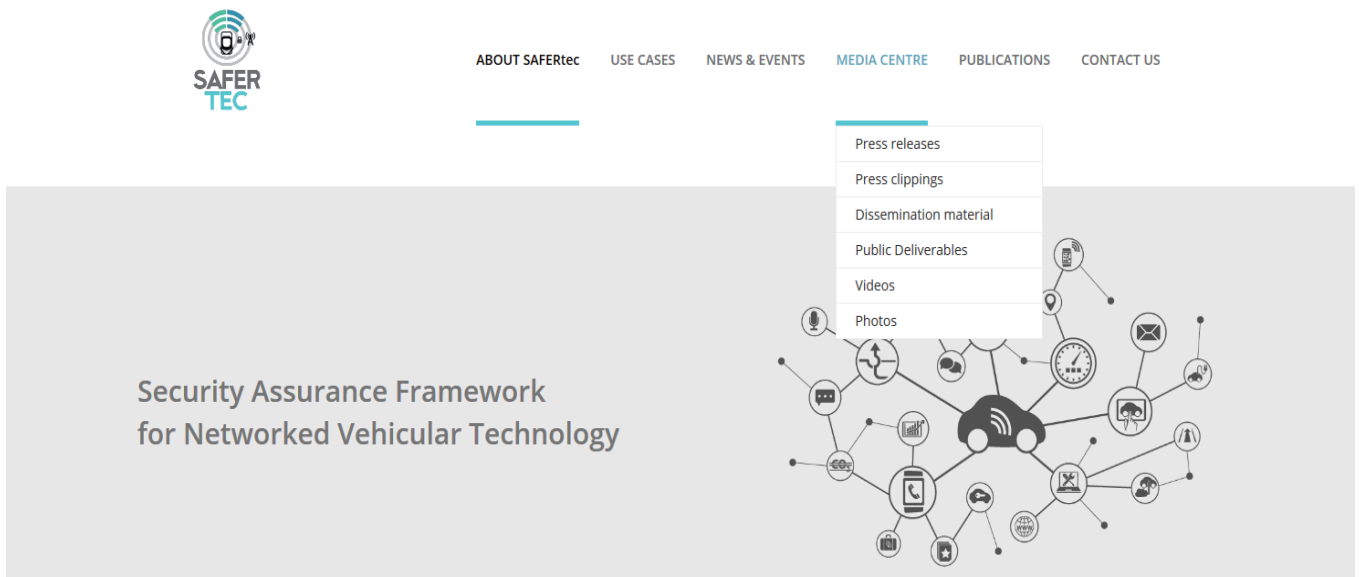
Figure 13: The "MEDIA CENTRE" dropdown menu

3.6 PUBLICATIONS

This page will contain all project related publications to scientific journals and conference proceedings as well as poster presentations.
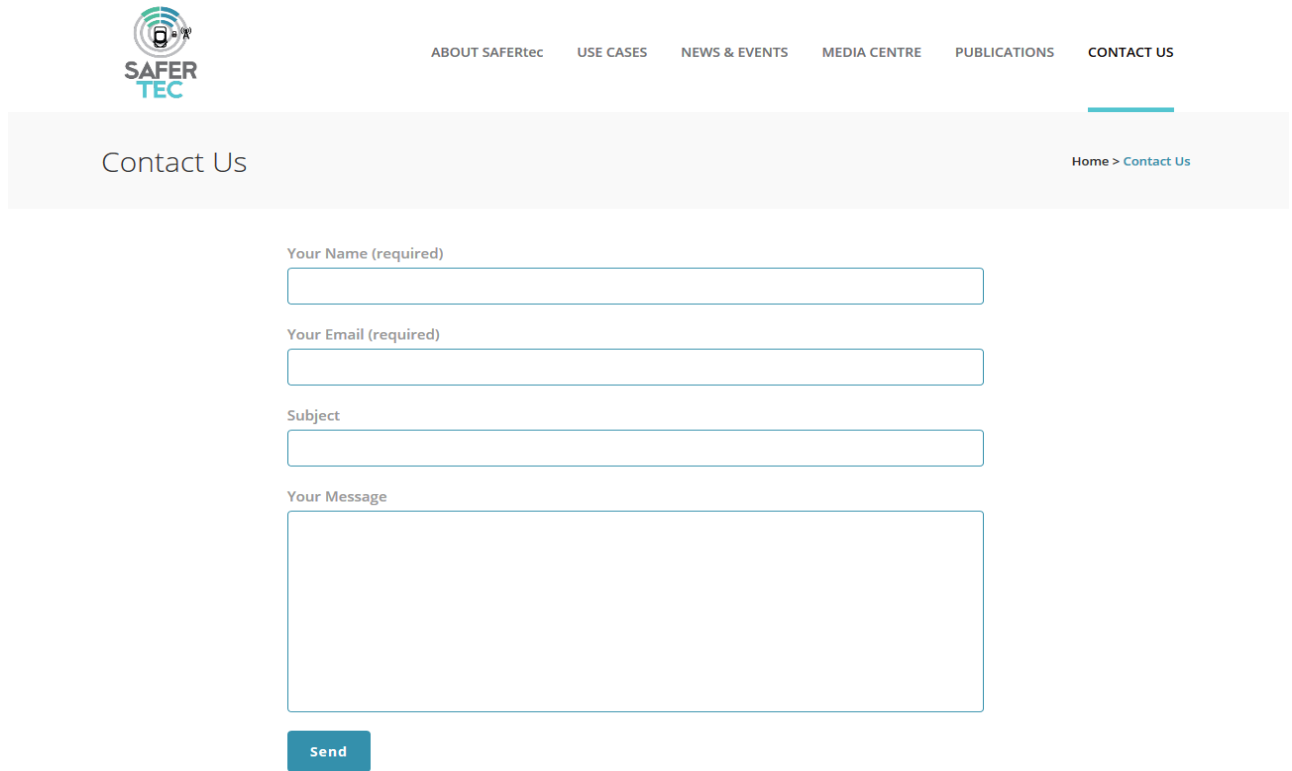

Figure 14: The "PUBLICATIONS" page

3.7 CONTACT US

The "CONTACT US" page (see Figure 15) contains a contact form, providing an easy way to interested parties to contact the SAFERtec consortium and put forward their inquiries, requests or

proposals.

Figure 15: The "CONTACT US" page

4 Conclusions

This deliverable has presented the SAFERtec website and its main functionalities. It has also explained the rationale behind layout and structure decisions, and has described the content that will be included in the different pages and sections of the website. Furthermore, it has discussed the way that project related developments (i.e., news, activities, results etc) will be communicated, allowing the broad dissemination of results. Finally, this deliverable has established that the website will be regularly updated throughout the lifetime of the SAFERtec project.