pulse

Platform for European Medical Support During Major Emergencies

EUROPEAN COMMISSION

D9.1 Dissemination Plan

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PULSE

Platform for European Medical Support during major emergencies

WP9_Exploitation & dissemination

Deliverable D9.1-Dissemination Plan

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Abstract:
This document contains the PULSE Dissemination plan, which describes the dissemination and exploitation of the PULSE results with an emphasis on how the results will impact society as a whole and the EU CI security.

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1 Introduction

1.1 Purpose and scope of the Document

This document provides a description of the PULSE dissemination plan. The PULSE consortium recognizes that dissemination activities are an essential and pervasive activity throughout the project's life, and integrated within all its work packages.

This dissemination plan describes the project's dissemination intents and measures for the project lifecycle. It defines the key objectives for the project's dissemination. The plan identifies the main stakeholder types and categories and assesses their role/impact on the project development. It elaborates stakeholder outreach means, defines timelines for the planned dissemination activities and stakeholder contact and finally it identifies and prioritizes dissemination tools.

1.2 Structure of the Document

The document is structured as it follows:

- Project overview
- Dissemination methodology: goals, target audience, key messages
- Dissemination plan: general and scientific dissemination
- Preliminary exploitation plans
- Annexes.

2 Project overview

The PULSE project concept was developed taking into consideration the actual European context and the necessity of the European Health Services to be prepared for and to respond efficiently to the threat from pandemic diseases or other major incidents with large numbers of casualties.

European Health Services (EHS) is one of the core emergency response services to major threats (pandemic disease, major terrorism attacks). EHS includes hospitals, community health services, pre-hospital emergency care services, medical suppliers, rescue services, health related voluntary services and others. EHS has an important role in both the preparedness and response phase, so it is necessary to maintain and improve their activity through effective planning, decision support tools and advanced methods and tools that provide support in the response phase (e.g. common operational picture, creation of surge capacity, medical records history of the patients etc.). An inter-operable framework is also needed in order to be able to provide a co-ordinated European response to any major medical incident.

The project will begin by studying the procedures, processes and training requirements in current operation at the EHS with the support of potential end users of the project.

After this step, the following PULSE objectives can be reached:

1. To develop a **standardised approach** to improve preparedness, response and decision making across Europe for specific major medical emergencies.
2. To provide an EU wide operational and technical framework to enable risk managers to undertake a **threat analysis situation assessment and forecast** and to react accordingly with effective decision making, resources and logistics planning, assignment and control.
3. To develop **innovative technology and tools** to support preparedness, response and decision making and present a common operational picture to emergency personnel.
4. To identify how **improved legislation, directives and guidelines** across Europe could enable better decision making, preparedness and co-operation, taking into consideration the protection of human rights and **social norms**. A pan European roadmap will be developed.
5. To develop an open operational and technical platform which will define, develop and validate procedures and processes, develop architecture and a set of technologies and tools to improve – by design – the preparedness, reliability and preparedness of European states to manage a medical crisis.
6. **To develop a draft suite of European standards for large scale medical emergencies including 'common vocabulary and definitions'** – suitable for Europe and an integral part of our dissemination strategy.
7. **To promote PULSE and the project results** – timely and efficiently disseminate the project results; implement feasibility study and environmental analysis for effective exploitation of the project results.

The PULSE framework solution will be validated by two pilot scenarios based on multiple exercises and demonstrations: a biological attack in Italy and a major stadium 'crush' in Ireland. Both will involve cross border support from neighbouring countries.

Among the expected benefits of the PULSE project are:

- Improved preparedness of health services
- Improved response of health services
- Improved cross border cooperation
- Comprehensive set of operating procedures & processes
- Comprehensive set of tools
- Comprehensive training tools
- Improved logistics
- Improved understanding of legal, ethical and social issues in major emergency management
- Improved understanding of public acceptance in major emergency management

The primary benefit of the PULSE system it will be to improve preparedness and response to major medical emergencies leading to more efficient and effective management. It will also reduce administration, bureaucracy and ensure better use of resources.

3 PULSE dissemination methodology

PULSE dissemination activities need clear messages as well as effective and efficient communication. PULSE's Dissemination Plan is aligned with the theory published by Everett M. Rogers in *Diffusion of Innovation[1]*; in this book, dissemination process is defined as "the spread of a new idea from its source on invention or creation to its ultimate users or adopters". There are five stages defined into this theory: knowledge, persuasion, decision making, implementation and confirmation.

Figure 1 Diffusion of Innovation

Knowledge - what PULSE is and what has been reached and achieved; it refers to existing information and its understanding.

Persuasion - to make people form a positive attitude towards PULSE results.

Decision making – the commitment of the knowledge recipient to adopt the results.
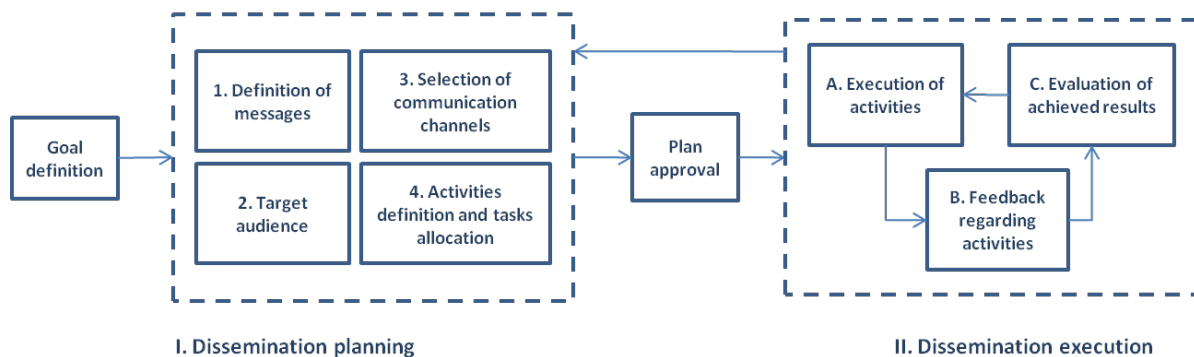
Implementation – putting in practice of the knowledge learnt.

Confirmation– implemented knowledge proved as positive.

Figure 2 PULSE dissemination stages and activities

The PULSE stages and activities are presented below.

3.1 Dissemination goals

The present Dissemination Plan comprises the necessary key points in the dissemination of the project, trying to ensure that as many other institutions, authorities, companies and people in charge as possible get to know about PULSE, its content and goals. A particular interest will be shown to key government organizations/staff, key Commission EU staff, potential end-users, potential suppliers and related projects.

The dissemination activities will raise the awareness of PULSE's results and will help to strengthen the connections with the relevant entities responsible for the European response to any major medical incident.

The internal dissemination goal is to provide the PULSE partners with an effective and efficient plan to follow in disseminating the work and the project's achievements.

External dissemination goal is to provide information regarding the PULSE platform's evolution and also to receive feedback from end-users and all relevant entities in order to analyze current results and possible further developments.

3.2 Key messages

The key messages to spread are directly connected with the impact and results expected, such as: provide a solid basis for the description of the Demonstration project and achieve qualified Europe wide awareness. The messages – the underlying themes for the project's materials and activities - are designed taking into account the different interest groups identified and the stage at which the project is. They contain several factors that might help to determine interest groups acceptance: clarity, consistency, main points, tone and appeal, credibility and audience needs.

The key messages serve as the basis for the development of sets of talking points that members of the consortium use when making presentations.

In order to achieve effective message communication, the messages will be constantly aligned with the project's objectives, especially if these objectives change over time.

3.3 Dissemination activities

1. Making deliverables available to the public. This activity includes technical documentation on the architecture and methodologies and interfacing standards and manuals for tools and utilities developed under the project. All documentation comes with a Creative Commons License. The project's website will contain the reports and tools resulting from the project.

2. Contributing to (inter) national conferences and **Publishing RTD results** to the wider scientific community through referred journal publications, (chapters in) books and conference proceedings. The academic consortium partners will submit publications to relevant scientific journals and conferences over the course of the project.

3. Transferring knowledge and **establishing contacts and liaisons with existing initiatives**. This activity includes research exchange, workshops for professionals on the integration, maintenance, deployment of the architecture, methodologies and tools for future users and training for stakeholders.

4. Building communities of actors and users through a continuous networking activity with influential end-users, key health and emergency management personnel and policy makers.

5. **Organizing end user days**. This activity refers to different forms of demonstration of the possibilities that the newly developed technologies will offer. Target audience will be relevant industry, institutional, public and research actors whose main focus is the protection of the public during major crises.

6. **Participating in activities related to significant events.** Members of the consortium have contributed to major crisis protection and cyber security events in the past. Furthermore, they will use these events as dissemination channels for the PULSE results.

7. **Publishing press releases about completed milestones.** The PULSE consortium will publish press releases about important milestones, public availability of new methodologies or software components. The dissemination channels will be: research and technology related news websites, press release channels, mailing lists and the Web 2.0 community.

3.4 Target audiences

An important element of the dissemination process is defining the target audiences for the dissemination activities. Target audiences have to be relevant for the project's objectives, in order to provide and receive useful information for PULSE work and further developments.

The following categories of target audience are relevant for PULSE:
- Primary audiences
  - Standardisation bodies & public bodies (European health care and emergency management organisations)
  - National and international authorities
  - Research communities, in particular those dealing with research of

pandemic disease and major emergencies management
- o Local health agencies
- Secondary audiences
  - o Lead hospitals
  - o Hospitals with specific facilities
  - o Potential suppliers
  - o General public

3.5 Dissemination means and channels

In PULSE specific actions and means are considered for each segment of the target audience identified above, in order to achieve effective dissemination. The following dissemination actions are used:

- Dissemination of the projects results via the PULSE website, newsletters, press releases and social media
- Dissemination project results via the PULSE end-user workshop and dedicated meeting during common events with other research teams
- Dissemination through standards bodies and fora
- Participation in different scientific and industrial events (conferences, workshops, journals)

The following table summarizes the envisaged dissemination actions and means per each segment of the target audience.

Table 1 Dissemination actions and means

Audience	Dissemination Actions	Means	Measures
PRIMARY AUDIENCE			
Standards Bodies & Public Bodies	Website, Newsletters, Events	Regular updating and participation at key events	Number of newsletters and events attended
National Authorities	Website, Newsletters, Events	Regular updating and participation at key events	Number of newsletters and events attended
Research communities	Website, Newsletters, Dedicated meeting during common events	Regular updating and participation at key events	Number of newsletters and events
Local Health Agency	Website, Newsletters, Events, Publications, Social media	Via above and industry publications	Number of newsletters and events plus number of publications

SECONDARY AUDIENCE			
Lead Hospitals	Website, Newsletters, Events, Publications	Regular updating and participation at key events and industry publications	Number of newsletters and events
Hospitals with specific facilities	Website, Newsletters, Events, Publications	Regular updating and participation at key events and industry publications	Number of newsletters and events
Potential suppliers	Website, Newsletters, Events, Publications	Regular updating and participation at key events and industry publications	Number of newsletters and events plus number of publications
General public	Web site and press releases, social media	General press releases	Number of press releases published in general press

3.5.1 PULSE website

From the start, the PULSE website (http://www.pulse-fp7.com) will be made available and will be maintained throughout the project lifecycle with information and achievements. The dissemination consists in updating the website regularly with information about the PULSE project and analyzing the number of visitors and their feedback in all PULSE phases.

3.5.2 Dissemination through standards bodies and fora

PULSE's achievements will be communicated to the relevant standards bodies and forums. These organizations will be contacted in order to:

- Discuss the adequacy and effectiveness of novel tools and procedures;
- Acquire feedback and implement recommended improvements;
- Seek recommendations for further development and possible continued cooperation.

PULSE consortium will participate as much as possible in the relevant standards bodies and forums to ensure that developments within the project will be considered.

3.5.3 Participation in Conferences, workshops, journals

PULSE project results will be published by interested partners in various journals, conferences and/or workshops via scientific papers. PULSE will be presented at a selection of major security related events and conferences within and outside Europe. The project aims to publish scientific material at several highly profiled relevant scientific conferences and journals related to emergency medicine i.e. Emergency Medicine Journal (EMJ) and Journal of Emergency Medicine.

PULSE will be furthermore present in European and national emergency planning conferences, for example the European Security Research Conference and also similar national conferences, like EuSEM and ESTES conference.

Relevant industry journals and technical publications are also important dissemination tools to disseminate PULSE's technical solutions.

The project will also aim to disseminate information about the project's results via local TV and newspapers.

The project may consider releasing a PULSE demo on YouTube, which can be used in presentations or at conferences.

4 PULSE Dissemination Plan

4.1 Key messages and target audience

According with the above mentioned factors and PULSE's objectives, **key messages** to be disseminated will be focused on:

- Improving the health services in both preparedness and response stages of a major medical incident leading to **more efficient emergency management**
- Operational procedures **harmonization**
- Efficient **training tools** with real life simulations
- **Improving cross border co-operation** of the medical services
- **Enhanced management** of the hospital resources
- **Improved logistics**
- Improved understanding of **public acceptance**, **legal, ethical** and **social issues** in major emergency management

Table 2 Targeted Audience

No	Category / Targeted Audience	Level
1	**Primary audiences / Decision Makers**	
1.1	**Standardisation Bodies & Public Bodies**	
1.1.1	Accreditation Council for Continuing Medical Education (ACCME)	WW
1.1.2	EUSEM European Society for Emergency Medicine	EU
1.1.3	European Commission Public Health Directorate	EU
1.1.4	ECDC (European Centre for Disease control)	EU
1.1.5	General Medical Council	UK
1.1.6	European Society of Intensive Care Medicine	EU
1.1.7	UEMS European Union of medical specialist	EU
1.1.8	World Health Organization (WHO)	WW
1.1.9	Joint Research Centre (JRC) of European Commission	Ispra (Italy)

1.2	**National Authorities and International Authorities**	
1.2.1	General Inspectorate for Emergency Situations (IGSU)	Romania
1.2.2	National Institute for Public Health	Romania
1.2.3	Department of Health	Ireland
1.2.4	Health Protection Surveillance Centre	Ireland
1.2.5	Bundesministerium für Gesundheit (Federal Ministry for Public Health)	Germany
1.2.6	THW (Federal Agency for Technical Relief)	Germany
1.2.7	Azienda Regionale Emergenza Urgenza (AREU 118)	Lombardia Region - Italy
1.2.8	USMAF - Uffici di Sanità Marittima Aerea e di Frontiera (National Office of Sea, Air and Border Health Control - Italian Ministry of Health)	Italy
1.2.9	Azienda Regionale Emergenza Sanitaria (ARES 118)	Lazio Region - Italy
1.3	**Research Communities**	
1.3.1	Robert-Koch-Institut	Germany
1.3.2	Bernhard-Nocht-Institut für Tropenmedizin (specialized in tropical medicine)	Germany
1.3.2	Deutsches Institut für Katastrophenmedizin (Institute for Disaster Medicine)	Germany
1.3.4	Institutul Naţional de Cercetare-Dezvoltare pentru Microbiologie şi Imunologie "Cantacuzino"	Romania
1.3.5	Istituto di Igiene Policlinico Gemelli	Italy
1.4	**Local Health Agency**	
1.4.1	Mobile Emergency Service for Resuscitation and Extrication (SMURD)	Romania
1.4.2	Public Health HSE South	Ireland
1.4.3	National Ambulance Service Southern Region	Ireland
1.4.4	CRIMEDIM (Research Centre in Emergency and Disaster Medicine) and SIMNOVA (Simulation Centre in Health Science) at Università del Piemonte Orientale	Italy
2	**Secondary audiences / Early adopters**	
2.1	**Lead Hospitals**	
2.1.1	Policlinico Gemelli, Rome	Italy
2.1.2	Spallanzani Hospital, Rome	Italy
2.1.3	Spitalul Municipal de Urgenta Bucuresti (Bucharest Municipal Emergency Hospital)	Romania
2.1.4	Cork University Hospital	Ireland
2.1.5	Mater Misericordiae University Hospital	Ireland

2.2	**Hospitals with specific facilities**	
2.2.1	Spitalul de boli infectioase si tropicale "Dr. Victor Babes" Bucuresti (Hospital for Infectious and Tropical Diseases "Dr. Victor Babes " Bucharest)	Romania
2.2.2	National Isolation Unit Mater Misericordiae University Hospital	Ireland

4.2 Dissemination channels

The PULSE dissemination channels will be selected in accordance with the specific of the activity; thus, in PULSE we discriminate between the general dissemination and scientific dissemination.

4.3 PULSE general dissemination

PULSE general dissemination's main goal is to create and promote the project's identity in order to enable and facilitate the identification of PULSE results and materials. In this respect, a project logo as well as a set of templates for documents and presentations was created. The main target audiences for general dissemination are: local health agencies, lead hospitals and hospitals with specific facilities, as well as general public.

The following channels will be used for PULSE general dissemination: PULSE Website, e-newsletters, PULSE presence on the social media, press releases publishing as well as contacts with other projects with activities and results within the thematic of PULSE.

4.3.1 PULSE Identity

PULSE identity is a way to represent the project through its components: name, logo and colours. Such a branding system is a powerful tool for the project allowing instant recognition and a clear communication.

The project's acronym PULSE - Platform for European Medical Support during major emergencies – it is the main identity element and shall be used, where possible, with the project's logo presented below. The project's acronym should be written with capital letters.

Figure 3 PULSE logo

The PULSE's logo must be used project's documents. The logo is available in different formats on the PULSE's portal.

4.3.2 Templates for documents and presentations

The PULSE templates for documents and presentations are included into the Project Handbook deliverable [2]

4.3.3 PULSE Website

The PULSE website, **http://www.pulse-fp7.com,** was made available in order to support projects visibility. The PULSE web site layout is presented into the Annex 1. The website is established as a major and official information channel. It provides clear and concise information on PULSE activities, including: consortium description, projects objective.

At this stage the following sections have been implemented:

- About Pulse
- Consortium
- Objectives
- Deliverables
- News
- Contact

An initial package of promotional and information material will be downloadable from the project website, including a brochure in the form of an identity brochure, regularly updated during the project implementation.

This package will be used as a basis for the presentation made by the Consortium partners at various external events and will contain basic information about the project, main aims and motivation, envisaged events, preliminary results and contact information.

The PULSE web site will be periodically updated with:

- PULSE public deliverables;
- PULSE events information.

4.3.4 PULSE brochure

A brochure is under development in order to enhance the project's visibility. The brochure goal is to present PULSE to the user group and the general public. It will be distributed to potential user group members at conferences, workshops etc. The cover page will present the partners logos, project title and date of publication, whilst the back page will present the consortium and PULSE's expected benefits.

4.3.5 PULSE e-newsletters

The project's achievements will be presented in a periodic e-newsletter. The e-newsletter will be distributed by any of the consortium members participating at European or national events dealing with related subjects. The e-newsletter will be sent to the potential end-users as well as to the other relevant bodies.

The e-newsletter will have at least the following sections:

- An editorial presenting the projects status and recent developments
- A partner profile section
- A section including the events and conferences where PULSE was presented.

4.3.6 Publishing press releases about completed milestones

Press releases will be posted on the PULSE web site and/or general press. Proposed schedule/channels for press releases:

Milestone	Channel	Date
PULSE prototype ready for trials	PULSE web site	M24
Trials definition completed	PULSE web site	M25
Trials evaluation completed	General press	M30

4.3.7 Transferring knowledge and establishing contacts and liaisons with existing initiatives

Establishing contacts and liaisons with similar existing initiatives will be one important dissemination activity.

During the first period, cross-reference and experiences exchange activities were performed between Pulse teams and EDEN EU FP7 project [4]. PULSE project was also presented to the CIRAS project [5] of DG HOME seeking the initiation of the common use of the methodology of social and ethical criteria based assessment. Possible cooperation on the same subject is being initiated with the FP7 project ECOSSIAN [6].

In order to maximize the mutual benefit of the project's results, further activities for identification of liaisons with other research projects will be taken by all the partners during the projects development.

4.4 PULSE scientific dissemination

The above mentioned issues are also applicable to PULSE scientific dissemination.

 PULSE scientific dissemination target audiences include:

- national and international health care and emergency management organisations and authorities,
- the research communities – particularly those with activities in research of pandemic disease and major emergencies management, standards bodies,
- standardisation bodies & public bodies.

Additionally, for scientific dissemination, the following dissemination channels will be considered: publication of the projects results to the scientific community through referred journal publications, (chapters in) books and conference proceedings will be considered and dissemination through standards bodies and fora.

4.4.1 Publication procedure

In order to achieve a coherent publication activity, the guidelines stated into the PULSE's Project Handbook [3] must be followed.

4.4.2 Participation to conferences

 During the year 2015 the following dissemination activities were accomplished:

Title	Type	Partner	Date	Place
MRMI - Medical Response to Major Incident	Workshop	UNIVERSITA CATTOLICA DEL SACRO CUORE	**13/06/2014**	Rome, Italy
END-USER REQUIREMENT GATHERING FOR RESEARCH PROJECTS IN EMERGENCY AND DISASTER MEDICINE	Scientific event	UNIVERSITA CATTOLICA DEL SACRO CUORE	**11/05/2015**	Amsterdam, the Netherlands
Modeling and Simulation for Major Incidents	Pervasive Health 2015 -	BIOMATHEMATICS	**20-23/05/2015**	Istanbul, Turkey

	Workshop on Personal Health Systems for Chronic Diseases	LABORATORY, UNIVERSITA CATTOLICA DEL SACRO CUORE		
Modeling and Simulation for Major Incidents	Research Article-European Union Digital Library	BIOMATHEMATICS LABORATORY, UNIVERSITA CATTOLICA DEL SACRO CUORE	**03/08/2015**	Rome, Italy
PULSE – Platformă pentru managementul resurselor în situaţii de urgenţă majoră, ALARMA Magazine Nr. 1/2015	Industry Conference	ONEST SOLUTIONS	**03/06/2015**	Bucharest, Romania
Critical infrastructure Protection and Resilience Europe conference	Oral presentation to a wider public	SKYTEK LTD	13/02/2015	Casualty Bureau, Police Headquarters, Dublin
ESRIN BiDs	Oral presentation to a scientific event	SKYTEK LTD	12/11/2014	Rome, Italy
LIFT Conference	Oral presentation to a scientific event	SKYTEK LTD	04/02/2015	Switzerland
Leveraging Ireland's security ecosystem security networking symposium	Oral presentation to a wider public	SKYTEK LTD	07/10/2015	IBM technology campus, Dublin
CFOA, Chief Fire Officers Conference	Exhibitions	SKYTEK LTD	05/05/2014	Kildare, Ireland

Table 3 Conferences table

In 2016 PULSE will be presented at a selection of major security related events and conferences within, and outside Europe, as well as by publishing scientific material at several highly profiled relevant scientific conferences and journals. Among the planned events are:

- 12th EUROPEAN CONGRESS ON DISASTER MANAGEMENT (Congress), 20-21.09.2016, Berlin, Germany;
- EUSEM 2016 (Conference), 1-5.10.2016, Vienna, Austria
- ESTES 2016 (Congress), 24-26.04.2016, Vienna, Austria
- "The European – security and defence union" (European Commission journal) - article on the PULSE project.

- Emergency Medicine Journal – PULSE presentation article.

A request to the editor of the European Commission journal "The European – security and defence union" to place an article on the PULSE project received a very positive return. Preparation has started. Publication is expected to be during the 2nd reporting period.

Also, PULSE achievements will be presented to other research projects as well as the initiation of the common use of the methodology of social and ethical criteria based assessment.

4.4.3 Workshops

In September 2014, **Workshop 1** - Validation of preliminary user requirements, was organized and hosted by UCSC at Policlinico Gemelli, Rome, Italy.

This workshop was attended by members of the PULSE consortium as well as invited end users, representative experts from the emergency management services.

Table 4 External participants to Rome Workshop

Organization	Nb. of participants	Main interest for PULSE project
Policlinico A. Gemelli - Rome (Italy)	4	First Aid, Urgency/Emergency Medicine
Azienda Regionale Emergenza Sanitaria (ARES 118) - (Lazio Region - Italy) & Policlinico A. Gemelli - Rome (Italy)	1	Intensive care ward, First aid
Università Piemonte Orientale & CRIMEDIM	1	MPORG, First Aid
Ospedale Spallanzani - Rome (Italy)	1	Epidemic emergency management
Dipartimento di emergenza 118 del Piemonte (Piedmont Region - Italy)	1	First Aid, Emergency management
Asl RIETI - Servizio Regionale Elisoccorso 118 (Lazio Region - Italy)	1	First Aid, Emergency Services
Italian National Fire Brigades	1	Emergency management
Italian National Police	2	Emergency management
Italian Civil Protection, Civil Defense and Coordination of Public Emergencies	1	Emergency management

As a way ahead plan, the following workshops will be organized:

Table 5 End Users Workshops

Workshop	Description	Audience
Workshop 2	Validation of PULSE First Prototype	Users group
Workshop 3	Validation of PULSE Second Prototype	Users Group and General Public
Workshop 4	Presentation of the project results	Users Group and General Public

4.5 Evaluation of dissemination effectiveness

In the dissemination process, it appears several issues can affect dissemination efficiency:

- Limited user readiness to change
- Widely divergent format and level of information needed
- Multiple levels of contextual information needed
- Less than clear relevance to own needs
- Variety of dissemination media preferred
- Limited number of information sources trusted

In order to avoid such deviations from the initial plan, a constant monitoring of the dissemination effectiveness will be monitored during the project development. The methods to assess the dissemination effectiveness are based on:

- Success indicators (KPIs)
- Periodic evaluation meetings by the consortium

Thus, it will be possible to identify the strengths and the weaknesses of the dissemination activity and to act in order to implement new success approaches.

The KPI's will be used to define and measure the progress of the dissemination activities.

The following KPI's will be used for PULSE project:

- PULSE web site:
    - Number of the visits on the web page
    - Countries of web site's visitors
    - Traffic from web pages which link to PULSE's site
- Email:
    - Number of e-mails received from the stakeholders
    - Number of inquiries received
    - Responses to publications
- Publications:
    - Scientific publications
    - Non-scientific publications

Since it is difficult to set specific thresholds for those indicators, a periodic monitoring of the indicators will be done in order to strengthen the dissemination activities. Individual monitoring of the indicators will help to detect dissemination plan errors, evaluate its success and to achieve the dissemination goals. By a periodic analysis of the results by the PULSE partners as well as by communicating the conclusions to the stakeholders may provide openness to PULSE project.

5   Preliminary Exploitation Plans

Although PULSE is a research project, the developed tools and associated procedures are intended to be near-to-market outcomes. The research results will be used by the partners for the enhancement of existing products and services or for the creation of new ones. This will lead to the gaining of a competitive advantage for these partners and will create a substantial benefit for the end-users. A detailed Exploitation Plan will be defined in a later stage of the project (D9.3) with the objective of describing the Consortium and partners strategy for exploiting project outputs. The plan will be completed by the exploitation agreement between partners for joint exploitation and technology transfer and will identify the products or product components that may arise from the PULSE results.

The minimum set of objectives and actions that will be addressed by the Exploitation Plan deliverable:

- Overall (Joined) Exploitation Plan
  o Results identification, definition and description (i.e., key project achievements, identifiable and exploitable results)
  o User/Community/Market needs
  o Target "market" and potential target user groups
  o Positioning of results within identified target "markets"
  o Identification of current and future Competitors
  o SWOT analysis (Strengths, Weaknesses, Opportunities, Threats)
  o Plans already under way and plans after the end of the project
  o IPR ownership regime and licensing model(s) chosen
  o List of key dissemination activities (e.g., web site, major publications, etc.)
- Individual Partner's exploitation plans
  o Results to be exploited (it may be all or part of the results mentioned in the Overall Exploitation section above)
  o Positioning of the selected results with respect to the target market relevant to each partner's business line
  o Market Penetration Plan

The main PULSE target groups for exploitation purposes are:

- Mainstream ICT device and service developers: they will use the PULSE results and tools to build accessible applications and services;
- End users: they will be the direct users of all accessible services, procedures and applications resulting from PULSE, as well as all accessible services and applications that will be developed in the future by the Consortium partners or

other service/application developers using the PULSE results and tools.

Other stakeholders are also expected to benefit from the PULSE results; an analysis for the potential end-users identification and mapping with the PULSE results will be performed during the project.

The following section presents how the PULSE technology partners will benefit from the PULSE project and how the project results will be exploited:

SKYTEK

- Explore the inclusion of PULSE new tools and 'apps' into SKYTEK's REACT suite of products for use by the emergency services. REACT is a software application designed to provide data and communication feeds (Including satellite) between emergency scene & the command centre.
- Explore the use of the PULSE framework, tools and apps for heavily regulated industries, high risk sites (SEVESO) such as chemical and nuclear plants.

SELEX/ FINMECCANICA

- FINMECCANICA is managing a large contract with the Italian Civil Protection to develop, following an evolutionary approach, a Command and Control System for supporting the different phases of Crisis Management; FINMECCANICA has already defined the overall architecture of the system and provided its basic functionalities; current activities focus on the development and integration of tools addressing specific areas. The tools researched and developed in PULSE will set the foundations for some innovative health services decision support tools that could be integrated in this system.
- FINMECCANICA believes that the results of PULSE will improve the company offer and competitiveness as a provider of Command and Control for Crisis and Emergency Management through the integration of innovative Decision Support tools for health services involved in the management of an emergency.
- For these tools the long-term objective will be the availability of products and services that can become operational and widely deployed in Europe and PULSE will represent an excellent opportunity for assessing the potential application of these tools for a number of different crisis management organizations and or different scenarios.
- Exploitation actions will continue after the end of the project following this approach and in accordance with a dedicated Exploitation Plan that will be defined before the end of the project. The Exploitation Plan will identify and analyse all possible exploitation opportunities and business scenarios and will include a road-map for further research and development activities.

CESS

- Exploitation and application of the knowledge and skills the CESS personnel will gain from the analytical and technical work in the project. This will influence the CESS business model and focus, the quality of acquiring future consultancy projects on national and international level and the efficiency and quality of work for the customers.
- Joint efforts of commonly marketing products developed in PULSE, via marketing and licensing agreements between CESS and the providers of the PUSE solution or components of it.

UCSC

- Once fully developed and tested, UCSC will provide a showcase for the PULSE system in Europe.

HSE/IAEMO

- By joining the efforts to develop PULSE and being one of the early adopter of the product, HSE will enhance their capability to plan and prepare for response to Major Emergencies.

6   Annexes

6.1   Presentation of the web site structure

The PULSE web site is located at http://www.pulse-fp7.com.

PULSE web site is one of the main communication channels within PULSE's dissemination plan. It offers external visibility as it contains general information on project goals, scope, focus and work progress, as well as on consortium partners. It is, also, a platform for sharing information (brochures, events, news etc.); some of the data will be periodically updated upon project's development.

6.1.1   Home Page

PULSE project home web page is presented below.
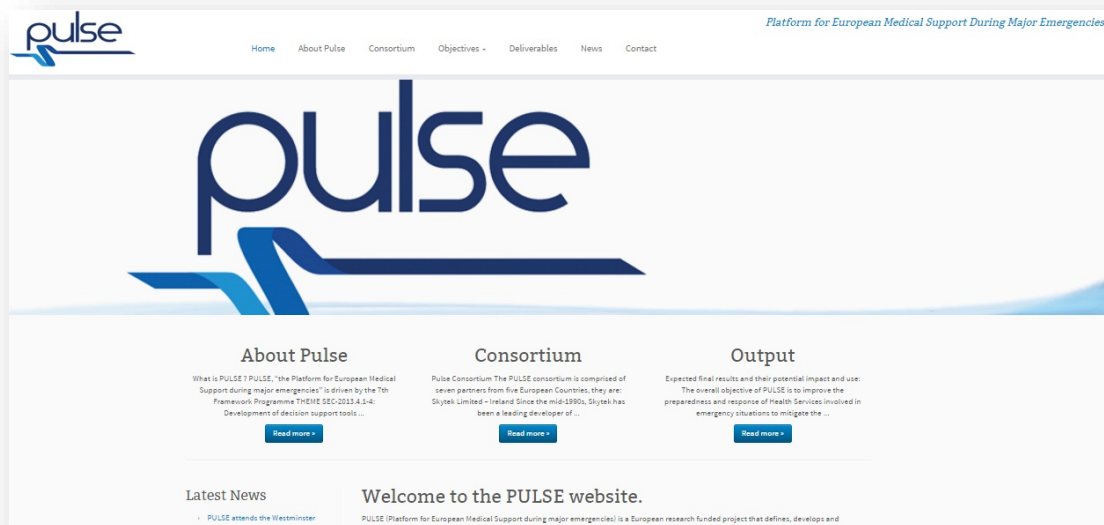
The main sections are:
- About Pulse
- Consortium
- Objectives
- Deliverables
- Contact

6.1.2 About Pulse

This page offers general information about PULSE project. The page layout is presented below.
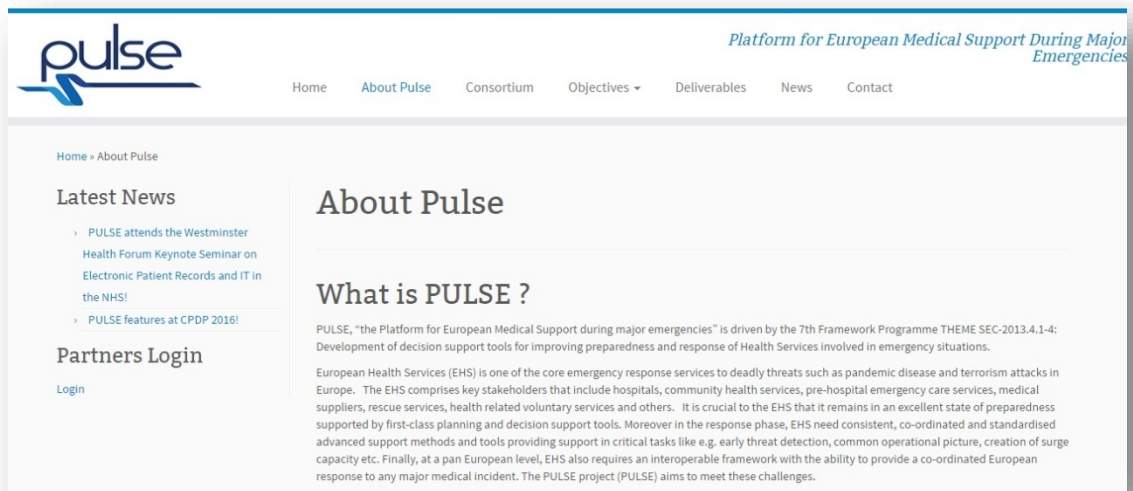
6.1.3 Consortium page

This page provides information about PULSE consortium partners and their contact details. The link redirects to the corporate website of the corresponding organizations. The page layout is presented below.
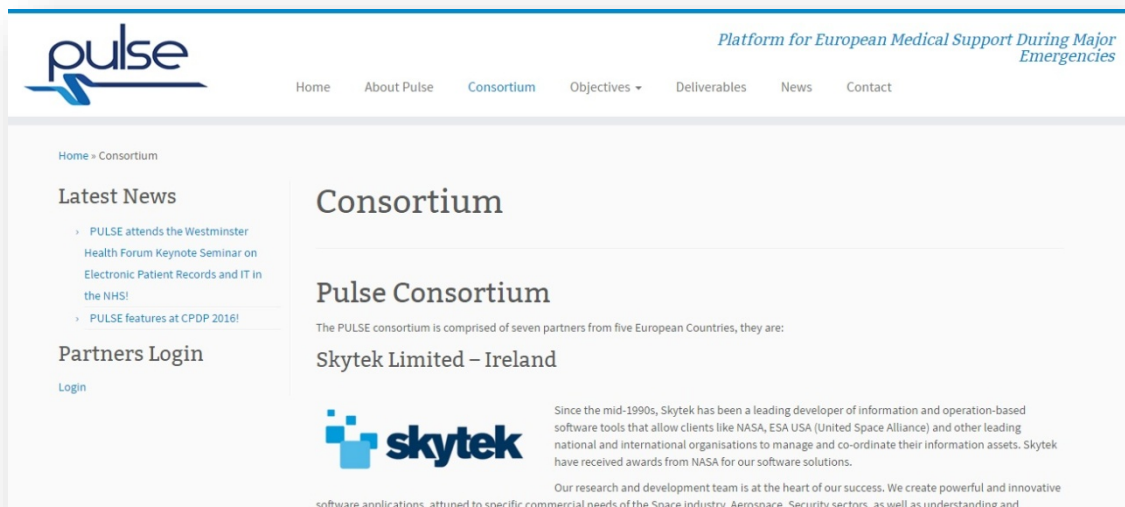
6.1.4 Objectives page

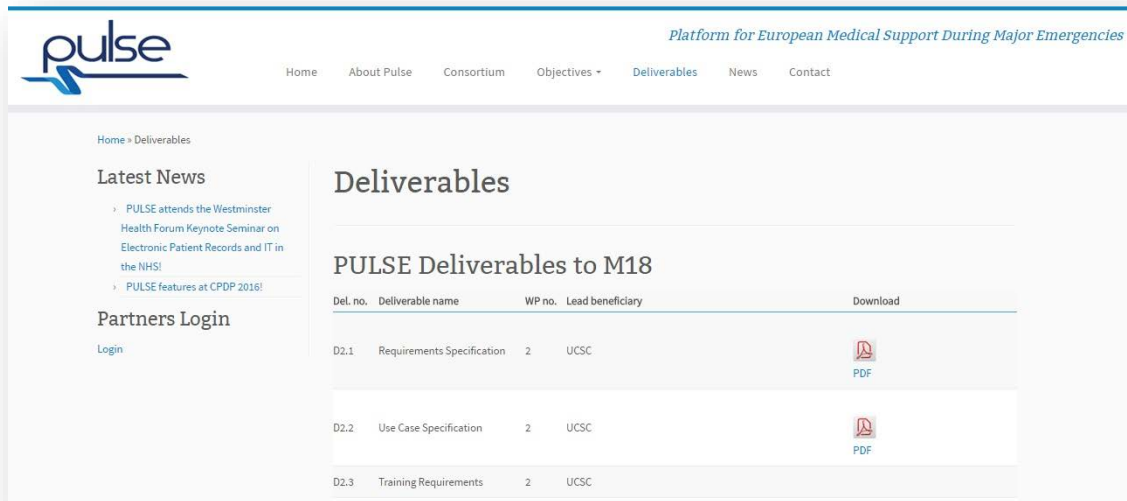This page presents project's objectives. The page layout is presented below.

6.1.5 Output page

This page presents project's expected results and their potential impact. The page layout is presented below.
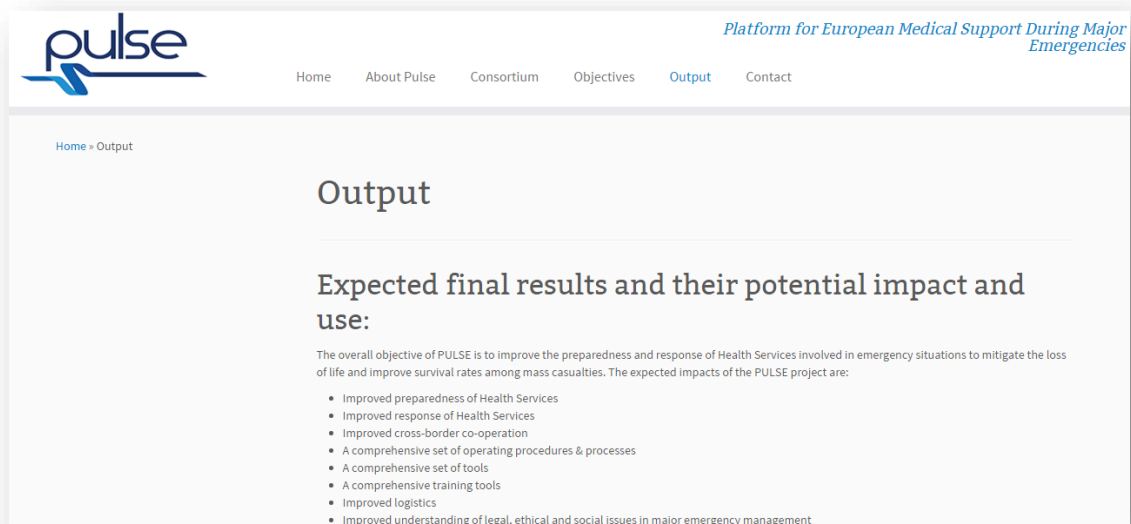
6.1.6 Deliverables

This page publishes project's public deliverables and it will be periodically updated. The page layout is presented below.

6.1.7 News

This page publishes project's public information related to new developments, participation to dissemination events etc. This page will be periodically updated. The page layout is presented below.

6.1.8   Contact page

This page contain the contact forms. The page layout is presented below.

7 REFERENCES

[1] Everett M. Rogers, DIFFUSION OF INNOVATIONS 3rd edition, The Free Press A Division of Macmillan Publishing Co., Inc.
[2] PULSE Project - D1.1 Project Handbook – Annex A
[3] PULSE Project - D1.1 Project Handbook – pg. 29 – 30
[4] EDEN EU FP7 project (End-user driven DEmo for cbrNe. Grant agreement no 313077) https://www.eden-security-fp7.eu/
[5] CIRAS project : http://www.cirasproject.eu
[6] ECOSSIAN project : http://www.ecossian.eu