VIS-SENSE

Visual Analytic Representation of Large Datasets for Enhancing Network Security

D7.1.1 Initial dissemination report

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Abstract

This deliverable describes the key issues regarding dissemination within the VIS-SENSE project: the goals and objectives set by the Consortium and by each partner, the proposed methodology, the dissemination methods and channels, the quality control mechanisms and the concrete activities planned by each partner. This document will also present the dissemination plan developed for the VIS-SENSE project and will report the dissemination achievements by the time of its preparation. Dissemination activities are critical for promoting the deployment of the VIS-SENSE concepts, innovations and its actual results. Only if the project outcomes are widely deployed by the relevant security-related stakeholders and accepted by the end users, will the impact of the project be maximized.

The consortium' s intention is to disseminate widely the methods and concepts of the project and in order to have an effective dissemination effort, different communication channels were planned from the beginning of the project. The communication channels used for the VIS-SENSE project are the development of a project website and logo, the design and printing of leaflets, the preparation and delivery of regular electronic newsletters to the public, and of course the publication of scientific articles to conferences, journals, and workshop proceedings, etc. Furthermore, participation in several events, exhibitions and workshops focusing on technologies related to the project can be conceived as a direct dissemination of the VIS-SENSE project's activities. All the aforementioned dissemination activities, carried out or planned, are described in detail in this deliverable.

Moreover, this document presents the dissemination strategy that was set up in order to monitor and supervise the project dissemination activities. It is expected that the adoption of a dissemination strategy and its definition from the beginning of the project will provide the consortium with a synopsis for the tasks to be undertaken and, at the same time, it will outline the project's dissemination goals.

It is anticipated that, irrespectively of the involvement of each partner in WP7, all consortium partners will contribute to dissemination activities at various levels. This participation can take shape in various activities from the artistic design of the dissemination material to participation in VIS-SENSE exhibitions, workshops or conferences.

It should be noted that, although this document is delivered in Month 12 according to the VIS-SENSE plan, it may be the case that the dissemination plan will be redefined with respect to particular activities. Therefore, this document can be considered as a

living document, in which, the dissemination plan can be reorganized and the dissemination record can be continuously updated with executed or planned tasks within the VIS-SENSE project.

1. Introduction

1.1. Purpose of this Document

The purpose of this document is to report on the efforts made in WP7 for the definition of the project dissemination goals, to present the dissemination activities undertaken or planned and, finally, to describe the overall dissemination plan for the whole projects duration, as foreseen in *Annex I* (DoW) (*WP7 – Dissemination / Exploitation*) for each reporting period (month 12, 24 and 36). As described in the DoW, the main objectives of WP7 are to bring the VIS-SENSE results closer to all interested parties from relevant scientific and business fields, as well as social and political/legislative authorities. Regulatory and standardisation activities directly related to the research work will be monitored in order to insure the overall viability and coherence of the project results. Finally, a major task is the effective dissemination of the outcomes of research work along with an overall strategy for the exploitation of the results.

WP7 is one of the horizontal activities, subdivided into four tasks: *T7.1: VIS-SENSE knowledge dissemination* (led by CERTH/ITI), *T7.2: Dissemination material production* (led by FhG/IGD), *T7.3: Networking and standardisation* (led by FhG/IGD) and *T7.4: Networking and standardisation* (led FhG/IGD). The three deliverable reports, *D7.1.1* (month 12, initial dissemination report), *D7.1.2* (month 24, intermediate dissemination report) and *D7.1.3* (month 36, final dissemination report) cover reporting and planning dissemination activities of Task 7.1.

Since the VIS-SENSE project aims at developing novel visual analytics technologies for the identification and prediction of very complex patterns of abnormal behaviour in various application areas ranging from network information security and attack attribution to attack prediction and BGP hijacking, it is advisable to set up a dissemination strategy in the early stages of the project. The strategy will communicate the project concepts and technologies, as well as its innovative techniques, approaches and features to the relevant key stakeholders.

The project focuses on the enhancement of international network security so as to stimulate proactive measures that will increase the efficiency of the resolution of cybercrime. It also aims to enhance the prediction of such attacks. Thus, it is essential to concisely and clearly present the benefits of implementing and using such innovative and

cross-layer countermeasures against cybercriminals to relevant target groups.

The dissemination of the foreground knowledge will be addressed both at scientific level and at the level of the general public. On one hand, the most relevant scientific and technical results achieved within VIS-SENSE will be published in international, refereed journals or at conferences and will be presented in various international events or workshops. On the other hand, the wider public will be informed about the project concepts and achievements through the dissemination material and communication channels that are foreseen within the planned project activities. Special attention will be given to raising public awareness of how such systems can reduce the vulnerability of the Internet to cyber-attacks.

1.2. Deliverable Structure

The deliverable is organized as follows.

Chapter 2 presents the dissemination strategy that was developed for the VIS-SENSE project. The **dissemination strategy** is crucial for better coordination of the dissemination activities of the consortium, as well as for guaranteeing that basic principles such as confidentiality and copyright are adhered to. In addition, this chapter outlines the main goals of the dissemination strategy and presents the **target groups** that were identified during the early stages of the project.

Chapter 3 describes the dissemination plan for the whole project's duration and reports a preliminary list of activities that will be deployed within the project. Within this chapter, the **procedures** for disseminating the foreground knowledge are also described, in which a set of commonly agreed principles shall be followed by the consortium.

The **dissemination material** produced so far is included in **Chapter 4**. These include the project logo and the website. The material developed so far aims to inform the public on the project's concept, vision and anticipated outcomes.

The **planned** and **realized dissemination activities** of the project are presented in **Chapter 5**. The dissemination record is delivered from the beginning of the project and will be continually updated with the latest dissemination tasks, such as project presentations, participation in workshops, exhibitions, and publications to journals and conferences.

Finally, in **Chapter 6** conclusions are drawn for this deliverable.

2. VIS-SENSE Dissemination Strategy

2.1. Dissemination Strategy Objectives and Goals

The main aim of a dissemination strategy is to guide the dissemination endeavour to the most appropriate channels in order to maximize its impact on the wider public community and especially on the target groups that were identified by the consortium. The VIS-SENSE dissemination strategy will be from both the European and individual partners' country perspectives. Dissemination activities will be applied within each partner country, across the European Union and beyond. They will be undertaken by the consortium partners as a whole, and by each partner on an individual basis.

Within VIS-SENSE, a dissemination strategy has been defined which is consists of a set of objectives and goals to be achieved during the whole project's duration:

- To design and prepare a "general" dissemination roadmap from the beginning of the project for dissemination and awareness activities to take place as part of the project dissemination plans

- To disseminate the project concept, vision and the novel methods that will be developed to the widest possible academic and industrial audience

- To raise public awareness and acceptance of new and emerging techniques against cybercrime, which enhance Internet security in the users' working and home environment

- To disseminate the VIS-SENSE project achievements to interested stakeholders

- To establish liaisons with existing cybersecurity related industry and standards organizations in order to contribute to the various issues that standardization activities currently address

- To support the exploitation of the project results and innovations

- To cooperate and interact with ongoing research initiatives

- To keep track of technical and market changes affecting the project

A number of different dissemination activities are seen as beneficial for the project's objectives. Co-location with meetings of other FP7 projects, organisation of workshops collocated with major conferences as well as invited talks given at international conferences or participation in conference panels are only a few examples of dissemination-related actions for which opportunities may arise at any moment during the life time of the consortium. Therefore, the consortium is developing the ability to provide a rapid response to arising opportunities through internal sharing of the developed dissemination material and by identifying well-defined representatives in each of its technical areas of expertise.

Based on the goals that were identified by the VIS-SENSE partnership, a dissemination plan has been designed for the project, which is presented analytically in Chapter 3 of this document. In addition, the consortium has identified from the beginning of the project a list of possible audiences, in which the project concepts and achievements could be disseminated. In the following paragraphs the possible target groups for the VIS-SENSE project are outlined.

2.2. Dissemination Target Groups and Communities to be Addressed

The identification of potentially interested target groups is a critical procedure in the creation of the appropriate communication channels. Target groups could consist of end users, companies, the research community, the general public, administrative and legislative authorities, as well as standardization bodies. The selection of the target groups is crucial in order to adapt dissemination activities to the particular attributes of each specific group.

The different target groups that were identified by the VIS-SENSE consortium are presented in this part of the report. Specifically, dissemination activities and actions will be focused on the following major groups:

- End users – specifically network and security analysts,

- Industry/companies – both producers and consumers of network security products,

- Research community – specifically the visual analytics and network security communities,

- Administrative and legislative bodies – specifically those involved in network security policy generation and law enforcement,

- Standardisation committees and organizations related to the Internet,

- Other European Projects in the ICT Trust and Security programme.

- Master programs, courses, lectures, seminars and PhD and undergraduate theses, and

- The interested public,

Towards **end users**, the main aim of the dissemination activities undertaken by the consortium will be to demonstrate in an effective way the main concepts of VIS-SENSE project. Special focus will be given to the use of specific material (e.g. leaflets, presentations) in order to raise public awareness of the new methods introduced by the project. In particular, the goal will be to explain the impact that the project achievements will have on their work and to provide the appropriate contacts for media and press events in an international level.

Towards **industry and companies**, the main goal of the dissemination activities will be to promote and position the VIS-SENSE innovations, in terms of new techniques and approaches against cyber-attacks, in the wider professional world. An effective role in the demonstration of the project activities in the professional world is expected by the respective industrial partners of the consortium.

One of the dissemination efforts of the project will also be to make the technical results of the project known within the traditional **research community**. The main tools and methods for dissemination here are publications in technical magazines and journals, participation and organization of European or International conferences and workshops. In addition, project objectives and actual results could be possibly presented in various seminars and tutorials within the research community.

With respect to **administrative and legislative bodies**, the main objective of the dissemination actions undertaken by the consortium will be to inform them about the new cybersecurity solutions that the project offers and how the novel security and visual analytics techniques could be employed to improve overall Internet security.

Furthermore, the consortium will investigate the possibility of contributing to the next phase of **standardization** in the areas of Internet security. It is envisaged that the experience gained by most of the VIS-SENSE partners from participation in previous projects on security is expected to direct the dissemination activities to the primary target groups in this category.

An important dissemination target group of the VIS-SENSE project are **students** undertaking master programs, courses, lectures, seminars and PhD and undergraduate

theses. The academic partners of the VIS-SENSE project, with their turnover of pre-graduate, post-graduate interns and PhDs students, and their direct involvement into applied research activities, will disseminate the results to their respective academic institutions. The results will also be included into specific lectures, given by researchers participating in the VIS-SENSE consortium.

The VIS-SENSE consortium sees the dissemination of the foreground knowledge to the **interested public** as important. Articles in popular or wide-spread journals, magazines or innovation-oriented attachments of newspapers will greatly facilitate the dissemination of VIS-SENSE innovations in this direction.

To conclude, the identification of the appropriate groups of people is a crucial step in the definition of the dissemination plan and is expected to maximize the effectiveness of the dissemination actions that will be undertaken by the VIS-SENSE consortium. The following Table summarizes the target groups within the VIS-SENSE project.

Target Group	Indicative stakeholders	Methods of approaching / communication methods
End users	Users of cybersecurity related software in their work environments	- VIS-SENSE website - Project presentations in press releases (European and national level) - Newsletter subscriptions - Multimedia presentations
Administrative and legislative bodies	National administrative and legislative authorities, European level working groups for security and privacy	- Newsletters subscription - Participation in project's workshop - Direct mailing or personal contact - Press release (European and National level) - VIS-SENSE website - Multimedia presentations

Target Group	Indicative stakeholders	Methods of approaching / communication methods
Industry/companies	Software security companies, telecommunications operators and ISPs, data management solution providers, companies developing software for information visualization and information analysis	• VIS-SENSE website • Press release (European and national level) • Invitation to participate in exhibitions/demonstrations of the project • Participation in major events in international level (e.g. ICT event)
Research community	Research institutes, universities	• VIS-SENSE website • Website of partners • Presentation at conferences • Publication in journals and magazines
Standardization committees and organizations	International Organization for Standardization, Internet Engineering Task Force (IETF), Intrusion Detection Exchange Format Working Group (IDWG), International Telecommunication Union (ITU), Extended Incident Handling (INCH) working group, Internet Research Task Force (IRTF), Anti-Spam Research Group (ASRG)	• VIS-SENSE website • Direct personal contact • Invitation to participate in project workshops or other events • Newsletters subscription
Other European Projects	effectsplus, Future Internet Assembly, WOMBAT, European Visual Analytics Community, SysSec, MASSIF	• Common organisation of events, demonstrations • Participation in project meetings
Students	Undergraduate, postgraduate and PhD students	• Lectures • Degree thesis • Master thesis • PhD thesis

Table 2.1.: VIS-SENSE target groups and proposed communication methods

3. Dissemination roadmap, initial multi-annual plans and procedures

3.1. Dissemination Plan

In this chapter, a detailed procedure plan is reported with the aim of achieving an effective dissemination throughout the duration of the project. A variety of dissemination approaches have been identified and will be utilised within the project in order to meet the objectives and achieve the goals that were defined by the VIS-SENSE consortium.

The dissemination plan is delivered with the contribution of all the project participants. The project coordinator and the WP leaders are responsible for maintaining the dissemination plan of the VIS-SENSE project, which will be issued regularly and updated with new actions and events to be undertaken by the consortium. In addition, as also described in the technical annex, the final plan for disseminating the foreground will be delivered at the end of the project, in which all dissemination actions realized during the VIS-SENSE project will be listed.

3.1.1. Dissemination Channels

The dissemination channels can be seen as actions that will be undertaken by the consortium for the wider deployment of the project concepts, methods and results to the target groups. The selection of appropriate dissemination channels is considered crucial in order to increase the efficiency of the dissemination policy. A list of dissemination channels that were identified by the consortium and which are expected to spread the concepts of the VIS-SENSE project to the maximum possible extent towards the identified target groups are outlined in the following paragraphs.

Towards dissemination of the project concepts and methods, a set of **dissemination material** will be designed and delivered to the wider public. The initial set will consist of the website and the project logo. The **project logo** has been designed and used in all documents and publications of VIS-SENSE. The design has been done in such a way that it is representative of the VIS-SENSE concept and vision. Two sets of **leaflets** and, if needed, **posters** will be designed and produced. The first set will be delivered before the middle of the project (M18) and will describe the objectives,

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concepts, vision and achievements of VIS-SENSE to date. The second set, which will be designed during the third year of the project, will include all relevant public results, outcomes and findings from VIS-SENSE research. This material will be distributed at all public events (conferences, workshops, exhibitions, etc.), where VIS-SENSE partners will participate.

Electronic newsletters and the VIS-SENSE **website** are expected to disseminate the project objectives, tools and methods to an even wider extent. A website dedicated to the VIS-SENSE project was designed and made available in M4. This website offers a description of the project and its objectives and the involved partners. Partners will continuously attach a special attention to the "living" aspect of the website by updating its content regularly. Updates will include press releases about the project, innovations and awards, pointers to scientific publications, public deliverables, etc.

In addition to the aforementioned material, the VIS-SENSE consortium plans to participate in major international events (e.g. ICT event) either by organizing specific **demonstrations/stands** and/or **presenting** the project ideas and achievements. Partners will work on developing **demo prototypes** to present in prominent events or challenges relating to visual analytics and security. Moreover, **trade** and **exhibition fairs**, such as CeBIT in Germany, provide an opportunity to increase awareness of VIS-SENSE not only in industry, but among the general public. An effort will be made by the partners to showcase VIS-SENSE as part of their presentations at such events.

Moreover, the project ideas, concepts and innovative techniques will be disseminated in the relevant research communities by means of **scientific publications**. A special focus will be laid on publicizing the project's innovative methods, approaches and techniques in the most relevant technical journals and magazines, as well as exposing project achievements at various international conferences. The WP7 leader will be responsible for maintaining the list of published papers and will also assist in the selection of the most suitable magazine or journal for publishing project achievements. For this reason, the WP7 leader will regularly provide the consortium with a list of events that are of particular interest for the dissemination of project concepts and developments. Generally, VIS-SENSE will aim at the key conferences and journals in the targeted research areas. Therefore, a large number of publications and scientific papers are expected both at conferences but also in journals, based on the concept, vision, design and evaluation results of VIS-SENSE. Expected targets for journals include (indicative list):

- IEEE Transactions on Visualisation and Computer Graphics

- IEEE Computer Graphics and Applications

- IEEE/ACM Transactions on Networking

- IEEE Network

- IEEE Transactions on Network and Service Management

- IEEE Transactions on Communications

- IEEE Trans. on Information Forensics and Security

- IEEE Trans. on Security & Privacy

- Elsevier Computers and Security Journal

- IEEE Journal on Selected Areas in Communications

- IEEE Trans. on Information Forensics and Security

- IEEE Transactions on Mobile Computing, Vehicular Technology, Telecommunications and Wireless Communications

- IEEE Proceedings

In order to promote the benefits of integrating visualisation techniques with advanced network analytics methods for building effective solutions against cybercriminals, such as those that the project will offer to the end users and the relevant industrial stakeholders, special **project events** will be organized by the consortium. VIS-SENSE will organise workshops and events possibly together with projects to demonstrate to the potential final users of the platform the innovations and technical advances in the domains of security and visual analytics.

Lastly, the **establishment of liaisons** and cross fertilization with other projects are among the objectives of VIS-SENSE partners. In the context of the VIS-SENSE dissemination activities, the partners will identify and set up contacts with related projects and establish successful cooperations. Furthermore, VIS-SENSE will participate in relevant **clustering activities** organised by the Security and Trust unit or SSA projects being funded by this unit or related units.

In the following paragraphs a preliminary plan for the various activities that will be undertaken by the VIS-SENSE consortium is presented for the whole duration of the project.

3.1.2. Dissemination Road Map and Initial Multi-Annual Plans

A draft road map has been drafted for each of the years of the project's duration (three years). It is expected that the scheduled activities will be updated during the project's lifetime as they depend on the progress of the project's work and its achievements.

In the **first year** of the project emphasis was on the creation of the project logos and the set up of the website. During the first year of the project the dissemination activities aimed at generally informing the public of the project's objectives, concepts and expected achievements. For this reason the website of the project was developed in the first few months and has been available since M4 to internet visitors. The website will be used to establish an on-line communications centre and will present the project and its results to a worldwide audience. Moreover, project presentations at various events at European level have already occurred and further participation in such events is expected for the forthcoming second and third year. In general, the following objectives were defined from the consortium for the 1st year of the VIS-SENSE project:

- Present the VIS-SENSE project to the international scientific, research and industrial security-related community

- Participate in leading trade shows, exhibitions and workshops

- Produce all required dissemination material on time

- Set up, maintenance and continuous update of the project web site with up-to-date information on project activities, results, links, demonstrations, various news and public deliverables and/or reports

- Creation of joint project repository for partners in a protected area

- Link VIS-SENSE actions with other similar projects

- Publications of scientific papers, poster sessions, participation in conferences

- Communicate the project goals via the networks and established distribution channels of the individual partners

The aforementioned activities during the first year are essential in raising public awareness about the project concepts and its expected achievements. The first year activities mentioned here have been performed successfully.

During the **second year** of the project, various publications regarding the developed techniques with respect to both network analytics and visual analytics are expected.

Furthermore, demonstrations of the prototypes that were developed at conferences or other events will be considered. This year is crucial as the first results and achievements of the project will direct the next dissemination steps and if needed, the initial plans presented in this document will be updated. The following goals were set for the second year of the VIS-SENSE project:

- To promote the current work and achievements in the research community.

- Based on the work done on requirements, specifications and initial designs during the first year, the partners will work on the detailed design and development of the modules to be implemented.

- To diffuse the project results in conferences and high quality scientific journals by the submission of scientific papers. The first results will be available, scientific and technical papers or articles will be submitted and presented in a more focused manner (more focussed target audience).

Finally, during the **third year** of the project, special focus will be given to the demonstration of the application scenarios considered within the project in various events (e.g. ICT event) as well as to promote the novel approaches, techniques and modules that were developed within the context of VIS-SENSE to all relevant target groups. During this last year of the project, the project results will be disseminated to already established connections with other projects and special attention will be paid to attract the appropriate actors (e.g. administration bodies, industry stakeholders) for the potential integration and use of the VIS-SENSE components in their environments. The following objectives are set for the last year:

- To spread the project results and achievements by continuously updating the project website and by the creation of the second set of leaflets

- To participate in major events in order to demonstrate the project achievements (e.g. new approaches developed, novel cyber-security techniques, etc.)

- To publish technical papers presenting the final results to various international and European scientific conferences

- The advertisement of the project's prototypes in various press and media releases and events that are related to the enhancement of security in cyberspace in order to attract the interest of the stakeholders (e.g. large companies, administrative and legislative authorities, etc.)

3.1.3. Participation in Standardization Activities

The VIS-SENSE consortium has a strong will and ambition to distribute, transfer and exploit the knowledge, experience and relevant project results to the European community and world-wide. Whenever applicable, VIS-SENSE will build on and promote existing or emerging standards. A plan of the possible contribution of VIS-SENSE to standards is presented in the following table.

As outlined in Table 3.1, VIS-SENSE can contribute to standards related to network security and in particular standards related to intrusion detection. Very few standards and guidelines exist for intrusion detection and these are also fairly new. This allows a lot of space for contribution from VIS-SENSE. Specific contributions to standards are expected from research in the problems of collection and analysis of heterogeneous and large amounts of data as well as in the problems of describing threats and exploration strategies for intrusion detection.

3.1.4. Contacts and Collaborations (Synergies)

VIS-SENSE has sought to establish contacts, collaborations and a web-link exchange with other projects and activities in related areas:

During the project's lifetime more similar projects will be identified and collaboration on VIS-SENSE related activities will be established.

3.2. Dissemination Procedures and Guidelines

In this section, the procedures undertaken within the dissemination actions of VIS-SENSE project are presented. It is expected that the effective dissemination of the project results through publication in international refereed journals, participation in and organization of conferences and/or workshops will follow a set of guidelines with the consent of all partners. On one hand, these procedures aim to enhance the quality of the developed material and the presentations (e.g. technical or not) in various events. On the other hand, those guidelines laid down in the VIS-SENSE Consortium Agreement are legally binding for all participants. Specifically, the following types of procedures have been identified for the VIS-SENSE project:

- Procedure of delivering the project dissemination plan and updating in a regularly basis

- Project presentation in various press and events (e.g. conferences)

Standard / Guideline	Relevant Body	Short description of activity	VIS-SENSE Compliance / Input	Partner involved
ISO/IEC 18043: 2006	International Organization for Standardization Joint Technical Committee 1 (JTC 1)/SC 27	Information technology – Security techniques – Selection, deployment and operations of Intrusion Detection Systems	Introduction of visual analytics tools for interactive intrusion detection. Methods for real time collection of heterogeneous network data. Methods that scale well to large amounts of data.	FhG/IGD, All
RFC 4765 RFC 4766 RFC 4767	Internet Engineering Task Force (IETF) Intrusion Detection Exchange Format Working Group (IDWG)	The Intrusion Detection Message Exchange Format (IDMEF) Intrusion Detection Message Exchange Requirements The Intrusion Detection Exchange Protocol	Novel methods for semantically rich description of threats and intrusions. Common framework for describing exploration strategies for intrusion detection.	FhG/IGD, All
IRTF Task force (1 currently active draft)	Internet Research Task Force (IRTF) Anti-Spam Research Group	The ASRG group investigates tools and techniques to mitigate the effects of spam	Report on results obtained during VIS-SENSE related to Spam activity	EUR, SYM, TSP
IETF Task force (8 currently active drafts)	Internet Engineering Task Force (IETF) Secure Inter-Domain Routing	SIDR aims at formulating an extensible architecture for an inter-domain routing security framework	Liaise with the group to present results on observed BGP attack events and possible mitigation strategies	EUR, SYM, TSP

Standard / Guideline	Relevant Body	Short description of activity	VIS-SENSE Compliance / Input	Partner involved
RFC 5070 4 active drafts (under personal editorship) 1 active document	Internet Engineering Task Force (IETF) Extended Incident Handling (INCH) working group	The Incident Object Description Exchange Format (IODEF) The INCH group was interested in exchange of incident (attack) information. While it was closed in October 2006, the documents are still progressing in the IETF as personal documents of volunteer editors.	IODEF extension to include threat attribution information exchange Extension of IDMEF CorrelationAlert to include threat attribution	EUR, SYM, TSP
IETF Task force (2 currently active drafts)	Internet Engineering Task Force (IETF) Operational Security Capabilities for IP Network Infrastructure	The OPSEC WG will document best current practices with regard to network Security. We are currently looking at the following documents: Mar 2009 draft to the IESG regarding backbone threats and mitigations Mar 2009 draft to the IESG regarding BGP Session Security which could include VIS-SENSE contributions.	Liaise with the group to report on observed attack events Promote the use of visual analytics for security Propose methodologies for handling attack attribution information	EUR, SYM, TSP

Table 3.1.: Plan of the possible contribution of VIS-SENSE to standards

Project Name	Brief Description	Relation to VIS-SENSE
VisMaster: Visual Analytics Mastering the Information Age http://www.vismaster.eu/	VISMASTER is a Coordination Action to join European academic and industrial R&D excellence from several individual disciplines, forming a strong Visual Analytics research community.	Collaboration on visual analytics techniques
Future Internet Assembly http://www.future-internet.eu	The European Future Internet Assembly also known as FIA, is a collaboration between projects that have recognised the need to strengthen European activities on the Future Internet to maintain European competitiveness in the global marketplace	Collaboration on security issues and contribution to research roadmap
Effectsplus http://www.effectsplus.eu/	Effectsplus is a FP7 funded Coordination & Support Action, across a large spectrum of R&D activity in the ICT Framework Programme that relates to the twin requirements of trust and security, and their constituent concepts and components.	Collaboration on security issues, contribution to research roadmap and common workshops
ACTIBIO http://www.actibio.eu	ACTIBIO aims to research and develop a completely new concept in biometric authentication, i.e., the extraction of biometric signatures based on the response of the user to specific stimuli while performing specific work-related activities.	Collaboration on pattern recognition techniques

Project Name	Brief Description	Relation to VIS-SENSE
SysSec: Managing Threats and Vulnerabilities in the Future Internet http://www.syssec-project.eu/	SysSec proposes to create a Network of Excellence in the field of Systems Security for Europe to play a leading role in Managing Threats and Vulnerabilities in the Future Internet	Collaboration on security issues
VISUAL-ANALYTICS.EU http://www.visual-analytics.eu	The new visual analytics portal	Collaboration on visual analytics techniques
I-SEARCH: A unified framework for multimodal content SEARCH http://www.isearch-project.eu	I-SEARCH will develop methods for analytic reasoning of search results, data representation mechanisms for the conversion of the RuCOD format to structured forms by using novel information visualisation algorithms.	Collaboration on visual analytics techniques
MASSIF: Management of Security Information and Events in Service Infrastructures	The main objective of MASSIF (Management of Security Information and Events in Service Infrastructures) is to achieve a significant advance in the area of SIEM (Security Information and Event Management).	Collaboration on security issues

Table 3.2.: Other projects similar to the areas and activities of VIS-SENSE

- Procedure for the technical presentation of VIS-SENSE achievements, in terms of methods (e.g. network analytics algorithms) and modules (e.g. Interactive Visual Analytic Exploration module).

For each of the above actions a number of guidelines are foreseen:

- All dissemination actions must respect the Intellectual Property Rights of the project's participants along with their actual efforts made during the project

- Prior to the publication of scientific papers to journals all related participants must be informed whether their work is referenced and described either directly or indirectly

- All scientific papers that are prepared under the support of the VIS-SENSE project must acknowledge the project itself and the EC financial support [1]

- Dissemination activities should target the identified target groups and the partners should avert the replication of the same activities

- Partners must respect those achievements of the project which are classified as confidential

- The guidelines in this report are based on the VIS-SENSE Consortium Agreement, in particular on section 8.3 of that document. Although every effort has been made to avoid conflicts, the CA takes precedence in the case of dispute.

3.2.1. Procedure for Updating the Dissemination Plan Report

The WP7.1 Task leader and the project coordinator are responsible for monitoring the dissemination activities and to issue/update the dissemination plan during the project's lifetime. In this context, the procedure for editing will follow a number of principles, which are outlined below:

1. Each partner reports to the WP7.1 Task leader every dissemination activity (workshops, paper, presentations, press releases) according to the procedures described in subsections 3.2.2 and 3.2.3, depending on the type of the event

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[1]The following text must be used in all scientific papers that are published under the scope of VIS-SENSE project: *The research leading to these results has received funding from the European Commission's Seventh Framework Programme (FP7/2007-2013) under grant agreement n° 257495.*

2. Every partner that is aware of a future event that VIS-SENSE project may be presented in informs the WP7.1 Task leader who later diffuses the information to the consortium

3. The WP7.1 Task leader issues the Dissemination Plan at month 12 and the final report for the use of the foreground at the end of the project (Month 24 preliminary version, final on Month 36).

3.2.2. Procedure for Presentation of the VIS-SENSE Project to Press and Specific Project Events

It is envisaged that, through the press releases (national, European and international level), much interest can be created in the project. In addition, it is expected that the participation in various events will encourage more people to visit the website, subscribe to the electronic newsletter and follow the activities of the project.

The participation of any consortium partner in various project events (e.g. exhibitions, demonstrations, workshops, etc.) in order to present the project objectives, concepts and achievements should be confirmed in advance by the project coordinator and the WP7 leader. A number of guidelines must be followed by the partners prior to the presentation of the project in press and in the events:

1. The partner will submit the dissemination action that he/she proposes to the consortium by email 45 days prior to publication/presentation. The dissemination action can be described using the appropriate form that has been included in *Annex A: Dissemination Form.*

2. Any objections to publication must be lodged in writing with the coordinator and the publishing partner within 30 days of proposal submission.

3. If no reply is given by them within 30 days, then publication is permitted.

4. It should be noted that the project coordinator or the partner responsible for dissemination activities could reject the proposed publication/presentation if it is not consistent with the guidelines presented in the introductory part of Section 3.2. In the case of conflict, the participant and the aforementioned responsible persons should come to an agreement for the presentation of the specific dissemination activity after making the necessary modifications or additions.

5. After the participation in event/project presentation acceptance, the participant must send the updated Dissemination Form to the respective responsible persons

(i.e. the partner responsible for dissemination and to the project coordinator), together with a copy of the final dissemination material.

3.2.3. Procedure for Technical Presentation of VIS-SENSE Project to Various Events

A similar procedure that was described in the previous subsection is foreseen for the technical presentation and achievements at technical level. In general, the following activities are foreseen:

- Publications in relevant journals

- Presentation in conferences

- Participation in non-project workshops, seminars and/or events.

4. Dissemination Material

The produced dissemination material and tools play an important role in the dissemination activities of a project during and even beyond its lifetime. In this section, the dissemination material that was designed and developed during the first twelve months of the project is described.

4.1. VIS-SENSE Logo

It is important that VIS-SENSE has a recognisable look that will accompany the project outcomes such as the public reports and deliverables, as well as the project presentation in various events. The design of the VIS-SENSE logo was one of the first dissemination activities of the VIS-SENSE project, which was extensively described in *D7.2 - VIS-SENSE Public and Private Website and VIS-SENSE Logo*.

The VIS-SENSE logo was developed by a graphic designer at Fraunhofer IGD. The logo is provided in four basic formats; colour and grey scale versions, each in the formats large for printed publications and small for websites. The base format of the VIS-SENSE logo is shown in the following figure, while the other versions of the logos can be found in Deliverable *D7.2*.

Figure 4.1.: VIS-SENSE project's logo

As seen above, the logo illustrates the key concept of the project, which aims at enhancing the security of users' everyday networked working and home environment. In

addition, the logo also depicts the project's name and is considered to be representative of the project's activities.

4.2. VIS-SENSE Leaflets

The first VIS-SENSE leaflets will be delivered before the middle of the project.

4.3. VIS-SENSE Internet Presence - Website

The VIS-SENSE website is divided into two sections; a public section, which contains public information about the project, and a private section, which is used as a communication and collaboration platform by the project partners. The VIS-SENSE website has been extensively described in *D7.2 - VIS-SENSE Public and Private Website and VIS-SENSE Logo* and *D8.1 - Project Reference Manual and Quality Plan.*

As suggested by the project officer in March 2011, VIS-SENSE partners have been working on a redesign of the public website to include more project-relevant visuals and better reflect the goals and content of the VIS-SENSE project. A new, redesigned and richer version of the website is expected in M14.

The features of the website in its current form are described in the following two subsections.

4.3.1. Public Section of the Website

The following domain names have been registered for the VIS-SENSE project:

www.vis-sense.eu and www.vissense.eu

The VIS-SENSE website is reachable via both of these URLs. However, the primary URL selected for the project website is http://www.vis-sense.eu/. The VIS-SENSE website is hosted by Fraunhofer IGD.

The public section of the VIS-SENSE website has been created to showcase the project results and make activities related to the project publicly available. The structure of the website aims to provide easily accessible information without hiding important details from the visitors.

The home page contains a simple representation of the project and its goals. Eye-catching screen shots of VIS-SENSE modules will be placed on the home page as they become available during the course of the project. The design of the website also allows to noticeably display latest project news and events organized/attended by the consortium.
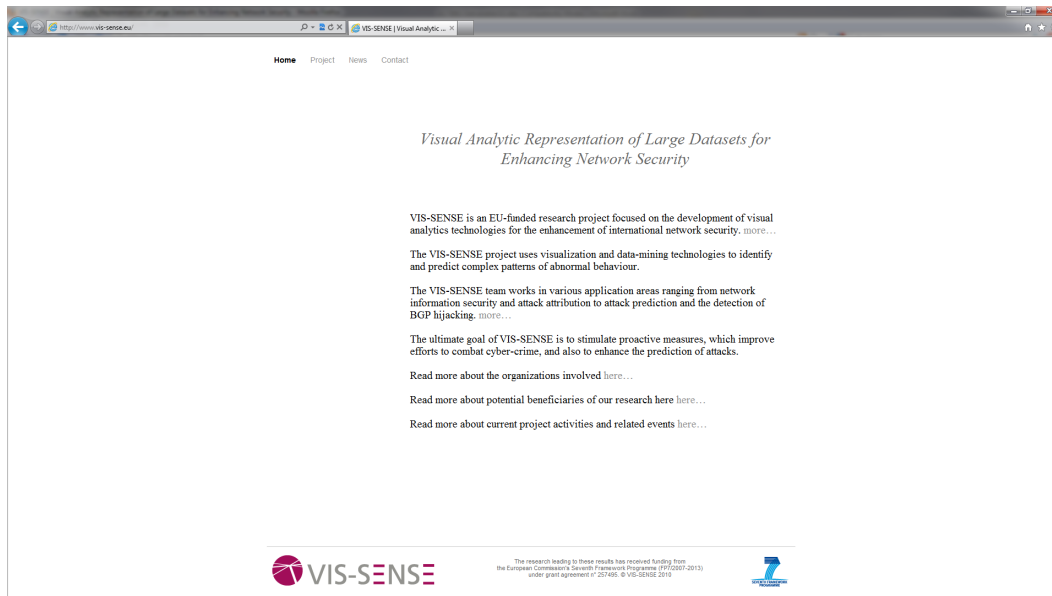
Figure 4.2.: VIS-SENSE website home page

As seen from Figure 4.2, there are two main sections in the website:

- The top section which provides the necessary links to navigate to all content that is available a

- The bottom section which includes the 7th Framework Programme logo.

The project website contains the following information of public interest:

- The project information

- A description of the main objectives of the project

- A brief description of the partners

- The groups targeted by the project

- The presentation of project latest news and the planned or accomplished events (participation or organization)

- Links to related projects
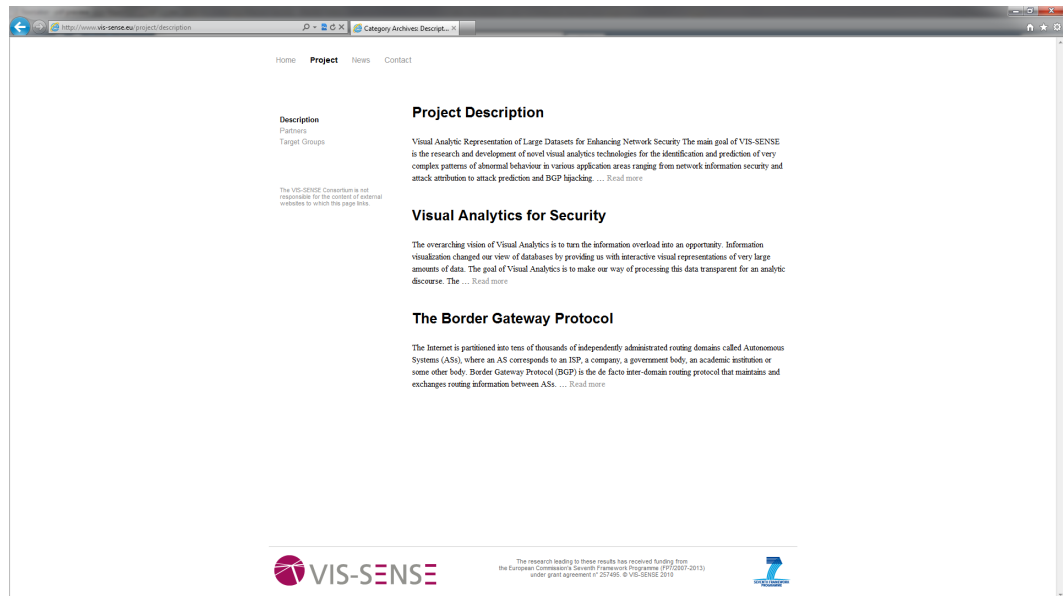
Figure 4.3.: VIS-SENSE website
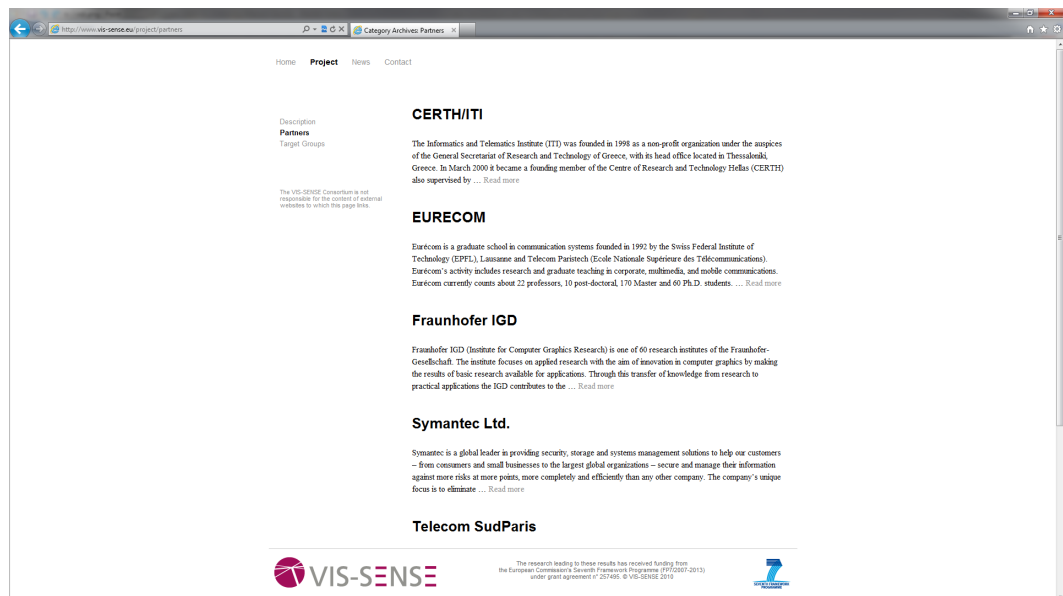
Figure 4.4.: VIS-SENSE website

Figure 4.5.: VIS-SENSE website

- Contact information

The overall structure of the website is presented below:

- **Home Page** (Figure 4.2): A short description of the VIS-SENSE project is given.

- **Project**: In this section the project objectives, scenarios, partners and target groups are described in short. The following subsections are available:

  - **Description** (Figure 4.3): The project objectives, use case scenarios and expected outcomes are described

  - **Partners** (Figure 4.4): The consortium of the project is presented here along with a contact person for each partner

  - **Target Groups** (Figure 4.5): The groups targeted by the VIS-SENSE project are presented

- **Links**: Links to other projects related to the VIS-SENSE research activities are provided

Figure 4.6.: VIS-SENSE website

- **Project Latest News** (Figure 4.6): The latest news including project news, announcements are included in this section in chronological order. The user can find more details by clicking on a topic

- **Contact** (Figure 4.7): The contact information of the project coordinator is displayed

In addition to the home page, the website contains more detailed information about the project and its partners. A space for the dissemination of public deliverables and links to project-related publications is also provided. Finally, the website offers a blog-style news section and a possibility for visitors to contact the project coordinator. The news section will be used to announce project-related presentations, other project-related events, as well as links to news from other network-security and visual analytics sources.

4.3.2. Private Section of the Website

Additional features have been implemented in the website with the aim to support the cooperative work among the project partners and facilitate the exchange of data within the VIS-SENSE consortium. In particular, a members' area has been designed and
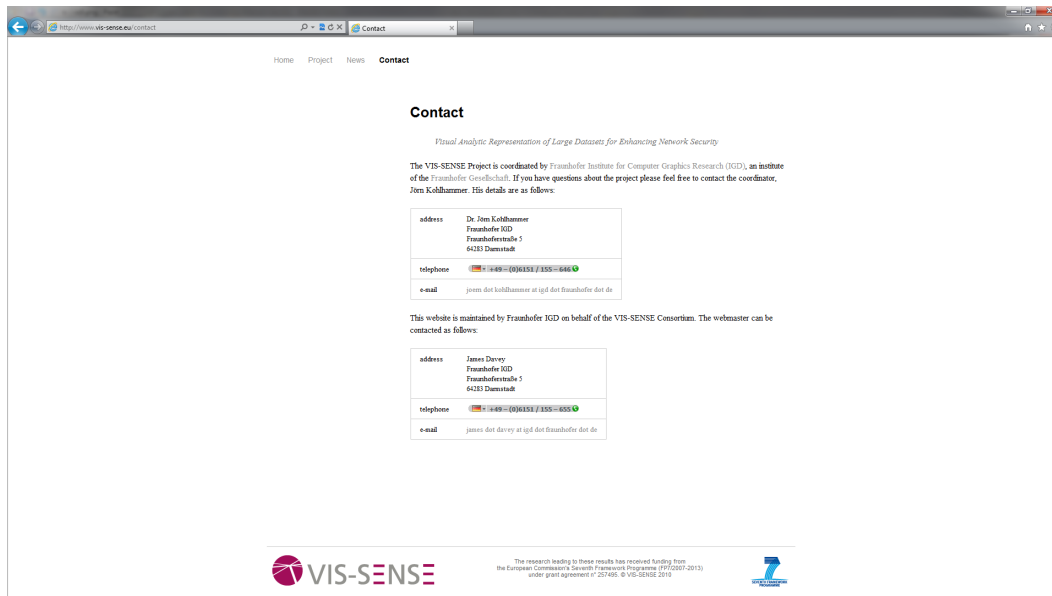
Figure 4.7.: VIS-SENSE website

developed with limited access, in which all the private documents of the consortium will be uploaded. The VIS-SENSE Private Section and subversion repository can be reached at the following URL:

https://va-svn.igd.fraunhofer.de/vis-sense

The access to this area is protected by private credentials (i.e. user name and password), assigned to each responsible partner of the project. Project participants can contact the project coordinator if they need access to the repository. Any other administrative requests (such as password changes) should also be sent to the project coordinator.

The VIS-SENSE repository is structured as follows: the current list of participants, description of work, project logos and other important documents are located in the administrative folder. Deliverables, a common reference database and deliverable templates are located in the deliverables folder. As software modules are developed during the project, they will be placed in the software folder.

4.4. VIS-SENSE Newsletter

The first VIS-SENSE electronic newsletter is expected to be sent with the delivery of the redesigned website.

5. Accomplished and planned dissemination activities

5.1. Accomplished Dissemination Activities

The following Table provides the dissemination activities accomplished by VIS-SENSE partners during the first year of the project. The dissemination activities are sorted by partners' name and then chronologically.

Activity Type / Event	Place	Date	Partner Involved
Presentation of the VIS-SENSE project to the effectsplus consortium during the effectsplus kick-off meeting in the Theme Event: *"Clustering activity for EU projects funded in the trustworthy ICT section. First draft of the Trustworthy ICT roadmap for future research"*	Brussels, Belgium	March, 29-30, 2011	IGD
Presentation of the VIS-SENSE work progress during the Event: *"Clustering activity for EU projects funded in the trustworthy ICT section. Workshop on models used in the research projects"* organised by the effectsplus consortium	Amsterdam, Netherlands	July, 04-05, 2011	IGD
Presentation of the VIS-SENSE innovative approaches to students of the Technological Educations Institution of Serres attending the course: "Telecommunication Networks"	Serres, Greece	January, 10, 2011	CERTH/ITI
Presentation of the VIS-SENSE project during the Open Day organised by *CERTH* and the *Greek International Business Association* at the CERTH premises	Thessaloniki, Greece	May, 6, 2011	CERTH/ITI
Briefing of the VIS-SENSE objectives to software security companies	Thessaloniki, Greece	September, 05, 2011	CERTH/ITI

Activity Type / Event	Place	Date	Partner Involved
Presentation of the VIS-SENSE project during the Workshop: *"Network and Information Security: Research Ideas"* organised by the *European Commission, DG Information Society and Media, Unit F5 - Trust and Security*	Brussels, Belgium	September, 22, 2011	CERTH/ITI
Presentation of the project during the event: *"Future Internet Assembly - Security and Usability Panel Discussion: Challenges And Consequences "* organized by the FIA Steering Committee	Budapest, Hungary	May, 17-19, 2011	SYM
Presentation of BGP use cases, feedback from Michael Behringer (CISCO)	Sophia-Antipolis, France	June, 22, 2011	SYM
Presentation of BGP use cases, feedback from Massimo Rimondini and Luca Cittadini, researchers at Universita' Roma Tre	Sophia-Antipolis, France	August, 02, 2011	SYM
Presentation of the paper: *"A Strategic Analysis of Spam Botnets Operations"* authored by Olivier Thonnard and Marc Dacier at the conference: *"8th Annual Collaboration, Electronic messaging, Anti-Abuse and Spam Conference (CEAS 2011)"*	Perth, WA, Australia	September, 01-02, 2011	SYM
Master Thesis entitled: *"An Automated Query Tool for Prefix Hijacking Detection from the Control Plane"* delivered by Quentin Jacquemart (University of Lige, Belgium) and supervised by Marc Dacier	Brussels, Belgium	September, 05, 2011	SYM
Discussion on Visual Analytics for security applications with the *German Federal Office for Civil Protection and Disaster Assistance* (BBK) and come together with experts from the *German Federal Agency for Security in Information Technology* BSI as well.	Bad Neuenahr-Ahrweiler, Germany	July, 04, 2011	UKON
Presentation of the paper: *"Monitoring Large IP Spaces with ClockView"* written by Kintzel C., Fuchs J., Mansmann F. during the international conference *"VizSec: Symposium on Visualization for Cyber Security"*	Pittsburgh, USA	July, 20, 2011	UKON
Promotion of the VIS-SENSE project and discussion on the collection of interesting BGP-data with the *German Federal Agency for Security in Information Technology* (BSI).	Bonn, Germany	September, 07, 2011	UKON

Table 5.1.: Accomplished dissemination activities

5.2. Planned Dissemination Activities

The following Table provides the dissemination activities that are planned by VIS-SENSE partners for the second year of the project. The dissemination activities are sorted by partners' name and then chronologically.

Activity Type / Event	Place	Date	Partner Involved
A PhD candidate will join the CERTH/ITI VIS-SENSE team who will work on the research area: "*Visual analytics for security applications*"	Thessaloniki, Greece	October	CERTH/ITI
Invited talk entitled "*TRIAGE: Towards an automated intelligence tool for cyber security*" given by Olivier Thonnard during the international conference: "*15th Conference on Telecommunications and IT Security: SECURE 2011*"	Warsaw, Poland	October, 24-25, 2011	SYM
Submission of the paper "*Survey: Visualizations for Network Security*" by Fuchs J., Fischer F., Mansmann F. and Davey J. to a refereed international journal	–	–	UKON, IGD

Table 5.2.: Planned dissemination activities

6. Conclusions

In this deliverable the dissemination actions that will be undertaken by the consortium during the project's duration have been highlighted and described analytically. Since the dissemination activities are crucial for the dissemination of the project's results to the most relevant stakeholders, this document presented the dissemination strategy that will be considered within VIS-SENSE along with the identified target groups. It is expected that the dissemination strategy adopted by the consortium will reinforce the promotion and advertisement of the project concepts and technological achievements to the public and the respective target groups.

In addition, the VIS-SENSE vision, concept, innovations and achievements will be directed to the respective stakeholders and in general to the wider public with the use of specific communication channels that were defined and presented in this document. In that context, significant dissemination contribution is expected from the dissemination material that will be designed during the project's lifetime. The description of the dissemination material produced since the beginning of the project was included in this document (e.g. the project website and logo) as well as a preliminary list of the accomplished and planned project's dissemination activities.

Lastly, the procedures that should be followed by the partners were presented, which are expected to increase the efficiency of the dissemination actions, to structure the monitoring of dissemination achievements and to ensure the quality enhancement of the activities.

It should be noted that the dissemination record will be updated on a regular basis and the dissemination calendar will be distributed to the consortium in order to support every partner's dissemination activities for the whole project duration.

A. VIS-SENSE Dissemination form

VIS-SENSE Form A: Participation in or Organization of Events / Workshops (planned or realized)
Add extra tables if more than one

Partner(-s) ID[*]:	
Full Name of Event:	
Event Abbreviation (if any):	
Theme of the Event:	
Event Location:	
Event date (Day(s)/Month/Year):	
Event Organiser:	
Type of Event:	☐ Presentation ☐ Workshop ☐ Press Conference ☐ Other (please specify)
Level of Event:	☐ International ☐ European ☐ Multinational ☐ National ☐ Other (please specify)
Approx. Number of Participants:	
VIS-SENSE will be (was):	☐ Only theme of the event ☐ main theme of the event ☐ one of the themes of the event
Type of Participants:	☐ Authorities ☐ Users ☐ Manufacturers ☐ Press/Media ☐ Other (please specify)
Other Comments:	

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[*] e.g. CERTH/ITI

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VIS-SENSE Form B: Exhibition Stand / Demo (planned or realized)
Add extra tables if more than one

Partner(-s) ID[*]:	
Full Name of Exhibition:	
Exhibition Abbreviation (if any):	
Exhibition Location (Town/Country)[†]:	
Exhibition date (Day(s)/Month/Year)[‡]:	
Exhibition organiser:	
Level of Exhibition:	☐ International ☐ European ☐ National ☐ Other (please specify)
Type of stand:	☐ VIS-SENSE ☐ Company's ☐ Other (please specify)
Type of demo[§]:	
Approx. number of visitors (if known):	
Other Comments:	

[*] e.g. CERTH/ITI
[†] e.g. Stuttgart/Germany
[‡] e.g. 17-21 October 2008
[§] e.g. prototype, simulation, posters, etc.

VIS-SENSE Form C: Presentations in Workshops/Conference (planned or realized)
Add extra tables if more than one

Partner ID[*]:	
Title:	
Authors:	
Abstract (4 lines):	
Name of Conference (full Title):	
Conference Abbreviation (if any):	
Type of Conference:	☐ with paper selection ☐ without paper selection
Level of Conference:	☐ International ☐ European ☐ National ☐ Other (please specify)
Day(s)/Month/Year of publication[†]:	
Type of Article:	☐ Full Paper ☐ Poster ☐ Other (please specify)
Conference Proceedings:	☐ Yes ☐ No
Form of Conference Proceedings:	☐ Book ☐ CD ☐ Book & CD ☐ Other (please specify)
Editor of Proceedings:	
Volume of Proceedings[‡]:	
Pages[§]:	
Language of Proceedings:	
Special Comments:	

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[*] e.g. CERTH/ITI
[†] e.g. 17-21.11.08
[‡] if more than one, e.g. Vol. 2
[§] e.g. pp.122-124

VIS-SENSE Form D: Publications in journals, magazines, newspapers and press release in general (planned or realized)

Add extra tables if more than one

Partner ID[*]:	
Title:	
Authors:	
Abstract (4 lines):	
Name of Journal/Magazine (full Title):	
Journal/Magazine Abbreviation (if any):	
Type of Journal/Magazine:	☐ Scientific ☐ Professional ☐ Special ☐ Informational ☐ Newspaper ☐ Other (please specify)
Level of Journal/Magazine:	☐ International ☐ Multinational ☐ National
Month/Year of publication[†]:	
No. of publication Volume[‡]:	
Editor:	
Pages[§]:	
Language of paper[**]:	
Status of publication:	☐ Published ☐ Accepted ☐ Pending (decision expected by ………………)
Other comments:	

[*] e.g. CERTH/ITI
[†] e.g. October 2008
[‡] e.g. No 12 of 2008
[§] e.g. pp. 86-92
[**] e.g. English, German, etc.

VIS-SENSE Form E: Coordination or Contribution to Public Project Deliverables
Add extra tables if more than one

Partner ID[*]:	
Deliverable:	
WP:	
Names of Persons Involved (Authors):	
Type of Involvement:	☐ Coordination ☐ Contribution
Date of delivery:	
Other comments:	

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[*] e.g. CERTH/ITI

A. VIS-SENSE Dissemination form

VIS-SENSE Form F: List of Bachelor, Master and PhD Theses relevant to VIS-SENSE project (planned or realized)
Add extra tables if more than one

Partner ID[*]:	
Thesis Title:	
Author(s):	
Abstract (4 lines):	
Name of Supervisor:	
Type of Thesis:	☐ Bachelor ☐ Master ☐ PhD
Date of delivery:	
Language of Thesis[†]:	
Other comments:	

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[*] e.g. CERTH/ITI
[†] e.g. English, German, etc.

VIS-SENSE Form G: Internal meetings (general, technical and telco meetings)
Add extra tables if more than one

Partner(-s) ID*:	
Meeting Location:	
Meeting date (Day(s)/Month/Year):	
Meeting Organiser:	
Type of Meeting:	☐ General ☐ Technical ☐ TeleConference ☐ Other (please specify)
Names of Participants:	
Other Comments:	

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* e.g. CERTH/ITI

A. VIS-SENSE Dissemination form

VIS-SENSE Form H: Other activities (planned or realized)

Please add here any other dissemination activity not included in the previous sections (e.g. **Feedback** from and **Synergies** with other projects related to the VIS-SENSE concepts, **Lectures** and **Courses** given related to VIS-SENSE, **Internal Training** and **education activities**, Dissemination at **standards bodies**, etc)

PLEASE ADD ANY POSSIBLE FEEDBACK FROM THE 25 EXPERTS (Do not forget to include their names)

Title of Event:	
Theme of the Event:	
Date and place of event:	
Event Organiser:	
Type of Event:	☐ Presentation ☐ Workshop ☐ Press Conference ☐ Other (please specify)
What was shown/discussed at the event?	
VIS-SENSE was:	☐ Only theme of the event ☐ main theme of the event ☐ one of the themes of the event
Type of Participants:	☐ Authorities ☐ Users ☐ Manufacturers ☐ Press/Media ☐ Other (please specify)
Additional info:	