



# **PRE**paring **SE**cuRe **VE**hicle-to-X Communication Systems

## **Deliverable 6.2**

### **Y2 Dissemination Report**

Project: PRESERVE  
Project Number: IST-269994  
Deliverable: D6.2  
Title: Y2 Dissemination Report  
Version: v1.0  
Confidentiality: Public  
Editors: Frank Kargl (UT)  
Date: 30. January 2013



Part of the Seventh  
Framework Programme

Funded by the EC - DG INFSO

## Document History

Version	Status	Author	Date
0.1	Initial version	F. Kargl	2013-01-14
0.2	Integrated reviews and input from partners	J. Petit	2013-01-28
1.0	Prepared final version	F. Kargl, J. Petit	2013-01-30
Approval			
	Name	Date	
Prepared	F. Kargl	2013-01-14	
Reviewed	All Partners	2013-01-28	
Authorised	F. Kargl	2013-01-30	
Circulation			
Recipient		Date of submission	
Project partners		2013-02-05	
European Commission		2013-02-05	

# Table of Contents

<b>1 EXECUTIVE SUMMARY .....</b>	<b>4</b>
1.1 Contact Information .....	4
1.2 Summary and Intended Audience .....	4
<b>2 OVERVIEW .....</b>	<b>5</b>
2.1 Status of the Project .....	5
2.2 Dissemination Plan .....	7
2.2.1 <i>Dissemination Plan</i> .....	7
2.2.2 <i>Dissemination Activities foreseen in WP6</i> .....	8
<b>3 Y2 DISSEMINATION ACTIVITIES .....</b>	<b>10</b>
3.1 Dissemination Material .....	10
3.2 Reviewed Publications .....	10
3.3 Press Coverage, Presentations, General Liaison .....	11
3.4 The Vehicular Networking and ITS Summer School .....	13
3.5 The ITS World Congress Demonstration .....	17
EU-US Harmonization Task .....	18
3.6 Group 1 and International ITS Harmonization Workshop .....	18
3.7 Liaisons with other Projects and Stakeholders .....	21
3.8 Table of all Y2 Dissemination Activities .....	22
<b>4 PLAN FOR DISSEMINATION AND EXPLOITATION ACTIVITIES IN Y2 AND BEYOND ..</b>	<b>26</b>
4.1 Stakeholder Workshop .....	26
4.2 Liaison Activities .....	26
4.3 Plans of Different Partners for Dissemination and Exploitation .....	26

# 1 Executive Summary

## 1.1 Contact Information

<b>University of Twente (Coordinator)</b>	
Name:	Frank Kargl
Address:	University of Twente Faculty of EEMCS P.O.-Box 217 7500 AE Enschede The Netherlands
Email:	<a href="mailto:f.kargl@utwente.nl">f.kargl@utwente.nl</a>
Phone (Office):	+31 53 489 4302
<b>KTH Stockholm</b>	
Name:	Panos (Panagiotis) Papadimitratos
Address:	KTH EES LCN Osquidas vag 10 SE-100 44 Stockholm Sweden
Email:	<a href="mailto:papadim@kth.se">papadim@kth.se</a>
Phone (Office):	+46 8 790 4263
<b>Renault SAS</b>	
Name:	Brigitte Lonc
Address:	Renault API: FR TCR RUC 1 22 1 avenue du Golf 78288 Guyancourt France
Email:	<a href="mailto:brigitte.lonc@renault.com">brigitte.lonc@renault.com</a>
Phone (Office):	+33 (0)1 76 85 14 87
<b>Escript GmbH</b>	
Name:	Christian Schleiffer
Address:	escript GmbH - Embedded Security Leopoldstr. 244 80807 München Germany
Email:	<a href="mailto:christian.schleiffer@escript.com">christian.schleiffer@escript.com</a>
Phone (Office):	+49 89 208039-132
<b>Fraunhofer</b>	
Name:	Dr.-Ing. Kpatcha Bayarou
Address:	Fraunhofer Institute for Secure Information Technology SIT Secure Mobile Systems (SIMS) Rheinstrasse 75 D-64295 Darmstadt Germany
Email:	<a href="mailto:kpatcha.bayarou@sit.fraunhofer.de">kpatcha.bayarou@sit.fraunhofer.de</a>
Phone (Office):	+49(0)6151/869-274
<b>Trialog</b>	
Name:	Antonio Kung
Address:	25 rue du general Foy 75008 Paris France
Email:	<a href="mailto:antonio.kung@trialog.com">antonio.kung@trialog.com</a>
Phone (Office):	+33 (0) 1 44 70 61 03

## 1.2 Summary and Intended Audience

This deliverable is summarizing dissemination and exploitation activities in Y2 of the PRESERVE project (1.1.2012 - 31.12.2012). It is intended for use within the PRESERVE project and the European Commission. It consists of three parts:

1. An overview chapter describing the status of the project and the dissemination plan
2. A chapter on foreseen and actually conducted dissemination activities in Y2
3. A chapter on planned future dissemination and exploitation activities

## 2 Overview

### 2.1 Status of the Project

The description of work states the following objectives for the PRESERVE project:

1. Create an **integrated V2X Security Architecture (VSA)** and demonstrate a close-to-market implementation termed **V2X Security Subsystem (VSS)**.
2. Prove that the **performance and cost requirements** for the VSS arising in current FOTs and future product deployments **can be met** by the VSS.
3. **Provide a ready-to-use VSS** implementation to FOTs and interested parties and the support for it so that a close-to-market security solution can be installed as part of those larger FOTs.
4. Solve open **deployment and technical issues** hindering standardization and product-pre-development.

More fine-grained objectives are outlined in this table below:

Type of objective	Objective	Description	Milestone	Verification in project
Integrated V2X security architecture and implementation based on SeVeCom, EVITA, and PRECIOSA results	O1.1 + O1.2	Harmonizing the security architectures and providing the VSA as input to on-going architecture standardization	M1.1 + M1.2	D1.1, D1.2, D 1.3, D6.1, D6.2, D6.3
	O1.3	Integrating and refining prototype implementations of SeVeCom, PRECIOSA, and EVITA into a joined V2X Security Subsystem (VSS).	M2.1 + M2.2	D2.1, D2.2, D2.3, D4.1, D4.2, D4.3
Meet performance and cost requirements of current FOTs and future products	O2.1	Perform and evaluate field-operational-test (FOT) in a hybrid testbed	M3.1 + M3.2	D3.1, D3.2
	O2.2	Provide an ASIC implementation of the required security hardware	M2.2	D2.2, D2.3
	O2.3	Extend testbed to full FOT level	M3.3	D3.2
Provide "ready-to-use" V2X security subsystem	O3.1	Packaging of the VSS including documentation and testing	M2.1 + M2.2	D4.1, D4.2, D4.3
	O3.2	Providing integration support to third-parties	M2.2 + M3.3	D4.3 + D3.3
Solve open deployment and technical issues hindering standardization and development	O4.1	Organizational Issues	M4.1 + M4.2	D5.1, D5.2, D5.3, D5.4
	O4.2	Technical Issues	M4.1 + M4.2	D5.1, D5.2, D5.3, D5.4

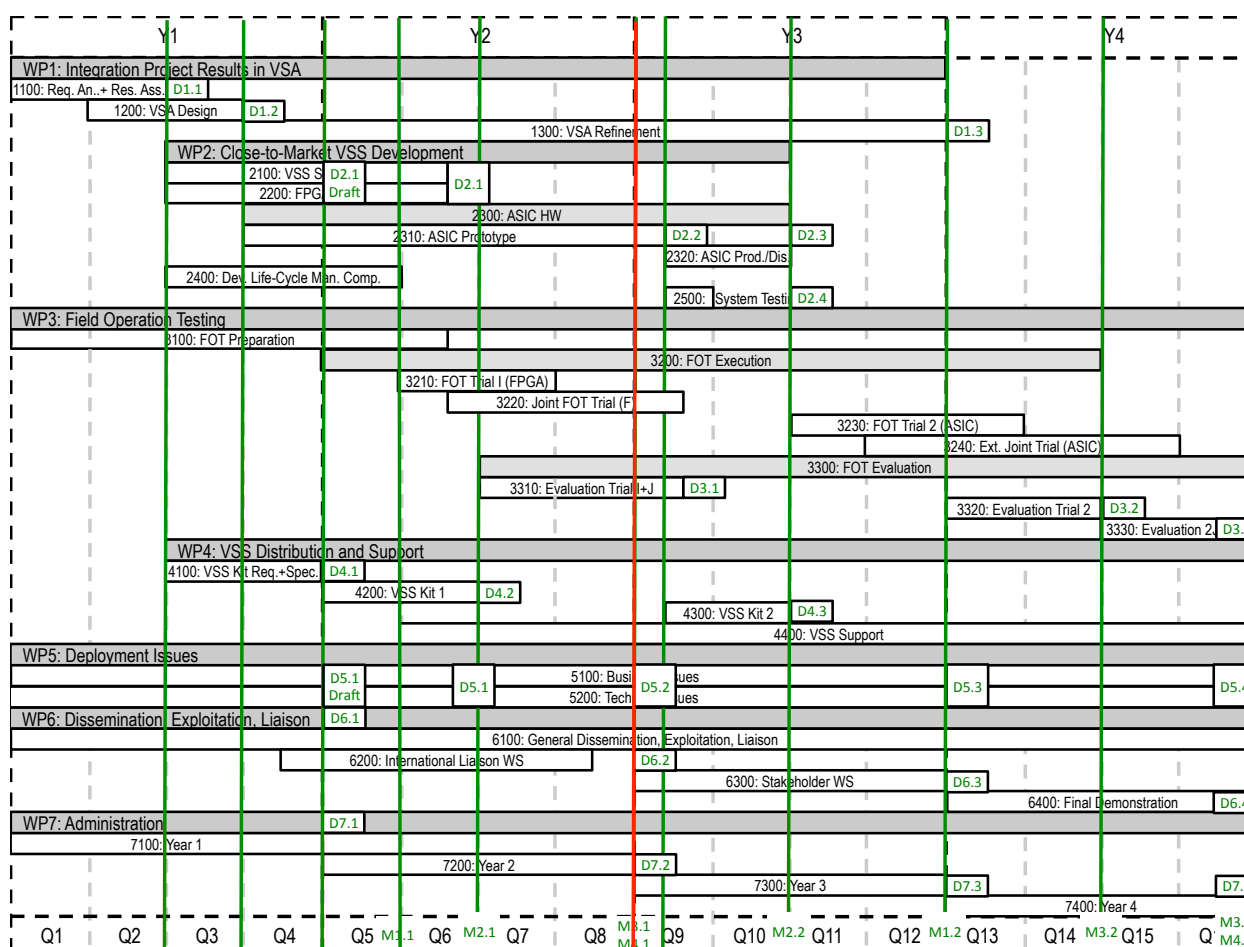
Corresponding Milestones are:

Milestone number	Milestone name	Sub-milestones	Work package(s) involved	Expected date <sup>1</sup>	Means of verification <sup>2</sup>
M1	VSA	M1.1: First version of V2X security architecture is ready for dissemination and distribution to standardization bodies and stakeholders has started.	WP1, WP6	M12	D1.1, D1.2, D6.1
		M1.2: Final Version of VSA is available and harmonized with standardization bodies and stakeholders.	WP1, WP6	M36	D1.3, D6.2, D6.3
M2	VSS	M2.1: FPGA-based VSS Kit is available for partner projects and interested stakeholders	WP2, WP4	M18	D2.1, D4.1, D4.2
		M2.2: ASIC-based VSS Kit is tested and available for partner projects and interested stakeholders	WP2, WP4	M30	D2.2, D2.3, D2.4, D4.3
M3	FOT	M3.1: FOT Trial 1 and joint trial 1 results available	WP3	M26	D3.1
		M3.2: FOT Trial 2 results available	WP3	M42	D3.2
		M3.3: Joined FOT Trial results available	WP3	M48	D3.3
M4	DIS	M4.1: Deployment issues results are taken into consideration by industry, standardization, and other stakeholders	WP5, WP6	M24	D5.1, D5.2, D6.1, D6.2
		M4.2: Deployment issues results have been successfully been integrated into on-going standardization and deployment preparation	WP5, WP6	M48	D5.3, D5.4, D6.3, D6.4

<sup>1</sup> Measured in months from the project start date (month 1).

<sup>2</sup> Show how both the participants and the Commission can check that the milestone has been attained. Refer to indicators if appropriate.

This translates to the following timeplan:



As can be seen, PRESERVE was expected to reach milestones M2.1 and M4.1 during Y2. Deliverables D2.1 “FPGA-based VSS Prototype”, D4.2 “VSS Distribution Kit V1”, and the final version D5.1 “Deployment Issues Report V1” were delivered on time. Deliverables D5.2 “Deployment Issues Report V2” and D7.2 “Year 2 management report” are delivered together with this report.

D7.1 provides a detailed status discussing potential deviations from the upcoming work plan.

We constitute that Milestone 2.1 has been reached according to plan. M4.1 is reached with this submission of D5.2 and D6.2.

## 2.2 Dissemination Plan

### 2.2.1 Dissemination Plan

Dissemination activities with the following stakeholders are foreseen in the DoW at the institution, industry and academic level:

- Institution level. The stakeholders are
  - Policy makers who will have to deal with security and trust (e.g. public authorities and related organisations). They are concerned about evaluation criteria, e.g. which level of security to mandate, and the harmonisation of these criteria. This is also consistent with the third recommendation of the eSecurity WG report presented to the eSafety forum steering group on March 18<sup>th</sup> 2010

- Data protection agencies as well as the article 29 working group party, in order to ensure that a privacy by design approach is made possible with the PRESERVE contribution
- Industry level. Dissemination and liaison will take place with the eSafety stakeholders, the C2C-CC consortium. Active participation to standardisation (e.g. ETSI) is also expected. Two partners (Renault and Fraunhofer) are members in the respective ETSI and C2C-CC security working groups, UTWENTE, KTH, and escrypt are members in C2C-CC, and the other partners (KTH, Trialog, Escrypt) will be involved by those working group on an individual basis depending on topics. There will be dedicated contact persons for the ETSI and C2C-CC Security working groups to ensure that PRESERVE results will be presented there regularly and taken into consideration.
- Research level. It is expected that a number of significant research results will be produced in the course of the project in particular as part of work conducted in WP5. For dissemination of results, academic partners (U.Twente, KTH, Fraunhofer) of the PRESERVE project will target highly-ranked journals and magazines, and well visible and attended, high-quality venues (conferences, workshops, and symposia). The researchers gathered in this project have a history in publishing there and often have been involved as TPC members/chairs or guest editors. These activities will be continued and extended throughout the project duration. A minimum of five refereed publications should be accepted per project year. We further plan to organize a special issue on V2X security & privacy of one of the listed magazines or journals during the project duration. We also will propose a V2X security & privacy workshop to be held adjunct with a larger conference of the Pervasive/Ubiquitous Computing community to ensure dissemination of our topics and results to this closely related discipline.

### 2.2.2 Dissemination Activities foreseen in WP6

The objectives of WP6 (Dissemination, Exploitation, Liaison) are as follows:

- To organize general dissemination, exploitation, and liaison as well as organize and maintain specific contacts to important stakeholders like OEMs, suppliers, standardization bodies, related research projects in Europe and beyond.
- To publish the PRESERVE research results in high-ranked journals and to present our work at top-class conferences in the security and ITS domain.
- To advance the research field of security and privacy in ITS and ubiquitous computing by proposing journal special issues or research community workshops.
- To organize specific workshops (potentially co-located to other events) to showcase PRESERVE results and discuss challenges, requirements, and progress.

This is reflected in the following tasks:

#### **Task 6100: General Dissemination, Exploitation, Liaison (M1 to M48, 28 MM)**

Publish PRESERVE results through a broad variety of channels, liaise with partner projects and other stakeholders to exchange requirements and results, organize interaction with the advisory board, and organize workshops inviting participants from the ITS, security&privacy, and ubiquitous computing community for information and exchange.

Task 6100 includes the following subtasks:

- Subtask 6110: Webpage (M1 to M48): Setup and maintain a web representation of PRESERVE.
- Subtask 6120: Dissemination Y1 (M1 to 12): Dissemination and liaison activities (create initial awareness and setup links to potential VSS users)

- Subtask 6130: Dissemination Y2 (M13 to 24): Dissemination and liaison activities (negotiate details of VSS usage in other projects or organizations)
- Subtask 6140: Dissemination Y3 (M25 to 36): Dissemination and liaison activities (promote initial results among stakeholders and scientific community)
- Subtask 6150: Dissemination Y4 (M37 to 48): Dissemination and liaison activities (promote final results among stakeholders and scientific community)
- Subtask 6160: Advisory Board (M1 to M48): Keep close contact to members of advisory board, timely dissemination of results to advisory board, requesting regular feedback, organization of advisory board meetings.

In this task, close liaison is especially foreseen with the Car-2-Car Communication Consortium, ETSI TC ITS, the national French FOT Score@F, other European and national FOTs, especially DRIVE C2X, FOTsis, and simTD, and other research projects and industry stakeholders.

### **Task 6200: International Liaison Workshop (M1 to M18, 6.5 MM)**

Organize first dissemination workshop with international participation to ensure worldwide awareness. Workshop planned during Y2.

Purpose: Generate international awareness and retrieve world-wide feedback and input.

Target audience: European FOTs and related projects from other continents, industry members active in V2X.

### **Task 6300: Stakeholder Workshop (M19 to M30, 5.5 MM)**

Organize second dissemination workshop aiming specifically at stakeholders from industry to discuss progress and receive input. Workshop planned when first ASIC prototypes are available. Workshop planned for M29 or M30.

Purpose: Present FPGA Kit and ASIC Prototype and create industry interest to adopt VSS.

Target Audience: OEMs and suppliers, European FOTs and related projects from other continents.

### **Task 6400: Final Demonstration (M37 to M48, 8.5 MM)**

Organize final demonstration of project results, preferably together with other FOT project(s). Demonstration planned for M47 or M48.

Purpose: present VSS Kit and FOT results and ensure long-term exploitation of VSS.

Target Audience: OEMs and suppliers, European FOTs and related projects from other continents.

Progress on these tasks is to be reported in this Y2 Dissemination Report, which is to include:

- Press releases
- Scientific publications
- Flyers
- Web site
- Handbook
- Plan for use and dissemination.

D6.2 also includes an initial dissemination and exploitation plan.

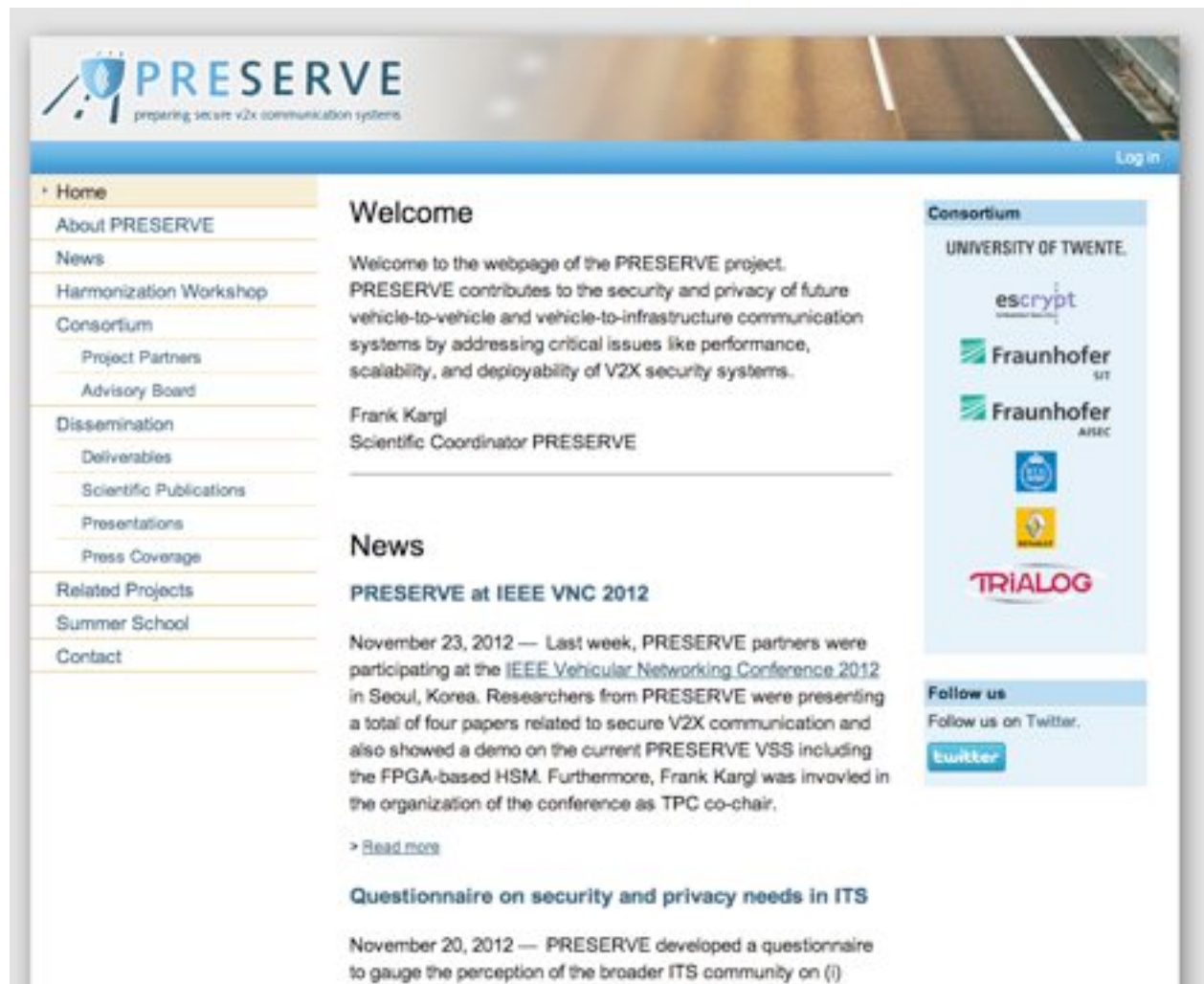
## 3 Y2 Dissemination Activities

This chapter lists dissemination and liaison activities in Y2 of the project

### 3.1 Dissemination Material

Already in 2011, PRESERVE had created a range of dissemination material to present its results and on-going work to interested parties.

In 2012, we continued to maintain a **website** at the URL <http://www.preserve-project.eu/> where up-to-date information on the project is available. We also maintain a **twitter** account named @preserveproject that provides recent news in a fast and convenient way.



Other dissemination material was created for dedicated events and will be discussed later.

Operational information for PRESERVE partners is maintained in a Wiki and an SVN repository maintained by UT to collect all project-related information and documents. The Wiki is also used for reporting purposes and maintaining minutes.

### 3.2 Reviewed Publications

The following scientific papers on ITS / V2X Security and Privacy were published by PRESERVE partners in 2012. If not noted otherwise, the publications were peer-reviewed.

1. V. Manolopoulos, S. Tao, A. Rusu, and P. Papadimitratos, "Smartphone-based Traffic Information System for Sustainable Cities," ACM Hotmobile 2012.
2. S. Dietzel, J. Petit, F. Kargl, and G. Heijenk, "Analyzing Dissemination Redundancy to Achieve Data Consistency in VANETs", Ninth ACM International Workshop on Vehicular Ad Hoc Networks (VANET 2012), Low Wood Bay, Lake District, United Kingdom, 06/2012.
3. M. Feiri, J. Petit, and F. Kargl, "Congestion-based Certificate Omission in VANETs", Ninth ACM International Workshop on Vehicular Ad Hoc Networks (VANET 2012), Low Wood Bay, Lake District, United Kingdom, 06/2012.
4. N. Bißmeyer, J. Njeukam, J. Petit, K. Bayarou, "Central misbehavior evaluation for VANETs based on mobility data plausibility", Ninth ACM International Workshop on Vehicular Ad Hoc Networks (VANET 2012), Low Wood Bay, Lake District, United Kingdom, 06/2012.
5. R. Moalla, B. Lonc, H. Labiod, N. Simoni, "How to secure ITS applications?", The 11th Annual Mediterranean Ad Hoc Networking Workshop (Med-Hoc-Net), IEEE, 2012
6. S. Dietzel, M. Kost, F. Schaub, and F. Kargl, "CANE: A Controlled Application Environment for Privacy Protection in ITS", Proceedings of the 12th International Conference on Intelligent Transport Systems Telecommunications (ITST 2012), 11/2012.
7. M. Feiri, J. Petit, and F. Kargl, "Evaluation of Congestion-based Certificate Omission in VANETs", Proceedings of the IEEE Vehicular Networking Conference 2012 (VNC 2012), Seoul, Korea, IEEE, 11/2012.
8. J. Petit, C. Bösch, M. Feiri, and F. Kargl, "On the Potential of PUF for Pseudonym Generation in Vehicular Networks", Proceedings of the IEEE Vehicular Networking Conference 2012 (VNC 2012), Seoul, Korea, IEEE, 11/2012.
9. N. Bißmeyer, S. Mauthofer, K. Bayarou, and F. Kargl, "Assessment of Node Trustworthiness in VANETs Using Data Plausibility Checks with Particle Filters", Proceedings of the IEEE Vehicular Networking Conference 2012 (VNC 2012), Seoul, Korea, IEEE, 11/2012.
10. P. Knapik, E. Schoch, M. Müller, and F. Kargl, "Understanding Vehicle Related Crime to Elaborate on Countermeasures Based on ADAS and V2X Communication", Proceedings of the IEEE Vehicular Networking Conference 2012 (VNC 2012), Seoul, Korea, IEEE, 11/2012.
11. M. Lagana, M. Feiri, M. Sall, M. Lange, A. Tomatis, P. Papadimitratos, "Secure Communication in Vehicular Networks - PRESERVE Demo (Demo)", Demo Proceedings of the IEEE Vehicular Networking Conference 2012 (VNC 2012), Seoul, Korea, IEEE, 11/2012.
12. R. Moalla, B. Lonc, H. Labiod, N. Simoni, "Risk analysis of ITS Communications", Network of the Future 2012.

### **3.3 Press Coverage, Presentations, General Liaison**

PRESERVE participated in broad variety of events either presenting the project or giving broader presentations on ITS security where PRESERVE was also introduced.

The following outreach activities were conducted. Note that we do not list presentations of accepted papers at conferences and workshops where listed already in Section 3.2.

**27.01.2012** Panel presentation “From PIAs to Engineering Practices” by A. Kung at the CPDP Conference, Brussels, Belgium.

**01.02.2012** Presentation on “Privacy by Design for ITS” by A. Kung at the iMobility Forum Legal Issues WG Kickoff in Brussels, Belgium.

**07./08.02.2012** Participation of PRESERVE partners at the C2C-CC Security WG meeting in Frankfurt, Germany. PRESERVE partners updated the C2C-CC on its status, especially with respect to PKI implementation. PRESERVE PKI results will become basis for C2C-CC master PKI.

**07.-09.02.2012** Invited talk by Brigitte Lonc on “Security for ITS Cooperative Applications” at ETSI ITS Workshop, Doha, Qatar.

**14.02.2012** Presentation of PRESERVE at Vector Informatik, Stuttgart to discuss issues related to security and testing of C2X solutions.

**27.02.2012** Matthias Schulze and Frank Kargl, the coordinators of DRIVE C2X and PRESERVE, signed a memorandum of understanding. Both projects are committed to a close collaboration, aiming at the integration of the PRESERVE VSS into the DRIVE C2X architecture and conduction of joint tests if project timeframes allow.

**29.03.2012** Participation and contributions to the iMobility Forum Legal Issues WG meeting, Brussels, Belgium.

**12./13.04.2012** Participation and Presentation on Security Layer Processing at C2C-CC Sec. WG meeting, Munich, Germany.

**24.05.2012** Miguel Seisdedos and Frank Kargl, the coordinators of FOTsis and PRESERVE, signed a memorandum of understanding. Both projects are committed to a close collaboration and discussed next steps to cooperate on ITS security.

**25.05.2012** Short coordination meeting between PRESERVE and ITSSv6 to discuss cooperation and align on technical scope.

**25.05.2012** Presentation of PRESERVE status at FOTnet Workshop in Brussels, Belgium.

**18.06.2012** Presentation of PRESERVE research results at CTIT Research Symposium, Enschede, The Netherlands.

**22.06.2012** Meeting of PRESERVE, Score@F and Korean ITS / Smart Highway project members with presentation of PRESERVE solution, Paris, France.

**22.06.2012** Confcall with DRIVE C2X to discuss integration of PRESERVE and DRIVE C2X solution.

**27.06.2012** Invited presentation on “Secure and Privacy-Preserving ITS” by Frank Kargl at the METRIK graduate school of Humboldt University, Berlin.

**02.07.2012** Participation to C2C-CC Sec. WG meeting, Berlin, Germany.

**04.07.2012** Invited presentation on “V2X Security and Privacy” by Frank Kargl at “Connected Car” Industry Event in Stuttgart, Germany.

**04./05.07.2012** Participation and (poster) presentation at DRIVE C2X General Assembly and Demo Event, Helmond, The Netherlands. Technical workshop on security architecture integration.

**07.07.2012** Presentation on “V2X Security and Privacy” by Frank Kargl to a general audience at the lecture series of the University Society of University of Ulm, Germany.

**24./25.07.2012** Participation to C2C-CC Sec. WG meeting, Stockholm, Sweden.

**18.-20.07.2012** Frank Kargl teaching a three day short-course on ITS Security and Privacy to Australian PhD students and researchers at NICTA, Sydney.

**26./27.07.2012** Technical integration meeting with Score@F, Versailles, France.

**28.07.-05.08.2012** Presentation on ITS Privacy by Antonio Kung at CryptoBG\*2012 [MC3D] Summer School, Oriohovitza, Bulgaria.

**17.-21.09.2012** Organization of and participation in PRESERVE / EIT-ICTLabs Summer School (see below).

**25.09.2012** Participation to Score@F stake-holders forum incl. presentation of two posters, Versailles, France.

**27./28.09.2012** Technical integration meeting with Score@F, Sophia-Antipolis, France.

**22.-26.10.2012** Demonstration of PRESERVE VSS Kit 1.5 at the ITS World Congress 2012, Vienna, Austria (see below).

**06.-09.10.2012** Technical integration meeting with Score@F, Versailles, France.

**13./14.10.2012** Participation in C2C-CC Sec. WG meeting, Ulm, Germany (hosted by PRESERVE partner).

**14.-16.10.2012** Organization of and participation in International Workshop on ITS Harmonization, Darmstadt, Germany. (see Section 3.6)

**14.-16.11.2012** Presentation of four PRESERVE papers and VSS Kit 1.5 demo at IEEE VNC 2012 in Seoul, Korea.

**28.11.2012** Participation and contributions to the iMobility Forum Legal Issues WG meeting, Brussels, Belgium.

**07.12.2012** Consulting German Police on implications of V2X and cooperative ITS on their work.

**10.-12.12.2012** Frank Kargl co-organized Dagstuhl Seminar on “Targeted Attacks on Critical Infrastructures” where cooperative ITS were discussed as part of critical infrastructure.

**13.-14.12.2012** Participation in C2C-CC Forum, Ulm, Germany (hosted by PRESERVE partner).

### ***3.4 The Vehicular Networking and ITS Summer School***

PRESERVE partners were able to attract additional funding from EIT ICT Labs activity “Safe Mobility” to offer a summer school event. The event received additional support from University of Twente, University of Ulm, and KTH Stockholm.

The “Vehicular Networking and ITS Summer School” was held from 17. to 21. September 2012 in the “Villa Eberhardt”, the guest and convention house of the University of Ulm in Ulm, Germany.

The goal of the event was to provide an in-detailed view on the current state of the art on vehicular networking and ITS, to allow especially PhD students to meet and discuss with experts from the research and standardization community, to present their own research to the other participants and as a result to enable new research cooperations and ideas.

The event was organized and prepared mostly by Prof. Panagiotis Papadimitratos from KTH Stockholm, Stefan Dietzel and Benjamin Erb from University of Ulm, and Frank Kargl from University of Ulm / University of Twente. Additional support was provided by Bertine Scholten from University of Twente and Marion Schacherl from University of Ulm.

A website for the summer school was maintained at <http://www.preserve-project.eu/summer-school-2012>

Thanks to large-scale dissemination of the call for participation, we were able to attract a total of 23 registered participants from 10 countries spread over the whole world, including New Zealand, Ethiopia, Iran, and Turkey. European participants came from Spain, Italy, Luxembourg, the Netherlands, Sweden and Germany. Unfortunately, the participants from Iran and Ethiopia had to cancel their participation on short notice due to visa and travel budget problems. So the total number of participants was 28 (21 attendees plus 7 speakers). A detailed list of participants is presented later.

The program was a diverse mix of different activities, ranging from invited talks by experts and senior researchers over presentations and discussion groups with contributions mostly from the participants to social events and a scientific hiking tour where discussions were conducted during a walk around one of the old fortresses of Ulm. A detailed overview over the program will be given in the next Section.

We had a total of seven invited tutorial-like presentations with a duration of 90 minutes each. Four of the seven speakers were from industry, three from academy, all working on the forefront of ITS research and standardization.

At the end of the summer school, participants were requested to give some feedback to tell us their personal view on the most important information they received at the summer school and the immediate consequences from their research.

Slides of all presentations were disseminated to all participants after the summer school and a mailing list was created to enable on-going discussions.

The following tables lists the summer school program and the participants:

<b>Monday</b>	<b>September 17, 2012</b>	
17:00	Welcome reception	
<b>Tuesday</b>	<b>September 18, 2012</b>	
09:00	Welcome	
09:15	Short Introduction of Participants	5 minutes per person
10:30	Break	
11:00	Architectures and Applications	Robert Maenz, Audi
12:30	Lunch	
14:00	Vehicular Networking - PHY and MAC	Achim Brakemeier, Daimler
15:30	Break	
16:00	Vehicular Networking: Modeling, Simulation, and Optimization	Hannes Hartenstein, KIT
18:30	Sightseeing & Dinner	
<b>Wednesday</b>	<b>September 19, 2012</b>	
09:00	Security in Vehicular Networking	Panagiotis Papadimitratos, KTH
10:30	Break	
11:00	Privacy in Vehicular Networking	Frank Kargl, University of Ulm & University of Twente
12:30	Lunch	
14:00	Participants' presentations 1	all
15:30	Break	
16:00	Participants' presentations 2	all
18:00	Dinner on your own	
<b>Thursday</b>	<b>September 20, 2012</b>	
09:00	Endpoint Security for Vehicular Networking and Intelligent Transportation	Marko Wolf, escrypt
10:30	Break	
11:00	From Research to Standardization	Andreas Festag, NEC
12:30	Lunch	
15:30	Scientific Hiking Tour	all
18:30	Dinner	
<b>Friday</b>	<b>September 21, 2012</b>	
09:00	Lessons learnt and new research directions	all
10:30	Break	
11:00	Discussion groups to discuss new research ideas	all
12:15	Summary and Conclusion	Frank Kargl and Panagiotis Papadimitratos
12:30	Lunch	

Name	Affiliation
<b>Participants</b>	
Agata Grzybek	University of Luxembourg
Ayalew Belay Habtie	Addis Ababa University (did not part.)
Benjamin Erb	Ulm University
Norbert Bißmeyer	Fraunhofer SIT
Bjoern Wiedersheim	Ulm University
Estrella Garcia-Lozano	University Carlos III of Madrid
Gürkan Gür	Bogazici University
Hossein Shafiei	University of Tehran (did not part.)
Jong-Hyoun Lee	TELECOM Bretagne
Mahmood Hikmet	University of Auckland/HMI Technologies
Michael Feiri	University of Twente
Rim Moalla	Renault/telecom paristech
Rens van der Heijden	University of Ulm
Sadaf Momeni	University of Hamburg
Salvo Pierpaolo	University of Rome "Sapienza"
Sibylle Froeschle	OFFIS
Steffen Moser	Ulm University
Peter Knapik	Volkswagen AG
Daniel Angermeier	Fraunhofer AISEC
Alexander Kiening	Fraunhofer AISEC
Sebastian Mauthofer	Fraunhofer SIT
Arade Tariku Tegen	Università di Trento
<b>Speakers</b>	
Frank Kargl	Ulm University & University of Twente
Panos Papadimitratos	KTH Stockholm
Robert Mänz	Audi AG
Achim Brakemeier	Daimler AG
Hannes Hartenstein	Karlsruhe Institute of Technology
Marko Wolf	escript
Andreas Festag	NEC Europe

The summer school was appreciated by many participants esp. for the opportunity of a timely update on status of on-going standardization. Especially the talk of Andreas Festag was mentioned several times. So the summer school achieved to link the research of PhD students at Universities and other research institutions to the standardization and development activities, focusing the research more on real-world systems and requirements.

For PRESERVE, it provided a good opportunity to disseminate its work and results through two talks on security and privacy. Furthermore, some junior project members that recently joined the project were participating in the summer school. For them it was a perfect introduction to the field. They also established connections to other researchers and we hope that the discussions started during the summer school will lead to joint research and publications within the next year.



Figure 1: Summer School Participants

### 3.5 The ITS World Congress Demonstration

PRESERVE was invited to present the project at the European Commission exhibition area. PRESERVE shown a demo of secure V2X networking. The demo was implemented jointly together with the EVITA and Score@F projects.

The demo was later also shown at the ESCAR 2012 in Berlin and in a slightly reduced version at the IEEE Vehicular Networking Conference 2012 in Seoul, Korea.



Figure 2. PRESERVE booth at the ITS WC 2012

### **3.6 EU-US Harmonization Task Group 1 and International ITS Harmonization Workshop**

PRESERVE was requested by the EC to contribute expert knowledge on ITS security to the EU-US Harmonization Task Group 1 (Security and Management Protocols). To follow this request, Frank Kargl joined the task group 1 in March 2013. The task group held a series of one-week meetings (jointly organized together with task group 3) throughout 2012, created a series of final reports, and organized an International ITS Harmonization Workshop in November 2012 in collaboration with PRESERVE.

Meetings were conducted as follows:

- 26.-30.03.2013 in Brussels, Belgium (attending on 28./29.03)
- 28.05.-01.06.2012 in San Diego, USA (remote phone/Skype attendance on multiple days)
- 11.-15.06.2012 in Annapolis, USA (remote phone/Skype attendance on multiple days)
- 09.-13.07.2012 in Berghülen, Germany (attending full week)
- 20.-25.08.2012 in Ulm, Germany (attending full week and hosting meeting at University of Ulm)

As a result of these meetings, the task group created a series of documents:

- Document #0: Overview of Harmonization Task Groups 1&3
- Document #1: Observations on GeoNetworking
- Document #1-1: Current Status of Security Standards
- Document #1-2: Testing for ITS Security
- Document #1-3: Feedback to Standards Development Organization
- Document #7: Stakeholder Engagement and Comment Resolution

Furthermore, HTG 1 also provided feedback and input to HTG 3 work. PRESERVE results strongly influenced the documents #1-1 to #1-3 which provide a unified view on ITS security considering the perspectives of IEEE, CAMP, US DOT, EU, ETSI, C2C-CC, and PRESERVE. The main contribution is to highlight where current security standards deviate or where there are open gaps in standardization that need to be closed both in the US and in Europe.

To bring the HTG results to the attention of a broader audience and discuss it esp. with stakeholders from Europe, the HTGs 1&3 and PRESERVE jointly organized the International ITS Harmonization Workshop that was conducted on November 15. & 16. and was hosted by our partner Fraunhofer SIT. Our contribution to this workshop constitutes the fulfilment of task 6200.

We originally envisioned to organize a workshop or special session at the ITS world congress. Unfortunately, our proposal for a special session was rejected so that we could have either organized a stand-alone event collocated with ITS world congress or an independent event. Different potential participants confirmed to us that ITS WC week is normally very crowded and many people may not have time to attend a workshop. Therefore, we concluded that a joint organization together with HTG would provide better benefits, especially as the European workshop is to be complemented by a similar workshop in the U.S. in 2013 that is then more accessible to the U.S. stakeholders.

The following table lists the program of the workshop.

Thursday, 15.11.2012			
09:00	Arrival of participants		
09:30	Welcome	Jonathan Petit, PRESERVE Knut Evensen, on behalf of the EC	
09:45	Introduction to EU-US Harmonization Activities	Introduction to EU-US-TF, Standards WG, and Policy Background	Steve Sill, USDOT
10:15		Mandate M/453 status and suggested follow-on	
10:30		Introduction to Harmonization Task Group 1 and 3	Knut Evensen, Q-Free
11:15	HTG 3 Results	Moderator: Steve Sill, USDOT	
11:15		Doc 3-1 highlights	H.-J. Fischer, ESF
12:00	Lunch		
13:00		Doc 3-2 highlights	John Moring, Moring Consulting
13:30		Doc 3-3 highlights	John Moring, Moring Consulting
14:00		GeoNetworking highlights	Richard Roy, SRA Inc.
14:30	Break		
14:45	HTG 1 Results	Moderator: Scott Cadzow	
14:45		HTG 1 Document Highlights	Scott Cadzow, C3L
15:30		Panel Discussion: Jonathan Petit, University of Twente, Brigitte Lonc, Renault, Timo van Roermond, NXP	
16:15	PRESERVE	PRESERVE's Contribution to Harmonization	Jonathan Petit, University of Twente
17:00	End Day 1		
19:00	Joint dinner in Darmstadt at Restaurant Sitte (at own expenses)		
Friday, 16.11.2012			
09:00	Parallel Sessions HTG 1 & 3	Moderators: Scott Cadzow (HTG-1), Hans-Joachim Fischer (HTG 3)	
	Detailed discussions of documents among experts, relation to existing and currently drafted standards, discussion of uptake		
10:30	Break		
11:00	HTG Conclusions	(Moderator: Knut Evensen, Q-Free)	
11:00		HTG 3 Conclusions	Hans-Joachim

			Fischer, ESF
11:20		HTG 1 Conclusions	Scott Cadzow, C3L
11:40		HTG Lessons learned	Steve Shladover, PATH, Berkeley
12:00	Lunch		
13:00	<b>SDO Uptake and Future Steps</b>	(Moderator: Steve Sill, USDOT)	
13:00		C2C-CC Security WG	Timo van Roermund, NXP
13:30		ETSI WG5	Scott Cadzow, C3L
14:00		IEEE 1609	John Moring, Moring Consulting
14:30		CEN / ISO	Richard Roy, SRA Inc.
14:55	<b>Concluding Remarks</b>	Knut Evensen on behalf of the EC, Steve Sill, USDOT	
15:00	<b>End Day 2</b>		

### List of participants:

Jonathan Petit, UTwente
Kpatcha Bayarou, Fraunhofer SIT
Carsten Büttner, Opel
Scott Cadzow, C3L
Knut Evensen, Q-Free
Hans-Joachim Fischer, ESF
Antonio Kung, TRIALOG
Brigitte Lonc, Renault
Sebastian Mauthofer, Fraunhofer SIT
Manabu Misawa, Mitsubishi Electric
John Moring, Moring Consulting
Richard Roy, SRA Inc.
Yasunari Sakai, JSAE
Hideo Sato, NRI
Hans-Joachim Schade, ISO/CEN
Steven Shladover, PATH, Berkeley
Steve Sill, U.S. DOT
Hiroyoshi Suzuki, JARI
Timo van Roermund, NXP

After presenting the set of reports created by the HTG 1 and HTG 3, discussions focused on the harmonization of security and privacy. PRESERVE actively participated to the panel discussion and was clearly identified as the actual expert of the field. Another outcome of this meeting was the uptake of HTG work by the SDOs. For example, ETSI already considered comments from HTG 1 and 3 in the development of the standard.

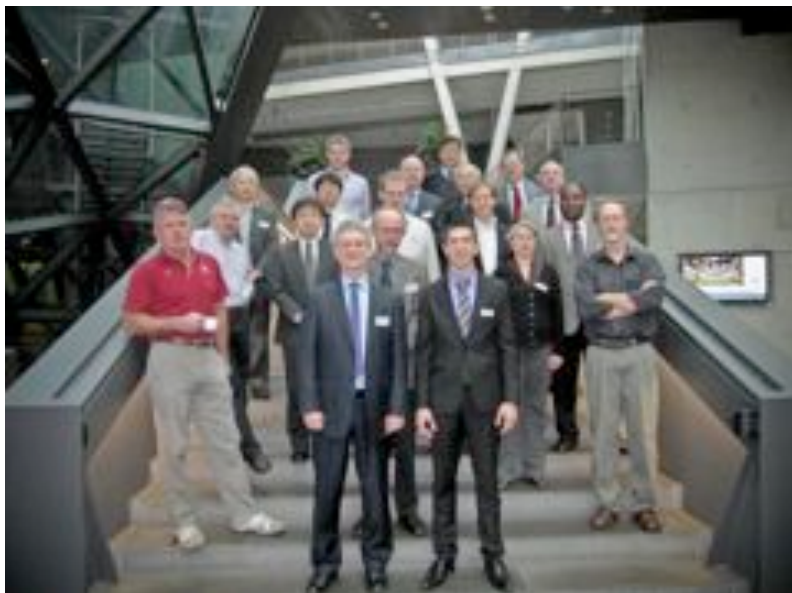


Figure 3. International ITS Harmonization Workshop, Darmstadt

### 3.7 Liaisons with other Projects and Stakeholders

As explained in detail in Sec. 2.2.4, PRESERVE aimed at building strong working relationships with a number of key projects and organizations, especially Score@F, C2C-CC Security WG, ETSI TC ITS WG5, CAMP (VSC-3), EVITA, OVERSEE, DRIVE C2X, FOTsis, ITSSv6, and FOT-net 2.

Building upon links to those projects that were established in Year 1 we continued our close collaboration especially with Score@F and DRIVE C2X. Memorandi of Understanding were signed in 2012 with FOTsis and DRIVE C2X to put these cooperations on a formal basis.

**Score@F** is a key partner of PRESERVE. In 2012, we have integrated the VSS Kit 1 into the Score@F platform and started joint testing which will continue in 2013. We held regular phonecalls and integration meetings to discuss the technical platforms and perform the integration. Renault is a key partner in this, as they are coordinator of Score@F and member of PRESERVE. We have an agreed cooperation agreement text. However, the agreement with Score@F is still awaiting signing by a few remaining Score@F partners. This is on-going and we are pushing to collect the final signatures.

**C2C-CC Security WG** and **ETSI TC ITS WG5** are key partners for PRESERVE for harmonization and standardization. PRESERVE provided various reports and documents to both organizations. Furthermore, Brigitte Lonc from Renault is co-chair of ETSI TC ITS WG5, ensuring a very close interaction. Members from PRESERVE are active in almost all C2C-CC Security WG Task-Forces, actively contributing to the work there and bringing the status from C2C-CC into PRESERVE. A Lol agreement with C2C-CC is awaiting signing by the C2C-CC steering committee.

Contacts with **CAMP VSC-3** were only sporadic in 2012 as more energy went into the HTG U.S. cooperation. CAMP is still interested in testing the PRESERVE ASIC once it becomes available. Due to resource limitations on the U.S. side, the envisioned joint demo for the ITS WC 2012 in Vienna to demonstrate the interoperability of the PRESERVE FPGA with the CAMP On-board Equipment could not be implemented.

Regarding **FOTsis**, there was on-going exchange between the two projects. PRESERVE in 2012 and a memorandum of understanding was signed. A technical meeting between the two projects was held in spring 2012 when the MoU was also signed.

Contacts with **DRIVE C2X** intensified significantly in 2012. We are committed to an integration of the two projects and joint testing activities towards the end of DRIVE C2X. Technical integration was prepared in a series of workshops and meetings and will be implemented in 2013.

Unfortunately, we were not able to reach a formal agreement with the **EVITA** project mostly due to background IPR problems. This would have been the originally envisioned requirement for a fully integrated EVITA-PRESERVE demo as envisioned for ITS WC 2012 in Vienna. Due to a significant overlap of partners, we were nevertheless able to integrate their EVITA contributions with the PRESERVE VSS Kit 1.5 and show a full end-to-end security solution at the ITS World Congress.

PRESERVE kept regular contact with **Advisory Board**. Beyond individual contacts during meetings of ETSI, C2C-CC, conferences, or workshops, we invited the AB to an official meeting during our Q8 meeting on 03.12.2012 which participation from Audi, Volkswagen, and Denso. Prof. Labiod from Telecom ParisTech planned to come but needed to cancel due to illness. PRESERVE presented a detailed status overview to the AB and received their feedback. The topics discussed with the AB included the importance for implicit certificates as perceived by European automotive industry, the form of integration of communication system with the security subsystem and the need for future architecture evolution, and the role of security in the upcoming ETSI plugtest.

New technical reports:

1. PRESERVE TR 4: Testing Handbook
2. PRESERVE TR 5: External API - Executive Summary
3. PRESERVE TR 6: Development of Life-Cycle Management Components
4. PRESERVE TR 7: API Proposal

### 3.8 Table of all Y2 Dissemination Activities

The following table lists all dissemination activities in Y2 in detail in chronological order.

Date	Event / Title / Activity	Type	Result
2012-03	FOTsis	Liaison	Discussion about MoU signature
2012-03-28/29	Attending HTG TF #1/3 meeting in Brussels	Liaison	Contributions to US/EU harmonization
2012-03-20	Confcall with Hitachi (Score@F)	Collaboration discussion	Technical discussion about implementation
2012-03-16	ACM VANET2012: Analyzing Dissemination Redundancy to Achieve Data Consistency in VANETs	Publication	Submission of research results
2012-03-16	ACM VANET2012: Congestion-based Certificate Omission in VANETs	Publication	Submission of research results
2012-03-16	ACM VANET2012: Central Misbehavior Evaluation for VANETs based on Mobility Data Plausibility	Publication	Submission of research results
2012-02-27	Meeting of coordinators of DRIVE C2X and PRESERVE	Liaison	Signed MoU
2012-02-22/23	PRESERVE Review Year 1, Brussels	Presentation	Presentation of PRESERVE Year 1 results
2012-02-21	Confcall with Benjamin Weyl (BMW) about EVITA	Liaison	Agreement on EVITA MoU
2012-02-21	Vasileios Manolopoulos, Sha Tao, Ana Rusu, and Panos Papadimitratos, "Smartphone-based Traffic Information System for Sustainable Cities," ACM Hotmobile	Reviewed Publication	Demonstration
2012-02-14	Presentation of PRESERVE at Vector Informatik, Stuttgart	Presentation	Increased awareness about project

2012-02-07/08	Participation to C2C-CC Sec WG Meeting in Frankfurt	Presentation	Updating C2C-CC on current PRESERVE status regarding PKI of PRESERVE
2012-02-07/09	ETSI ITS Workshop, Doha-QATAR session 8, B.Lonc: Security for ITS cooperative applications: challenges in standardization, implementation and field-testing	Presentation, Invited talk	Presentation of PRESERVE goals, architecture, planned trials/FOTs. Outcomes from assesment tests in PRESERVE trials/FOTs are expected and feedback to standardisation will be welcome
2012-02-02	Vasileios Manolopoulos, Sha Tao, Ana Rusu, and Panos Papadimitratos, "Smartphone-based traffic information system," ICT Platform Day, Stockholm, Sweden	Presentation	Poster
2012-01-27	Confcall INFSO about ITS World Congress 2012 Demo and Harmonization Showcase	Collaboration discussion	Agreement on time plan, definition of showcase
2012-01-27	CPDP Conference, Brussels. <a href="http://www.cdpconferences.org">http://www.cdpconferences.org</a> . Panel presentation: from PIAs to engineering practices	Presentation	Presentation of issues ( <a href="http://www.cdpconferences.org/I-Q/Resources/KUNG_120127.pdf">http://www.cdpconferences.org/I-Q/Resources/KUNG_120127.pdf</a> )
2012-02-01	Kickoff iMobility forum legal issues WG, Brussels	Presentation	Presentation of eSecurity WG and actions for privacy-by-design
2012-03-23	Privacy-by-design workshop, Paris. ( <a href="http://www.agence-nationale-recherche.fr/magazine/actualites/detail/organisation-d-un-atelier-sur-le-privacy-by-design-protection-des-donnees-des-la-conception/">http://www.agence-nationale-recherche.fr/magazine/actualites/detail/organisation-d-un-atelier-sur-le-privacy-by-design-protection-des-donnees-des-la-conception/</a> )	Attendance	Liaison
2012-03-29	iMobility forum legal issues WG meeting, Brussels	Participation	Discussion on RappTrans study and contribution to provide
2012-06-27	Presentation on secure and privacy-preserving ITSs at graduate school of Humboldt University, Berlin	Presentation	Presentation of research results and raised awareness of project
2012-06-25	ACM VANET2012: Analyzing Dissemination Redundancy to Achieve Data Consistency in VANETs	Publication	Presentation of research results
2012-06-25	ACM VANET2012: Congestion-based Certificate Omission in VANETs	Publication	Presentation of research results
2012-06-25	ACM VANET2012: Central Misbehavior Evaluation for VANETs based on Mobility Data Plausibility	Publication	Presentation of research results
2012-06-22	Confcall with Fraunhofer FOKUS about Logging and Testing framework	Liaison	Utilisation of their framework dependent of score@f
2012-06-22	Meeting with Korean ITS / Smart Highway project and Score@F - PRESERVE (Renault, INRIA, IFSTTAR)	Liaison	Presentation of PRESERVE solution (VSS, PKI)
2012-06-18	Presentation of PRESERVE research results at CTIT Symposium, Enschede, The Netherlands	Presentation	Increased awareness about project and research results
2012-06-18	Rim MOALLA, Brigitte LONC, Houda LABIOD, Noémie SIMONI: How to secure ITS applications, Med-Hoc-Net 2012	Publication	Presentation of research results
2012-06-16	Norbert Bißmeyer and Jonathan Petit and Kpatcha M. Bayarou, CoPRA: Conditional Pseudonym Resolution Algorithm in VANETs, WiMob 2012	Publication	Submission of research results
2012-06-01	Stefan Dietzel, Jonathan Petit, Frank Kargl, Geert Heijenk, "Graph-based Metrics for Insider Attack Detection in VANET Multi-hop Data Dissemination Protocols", IEEE Transactions on Vehicular Technology Special Issue Graph Theory and Its Application in Vehicular Networking	Publication	Submission of research results
2012-05-28 - 2012-06-01	Partial remote participation to HTG1/3 meeting in Annapolis, US	Standardization	Contributing to HTG work. Remote dial-in
2012-05-25	Presentation of PRESERVE to FOTNET, Brussels	Presentation	Discussion about FOT and VSS Kit 1
2012-05-25	Short coordination meeting with ITSSv6, Brussels	Liaison	Discussion about cooperation agreement and technical scope

2012-05-24	Meeting of coordinators of FOTsis and PRESERVE, Brussels	Liaison	Signed MoU
2012-04-12/13	Participation to C2C-CC WG Sec, Munich, Germany	Collaboration discussion	Discussion about architecture and security processing layer
2012-04 - 2012-06	Vehicular Networking and Intelligent Transportation Systems PRESERVE – EIT ICT Labs Safe Mobility Summer School	Summer school	Preparation of summer school
2012-09-27/28	Technical meeting with Hitachi, Sophia Antipolis, France	Liaison	Validation of VSS Kit 1 in Score@F system (ITRI modem)
2012-09-25	Publication and distribution of TR6 (PKI-Documentation)	Dissemination	Consideration and possible integration of PRESERVE results in PKI implementations of C2C-CC and ETSI STF 452
2012-09-25	Participation to Score@F stake-holders Forum in Versailles, France	Presentation	Presentation of 2 posters describing: – PRESERVE VSA and its integration in Score@F platforms. –PKI security management services for certificates provision as used by Score@F OBU
2012-09-17-21	Organization/Participation to the PRESERVE summer school, Ulm, Germany	Dissemination	Increased awareness about project and research results. Training of PhDs (both project internal and external)
2012-08-20-24	Hosting EU US-DOT HTG Working Meeting at University of Ulm, Germany	Liaison, Internationalization	Contributed to the work of HTG 1 on security. Preparing reports.
2012-08-20	IEEE VNC2012: On the Potential of PUF for Pseudonym Generation in Vehicular Networks	Publication	Submission of research results
2012-08-20	IEEE VNC2012: Evaluation of Congestion-based Certificate Omission in VANETs	Publication	Submission of research results
2012-08-20	IEEE VNC2012: Assessment of Node Trustworthiness in VANETs Using Data Plausibility Checks with Particle Filters	Publication	Submission of research results
2012-07-28 - 2012-08-05	Presentation at CryptoBG*2012 [MC3D] Summer School, Oriahovitza, Bulgaria	Presentation	Presentation Impact of Privacy-by-Design on ICT
2012-07-26/27	Technical meeting with Score@f, Versailles, France	Liaison	Validation of VSS Kit 1 in Score@F system
2012-07-24/25	Participation to C2C-CC Security Working Group Meeting in Stockholm	Liaison	Updating C2C-CC on current PRESERVE status. Agreement on joint work
2012-07-18-20	Holding short course on ITS Security and Privacy at NICTA, Sydney	Presentation	Teaching a three days short course to Australian PhD students and researchers. Raised awareness about project.
2012-07-09-13	Participation in EU US-DOT HTG Working Meeting in Blaubeuren, Germany	Liaison, Internationalization	Contributed to the work of HTG 1 on security. Preparing reports.
2012-07-07	Presentation on V2X Security and Privacy to a general audience at the lecture series of the University Society of University of Ulm	Presentation	Raised awareness of ITS and its security and privacy implications to a broader public (~50 participants)
2012-07-04/05	Participation to DRIVEC2X General Assembly and Demo event, Helmond, The Netherlands	Presentation, Liaison	Discussion about security architecture and integration in DRIVEC2X reference system, Technical workshop, poster and presentation
2012-07-04	Presentation on V2X Security and Privacy at “Connected Car” Industry Event in Stuttgart, Germany	Presentation	Presented PRESERVE project, status and results to a large number of industry participants (~70 attendees)
2012-07-02	Participation to C2C-CC Security Working Group Meeting in Berlin	Liaison	Updating C2C-CC on current PRESERVE status. Agreement on joint work

2012-12-27/30	Participation to 29C3: 29th Chaos Communication Congress	Liaison	Increased awareness about project and research results
2012-12-13/14	Hosting C2C-CC Security WG Meeting	Liaison	Strengthened cooperation between PRESERVE and C2C-CC
2012-12-10/12	Co-organization of Dagstuhl Seminar on Targeted Attacks on Critical Infrastructures	Dissemination	Positioned cooperative ITS as a critical infrastructure
2012-12	Consulting German Police on C2X and security for police scenarios	Liaison	PRESERVE positioned as leading expert project on this topic
2011-28/29	Participation at ESCAR 2012 in Berlin	Dissemination	Presentation of PRESERVE demo and results.
2012-11-28	Legal Issues WG in Brussels	Liaison	
2012-11-21	Network of the Future 2012: Risk analysis of ITS Communications	Publication	Submission of research results
2012-11-14/16	IEEE VNC2012: On the Potential of PUF for Pseudonym Generation in Vehicular Networks	Publication	Publication of research results
2012-11-14/16	IEEE VNC2012: Evaluation of Congestion-based Certificate Omission in VANETs	Publication	Publication of research results
2012-11-14/16	IEEE VNC2012: Assessment of Node Trustworthiness in VANETs Using Data Plausibility Checks with Particle Filters	Publication	Publication of research results
2012-11-14/16	Understanding Vehicle Related Crime to Elaborate on Countermeasures Based on ADAS and V2X Communication	Publication	Publication of research results
2012-11-14/16	IEEE VNC2012: Secure Communication in Vehicular Networks – PRESERVE Demo	Demonstration	Presentation of VSS Kit 1
2012-11-14/16	Organization/Participation International Workshop on ITS Harmonization	Demonstration	Presentation of PRESERVE and first results, coordination on future harmonization EU-US
2012-11-13/14	Participation in Car-to-Car Communication Forum, Gothenburg	Liaison	Updating C2C-CC on current PRESERVE status.
2012-11-06/09	Technical meeting with Score@F, Versailles, France	Liaison	Validation of VSS Kit 1 in Score@F system
2012-10-22/26	Participation to the ITS WC 2012, Vienna, Austria	Dissemination	Increased awareness about project and research results

## 4 Plan for Dissemination and Exploitation Activities in Y2 and Beyond

In this chapter, we will discuss our dissemination plans for Y3 and beyond, including plans for exploitation of PRESERVE results by the PRESERVE partners (especially industrial partners). For confidentiality reasons, the later ones will be presented in Annex I.

### 4.1 Stakeholder Workshop

We aim at organizing a stakeholder workshop in task 6300. This aims specifically at stakeholders from industry to discuss progress and receive input. The workshop is planned when first ASIC prototypes are available. This was originally foreseen for M29 or M30. Due to potential delay in ASIC production, the workshop will likely be delayed into the 2<sup>nd</sup> half of 2013.

The purpose of the workshop will be to present the FPGA kit (which is already available and was showcased at the ITS WC 2012) and the ASIC prototype and create industry interest to adopt the VSS. Our target audience are OEMs and suppliers, European FOTs and related projects from other continents.

### 4.2 Liaison Activities

Liaison activities with partner projects have high priority also in 2013. We will continue our collaboration with Score@F, where integration of the VSS has been achieved and the system functionality was validated. However, most joint tests have to be postponed to 2013 due to delays also in the timeplan of Score@F.

Close links will be maintained with ETSI TC ITS and C2C-CC Sec. WG where PRESERVE partners will continue to actively inject PRESERVE results and other contributions. The important focus for 2013 will be to support finalization of security standards.

With CAMP / VSC-3 we will work on preparation of a later test of the PRESERVE VSS / HSM in their systems.

With DRIVE C2X we continue VSS integration into the DRIVE C2X system and preparation of joint tests in 2014.

Another focus is a potential security-related ETSI plugtest in 2013 where we already have expressed our interest.

### 4.3 Plans of Different Partners for Dissemination and Exploitation

This section is part of the confidential Annex 1 of D6.2.