

D7.1 –SAFERtec Dissemination and Exploitation Plan



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 Connected Vehicle and V2X systems, with increased connectivity of automotive ICT systems, consumer electronics technologies and telematics applications, 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.

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Acronyms and abbreviations

Abbreviation	Description
ADAS	Advanced Driver-Assistance Systems
AFT	Assurance Framework Toolkit
CAN	Controller Area Network
CPS	Cyber-physical Systems
Dx.y	Deliverable x.y
DoA	Description of Action
DSRC	Dedicated Short-range Communications
EU	European Union
HAD	Highly Automated Driving
ICCS	Institute of Communication and Computer Systems
IoT	Internet of Things
PND	Personal Navigation Device
SAE	Society of Automotive Engineers
SW	Software
T	Task
V2I	Vehicle-to-Infrastructure
V2X	Vehicle-to-Everything
WLAN	Wireless Local Area Network
WP	Work Package

Table 1: List of Abbreviations

Executive Summary

This document covers all SAFERtec activities under the umbrella term of ‘communications’, namely the tasks of communication, dissemination and exploitation. For the first two, the deliverable introduces a 5-steps approach which includes the identification of relevant objectives and relevant target audiences. Then, the definition of key messages and identification of the appropriate communication/dissemination channels to facilitate the project visibility and outreach to all interested parties, follow. Lastly, the monitoring and evaluation processes of the SAFERtec planned activities are discussed.

Regarding the exploitation of the project results, the deliverable details relevant strategies to be followed by the consortium as a whole, but most notably by individual partners aiming to maximize the impact of the SAFERtec achievements. Along this line, the presented plans are carefully designed to correspond to different time-horizons i.e., short- and long-term plans.

Finally, the deliverable sets out the WP7 role and the effort of each consortium partner and provides an action plan for the various communication and dissemination activities. It concludes with a systematic way (through a set of measurable Key Performance Indicators) to evaluate all communications activities and account for the involved risks.

1 Introduction

The present deliverable, entitled D7.1 SAFERtec Dissemination and Exploitation Plan, is a key document within Work Package (WP) 7 of SAFERtec. In view of meeting the communications objectives as set out in the relevant EU policies and in the Description of Action (DoA), the partner responsible for the communication and dissemination activities in the SAFERtec project and author of this deliverable, ICCS, has compiled a strategic communications plan to allow for the early consideration of dissemination opportunities.

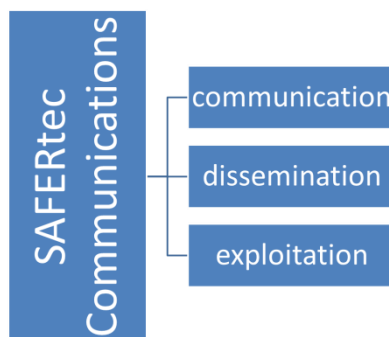


Figure 1: SAFERtec Communications: corresponding to three different activities

The plan corresponds to three different fronts of the SAFERtec activities, namely the communication, dissemination and exploitation (see Figure 1). Along these fronts, it sets out the strategic communications objectives, identifies the key audiences, including specific stakeholder groups, tailors the key messages, and selects the appropriate communication channels and means in order to effectively outreach the targeted audiences.

1.1 Purpose of the Document

The purpose of this document is to present in-detail the carefully-designed (and adopted) SAFERtec plan for three of the main WP7 axes, namely the tasks of communication, dissemination and exploitation. The presented set of processes will remain active throughout the project (in line with GA, Article 38) to effectively help us outreach relevant audiences and exploit SAFERtec achievements in the industrial, SME and academic domain.

1.2 Intended readership

This deliverable is addressed to any interested reader (*i.e.*, PU dissemination level). Compared to others, D7.1 can be practically useful for the consortium members who can use it as a reference for the planning-of and contribution-to the SAFERtec dissemination activities.

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 lies within Work Package (WP) 7 Dissemination and Standardization and comprises the following deliverables, which are closely linked to D7.1. :

D7.2 SAFERtec Website will present the online presence of SAFERtec, namely the project website, and the employed social media platforms. The project website will be the main online tool for SAFERtec communications, along with the SAFERtec social media channels. Therefore, D7.2 is closely linked to the present deliverable.

D7.3 Roadmap Automotive Assurance Frameworks - Beyond V2I will incorporate the outcome of the first stakeholder workshop. As the planning and organization of the workshop lies within the scope of communications activities, D7.3 is closely linked to the Dissemination and Communication Plan presented in this deliverable.

D7.4 SAFERtec Standardization Plan will present a systematic way as to how the project achievements will be prioritized for contribution to ITS security standards. As this includes the promotion of the project's results to standardization community, it is closely linked to the present deliverable.

D7.5 Contribution, Extensions and/or Recommendation to Standards will present the final outcome of the Standardization Plan and related activities, including the dissemination of project's results. It is therefore closely linked to the present deliverable.

Apart from the above deliverables the document at hand relates indirectly to all SAFERtec achievements that need to be disseminated (to interested audiences) and exploited for further industrial or academic research. What is here detailed will be used throughout the project's lifetime to serve those purposes.

2 SAFERtec’s approach to communications

Communication, dissemination and exploitation constitute the main concepts around which the present deliverable is devised. It is therefore necessary to provide a clear definition of each one, according to EC guidelines¹ provided through the Research & Innovation participant portal.

Communication means taking strategic and targeted measures for promoting the action itself and its results to a multitude of audiences, including the media and the public, and possibly engaging in a two-way exchange. The aim is to reach out to society as a whole and in particular to some specific audiences while demonstrating how EU funding contributes to tackling societal challenges.

Dissemination is the public disclosure of the results by any appropriate means (other than resulting from protecting or exploiting the results), including by scientific publications in any medium.

Exploitation is the use of the results in further research activities other than those covered by the action concerned, or in developing, creating and marketing a product or process, or in creating and providing a service, or in standardization activities

The communications approach of the SAFERtec project is analyzed in the following five-steps, outlined in the table below:

5-step communications approach	
1	Identification of communications objectives
2	Identification of target audiences
3	Determination of key messages
4	Identification of communications means & channels (per project phase)
5	Monitoring and evaluation

Table 2: The SAFERtec communications approach

This approach addresses most of the basic elements of communication, namely audience, message, communication means and channels to be used, as well as the time frame for delivering the messages. It also provides a monitoring and evaluation process as a means to ensure the efficiency of the communications strategy and allow for the smooth coordination of individual communications activities throughout the project life.

The purpose of the SAFERtec communications strategy is to develop effective communication proposals ensuring that all communications speak to the core objectives agreed and that key messages are consistently delivered. This is achieved by addressing a set of simple questions, according to the 5 Ws Lasswell’s model of Communication², such as “Who are the key audiences? What do these audiences know now? What do we need them to know? What message or messages do they need to receive? What is the most effective mode/media to deliver these messages?” The

¹ EC Research & Innovation participant portal <http://ec.europa.eu/research/participants/portal/desktop/en/home.html>

² Lasswell, Harold (1948). Bryson, L., ed. *The Structure and Function of Communication in Society. The Communication of Ideas*. New York: Institute for Religious and Social Studies.

implementation of this approach will ensure the project's impact maximization with regard to targeted audiences.

In terms of time, the SAFERtec project will follow a three-stage approach for the planning and implementation of communication, dissemination and exploitation activities. During the initial phase, the main focus will be put on informing the public about the project's concepts and main objectives, as well as reaching out to the targeted audiences and specific stakeholder groups. In essence, the resulting strategy will aim to help spreading knowledge about the project's aims and its initial findings in order to gain maximum support from stakeholder communities and the broader public, while at the same time motivating possible interested parties to engage. The second phase of the project will build upon the first, evaluating and reviewing initial activities and, moreover, promoting the initial project results in more tailored ways for each of the key stakeholder groups. The main focus will be to effectively communicate available project results and to raise further awareness on project related issues, in an engaging way. In the final phase of the project, a major effort will be made in order to effectively disseminate project results to the targeted audiences in a way of ensuring the long-term impact and the exploitation of project's final results. Within the frame of this deliverable, a communications roadmap and action plan of the project communication and dissemination activities has been devised (see Table 7).

Finally, it should be noted that SAFERtec has established a balanced budget in order to allow for the smooth implementation of the foreseen communication actions.

3 Communications strategy

3.1 Main objectives

As set out in the project grant agreement, the main objectives of WP 7 Dissemination and Standardization are the following:

1. Implement the communication plan so as to deeply explore the development and implementation of the proposed Assurance Framework to the respective audience;
2. Communicate widely and through a broad range of traditional, online and novel communication channels the project results;
3. To identify and promote the exploitable results to the standardization community.

It is those WP7 objectives that shape the targets of the SAFERtec communications strategy. In addition, and in line with the relevant EU policies, particular effort will be placed in:

- Establishing, within targeted audiences, that the SAFERtec project is the result of a European collaboration which could not have been possibly done otherwise;
- Demonstrating how the outcomes of the SAFERtec project are relevant to the everyday lives of a growing cohort of European citizens. In addition, the relevance will be demonstrated through the creation of new jobs within the EU as a result of the exploitation of project results and outputs;
- Making sure that the results of the SAFERtec project, influence policy and decision makers in the industry, as well as the scientific community to ensure the long term impact of the project;
- Ensuring that all communications that are produced are engaging and interesting to the targeted audience.

3.2 Key audiences

Target audiences for the communications activities of the SAFERtec project include stakeholders across the entire value chain of SAFERtec solution, with a focus on vehicular/ITS/security community, academics, organizations and networks strategically influencing innovation and research, industrial communities (major industrial players, OEMs, 3rd party providers, SMEs). Likewise, standardization bodies and initiatives in the automobile sector, transport sector, security, and security assessment and certification authorities constitute the relevant parties (i.e., audience) to promote the SAFERtec standardization activities.



Tailored strategies and individual communication plans are being devised and will be implemented in order to ensure that they reach out to each targeted audience by taking into consideration their special characteristics, behaviors, needs, and motivations.

The key audiences have been identified and have been further segmented as presented in the table below:

Key audience	Further segmentation
Scientific community	Researchers, academia, similar research projects beneficiaries
Industrial community	Decision-makers in relative industry (major industrial players, OEMs, 3rd party providers, SMEs)
Institutions	National and EU related authorities and policy-making bodies, standardization bodies and initiatives in the automobile sector, transport , security, security assessment and certification sectors, Universities, research and academic institutions
Media	Traditional print and online media, social media
Broad public	EU citizens

Table 3: SAFERTEC key audiences

3.3 Key messages

The following table gathers the set of SAFERtec key audiences and associates each entry with the corresponding key message that the project will seek to convey.

Key audience	Key message
Scientific community	<ul style="list-style-type: none"> - Important findings and innovative solutions provided by SAFERtec will offer novel insights, as the SAFERtec Assurance Framework Toolkit (AFT) will be providing formal methods, processes, techniques and tools to facilitate the computation of security, safety and privacy assurance levels for Connected Vehicles. - SAFERtec will assist the research community to build a solid body of ITS-security knowledge and advance the current state-of-art by bringing significant cross-research-area results.
Industrial community	<ul style="list-style-type: none"> - SAFERtec will improve European industrial competitiveness in secure & trusted Connected Vehicle and V2X-based ICT, by providing automated tools and applying the Assurance Framework on an integrated Connected Vehicle System; the developed by industrial partners will act as a real-word test-bed. - SAFERtec will foster the adaptation of more flexible and cost-

	<p>efficient assurance methods for the automotive industry, reducing the complexity and effort of traditional certification schemes.</p> <ul style="list-style-type: none"> - Assurance of security, safety and privacy of connected vehicle solutions will enhance the adoption and acceptance of new services. - The SAFERtec security, safety and reliability assurance methodology, realized by the (AFT) toolkit, will provide the means for connected vehicle systems to more-accurately quantify the levels of assurance for V2I security, privacy and reliability at lower cost compared to current approaches.
Standardization Institutions & Policy makers	<ul style="list-style-type: none"> - SAFERtec will heavily influence the European ITS security assurance landscape as shaped by current certification processes and standards through its results and recommendations. - SAFERtec recommendations will assist the pioneering of European Automotive security frameworks and act as a reference for any relevant effort at international level. - SAFERtec will set the basis for future standardization activities in relation to security assurance of ICT based Connected Vehicles by identifying gaps in current security assurance practices, formal methods and international accepted standards. - SAFERtec will assist the compliance of the emerging connected vehicle systems paradigm to the European regulations for privacy-preserving ICT by introducing and promoting a methodology which factors-in those regulations in the quantification of relevant assurance levels.
Media	<ul style="list-style-type: none"> - SAFERtec will generate media interest in improving the cyber-physical security ecosystem of “connected vehicles” in Europe by delivering a flexible and efficient assurance framework for security and trustworthiness of Connected Vehicles and Vehicle-to-X (V2X) communications, contributing thus to safer transportation, and enhancing confidence and trust in Connected Vehicles.
Broad public	<ul style="list-style-type: none"> - SAFERtec will contribute to safer transportation by providing an implicit indication to OEMs and Automotive stakeholders regarding the reliability and privacy aspects of the operation of their vehicles (as integrated systems). - SAFERtec will enhance confidence and trust in Connected Vehicles by making assurance of security, safety and privacy aspects for Connected Vehicles, measurable, visible and controllable by stakeholders.

Table 4:SAFERtec key messages

3.4 Key communication channels

A variety of channels, both one-way and two-way, will be used in order to effectively reach out to the targeted audiences, taking into consideration the specific characteristics and needs of each group. The following list is not exhaustive as new needs or opportunities may arise in the course of the project implementation:

- Project website
- Traditional media (press, TV, radio)
- Online media (online newspapers, magazines etc.)
- Printed material (posters, brochures, leaflets)
- Press releases
- Social media (Twitter, LinkedIn)
- Physical meetings (targeted communities, networks, organizations, similar project beneficiaries)
- Conferences, exhibitions, workshops and other events

3.4.1 Visual identity

A consistent and coherent visual identity has been developed for SAFERtec, including a logo, a template for project deliverables (see Figure 7), a template for project PowerPoint presentations (see Figure 6), a roll-up banner (see Figure 4), the first version of the SAFERtec fact-sheet (see Figure 5) and a poster (see Figure 3). Project leaflets and additional dissemination material will also be created in a later stage of the project to include some more detailed technical information (such as use-cases description and the SAFERtec modeling approach).

3.4.1.1 SAFERtec logo and brand colors

The SAFERtec logo (see Figure 2) has been created by a professional designer and been approved by the consortium. It will be essentially used in every document (digital or physical) produced by the project to broadly establish the SAFERtec visual identity.



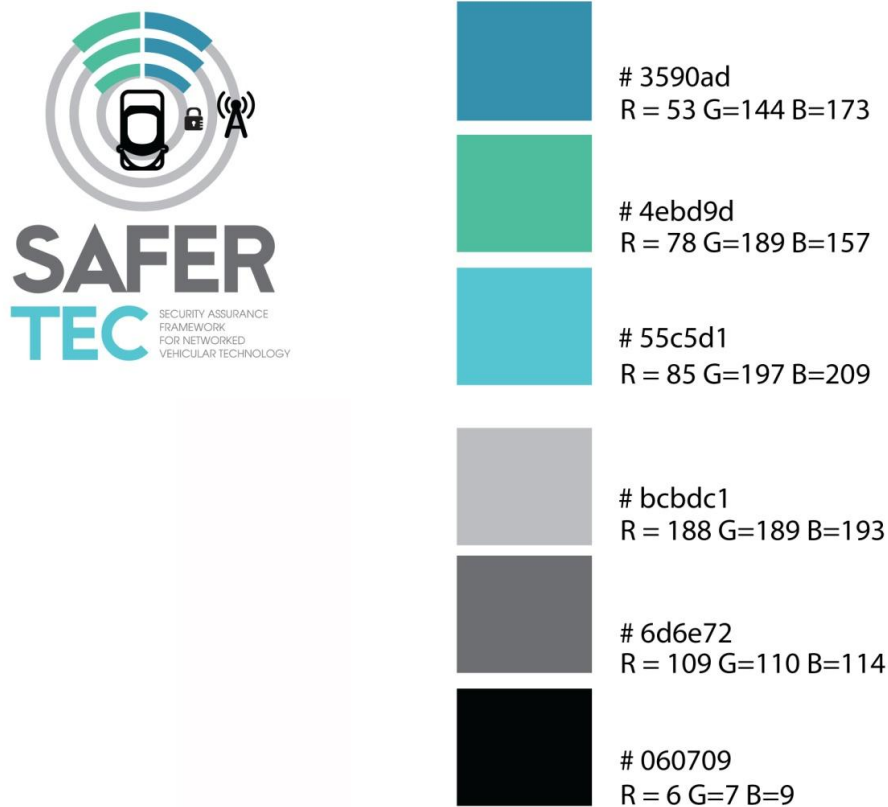


Figure 2: SAFERtec logo and colors

3.4.1.2 Printed material

A SAFERtec poster (see Figure 3) has already been developed to present the project, its objectives, the consortium partners, and to provide contact information to the public. It will be used to promote the project at various events and workshops. Further posters may be produced depending on the need for updates or the dissemination of specific project results. A SAFERtec leaflet will also be developed presenting the main project concepts and will be distributed at SAFERtec events, external meetings and other events. Additional dissemination material may also be developed in the course of the project, depending on the project's dissemination needs.



SAFERtec

Security Assurance FramEwoRk for neTworked vEhicular teChnology

www.safertec-project.eu

SAFERtec focuses on vehicles and associated connectivity.

The project, first, seeks to in-depth study the security-privacy-safety requirements involved in V2I instances.

Then, explore the broad vulnerabilities of involved V2I hardware and software modules.

Main focus on designing an innovative framework to quantify the degree of confidence that all security needs are satisfied.

Exhaustive experimental validation to showcase the framework's effectiveness.

Project facts

Start date: January 2017
Duration: 36 months
Budget: 3.8M Euros

Project Coordinator:
 Dr. Angelos Amditis, ICCS
a.amditis@iccs.gr

Challenges

- Modern connected vehicles integrate 3rd party components & applications
- Numerous interfaces and an increased attack surface is exposed

SAFERtec Approach

- Design and validate a cost-efficient framework for the quantification of security, privacy & safety assurance levels in V2I use-cases
- Incorporate results in an open access toolkit
- Contribute to relevant security standards
- Improve security of networked-vehicular technology

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

Consortium

AIRBUS DEFENCE & SPACE, swarco, SWARCO MIZAR S.r.l., TOMTOM, commsignia, AUTOTALKS, ETITECH, ICCS, OPPIDA, UNIVERSITY OF PIRAEUS RESEARCH CENTER, CRF

Figure 3: SAFERtec poster



Figure 4: SAFERtec roll-up banner



Figure 5: SAFERtec fact sheet (first version)



Figure 6: SAFERtec template for project PowerPoint presentations



DX.X – Deliverable Title

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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 Connected Vehicle and V2X systems, with increased connectivity of automotive ICT systems, consumer electronics technologies and telematics applications, 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:	
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Task:	
Due Date:	
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Deliverable Type:	R / DEM / OTHER

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

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DX.Y – Deliverable Title

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YES/NO	

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

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Figure 7: SAFERtec template for project deliverables

3.4.2 Digital media & social media platforms

3.4.2.1 Website

The project website is the most important communication channel of SAFERtec as it will provide continuous updates about the project progress. All public deliverables and scientific publications will be uploaded on the website (see Figure 8) providing the necessary information regarding progress and project results. The website will be maintained and updated regularly with SAFERtec consortium news and activities. Specific information about the actual structure of the website as well as related planning of activities will be included in D7.2 SAFERtec Website.

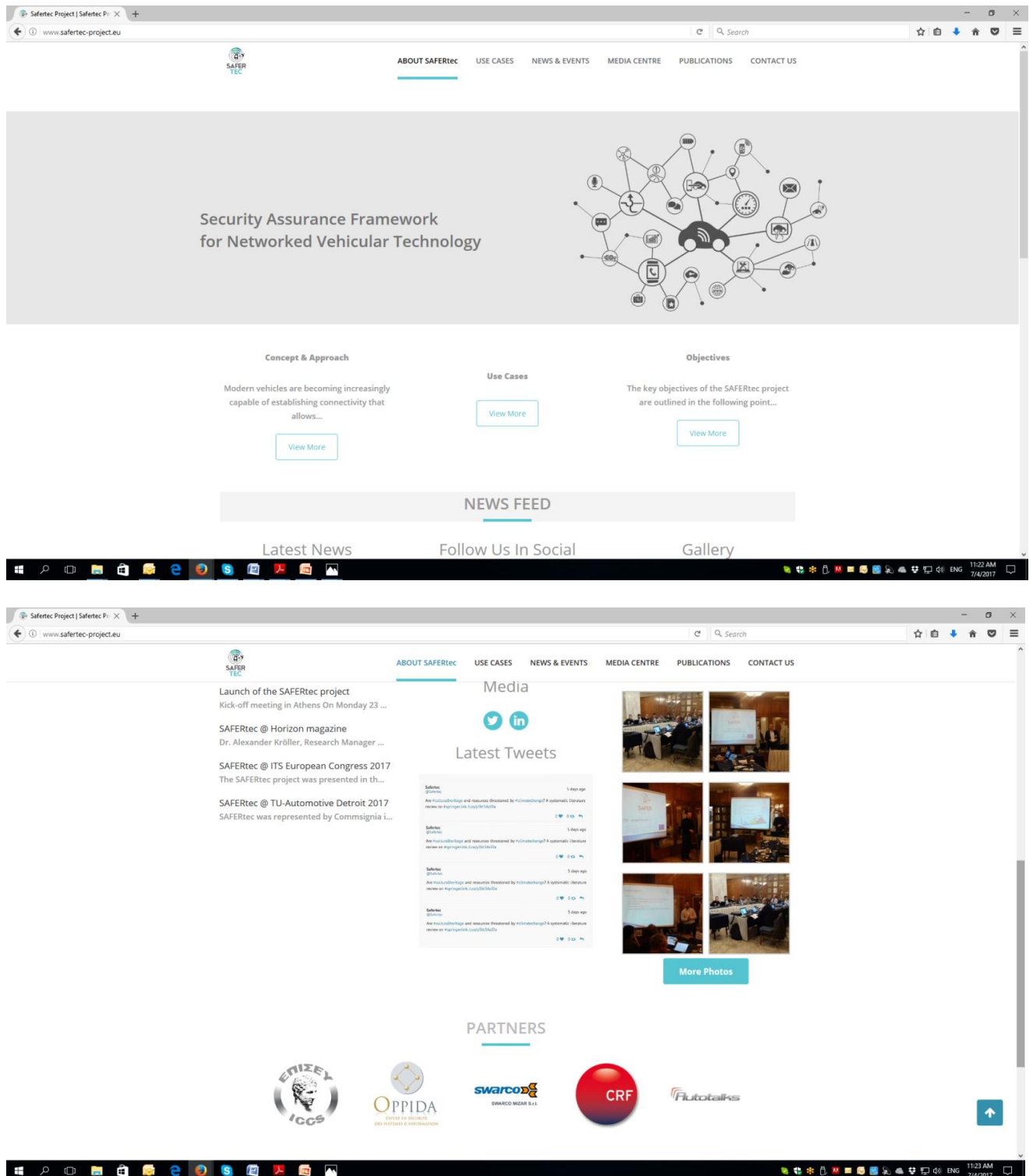


Figure 8: Screenshots from the SAFERtec website @ www.safertec-project.eu



3.4.2.2 Social media (Twitter, LinkedIn)

The project will make extended use of social media platforms, namely Twitter and LinkedIn, in order to create awareness around SAFERtec, to communicate the project's progress and its results, and to diffuse project news and activities. These channels will support the networking and interaction with the expert and industrial communities as well as other stakeholders.

A Twitter profile (see Figure 9) and a dedicated SAFERtec LinkedIn Group (see Figure 10) have already been set up. A list of relevant stakeholders to connect and interact with is currently being developed and will be used in the coming months to build the SAFERtec network.

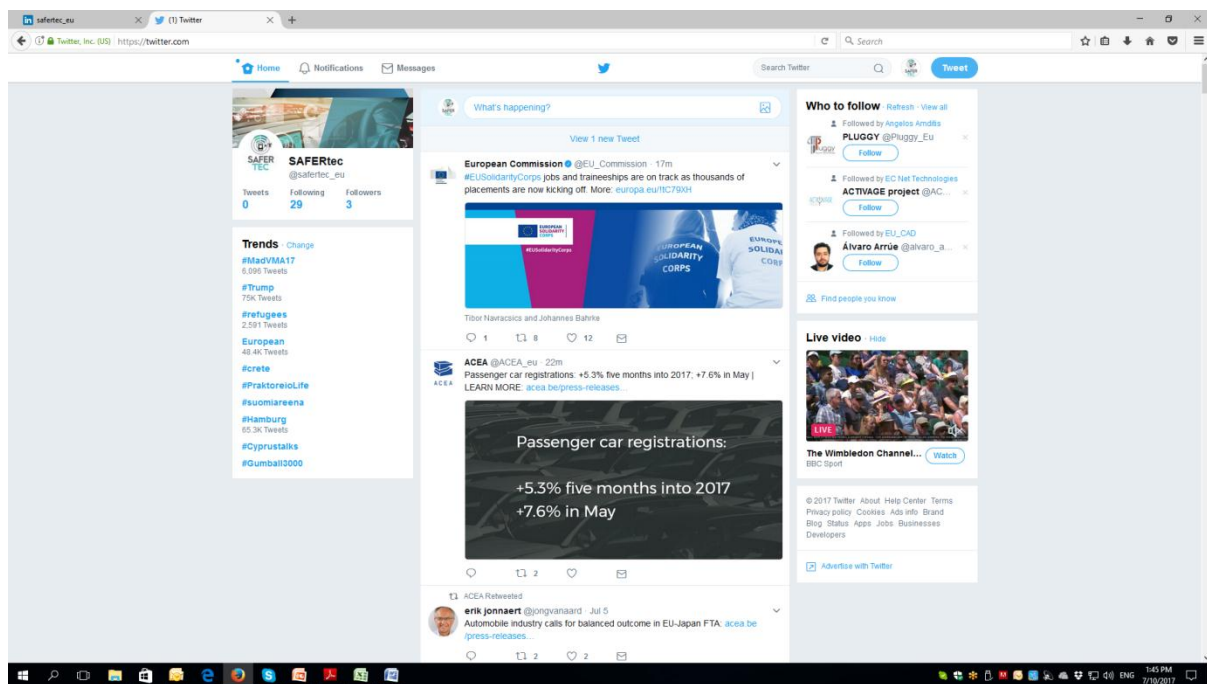


Figure 9: Screenshot from the SAFERtec Twitter account @safertec_eu

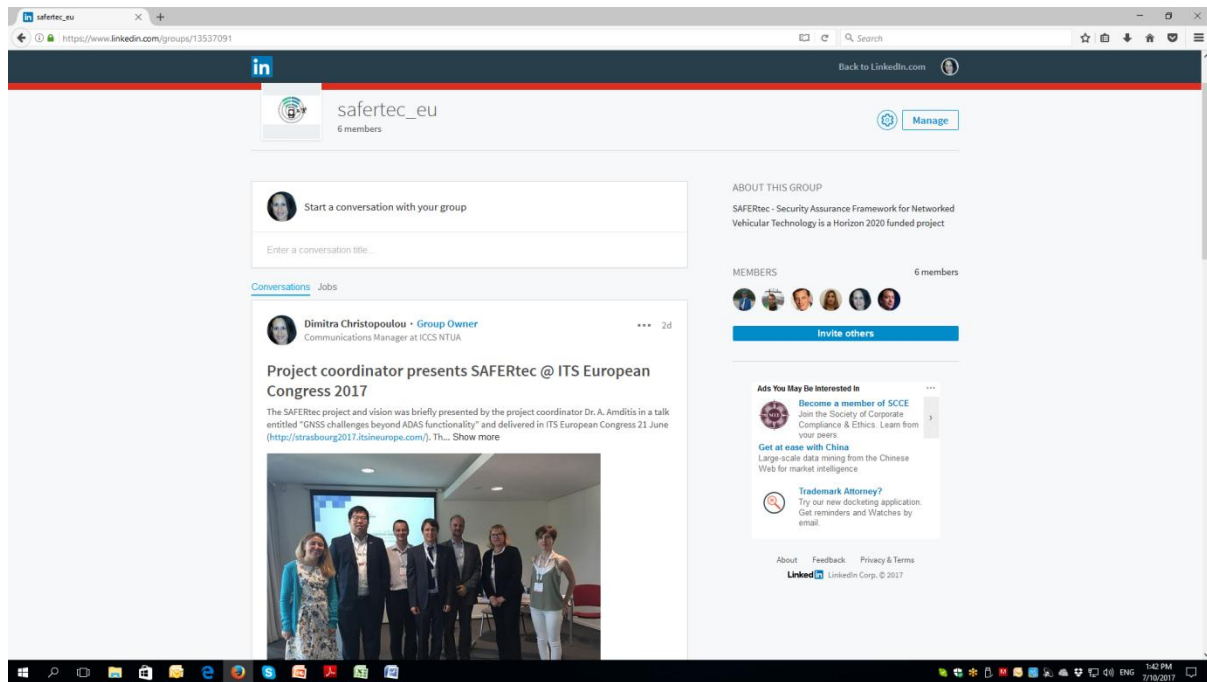


Figure 10: Screenshot from the SAFERtec LinkedIn group @safertec_eu

3.5 Key communication activities

To serve the SAFERtec Communication objectives (see Section 3.1) a number of activities will be carried out; they are summarized in the following points:

- Creation of brand identity (project logo, dissemination material)
- Production of leaflet, poster, and other printed material
- Creation of dedicated website and constant content update
- Setting up of social media channels and continuous networking
- Identification of and networking with similar projects, relative organizations, and stakeholder communities
- Organization of two SAFERtec stakeholder workshops
- Physical meetings with related projects, stakeholder communities, networks and organizations
- Publication of press releases
- Publication of media articles to broad media

- Networking with related projects at both national and EU level
- Participation in conferences, workshops, and other events

Ongoing activities

- Continuous updates of project website
- Continuous updates of information on project social media accounts



4 Dissemination

The main aim of the SAFERtec dissemination plan is to use multiple means that will ensure a visible contribution to research fronts of interest, mainly targeting the broad vehicular/ITS/security community; the latter includes all potential stakeholders (major industrial players, OEMs, 3rd party providers, SMEs) as well as academics.

4.1 Key dissemination channels

The involved dissemination channels amount (but may not be limited) to:

- Website (public deliverables, work progress and results)
- SAFERtec Stakeholder workshop
- (Promotion and acceptance of the) Assurance Framework Toolkit (AFT)
- Conferences and other events
- Standardization bodies
- Journals and other scientific publications
- Technical conferences, workshops
- EU dissemination networks and resources

4.1.1 Project website

The website will hold information about the project's concept, the consortium and the outcomes of the project (including news, scientific publications, presentations, dissemination material) and will be continuously updated. The pages will be in English and a first version will be up and running during the first couple of months of the project.

4.1.2 SAFERtec Stakeholder workshop

In the early stages of the project, the first stakeholder workshop will be organized, which will gather representatives from the automotive industry, security and standardization experts in order to provide valuable input and up-to date information, trends and requirements on ITS security. A second and final one will later follow. Representatives of user groups, suppliers, vehicle manufacturing partners and security experts will be invited to take part in the final M36 project's stakeholder workshop, to be organized by SAFERtec project (see Task 7.1 in Section 6). The workshop and related interactions are expected to enable stakeholder representatives to directly receive relevant results, provide feedback on the project developments and point to future directions of interest. The expectations are that the stakeholder workshop will assist in increasing the project's impact on the related stakeholders.

4.1.3 Assurance Framework Toolkit (AFT)

AFT is expected to constitute one of the project's main outputs integrating the SAFERtec results into a toolkit that will provide insights on the assurance level of certain modules (*i.e.*, by using embedded simulators) and most notably determine the security assurance levels for connected vehicle systems. Clearly, the toolkit will be advertised to external OEMs and ITS stakeholders seeking to gain as much as possible visibility and acceptance as possible. To serve those purposes an adequate time-duration is needed; ICCS commits to maintain AFT for five years after the project's completion.

4.1.4 Conferences and other events

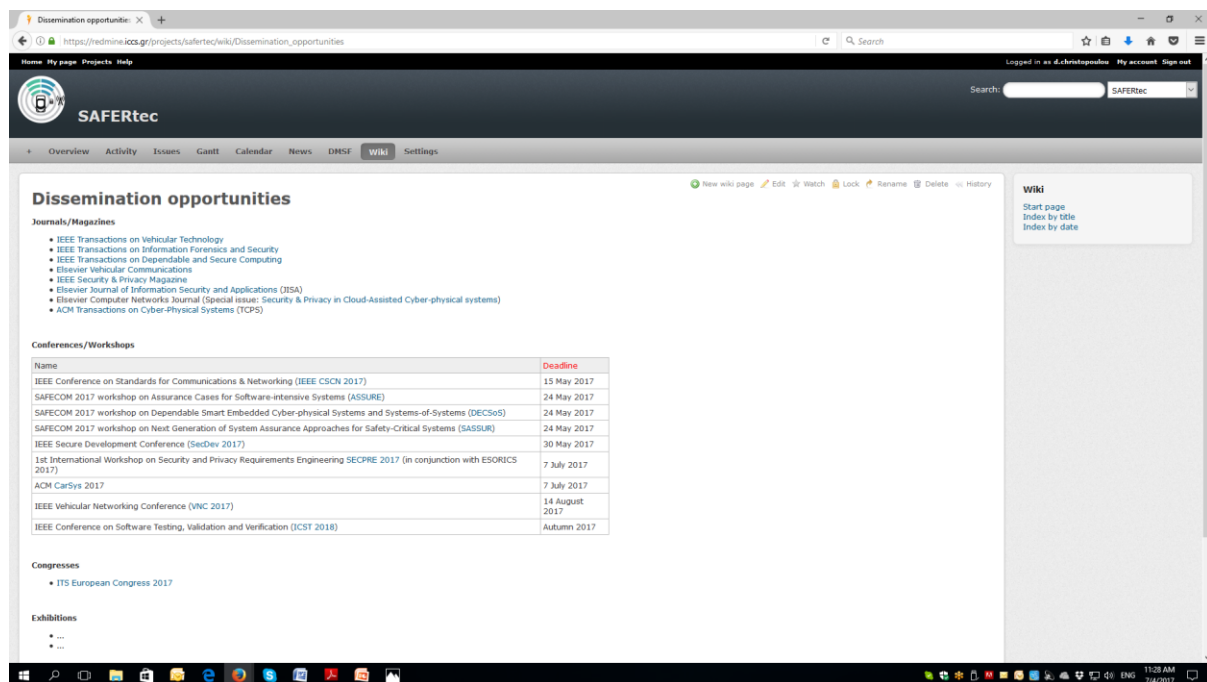
One of the project's major dissemination activities will be the participation in conferences and the organization of a number of dedicated SAFERtec stakeholder workshops, meetings, and other events with the aim to disseminate the project's progress and its results, as well as to receive feedback from experts and relevant stakeholders. In addition, SAFERtec partners will present project achievements and advances in related conferences, fora, exhibitions, and workshops. A series of high-visibility events (some under the aegis of EC) are organized -on a yearly basis- in the area of ITS exhibiting both scientific and industrial profiles. ITS Europe and World Congresses are typical examples that fall in this category and include interaction between stakeholders and potential end-users through trade-shows, showcases, thematic workshops etc. SAFERtec representatives will provide active contribution to such events presenting the project's achievements with particular emphasis on sessions that relate to vehicular security and (human) safety. The project's research results will be also disseminated through submissions to major IEEE, ACM and IFIP conferences and workshops; this channel will mainly be utilized by the participating research institutes (*i.e.*, UPRC and ICCS), supported by the industrial and SME partners. A list of relevant future events is included in the Dissemination Planner (*i.e.*, an on-line 'living document'), available to all consortium partners at Redmine. This list will be continuously updated during the project's course.

4.1.5 Standardization bodies

There are various initiatives, by standardization bodies, industrial alliances, community organizations, governmental authorities that are dealing with security related aspects and assurance for ICT based systems. In the frame of Task 7.3 of the SAFERtec project, a standardization plan will be defined, identifying existing standards for security assurance in the ITS and automotive industry. Standards from other domains related to information assurance, privacy and safety in the scope of IoT and CPS will be further explored to identify interdependencies, gaps and emerging standardization activities and recommendations. In this context, a detailed list of standardization bodies, working groups, committees on EU level (and international level) will be defined, along with a set of communication activities and a detailed time plan for their implementation.

4.1.6 Journals and other scientific publications

A major effort will be made towards publishing peer reviewed scientific and technical papers to high impact journals and respective conference proceedings. The project will target scientific magazines (e.g., IEEE Communication Magazine) which enjoy broad audiences by presenting research results in a highly accessible manner, abstracting technical details. At the same time the academic partners of the consortium will aim to highly competitive (i.e., tier-1) publications. The publications will cover fields within the work performed in the project. Journals that have been already identified, such as IEEE JSAC, IEEE Trans. on Vehicular Technology, ACM Transactions on Information and System Security, IEEE Transactions on Dependable and Secure Computing, are included in the Dissemination Planner, available to all consortium partners at Redmine (see Figure 11). This will be a living, online document that will be constantly updated in order to keep consortium partners aware of upcoming dissemination opportunities.



The screenshot shows the SAFERtec Dissemination planner interface. The main content area is titled "Dissemination opportunities" and lists various journals and conferences. The "Journals/Magazines" section includes a list of journals such as IEEE Transactions on Vehicular Technology, IEEE Transactions on Information Forensics and Security, IEEE Transactions on Dependable and Secure Computing, Elsevier Vehicular Communications, IEEE Security & Privacy Magazine, Elsevier Journal of Information Security and Applications (JISA), Elsevier Computer Networks Journal (Special issue: Security & Privacy in Cloud-Assisted Cyber-physical systems), and ACM Transactions on Cyber-Physical Systems (TCPS).

The "Conferences/Workshops" section contains a table with the following data:

Name	Deadline
IEEE Conference on Standards for Communications & Networking (IEEE CSCN 2017)	15 May 2017
SAFECOM 2017 workshop on Assurance Cases for Software-intensive Systems (ASSURE)	24 May 2017
SAFECOM 2017 workshop on Dependable Smart Embedded Cyber-physical Systems and Systems-of-Systems (DECSeS)	24 May 2017
SAFECOM 2017 workshop on Next Generation of System Assurance Approaches for Safety-Critical Systems (SASSUR)	24 May 2017
IEEE Secure Development Conference (SecDev 2017)	30 May 2017
1st International Workshop on Security and Privacy Requirements Engineering SECPRE 2017 (in conjunction with ESORICS 2017)	7 July 2017
ACM CarSys 2017	7 July 2017
IEEE Vehicular Networking Conference (VNC 2017)	14 August 2017
IEEE Conference on Software Testing, Validation and Verification (ICST 2018)	Autumn 2017

The "Congresses" section lists the ITS European Congress 2017. The "Exhibitions" section is currently empty.

Figure 11: SAFERtec Dissemination planner

4.1.7 Technical Conferences, workshops

The project's research results will be also disseminated through submissions to major IEEE, ACM and IFIP conferences and workshops; this channel will mainly be utilized by the participating research institutes (i.e., UPRC and ICCS) to further strengthen the exposure of the SAFERtec achievements to the (academic) research community.

4.2 Key dissemination activities

- Website updates regarding project deliverables and results
- Participation in conferences and other events (presentation of project results and outputs)
- Participation in technical conferences
- Publication of scientific media articles to print and online specialized/narrow media
- Implementation of SAFERtec standardization plan, use project results and outputs to make contributions, extensions or recommendations to standards

5 Exploitation

The following paragraphs describe the way that the consortium as a whole but also each individual member envisions the exploitation of its involvement to the project and the results that the latter is expected to achieve. As the consortium puts together a balanced team of academic partners, industrial partners and SMEs, there are -in each case- distinct ways to exploit the project's outcome.

What is reported below draws-on the initial SAFERtec exploitation plan sketched by each consortium member. There are numerous extensions to the plans and (where feasible) we highlight a preliminary categorization of the plans to:

- current
- short-term
- long- term

exploitation activities. Clearly, the exploitation plan for each partner (but also for the consortium as a whole) will become more relevant as the technical work proceeds and the first SAFERtec results are derived. In that sense, a more detailed description of the considered plans will be available during the final year of the project.

5.1 Collaborative exploitation of project results

Consortium members, especially the industrial and SMEs ones, will rely on the SAFERtec Assurance Framework Toolkit (AFT) to cost-efficiently estimate the security assurance levels for their prototypes (and/or products). Furthermore, they plan to promote the AFT to OEMs and stakeholders in order to become one of the main assurance-levels estimation tools. Given a positive feedback from them, AFT can be extended to cover also the V2V setting and thus enable the identification of assurance levels for security, privacy, reliability and safety features of automotive instances relying on inter-vehicle communications. On the other hand, the academic partners of the consortium will seek to exploit the AFT beyond the project's timeline (i.e., ICCS commits to maintain it for 5 years after the end of the project) as a basis to upload and therefore, demonstrate parts of their research to broader audiences; AFT will be designed as an extendable toolkit that can host plug-ins such as simulators of different V2I settings generated from research activities.

5.2 Industrial exploitation

5.2.1 CRF

The results of SAFERtec will be useful for Fiat Chrysler Automobiles (FCA) in general to plan on mid-term perspective the integration of V2X technology onboard its future vehicles but also used for retrofit solutions.



CRF, on behalf of FCA, is currently increasing the testing facility of some EMEA FCA test sites. In particular, facilities related to communication-based systems, such as the ones based on V2X, are improving local test-sites in Italy. The adoption of communication-based facility on test sites, in fact, allows FCA verify innovative communication-based in-vehicle systems, thus growing the importance of FCA test sites both at public level (see the results of recent project such as: DRIVE C2X, lately TEAM, AutoNet2030, e2Call project) and at internal level within FCA. This becomes even more important when considering possible future regulations that could make mandatory the V2X technology onboard all (commercial) vehicles.

Current/near-future plan: Along this line, important improvements are now ongoing and involve some CRF local test sites. Aiming at enriching the capability of such test sites with security verification, CRF is promoting the adoption of the SAFERtec outcome in such FCA test sites. This will yield a complete testing facility covering all aspects of vehicular communication-based systems, including security.

In more technical terms, CRF, on behalf of FCA, is currently addressing security in V2X in a twofold way. Firstly, the technical risk analysis on potential threats to the in-vehicle system through vehicular communication/connectivity (e.g., attacks that can affect the automated driving). Secondly, the security and privacy threats perceived by the potential customers of FCA passengers cars (e.g., law enforcement capability can negatively influence how drivers perceive the respect of their privacy). Especially the latter aspect, i.e., to understand how FCA customers feel secure and privacy-protected, will receive relevant inputs from SAFERtec security and privacy analysis and from the assurance framework defined in the project. This is very important also when considering regulatory scenarios, e.g. if Europe decides to act similarly to US USDOT-NHTSA proposed rulemaking to equip all light vehicles. In this case, V2X (or even simply V2V) has to be considered not as an optional – required by certain kinds of drivers who like/require it – but as a mandatory system for all kinds of drivers, independently of their willingness.

Short-term plan: CRF is interacting with FCA staff members for promoting the adoption of SAFERtec results, especially, in terms of technical risk analysis on potential threats. In this way, CRF is aiming at improving the security policies adopted by FCA in the case of communication-based in-vehicle systems. As initial steps, CRF is presenting the expected project outcomes to FCA internal members.

Long-term plans: CRF will seek to invest on the adoption of the security assurance framework to be defined in the project. The effort will be to involve FCA in planning customers' focus groups for evaluating possible impacts of the adoption of the SAFERtec framework with respect to the customer perception of security and privacy threats.

5.2.2 CCS (Airbus)

In the SAFERtec project CCS intends to enhance its expertise and maturity to be able to address future automotive security challenges.

Short-term plans: CCS will promote the expertise built in attack modeling and security testing targeted towards the automotive industry and road authorities. The main objective would be to develop consulting services in that particular domain. To achieve that and most-importantly deliver high-quality consultancy services, CCS needs to avail state-of-the-art knowledge in every domain of security. SAFERtec is an excellent opportunity to enhance the body of knowledge in the area of privacy, safety and security of connected vehicles. Furthermore, CCS plans to use the assurance framework that will be proposed by SAFERtec to help its customers in automotive industry assess their security standards.

Mid-term plans: Those plans amount to the transformation of the techniques developed in the context of SAFERtec into demonstrable innovations (i.e., to provide proofs of involved concepts in cooperation with car manufacturers). CCS will (re-)use the attack modeling and vulnerability analysis methodology developed in SAFERtec to help its customers satisfy their security needs during the design stages of their projects. Along this line, further CCS plans include the improvement of their methodology to perform certified technical audits (i.e., security testing) relying on the SAFERtec achievements. This will enable CCS to address future automotive challenges and provide cyber-security guarantees to car manufacturers.

Long-term plans: CCS's intention is to market specific cyber-security products tailored for automotive and road infrastructures. In particular, a tailored version of the CyberRange tool may be provided either as a service or as a turn-key solution for clients coming from the automotive sector. Validation and testing tools may be manufactured and sold to security certification & qualification specialists willing to extend their activities to the automotive sector. CyberRange key capabilities and adaptation for connected vehicles are planned to exploit SAFERtec results and include:

- the testing of new attack scenarios or malware families against current supervision capabilities; this could leverage SAFERtec lessons-learned to improve detection rules
- the technical monitoring and assessment of security products in a realistic (automotive) environment

5.2.3 TOMTOM

TomTom used to deliver internet-connected navigation devices that could either access vehicle data through the entertainment bus (in-dash systems) or operate separately from the vehicle (PNDs). This has changed recently, with devices connecting also to the CAN bus (e.g., CURFER, LINK, eHorizon), thereby introducing potential security and safety risks. In the future (ADAS/HAD), internet-connected third-party



devices and the corresponding software stack(s) that interface with critical vehicles' buses (both engine and sensors) will become the norm. In SAFERtec, TomTom will develop and evaluate methods for related security assessments and methods, which should allow the replacement of the current multitude of OEM security requirements by a unified approach (and/or standard) after the project. This will enable TomTom to address safety needs in a cost-efficient manner, and it will enable SMEs to research aftermarket integrated vehicle solutions following TomTom's best practices.

Mid-term plans: This is especially relevant to future-proofing the architecture of TomTom's software stack for the coming years, where interconnection -not just in the car but also outside the car, to cloud services and to the infrastructure available on the road- will be the norm rather than an exceptional characteristic.

Long-term plans: TomTom believe that over 3-5 years after project completion, the operation of the AFT combined with further research will lead to emerging standards for such solutions that can be accepted by all relevant stakeholders, covering the entire spectrum of interconnected APIs that may open an attack vector into the car - with a specific focus in cloud services and V2X communications.

5.2.4 SWARCO

The core activities of SWARCO Mizar involve research, design, development and the implementation of integrated telematics systems and services for the supervision, monitoring and control of traffic and transport infrastructures. Within the context of the SAFERtec project SWARCO Mizar will take over the design and development of the RSU and the Cloud Infrastructure integrating security aspects in line with the standards available and potentially introduced by the project.

Short-term plans: SWARCO Mizar foresees an involvement in the dissemination of the developments and standardization work of SAFERtec. In particular, contributions to ITS security-standards (e.g., standardized SW tests and validation procedures) are expected to serve as a basis for the improvements of the internal security procedures of SWARCO Mizar systems.

Long-term plans: The company plans to exploit the work carried out within the project, and the knowledge generated, to better address the safety needs of its products in a cost-efficient manner. In the future, when further developments of the assurance framework can be envisaged (3 to 5 years after the end of the project), extended to V2I settings, the project outcome could be broadened to other products to estimate and improve security levels. The integration of security aspects in the design and development of the RSU and Cloud infrastructure is fundamental for the growth of the company product

offer. Therefore, the experience in the SAFERtec project will be beneficial for the business of the company, taking the existing products beyond the state of the art.

5.3 SME exploitation

5.3.1 Autotalks

The company considers security as a critical requirement for V2X success, and V2I is a major part of V2X ability to offer value-added services for increasing the market rate. The process of security concepts development is evolving, and the project will study new aspects in Cybersecurity. Autotalks, as a company with significant investment on V2X security, is interested to remain in the cutting edge of V2X security, and would like to learn about applying new schemes for V2I analysis, that would be leveraged for V2X, and maintain firsthand knowledge of the most advanced trends in the market. In particular, hybrid communications constitute the most promising model for connected vehicles, combining cellular or WLAN for cloud connectivity and DSRC for real-time safety data.

Short-term plan: Autotalks solution includes WLAN, and has the need to protect the WLAN link from impacting the DSRC within 2017-18. The technical risk analysis of potential threats performed in SAFERtec project is applicable for this scenario. The findings are likely to contribute to the security grade of Autotalks solution, and since Autotalks chipsets is used by many Tier1s and OEMs, it will contribute to the entire market.

Long-term plans: Targeting the period 2019-21, value-added-services combining both cellular and DSRC are likely to emerge. A clear interface should be defined between the two, while assuring the security of the DSRC, given the inherent limitations of the cellular network. The findings of the SAFERtec project will be beneficial for this future definition. On top of that, the company aims to invest more effort on research projects in order to broaden its expertise and strengthen its network of collaborators. Towards that goal, it plans to capitalize on the visibility and experience gained from SAFERtec.

5.3.2 Commsignia

In the project, they will be responsible to provide the vehicular V2X middleware, safety applications and HMI. The V2X Software Stack will be implemented into the V2X onboard unit in the vehicle and will support novel security and privacy enhancements on protocol and functional level. Commsignia will also provide safety applications defined with respect to considered V2I automotive instances. The features and enhancements made during the project shall be part of Commsignia's offering towards the

automotive industry. The project results will be continuously presented at technical and industrial events and the research profile of Commsignia will be further strengthened allowing to pursue new research opportunities.

Short-term plan: V2X – due to its uniqueness and being a relative young technology e.g. compared to cellular, radar, etc – is currently undergoing privacy, safety related and safety critical validations. A large number of requirements on dependability and therefore security, are expected. Commsignia aims (within the project) to support and foster this progress on all fields: standardization (e.g. ETSI, ISO), stakeholder groups (C2C-CC, Autosar) and also directly at OEM and TIER-1 projects. Commsignia is aware of the following communication-protocol security standards being currently investigated, upgraded or required:

- ETSI TS 103 097 ITS; Security; Security header and certificate formats
- ETSI TS 102 941 ITS; Security; Trust and Privacy Management
- ETSI TS 102 940 ITS; Security; ITS communications security architecture and security management.

One of the main goals for Commsignia in the next 3-5 years is to foster security standards and frameworks to allow V2X to tighten its security and thus becoming a highly trusted source of information for semi-autonomous driving systems.

Long-term plans: In the future i.e., after the end of the SAFERtec project, they foresee that cloud communication and - the currently isolated – V2X functions will be used jointly within highly automated vehicles. Communication technologies will be divided between highly secure, safety critical systems and other types of functions (e.g., infotainment). This will trigger a multi-level and shared security approach within the vehicle. Furthermore, it is also likely that local transport systems (e.g. a vehicle platoon) will form temporary sub-systems with group security as well. Initiated by the efforts within the SAFERtec project, Commsignia is looking forward to contribute to cooperative standards enabling this complex future goal.

5.3.3 Oppida

Oppida leads the SAFERtec standardization activities and in parallel participates in the evaluation of the assurance composition mechanisms and the resulting assurance framework. As an accredited evaluation laboratory Oppida will also participate in the definition of vulnerability tests. As such, Oppida aims to invest on project achievements and through their promotion to demonstrate its competences in the field of ITS systems evaluation; this will strengthen their position as an accredited laboratory for ITS certification systems. Moreover the SME will be heavily involved in contributing to (and promoting) the standardization work of the project expecting to extend collaboration opportunities; an active participation in standardization bodies is then envisaged.



Current/Short-term plan: Oppida will develop and promote dedicated evaluation methodologies for ITS modules and (integrated) systems. As a great need of confidence in ITS systems before they can be widely deployed is expected, the definition and promotion of evaluation standards offered to the main ITS stakeholders and regulators are of the utmost importance. During this process Oppida will develop testing tools and a relevant environment to validate the SAFERtec assurance framework and also implement dedicated security evaluation services. These contributions will add to the Oppida portfolio and be exploited in future work for ITS cyber-security evaluation.

Long-term plans: As an accredited Information Technology Security Evaluation Facility, Oppida already provides general software security evaluation services for any IT product. Oppida aims to rely on its SAFERtec work to become an important actor in the large ITS security evaluation domain. Oppida will use the SAFERtec experiences to become a leading actor and a recognized state-of-the-art developer of ITS security testing technics. In long term, this is expected to enable new collaborations with car-manufacturers and their tier-1 providers to efficiently achieve the validation of their products' security.

5.4 Knowledge exploitation

5.4.1 ICCS

The high-level exploitation plan of ICCS as a research institute will rely on the SAFERtec results to enrich the institute's expertise, strengthen its network of collaborators and identify new research directions. The SAFERtec modeling work will add to the security background of ICCS and when combined with the ITS competence, will help the institute better explore the ITS-security intersection that constitutes a promising path for future research.

Current/Short-term plan: ICCS is seeking opportunities to capitalize on the SAFERtec work and expected results. It has already considered overlapping areas to the SAFERtec scope and driven by the security-assurance concept it has introduced cyber-security testing and validation tasks in a successful H2020 proposal. The corresponding L3Pilot project aims at exploring the viability of automated driving as a safe and efficient means of transportation, promoting new service concepts to provide inclusive mobility. The project focuses on large-scale piloting of SAE Level 3 and (to lesser extent) 4 functions across 11 European countries, 100 vehicles and 1000 test drivers.

Long-term plans: Research proposals and future collaborations are expected to rely on a) the interaction with ITS stakeholders and security experts that the project requires b) the SAFERtec technical achievements. One important point along the latter direction is the exploitation of the modular software platform that will realize the Assurance Framework Toolkit (AFT). ICCS will seek to invest on the experiences involved in the design of the architecture and implementation of the knowledge

base/inference engine modules; such software-engineering competence will be used to broaden the ICCS research portfolio supporting new proposals and initiatives.

5.4.2 UPRC

UPRC is an academic partner focusing on research and scientific excellence in vehicular wireless communications, security for wireless communications and ITS technologies. As such, the relevant knowledge exploitation points at the improvement of the current curriculum with the introduction of new techniques, results and infrastructure.

Current/Short-term plan: UPRC plans to strengthen its scientific impact (through publications, patents etc.) relying on its participation in a project that heavily involves industrial players. Within the project, new experts will be trained in relevant research areas and PhD theses will be motivated. The corresponding collaborations are expected to help UPRC identify new research directions.

Long-term plan: Already, UPRC collaborates with CCS (Airbus) on the integration of different security and privacy requirements elicitation methodologies, in order to develop a unified method that will allow the detailed modelling of the SAFERtec use cases and the precise identification of the requirements and the respective countermeasures. The result of this work (integrated methodology) will be extended in the future to cover other research areas such as cloud-based electronic services, IoT environments, auditing tools for compliance with the new European General Data Protection Regulation (GDPR) etc. In a similar way, UPRC plans to extend the attack and protection profiles developed during the project for other environments and/or infrastructures.

6 Implementation of communication and dissemination plan

6.1 Partners' roles and efforts

ICCS is the WP 7 leader and responsible for managing and monitoring the whole workpackage effort. Along this line, ICCS will be engaging with all project partners to ensure that the communications activities of the project are effective and impactful. WP 7 includes the following Tasks:

WORK PACKAGE/TASKS	PARTNER	ROLE
WP7 Communication and Standardization	ICCS	Leader
	CRF, CCS, UPRC, AUT, SWR, TOM, COMM, OPP	Contributors
Task 7.1 Dissemination and Exploitation	ICCS	Responsible
	CRF, CCS, UPRC, AUT, SWR, TOM, COMM, OPP	Contributors
Task 7.2 Project Web site and Online Presence	ICCS	Responsible
	CRF, CCS, UPRC, AUT, SWR, TOM, COMM, OPP	Contributors
Task 7.1 Standardization Plan and Activities	OPP	Responsible
	CRF, CCS, UPRC, AUT, SWR, TOM, COMM, ICCS	Contributors

Table 5: SAFERtec Tasks and responsible partners

As successful communication, dissemination and exploitation of the SAFERtec project rely on the commitment and contribution of all project partners, they are all expected to contribute and have, therefore, been allocated person months under WP 7. Specific individual effort has also been foreseen, and is presented in the table below:

Partner short name	ICCS	CRF	CCS	UPRC	AUT	SWR	TOM	COMM	OPP
Effort per partner	14	4	4	4	5	3	3	6	7

Table 6: SAFERtec WP7 effort per partner

6.2 Communications roadmap and preliminary action plan

A key parameter for an effective communication strategy is time. More specifically, time, as for project phase, more or less defines the criteria for selecting the appropriate message to be communicated and the type of dissemination material and channel to be used.

The communication roadmap presented in Table 7, provides an outline of activities per project phase, and the respective tools to be used:

Project phase	Description	Activities	Channels	Partner
First phase	In the initial phase of the project the dissemination activities will focus on raising awareness and generally informing the public and relevant stakeholders about the project's concepts, main objectives and vision. The effort will be to motivate them to participate in the needs and requirements collection.	<ul style="list-style-type: none"> Creation of brand identity (project logo, dissemination material) Production of leaflet, poster, and other printed material Creation of dedicated website and constant content update Set up of social media channels and continuous networking Publication of generalist media articles to print and online broad media Publication of press release Identification of and networking with similar projects, relative organizations, and stakeholder communities Organization of first SAFERtec stakeholder workshop Participation in conferences, workshops, and other events 	Brand identity (logo, printed material), website, social media, articles, press releases	ICCS, all partners

		<p>(communicate project /disseminate project results and outputs)</p> <p><u>Ongoing activities:</u></p> <p><i>Continuous updates of project website</i></p> <p><i>Continuous updates of information on project social media accounts</i></p>		
Second phase	<p>In this phase the activities will aim to communicate available project results and raise awareness on project technical issues/challenges.</p>	<p>Website updates regarding project deliverables and results</p> <p>Participation in conferences and other events (presentation of project results and outputs)</p> <p>Participation in technical conferences</p> <p>Publication of scientific media articles in print and online specialized/narrow media</p> <p>Participation in conferences, workshops, and other events (communicate project /disseminate project results and outputs)</p> <p>Networking and Physical meetings with related projects, liaison with stakeholder communities, networks and organizations</p> <p><u>Ongoing activities:</u></p> <p><i>Continuous updates of project website</i></p> <p><i>Continuous updates of information on project social media accounts</i></p>	<p>Articles, press releases, publications, presentations, conferences and other events, interaction with relevant projects and initiatives, website, social media, physical meetings</p>	<p>ICCS, all partners</p>
Third phase	<p>In the final phase of the project, a major effort will be made in order to effectively disseminate project results to the target audiences, and to ensure long-term impact and exploitation of the results.</p>	<p>Website updates regarding project deliverables and results</p> <p>Participation in conferences and other events (communicate project /disseminate project results and outputs)</p> <p>Participation in technical conferences</p> <p>Publication of scientific media articles to print and online specialized/narrow media</p> <p>Implementation of SAFERtec standardization plan, use project results and outputs to make contributions, extensions or</p>	<p>Articles, press releases, publications, conferences and other events, contribution-to or extension-of relevant standards, presentations website, social media, physical meetings, (promotion of the) Assurance Framework Toolkit (AFT)</p>	<p>ICCS, all partners</p>

		<p>recommendations to standards</p> <p>Networking and Physical meetings with related projects, stakeholder communities, networks and organizations</p> <p>Physical meetings with related projects, stakeholder communities, networks and organizations</p> <p>Organization of second SAFERtec stakeholder workshop</p> <p><u>Ongoing activities:</u></p> <p><i>Continuous updates of project website</i></p> <p><i>Continuous updates of information on project social media accounts</i></p>		
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Table 7: SAFERtec communications roadmap and preliminary action plan

6.3 Dissemination procedures

The dissemination procedures include guidelines for the publication or presentation of work done within the framework of the SAFERtec project.

The basic objectives of the aforementioned procedures are to:

- ✓ Produce high quality SAFERtec publications and presentations;
- ✓ Avoid overlaps and possible disclosure of restricted or confidential information;
- ✓ Monitoring and record the dissemination activities of the project in a sufficient way.

Among other things, the document (see Annex A 1: SAFERtec Dissemination procedures), available to all consortium partners through the common online collaborative tool (Redmine), sets out the main steps to be followed by partners, as follows:

Step by step procedure:

1. **At least two weeks before** the publisher's or organizer's deadline for submitting a research paper, proposal for presentation or performance of any other communication/dissemination activity (including workshop or special event organization) related to the SAFERtec project, **the initiator of the dissemination activity**:
 - Fills in the dissemination request form available at the Wiki page of the SAFERtec Redmine (see Annex A 2: SAFERtec Dissemination request table for the relevant table-template) providing necessary information (type of activity, provisional title, short summary or draft of the whole paper/set of slides, if available)
 - Submits the dissemination request to the WP7 Leader
 - When available, stores the abstract/draft paper/draft poster etc., in the appropriate Redmine folder.
2. **The WP7 Leader** sends the request within 2 days to the Consortium partners for approval, modification, request for extra information/clarifications or rejection;
3. **Consortium partners** have to reply to the WP7 Leader **within 5 working days**; no response is considered as an approval;
4. **The WP7 Leader** informs the initiator of the dissemination activity and the Project Coordinator about the decision.
5. **Within 10 working days** after the realization of the approved dissemination activity, the initiator of the dissemination activity:
 - Adds the performed dissemination activity to the (excel file) list of Conducted Dissemination Activities available in a dedicated Redmine folder and uploads there the updated excel

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- Uploads the final paper, presentation, poster, or other presented material in the above Redmine folder creating a new sub-folder under the corresponding year.
- Uploads photos from the activity, if relevant, at the created folder (see the previous bullet)
- Completes a dissemination report (template available in the SAFERtec Redmine) and uploads it in the created folder (see the previous bullet)
- Informs via email the WP7 leader



7 Evaluation and monitoring of activities

7.1 Communication and dissemination KPIs

The communication plan and the activities conducted will be assessed on a regular basis during the project life. The project partners will agree on minimum success thresholds for each tool to be used. Monitoring will be ongoing and evaluation will be taking place annually.

Communications Activity	Key Performance Indicators	Expected results
Production of leaflet, poster, and other printed material	First leaflet and poster (M06, updates as required)	Disseminated in more than 5 International events per year
Creation of dedicated website and constant content update	Dedicated website live (M06), Number of users/visitors	More than 500 unique visitors by M36
Set up of social media channels and continuous networking	Number of network members	At least 50 members in SAFERtec social media
Identification of and networking with similar projects, relative organizations, and stakeholder communities	Number of similar projects, relative organizations, and stakeholder communities	Interaction with at least one project or organization.
Organization of two SAFERtec stakeholder workshops	Organization of first and second SAFERtec workshop (M0..., M36), number of participants	Our two workshops to collectively attract more than 70 experts.
Physical meetings with related projects, stakeholder communities, networks and organizations	Number of networking/cooperation activities	SAFERtec members to participate in more than 15 meetings during the project's lifetime
Publication of press releases	Number of press releases published	At least 3 during the project's lifetime
Publication of media articles to broad media	Number of articles published	At least 3 during the project's lifetime
Networking with related projects at both national and EU level	Number of related projects	At least 3
Participation in conferences, workshops, and other events	Number of conferences, workshops, and other events attended	More than 30 during the project's lifetime
Participation in conferences and other events (presentation of project results and outputs)	Number of presentations in conferences and other events	More than 20 talks during the project's lifetime
Active participation in technical conferences	Number of papers presented in technical conferences	More than 20 talks during the project's lifetime
Publication of scientific media articles to print and online specialized/narrow media	Number of articles published	More than 10 publications

SAFERtec standardization plan	Number of standardization bodies, working groups, committees identified/number of contributions to standards	1 explicit contribution, extension or recommendation to a relevant standard
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Table 8: SAFERtec communications KPIs

The KPIs will be expanded per category of activities to include specific metrics to measure the effectiveness of the performed activities.

7.2 Risk management and compliance

Although risk management and compliance fall into the scope of D1.2 Risk and Quality Procedures, there are some elements specifically linked to risks in communications, mainly concerning timely communication with internal and external stakeholders, irrelevant or inappropriate social media posts and content, and Intellectual Property Rights in the case of scientific publications. SAFERtec has carefully considered the aforementioned risks and will take all necessary actions to ensure effective risk management and compliance.

8 Conclusions

This deliverable has presented the SAFERtec communications strategy, expressed in the form of a communication, dissemination and exploitation plan. It has demonstrated how the project's approach to communications will ensure that information about the project and its results will be effectively delivered through its life and beyond. Key components of the communications strategy have been identified and elaborated. In addition, key audiences, messages, channels and activities have been described in the context of both communication and dissemination. The SAFERtec exploitation strategy has been detailed including a first outline of individual exploitation plans across time (i.e., short-/long-term). Finally, a communications roadmap and a preliminary action plan have been devised considering the separate partner roles and a number of potential risks involved.

The SAFERtec overall communications strategy as well as the dissemination and exploitation plan has been designed to be flexible and adaptive; it will be -to some extent- shaped by the ongoing work and project's progress. Regular updates and adjustments will be undertaken in face of new challenges and/or opportunities.



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- Ruete, A. 2014. *Communicating Horizon 2020 projects*. Information Day Presentation by DG Research and Innovation, European Commission. Retrieved on 24 April 2017 from: <https://ec.europa.eu/easme/sites/easme-site/files/documents/6.Communication-AlexandraRuete.pdf>

Appendices

A 1: SAFERtec Dissemination procedures



Dissemination Procedures

Description and purpose:

The publication or presentation of work done within the framework of SAFERtec or any other communication and dissemination activity related to the SAFERtec project has to be **approved beforehand by the SAFERtec Consortium partners**.

Basic objective of the procedures:

- ✓ Produce high quality SAFERtec publications and presentations;
- ✓ Avoid overlaps and possible disclosure of restricted or confidential information;
- ✓ Monitoring and record the dissemination activities of the project in a sufficient way.

Step by step procedure:

1. **At least two weeks before** the publisher's or organizer's deadline for submitting a research paper, proposal for presentation or performance of any other communication/dissemination activity (including workshop or special event organization) related to the SAFERtec project, **the initiator of the dissemination activity:**
 - Fills in the dissemination request form available at the Wiki page of the SAFERtec Redmine (<https://redmine.iccs.gr/projects/safertec/wiki>) providing necessary information (type of activity, provisional title, short summary or draft of the whole paper/set of slides, if available)
 - Submits the dissemination request to the WP7 Leader (d.christopoulou@iccs.gr, Ms. Dimitra Christopoulou)
 - When available, stores the abstract/draft paper/draft poster etc., at the following DMSF folder: https://redmine.iccs.gr/projects/safertec/dmsf?folder_id=2263

IMPORTANT NOTE:

Before submitting a dissemination request, please be reminded that a partner shall not include some other partner's data, algorithms, software tools or results in any dissemination activity, without obtaining the owning partner's prior written approval. In the dissemination request, the first author/initiator of a dissemination activity clearly mentions whether it involves other SAFERtec partners who have been earlier notified and provided their approval.

2. **The WP7 Leader** sends the request within 2 days to the Consortium partners for approval, modification, request for extra information/clarifications or rejection;
3. **Consortium partners** have to reply to the WP7 Leader **within 5 working days**; no response is considered as an approval;
4. **The WP7 Leader** informs the initiator of the dissemination activity and the Project Coordinator about the decision.

In case of:

a) **Approval**: The initiator may proceed with the submission or realization of the planned dissemination activity;

b) **Conflict/objection**: Any Consortium member can object to the proposed dissemination activity, for example in cases of overlaps or risk of disclosure of restricted or confidential information. **The objection has to include a clear reasoning as well as a precise request for necessary modifications.** The issue is discussed among the Coordinator, the WP7 Leader and the involved partners.

5. **Within 10 working days** after the realization of the approved dissemination activity, the initiator of the dissemination activity:
 - Adds the performed dissemination activity to the (excel file) list of Conducted Dissemination Activities available at https://redmine.iccs.gr/projects/safertec/dmsf?folder_id=2261 and uploads the updated excel at the same folder
 - Uploads the final paper, presentation, poster, or other presented material in the following DMSF folder: https://redmine.iccs.gr/projects/safertec/dmsf?folder_id=2261 creating a folder under the corresponding year. The created folder must reflect the event (e.g., “ITSWC2017” if the activity took place in the ITS World Congress 2017)
 - Uploads photos from the activity, if relevant, at the created folder (see the previous bullet)
 - Completes a dissemination report (available at: <https://redmine.iccs.gr/projects/safertec/wiki> and uploads it in the created folder (see the previous bullet)
 - Informs via email the WP7 leader (d.christopoulou@iccs.gr)

NOTE:

If partners wish to present or release material already approved as public presentation/material then no formal approval is required, but the WP7 Leader (d.christopoulou@iccs.gr) has to be informed.

EC Acknowledgement:

The following acknowledgement text should be included in all publications related to the SAFERtec work:

"This work is a part of the SAFERtec project. SAFERtec has received funding from the European Union's Horizon 2020 research & innovation programme under grant agreement no 732319. Content reflects only the authors' view and European Commission is not responsible for any use that may be made of the information it contains".

For other communication activities, the EC emblem with the phrase:

"This work is a part of the SAFERtec project. This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 732319".

For infrastructure, equipment and major results, the EC emblem and the phrase:

"This [infrastructure] [equipment] [insert type of result] is part of the SAFERtec project that has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 732319."

For correct use of the EC emblem please use the following link:

European flag: http://europa.eu/about-eu/basic-information/symbols/flag/index_en.htm

For further information please contact WP7 Leader (d.christopoulou@iccs.gr).



A 2: SAFERtec Dissemination request table

2017

No.	Date of dissemination request	Main Leader	Type of activity	Title of the event/journal	Date and location	URL/ website	Title of publication/ presentation	Description/ Short summary	Authors	Work of other project partners involved ³	Relation to SAFERtec	Redmine link to document
0.	dd/mm/yyyy	partner organisation	Please choose one: conference, special session, paper presentation, workshop, demonstration, exhibition, trade fair, press/media activity, poster, video, website, ...					Up to 30 words		Please indicate the project partners whose work is involved in your publication/presentation.	Please choose one: Simple reference, concept description, work description, key paper presenting SAFERtec, internal SAFERtec activity	Documents should be placed here: https://redmine.iccs.gr/projects/safertec/dmsf?folder_id=2261
1.												
2.												
3.												

³ Before submitting a dissemination request, please be reminded that a partner shall not include some other partner's data, algorithms, software tools or results in any dissemination activity, without obtaining the owning partner's prior written approval. In the dissemination request, the first author/initiator of a dissemination activity clearly mentions whether it involves other SAFERtec partners who have been earlier notified and provided their approval.