



IP-based Emergency Application and
services for next generation networks

PEACE FINAL REPORT

PEACE

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Declaration by the project coordinator

I, as co-ordinator of this project and in line with my obligations as stated in Article II.2.3 of the Grant Agreement declare that:

- The attached periodic report represents an accurate description of the work carried out in this project for this reporting period;
- The project (tick as appropriate):

☒ has fully achieved its objectives and technical goals for the period;

☐ has achieved most of its objectives and technical goals for the period with relatively minor deviations¹;

☐ has failed to achieve critical objectives and/or is not at all on schedule.

1. The public Website is up to date, if applicable;
2. To my best knowledge, the financial statements which are being submitted as part of this report are in line with the actual work carried out and are consistent with the report on the resources used for the project (section 0) and if applicable with the certificate on financial statement;
3. All beneficiaries, in particular non-profit public bodies, secondary and higher education establishments, research organizations and SMEs, have declared to have verified their legal status. Any changes have been reported under section 5 Project management in accordance with Article II.3.f of the Grant Agreement;

Name of Coordinator: Luis Campos

Date: 31/ 01/ 2011

Signature of Coordinator:.....

¹ If either of these boxes is ticked, the report should reflect these and any remedial actions taken.

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1 PUBLISHABLE SUMMARY

1.1 A summary description of the project

The transition to next generation networks is often coupled with the vision of innovative services providing personalized and customizable services over an all-IP infrastructure. To enable a smooth transition, next generation all-IP networks need not only support more services but also support current vital services, namely emergency services. PEACE project will provide a general emergency management framework addressing extreme emergency situations such as terrorist attacks and natural catastrophes as well as day-to-day emergency cases based on the IP Multimedia Subsystem (IMS).

To achieve this goal, the PEACE project will be addressing two major technological challenges. First, a general solution for secure multimedia communication in extreme emergency situations will be provided. In natural disasters or catastrophes such emergency services will often involve the establishment of an ad-hoc networking environment. In this context, the PEACE project will be devising mechanisms for fast and lightweight establishment of trust relations between ad-hoc members of an emergency team and ensuring the security of their communication. Further, to enable multimedia communication in such environments, an architecture will be provided for supporting the distribution of currently centralized services such as VoIP and name translation and supporting those services in a reliable manner withstanding any failures and changes of the network.

Secondly, the PEACE project will investigate the provisioning of day-to-day emergency communication in next generation All-IP networks. Due to the different structure of IP and PSTN networks it is not possible to simply reuse current standards and solutions for realizing such communication in IP networks. This involves location management and identification solutions as well as providing reliable VoIP service infrastructure. To be able to support emergency services over an all-IP infrastructure further work is required in the area of highly reliable IP.

Recognizing the fact that in the future next generation network will provide innovative services providing personalized and customizable services over an all-IP infrastructure. The Peace project is currently addressing two major technological, a day-to-day emergency communication based in IMS and a secure multimedia communication in extreme emergency situations.

1.2 Description of the work performed since the beginning of the project - Main results achieved so far

1.2.1 First objective

To achieve the first objective the consortium Researched /Analysed the following topics:

- How the IMS core can be enhanced to support emergency services (this includes enhancements on the P-CSCF, I-CSCF, HSS, E-CSCF, S-CSCF, LRF);
- A Secured interface between the P-CSCF and the E-CSCF and to avoid that the prioritization identifier could be used for misuse purposes;
- Secured the interface between the P-CSCF and the E-CSCF and to avoid other parties;
- Recognition of the Emergency Registration (internally);
- 3GPP specifications: TS 23.167 and TS 24.229;
- Features for adding support for multiple location retrieval methods to the client;
- RFC 4119, RFC 5491, RFC 5139 for understanding of how a class hierarchy could be implemented for the PIDF-Location Objects;
- Support of high availability (congestion control, both local and distributed), and first responders traffic management (prioritisation of calls).
- Routing protocols that are suitable to work in wireless sensor networks (Tymo and standard AODV);
- Emergency network requirement like nuclear plant specifications.

1.2.1.1 New Implementations, Enhancement, Design, Simulation and evaluation

1.2.1.1.1 P-CSCF

- To support emergency services like recognizing emergency registration/calls, routing the call to the E-CSCF.

- To support Security, check whether the Emergency INVITE request contains a Record-Route header with a value that can be considered as the P-CSCF URI, to avoid hijack attacks.

1.2.1.1.2 CSCF

- Recognition of the Emergency Registration (internally).
- Updated the LIR (or User registration status query) message towards the HSS, by adding the UAR-Flags AVP, in order to indicate that a Registration is an Emergency Registration.

1.2.1.1.3 HSS

- Updated the process of the LIR request, conform to TS 29.228 sub-clause 6.1.1.

1.2.1.1.4 S-CSCF

- Setting the expiration interval of an Emergency Registration based on the expiration interval from the request and local policy.
- Recognition of the Emergency Registration.
- Prevent the E-CSCF to include any Service-Route headers in a 200 OK response to a successful IMS Emergency Registration (according to the specifications TS 29.228).

1.2.1.1.5 E-CSCF

- Checking whether the INVITE request contains location information, whether it is well formatted.
- Some errors responses (400, Bad request).
- Interface between the E-CSCF and the LRF allowing retrieving the appropriate PSAP URI.
- Support of the callback mechanism (in particular the header “ESQK”).
- Functions for storing, updating and removing of the emergency dialogues information.
- Function that checks if the current request belongs to one of the emergency dialogues.

- Parser for the location information when it is present.
- Sending of the OPTIONS request and creation of the callback function.

1.2.1.1.6 LRF

- PIDF-LO parser to parse the location information.
- LoST client to query the LoST server for the most appropriate PSAP URI.
- Function in the LRF that stores every successful processing of an OPTIONS request a set of data, including the client URI, the requested service, the allocated ESQK, the location information and the PSAP URI.
- Add configuration parameters such as: name, lrf, lost_server, etc.
- Add functionality on the functions, Allocate memory (for a new emergency call set of data), OPTIONS request (check if has location information), parse and save the current location information), Create the LoST request and parse the corresponding response, Create the OPTIONS reply and delete the set of data.

1.2.1.1.7 Open IMS Core

P-CSCF enhancement to:

- Recognize emergency calls using emergency numbers, based on a configuration file, see TS 24.229;
- Parse multipart bodies and manipulate the SDP parameters, used for NAT traversal mechanism for SIP;
- Send appropriate error responses in case the user has not performed a valid registration for an emergency call, e.g. 380 Alternative Services, see TS 24.229 sub-clause 7.6;
- Reject non-emergency calls coming from a user that is registered using an emergency registration;
- Store for every emergency call the SIP URI of the selected E-CSCF used to forward the call. Used for future failover feature.

E-CSCF enhancement to:

- Store a flag if a dialogue is an anonymous one, so that it can signal to the LRF;

- Translate the From and To headers referring to the PSAP URI in order to secure the PSAP and not destroy the clients SIP stack;
- Implementation of the proof of concept for the virtual queue prioritization algorithm;
- Implementation of the virtual queue prioritization algorithm in the Open IMS Core infrastructure;
- Implementation of the Rx interface and the enhancement of the policy engine for QoS assurance.

1.2.1.1.8 Open IMS Client

- Emergency services Add-on;
- Checking the registration state and the registered Public User Identity of the current user;
- Intercepting outgoing calls;
- Recognizing emergency calls that have an emergency URN or an emergency number as a remote URI;
- Replacing the remote URI of the emergency calls to an emergency number with a corresponding emergency URN;
- Added GUI with buttons to create emergency calls to the emergency calls: Police Department, Ambulance and Fire Brigade;
- Interfacing with the Location Retrieval module to get the location information;
- Adding the available location information in a body part to the emergency call initial INVITE request;
- Adding the corresponding Geolocation header to the emergency call initial request, if location information is available;
- Adding a listener to the emergency session in order to handle SIP error responses 380 Alternative Services and 424 Bad Location Information;
- The Location Retrieval Add-on;

- Client infrastructure to allow using multiple location retrieval methods, ordered by priority;
- Added GUI to the preferences of the user to allow manually setting of the civic address;
- Added GUI to the preferences of the user to allow settings the NMEA (<http://www.nmea.org/>) connection details towards a Supl A-GPS Agent;
- Class that connects to the Supl A-GPS Agent and parses the received NMEA messages to geodetic coordinates;
- Added listeners to the state of the location retrieving methods, to be able to update the priority queue containing these sources;
- Added triggers to the location settings from the user preferences of to disable or enable the interface with the Supl A-GPS Agent;
- Hierarchy of classes for encapsulating the civic or geodetic location information;
- Software development focused on the Global Location Enabler;
- Location engine for users connected to 2G/3G mobile telephony networks using Cell ID+Timing Advance location algorithms;
- Location engine for users connected to WiFi networks inside the TID building interacting with DHCP servers;
- Handling SIP replies 182 Queue and other messages that the virtual queue algorithm can send a new method to retrieve location, using the HELD protocol;
- User set prioritization of the location retrieval methods;
- Implementing an add on to enable using a Web interface to make audio/video calls, to be used in the Main Controller to make calls to the Team leaders on the disaster location;
- Investigating various methods for mitigating emergency call abuse: (1) delay function, (2) emergency confirmation;
- Integrated the livetext add-on in the emergency extensions of Monster;
- Implementation of the event reporting using the CAP standard;

- Porting the IMS client to the mobile phone platform.

1.2.1.1.9 Developments related to A-GPS location over SUPL protocol (client-initiated location)

- Location agent in user terminal to provide location to the IMS client; the agent implements a SUPL 2.0 client (backwards compatible with a SUPL 1.0 client) which is platform-independent and runs on top of an off-the-shelf GPS-enabled cellphone;
- Development of the SUPL2.0 Server in the GLE (Global Location Enabler) to implement the A-GPS location method, providing assistance information to the Location Agent in the user terminal. This way, the GPS receiver which is embedded in the user terminal can fix a position quickly after being switched off for several hours. Without A-GPS the time needed would be longer and the emergency call would be delayed;
- Development of the SUPL 2.0 interface between the Location Agent and the SUPL Server. SUPL is the protocol specified by OMA to implement A-GPS over IP, with minor modifications in telephony networks; the choice of the 2.0 version over the 1.0 version was driven by the innovative features of the former, such as the support for the GALILEO satellite system and new access networks, and also by the fact that there are no commercially available SUPL 2.0 implementations yet;
- Development of the NMEA 0183 interface between the Monster Client and the Location Agent, to allow the former to ask for the location of a user; this interface was first implemented over TCP/IP, and due to security issues in the mobile development phase, it was implemented as well over BlueTooth; the NMEA interface was chosen because it is well-known among the GPS industry and it provides a simple and effective way to convey position coordinates (latitude and longitude) between machines;
- Development of a testing application for measuring the performance of A-GPS over SUPL versus conventional GPS in terms of TTFF (Time To First Fix) and accuracy; the test results obtained were the basis for articles and deliverables.

1.2.1.1.10 Developments related to network-initiated location over LOCSIP protocol

- Development and debugging of the location server in the GLE (Global Location Enabler), to provide location to the IMS LRF (network-initiated location); the location server implements location based on the WiFi access point the user terminal is connected to and is designed to support other kind of access networks as well;
- Development and debugging of the LOCSIP interface (specified by OMA) between the LRF and the GLE to allow the IMS core to ask for user locations; the choice of the LOCSIP interface is natural because it allows to convey location coordinates (latitude and longitude) over SIP messages, which is the protocol for the IMS.

1.2.1.1.11 Testing

- Tested the HELD extension by adding a new mapping between the center of Berlin and PSAPs in the LoST server;
- Tested the NMEA interface between the A-GPS agent and the Monster client at the PEACE plenary meeting in April and fixed the transcoding of the coordinates.

1.2.1.1.12 Risk Management Controller

- Risk Management Controller data model based on a modular framework. This framework allows introduction of a series of plug-ins to deal with different EU county requirements like power plants;
- Group Management Issues (National, District and Local);
- CAP Alert Repository and Browser;
- Implementation the medical history module for the PSAP;
- Definition and application of the security module for the medical history;
- Integration of the Monster Client using CAP Messages with the Risk Management Controller.

1.2.1.1.13 Wireless Sensor Network (hardware and firmware)

- Development of specific HW to allow the creation of a Wireless Sensor Network adjusted to the need of project;
- Integration of the wireless sensor network in the Risk Management Controller;
- Integration of sensor network functionality with IMS infrastructure;
- Several Sensor Extensions, like heart beat monitor, acc, gsm, gps, energy monitor control, temperature, humidity, gyroscope;
- Implementation the LBDSR routing protocol to the wireless sensor network.

Objectives regarding Extreme Emergency Communications

- Secrecy capacity
 - Evaluating the impact of fading phenomena on the upper bound of channel capacity (Secrecy capacity);
 - Measurements regarding secrecy capacity (SNR of the channel between the sender and the legitimate receiver versus the SNR of the channel between the sender and the eavesdropper) in a campus outdoor testbed environment;
 - Theoretical analysis of Secrecy capacity when multiple eavesdroppers are connected in an ad-hoc network;
 - Real-time measurements of secrecy capacity by considering multiple eavesdroppers.
- P2PSIP
 - Security extensions (Hierarchical Chord Reload versus Semi-Hierarchical Chord Reload) in order to provide authentication during the join, leave and update process;
 - Design of P2PSIP Budget Factor (BF), a MANET interface that exists on mobile nodes, capable of improving the resiliency of P2PSIP communications. BF is being currently implemented on Oversim simulation environment.

- Inter and Intra Group Communications within the P2PSIP protocol;
- NS-2 implementation of the secure P2PSIP functionality and performance analysis;
- Implementation of the Hierarchical approach on the Columbia P2PSIP platform (<http://www1.cs.columbia.edu/~salman/peer/>)
- VoIP P2P Client
 - Compilation of Open Wengo VoIP Client for Linux environment;
 - Video support;
 - Alert real-text messaging using P2PSIP overlay;
 - Adaptation of Open Wengo for Secure P2PSIP.
- Mobility Model
 - Design realistic wireless physical models for 802.11 in NS-2 for extreme emergency cases;
 - Design of the Human Mobility Model (HUMO) in the presence of obstacles;
 - Performance of HUMO in NS-2;
 - HUMO Model has been extended to support emergency scenarios (group mobility);
 - Performance evaluation of the group mobility;
 - Mathematical analysis of the HUMO model.
- VoIP over adhoc networks
 - Evaluation the impact of the obstacles on QoS of VoIP Emergency Communications (Obstacle mobility model);

Study of the cross-layer interactions among the transport layer (i.e. DCCP, TCP Binomial, Plain TCP, SCTP), routing (i.e. AODV, DSDV, DSR) in NS-2 environments over 802.11e.

1.2.2 Second objective

To achieve the second objective the consortium researched / analysed the following topics:

- Routing and QoS aware routing (familiarization with future emerging technologies/standards and protocols orientated towards catering for MANET routing and QoS-aware routing, familiarization with state-of-the-art pertaining towards enhancing QoS-aware routing in MANETs using in-band and out-of-band signaling);
- Secure routing in MANETs (familiarization with future emerging technologies/standards and protocols orientated towards catering for secure routing, familiarization with state-of-the-art pertaining towards active and passive attacks towards routing and the respective solutions);
- Familiarization with state-of-the-art pertaining towards up service, SIP Registration, Node start-up and Peer Discovery, User-location and Call set-up, Safeguarding against Misbehaving Peers, and P2P Video Communications within a P2P SIP overlay network infrastructure;
- P2P Overlay (familiarization with future emerging technologies/standards and protocols orientated towards Distributed Hash Tables (DHT), familiarization with state-of-the-art pertaining towards Overlay routing in DHTs);
- Routing techniques that addresses the problem of node mobility in well known routing protocols;
- Secure P2P overlay in MANETs for PEACE;
- APIs and test beds including routing protocols for MANETs;
- Obstacle mobility model (Human mobility model for ad-hoc networks in the presence of obstacles. The ad-hoc nodes can move around the obstacles in a natural and realistic way);
- Legacy experimental wireless communication tools (OverSIM and NS2) to evaluate protocol and system performance evaluation for P2P SIP network deployment;
- Analysis on load balancing aware MANET routing protocols;

- Analysis on the resilience of P2PSIP communications;
- Analysis of the possibility to use mobile secure telephony (THEOREM);
- State of the art on multicast routing protocols (MAODV, ADMR, AMRIS, AMROUTE, DDM, MBCAST, MCEDAR, MZR, ODMRP, SMRP, MOLSR, SMF);
- Analysis of the multicast IPSEC product (SATIPSEC) for WI-FI/WiMAX;
- Analysis of the group key management protocol (TGDH, S-TGDH (Secure TGDH), STR, TFAN and AGDH);
- Analysis of SMF software on combination of virtual machine (for the core of the network) and real machine for the client and server;
- Comparison in terms of delay, jitter and overhead of routing protocols;
- Impact of Mobility on QoS Routing for Extreme Emergency MANETs;
- Hybrid and adaptive routing to improve QoS in dynamic emergency MANETs;
- Framework for facilitating hybridisation and adaptivity;
- Scalable and energy efficient solution for MANET Routing;
- Evaluation of symmetric cryptography for well known routing protocols;
- Game theoretic routing using Intrusion detection systems in AODV;
- A Testbed implementation for securing OLSR in MANETs;
- Cross layer model to reduce control traffic overhead in P2P MANETs;
- Reliable Overlay Based Utilisation of Services and Topology for Emergency MANETs.
- New Implementations, Enhancement, Design, Simulation and evaluation on:
 - Design of a functional architecture over ad-hoc networks, the CML (ChaMeLeon) routing protocol;
 - Scalable ChaMeLeon (CML) routing protocol based on RFC AODV and OLSR and extended the NS-2 simulator to support CML (establishing the better QoS routing performance of scalable CML compared to both AODV and OLSR);

- Secure routing and securing the CML protocol in PEACE scenarios. (Simulation results obtained using the MCM emergency mobility from UPAT);
 - Secure AODV in terms of intrusion detection system resources, defending MANETs against black-hole attacks.
- Secure Routing for MANETs using symmetric cryptographic algorithms and IPsec;
- Implementation of proactive CML in real-time testbeds. Testbeds were built on Ubuntu platform;
- Design of an energy efficient scalable routing protocol. Implement and evaluate this in the simulation environment of NS-2;
- Design of Load Balance Dynamic Source Routing (LBDSR), a MANET routing protocol capable of interacting with the PEACE architecture. LBDSR is an hybrid source routing protocol capable of efficiently balance traffic and energy consumption in MANET's:
 - Implement and evaluate LBDSR in simulation environments such as Oversim and NS-2 (results already published in International Conferences;
 - Update LBDSR to support Simple Multicast Forwarding (SMF) (ongoing work);
 - Adapt LBDSR to work on sensors (preliminary tests and results already published in International Conferences).
- Legacy experimental wireless communication tools (OverSIM and NS2) to evaluate protocol and system performance evaluation for P2P SIP network deployment;
- Securing the well-known AODV protocol against wormhole attacks in emergency MANETs (Based on Timing and Cryptography);
- Algorithm to address the Application Layer Traffic Optimization (ALTO) problem (Based on establishing a correlation between routing topology and overlay topology in MANETs);

- Design and Simulation of an overlay Distributed Hash Table (DHT) to address the ALTO problem;
- Design of a trust establishment mechanism for extreme emergency services;
- Implementation and simulations of dynamic trust establishment mechanism in NS-2;
- Design realistic wireless physical models for 802.11 in NS-2 for extreme emergency cases;
- Implementation of dynamic trust establishment scheme in NS-2;
- Evaluation the impact of the obstacles on QoS of VoIP Emergency Communications (Obstacle mobility model);
- Provide an open cross layer approach for ad hoc network that was used, as use case, for QoS routing (software available <http://sourceforge.net/projects/xian>);
- SMF test on virtual machine (clownix);
- Development of an application filtering the identical packets sent by different sources;
- Choice of AGDH because of No tree architecture needed, Few messages exchanged, Few messages broadcasted and Few Steps to generate a group key;
- Diffusion and SMF test with multicast video flow (VLC) on the virtual/physical platform;

1.2.3 PEACE project main achievements

Designed location mechanisms as part of the architecture for the future IMS emergency-call framework and made a noticeable progress in the implementation phase.

Improved both location initiated by the IMS client and location initiated by the IMS core network. PEACE project contributed to the former by specifying a solution based on Assisted-GPS over SUPL 2.0 protocol and to the latter by developing a Global Location Enabler accessible via LOCSIP protocol.

Special attention was paid to emerging standard protocols by OMA (LOCSIP and SUPL as mentioned above), their evolution as been closely monitored by the consortium.

SUPL 2.0 is not commercially available yet, and features several improvements over SUPL 1.0 such as GALILEO satellite support.

Enhanced the IMS core with emergency support according to the 3GPP specifications (the enhanced IMS core was released as open source software), developed the Location Retrieval Function (LRF) component, developed the interface with the GLE, enhanced the Monster client with emergency features as well as some add-ons to allow the other partners to use it in their development and providing solution for the overall integration framework.

Researched areas of secure P2P overlay applications and secure QoS routing for extreme emergency communications in the context of PEACE. So far, a scalable hybrid and adaptive QoS routing solution named ChaMeLeon (CML) has been proposed for multimedia communications in emergency MANETs (eMANET).

Researched Multiple Peer-to-Peer Overlays in eMANETs, such as Peer-to-Peer Overlay Approaches using distributed hash tables (DHT).

A PEACE Security Platform (PSP) was proposed. As a result of its research activities various components of the aforementioned platform were developed. Including securing AODV against wormhole attacks, taking a game theoretic approach for securing AODV and a producing secure CML routing algorithm. PEACE consortium designed a prototype of CML for Linux Kernels and the corresponding implementation work has already started.

Developing of a control platform (Emergency Operations Controller Framework) that binds together the different elements of the public safety infrastructure, allowing for the different roles to check operational and strategic information, dispatch orders, manage resource allocation and coordinate departments, through a consistent interface, where the efficiency and simplicity are of paramount importance for a successful handling of the incident. PEACE is a system carefully designed not to be an extra burden for the personnel involved in the operations.

Defined the specification of a real world case, a public safety body was taken into consideration during the definition of the requirements that this platform address.

To create a realistic real world scenario, a Wireless Sensor Network (HW and FW) was designed from bottom-up in parallel with the control platform allowing a smoothly integration between both. The WSN uses an adapted (lighter) version of LBDSR

protocol, in order to run on the sensors, to be energy efficient. The WSN allows the integration of the daily emergency services scenarios and with the extreme emergency services. Without this integration we would have the daily emergency scenarios working with preconfigured data. This could potentially provide erroneous information about the true environment conditions, decreasing the effectiveness of the response system. The extreme emergency infrastructure scenarios benefits from using a WSN to increase its resilience and the possibility for reliable indoor localization. Having a WSN as a backend also allows for extra information to be available on the risk management control centers, such as heartbeat monitors, temperature monitors, movement speed, fall detection and in certain cases it can provide estimates for time of arrival for the monitored first responders.

An important component of PEACE extreme emergency framework is the employed MANET routing protocol. The new design of CML requires a 3-phase operation including the proactive, reactive and oscillation phases (p-phase, r-phase and o-phase respectively). The threshold required for adaptive phase shifts is defined using the network context of number of nodes in the network. Briefly, the CML threshold value (established as 10 nodes) defines the network size whereby the p-phase and r-phase provide approximately similar end-to-end packet delivery delay performance. However, for smaller networks p-phase routing is more effective whilst for larger networks r-phase routing performs better than p-phase. Thus, inline with the reviewer's recommendations, we have modified CML so that it can monitor the network size both in the p-phase and r-phase. Hence, CML initiates a change from p-phase to r-phase when the network size is more than 10 nodes and vice-versa. Additionally, in our new design, all phase shifts occur via the o-phase. This helps in reducing the effect of nodes regularly leaving or joining the network causing the network size to fluctuate around the threshold value (oscillation problem) causing inefficient phase shifts. The o-phase attenuates this oscillation effect by using a timer (for periodic oscillations) and upper and lower threshold limits for group oscillation. We have also merged CML with the Load Balanced Dynamic Source Routing (LBDSR) algorithm to propose an E2CML protocol. E2CML proposes that CML should base its route selection process on the residual energy of nodes along candidate paths so that the overall lifetime of the network is improved. Moreover, we have proposed a cognitive and adaptive module called CAM to facilitate the design and implementation of hybrid and adaptive

protocols for MANETs. We have presented CML and CAM at the Internet engineering Task Force (IETF) as part of PEACE standardization activities. Additionally, we have implemented the CML proactive approach based on the well-known OLSRd implementation.

1.3 Potential Impact

PEACE potential major outcome constitutes a vehicle for future emergency networks as a key driver is the provision of a framework that allows coordination of emergency resources. This framework integrates autonomic networking infrastructure with existing telecommunication networks in a secure and reliable manner. In such environment, it will support IMS Client in devices operating in an ad-hoc network. To achieve this vision requires cooperative wireless sensor networks that share local emergency system information and assist the ad-hoc network in collecting environment data such as temperature and HeartBeat. The PEACE project provides concrete and user-friendly applications that can be used in day-by-day as well as in extreme emergency networks. This application can be then used by different entities like fire-brigade, police and army to establish local cooperation and thus enable more efficient response time. Decision support is also provided by the framework allowing high level coordinators to interact with the local incidents.

2 Project's objectives

The project objectives for all the project period, as included in Annex I of the Grant Agreement per package is as follows:

2.1 WP 1 Objectives

- To manage, direct and monitor the overall performance of the project;
- To insure the correct progress of the work so that the results of the project adhere to the contract;
- To maintain the technical focus and technical coherence of the project as a whole;
- To ensure that there is adequate collaboration between the teams working on different WPs within the project;
- To establish the right basis for the successful exploitation of project results;
- To promote acceptance of project results;
- To promote project visibility;
- To assess quality of results;
- To resolve IPR and any project internal conflicts;
- To organize and co-ordinate the production of deliverables, meetings, workshops;
- To design a quality control discipline;
- To administer project resources and monitor project spending being able to cope with unexpected occurrences.

2.2 WP 2 Objectives

- To collect and analyse requirements for emergency systems from a regulatory and operational view;

- Provide a clear description of the issues related to the migration of the current emergency services to NGNs;
- Design the architecture for the PEACE framework. Define the corresponding building blocks that will be implemented in the WP3;
- Research functionalities such as: emergency calls recognition, routing and prioritization, emergency caller location retrieval, high availability, robustness against attacks and misuse, support for disabled persons, secure information routing within rescue teams, sensors information gathering, decision making for risk management situations;
- Design appropriate mechanisms and framework for providing emergency services based on IMS and P2P SIP for daily and extreme emergency situations as well as integrating this framework with legacy systems.

2.3 WP 3 Objectives

- Implement of the needed extensions to architecture and components specified by WP2 during the 1st year of the project;
- Implementation of the overall demonstrator according to the specified scenarios and taking into account the changes identified during this period;
- Perform test and integration among the different components;
- Get feedback over components and interfaces specified in WP2, drawn from test and integration results;
- Change implementation according to previous bullet;
- Optimization of interfaces between components aiming at reducing dialog time and configuration complexity.

2.4 WP4 Objectives

- Identification and specification of the testing, trial and demonstration scenarios;
- Integration the different components of PEACE emergency (daily and extreme emergency) infrastructure in test environments;
- Evaluation of the system using the demonstrations;

- Preparation and execution of public demonstrations.

2.5 WP 5 Objectives

- Analysis on market opportunities in order to shape PEACE exploitation plans;
- Dissemination of the PEACE project by:
 - Continuing to establish liaison partnerships with similar projects and relevant entities in this field;
 - Continuing to participate in related events (such as Wireless World Research Forum meetings, the Emergency Services Workshop series, exhibitions, interviews, invitations to oral communications, amongst others);
 - Disseminating PEACE results in International Conferences;
 - Contributing to standardization bodies (such as the MANET and the P2PSIP IETF Working Groups);
- Organize a PEACE Workshop/Special Session entitled “Command and Control Center - Information Technologies for Emergency Management”;
- Maintain PEACE website updated.

3 Work progress and achievements

3.1 WP2 Work progress (lead by FhG FOKUS)

The Work Package 2 carried the design and specification of the peace emergency framework. The first six months the activities of WP2 were mainly related to writing the documents "PEACE ICT-SEC-2007.1.7 D2.1 State of the art and general requirements" and "PEACE, ICTSEC2007.1.7 D2.2 First draft of the emergency framework".

On the first document is provided a clear description of the issues related to the migration of the current emergency services to NGNs, and an evaluation of PEACE proposed solution. The second document presents the draft architecture for the PEACE framework, identifying the main issues to be addressed for the future emergency systems and defines the corresponding building blocks that will be implemented during the project. From the combined information provided in both documents it is clear that a first conceptual integration of VoIP in emergency services was achieved and that the interaction proposed in the scenarios (eg. Scenario 1) was respected.

The PEACE project will consider six references scenarios:

- Scenario 1: Implementation of a Emergency Call from a VoIP Client towards;
- Scenario 2: Implementation of a network during a state of emergency;
- Scenario 3: Previously deploy of a sensors network;
- Scenario 4: Safe path to be followed during a state of emergency with previous deployment of the network;
- Scenario 5: People tracing;
- Scenario 6: Interconnection of a network with ad-hoc network.

Each reference scenario is illustrated with simple figures and a detailed description of the main concepts. The second documents was clear divides the daily emergency support framework from the extreme emergency support framework nevertheless, some

points are common to both and the design of the architecture will reflect this point of view.

Beyond the overall description of the scenarios and the day-by-day versus extreme emergency the PEACE technologies that will integrate, the framework is present in all scenarios.

On the beginning of the 3rd quarter of the first year, WP2 focus was in the specification of high availability solutions and emergency handling of catastrophe. The final version of the document "PEACE, ICTSEC2007.1.7 D2.2 First draft of the emergency framework" was delivered with the final Emergency risk planning (control platform) and the integration of this application with IMS architecture (CORE and Client). During the remaining month, WP2 focus was on the document "PEACE, ICT-SEC-2007.1.7 D2.3 Functional Models and plan scenarios". Special focus was given to requirements, definitions and assumptions of PEACE framework.

During the second year, the PEACE partners working on the daily emergency part have continued specifying the components discussed within WP2 during the first year. The focus was mainly on the following points.

Location retrieval: In addition to the civic and geodesic location schemes extensions for the IMS client, we have also investigated how to integrate the Held protocol to the IMS client. In addition to that, the Assisted-GPS (A-GPS) mechanism was specified and an interface between the IMS client and the A-GPS client was defined.

Event reporting: also a mechanism for reporting the emergency event was investigated. This mechanism is based on the CAP protocol.

Emergency Calls prioritization: we have further specified the queuing model defined for the SIP signalling. In addition to that, we extended the policy engine and defined the Rx interface for enforcing QoS.

Emergency calls misuse: in this part, we tried to define some simple mechanisms for mitigating emergency calls misuse, for instance: delay functions, and confirmation of emergency calls.

Secure medical history retrieval: We have further specified the medical record retrieval based on some XML based new medical records encoding. To secure the fetching of the document, a security mechanism combining certificates and HTTPS was defined.

3.2 WP3 Work progress (lead by Telefonica I+D)

WP3 is focused on “Emergency System Implementation and Prototyping”, dealing with both day-to-day emergency calls over IMS and extreme emergency communications for rescue teams in natural disasters and the like. The works performed in this work package addressed the architecture specified in WP2 and provided feedback on such architecture, when deemed necessary.

The final year report allowed for the completion of WP3’s schedule tasks, which are:

- Design approach from State of the Art Components:
 - Completed the definition of the use cases used to develop the overall architecture of PEACE based on the definition of scenarios of D2.1 and D2.2. Feedback was provided to the writing of D2.3 “Functional models and plan scenarios”.
- Implementation Plan:
 - Completed the description of components and optimized the interaction between them. It updated also the roadmap of the development according to every partner’s estimates. Interlocks were avoided by keeping close communication between partners, and scheduling tasks accordingly.
- Development of the Emergency Framework:
 - Deliverables provided a detailed description of the developments from each partner, using class diagrams and sequence diagrams to explain implementation details and step-by-step communications.
- Emergency Coordination and Management:
 - Provided updated information about the Management use cases.

This first deliverable (D3.1) within WP3 described the development of scenarios and uses cases defined in WP2 of the PEACE framework. The second deliverable D3.2 updated the information enclosed in D3.1, gathering changes in component and interface specification. D3.2 also redesigned D3.1’s contents, moving to dedicated annexes the aspects that deal with deep technical details. Thus, even though the overall size of the document certainly increases, contents are more easily laid out for the sake of clarity. The deliverable defined the SW architecture of the components of the three

main logical branches: the Extreme Emergency, the Daily Emergency and Emergency Coordination Management of the PEACE architecture. In parallel with the works performed and specified in Deliverable D3.2, feedback was provided to the writing of D2.4 “Final specification of the emergency framework” and deliverable D4.2 “PEACE test and integration results”.

3.3 WP4 Work progress (lead by University of Patras)

The Work Package 4 carried out the integration and evaluation of PEACE components and systems and trials in PEACE testbed environments. The first three months the activities of WP4 were mainly related to writing the documents "PEACE ICT-SEC-2007.4.1 D4.1 Definition and Specification of Trials and demonstrations". The following scenarios have been identified:

1. Daily Emergency Scenario

- An IMS Client performing an emergency call that is handled by the E-CSCF;
- Network Initiated Location Retrieval (LOCSIP);
- End-User Initiated Location Retrieval (A-GPS).

2. Extreme Emergency Scenario

- Setup of an ad-hoc network using CML Protocol;
- P2P VoIP and Video Communications over the Ad-hoc network;
- Video Multicast within the Ad-hoc network;
- Sensors that retrieve data from the environment;
- Interworking of WSN with the ad-hoc network.

For both scenarios, a number of components have been integrated within a testbed. In the case of daily emergency scenario, E-CSCF was integrated with Open IMS Core architecture. In this architecture, a client with A-GPS and LOCSIP has been connected in order to carry out the testing scenario for End-User initiated and Network Initiated Location Retrieval respectively. In the case of extreme emergency scenario, an ad-hoc network has been setup where each node uses CML as a routing protocol. In this network, two different overlays have been established. The first one demonstrates the use of keys exchange for the setup, whereas the second one demonstrates the P2P VoIP-

Video communications. Finally a P2P Client is interconnected with WSN gateway in order to retrieve sensors' data. Finally, Video Multicast has been used in order to demonstrate SMF's efficiency. The components' integration and the testing evaluation with metrics are described in the document "PEACE ICT-SEC-2007.4.2 D4.2: "PEACE Test and Integration Results".

Small refinements and revisions were made in order to fix bugs and improve the performance of the PEACE testbed platform. These revisions with performance evaluation results were included in Document "PEACE ICT-SEC-2007.4.3 D4.3: "PEACE Test and Integration Results".

3.4 WP5 Work progress (lead by IT)

The Website is operational since the beginning of the project, a reasonable number of publications and contributions were achieved.

WP5 main goal was to create a strong awareness at European level amongst relevant parties and standardization bodies. In addition to this, partners also continued to pursue their own exploitation plans. The results in the 2nd reporting year are as follows:

- Exploitation plans
 - PDMFC is already exploiting products that are a result of PEACE, such as, iSenior, iBaby and iHorse;
 - CEBIT/PaleBlue, is engaging the authorities in Sweden in order to be able to deploy and commercialize services based on the Interactive Risk Management Control Center;
 - THALES (THC) - At the start of the PEACE project, the PMR product portfolio of Thales consisted in providing turnkey PMR networks based on the PMR world leading standard TETRA (Terrestrial Trunked Radio). The PMR market covers public safety organisations (blue lights, including police, fire and ambulance, or border surveillance) and a variety of private mobile radio systems, mostly but not exclusively for the transportation markets (railways or motorways for example). Thales estimates the Professional Mobile Radio (PMR) digital system market to be 1.5 million terminals sent each year, with an estimated cost between 50€ and 200€ for each terminal that supports real time data services. These allow estimating the

service/application PMR market at an attractive level, from 10 to 30 million Euros. This orientation was decided upon the introduction of the IP protocol in the PMR product lines and the development of advanced services offering high quality video in real time. These capabilities fulfil different purposes, such as: following a manifestation, support for telemedicine services, remote map cartography, following a fire, amongst others. On the other hand, Thales is currently making significant effort to offer more efficient and reliable solutions for mobile broadband in the public safety sector. Thales is currently building a new communication infrastructure and dedicated mobile terminals towards the procurement of national security police, fire-fighters, and emergency organizations. This new infrastructure will rely on both Private Mobile Radio and emerging 4G technologies: Long Term Evolution (LTE) and WiMAX, both of them supporting TETRA, the European Standard for public safety. Thales intends to improve existing public communication services, enriching them with new capabilities (e.g., video, multimedia, and data services), while maintaining compatibility with existing PMR networks. In this context, Thales intends to operate TeMax, its innovative solution now enriched with 4G capabilities for PMR networks. The interoperability addressed in the scope of PEACE has been identified as key enablers for future PMR systems, especially in order to support collaboration between organizations and countries in crisis situations. Thanks to results of PEACE, Thales is now able to enhance its current Tetra over WiMAX, the TeMax line of products, and secure communications passing through. Building on this background expertise, THALES activities in the PEACE project were targeting the study and exploitation of multi-hop mesh network deployment and use for public safety applications, with a special focus on investigating end-to-end communication reliability and security in such a network. Thales will exploit the results of the PEACE project to enrich the set of services available over its TeMax offers, based on the results obtained for the secure group multicast communications, which are actually being considered to be integrated inside Thales devices. Among the new services concerned by these results, we can cite the incoming push-to-cellular feature. French national police has shown particular interest in the solution developed in the frame of PEACE. As a longer term plan, Thales

Communications also envisages to exploit, the results of the Graceful node shutdown algorithm, which allows a transparent reconfiguration of a dynamic network carrying mission-critical communications. This recent work has been the subject of a patent from Thales;

- TID is cooperating with Telefonica regarding exploitation and dissemination of the project results in the area of emergency communications and location services. This section analyses and describes the current and potential situation of the location-based service (LBS) sector and the Emergency Call scenario in general, and the PEACE sector in particular. In order to study the sector, a market sizing must be done, thus assisting the process of identifying the market opportunities for the near future. This report predicts, from data and contents gathered from diverse sources, the likely evolution of the sector in the forthcoming years. The know-how acquired by Telefónica I+D during PEACE will be paramount when it comes to choose an IMS core provider for the operator's NGN infrastructures, which are called to replace legacy circuit-switched communications in the near future. The research carried out hand-in-hand with FOKUS labs allowed to pioneer the implementation of the latest standards on emergency sessions by 3GPP, IETF and OMA. These standards cover both core network architecture (3GPP TS 23.167 and alike) and location-enabled protocols (IETF extensions to SIP and OMA LOCSIP & SUPL). Native support of location at signalling level represents a huge leap forward when compared to legacy SS7 signalling and paves the way for high-accuracy positioning methods such as Assisted GPS to locate emergency callers. Field tests demonstrated the viability of emergency sessions in IMS and will be the base upon which RFQs and testbeds will be built to choose commercial core network providers. By the time when supporting emergency sessions be a legal requirement by national authorities, Telefónica will lead operators with the early adoption of this feature, just as it happened a decade ago when locating and routing emergency sessions from mobile phones became mandatory. Telefónica I+D will play the role of technology consultancy services in order to provide the best solution in terms of price and technology or obtain a reduction of infrastructure cost. The Exploitation Plans focus on schemes that can be

applicable to PEACE, considering the special peculiarities of this type of services (Emergency Call and LBS).

- As non-profit organisations, the plans of IT, KU and UoPAT relatively to the exploitation of the results of this project are linked to its mission of: (i) attracting new Ph.D. students and PostDocs; (ii) involvement in new research project proposals; (iii) increasing their influence and reputation in standardisation bodies and industry fora and; (iv) improving the competitiveness of Industry and Telecommunications operators in their own countries.
- Dissemination activities
 - Participation in the 6th and 7th Emergency Services Workshop (ESW);
 - Participation in the European Emergency Number Association (EENA) event in Murcia, Spain;
 - Disseminated an IP-based emergency application video in YouTube;
 - Published 45 new papers in International Conferences, and 7 new papers in Journals. The list of complete list of publications is listed in PEACE D5.3b.

3.4.1 Conferences, workshop, presentation, publications, participation on IETF and all other dissemination efforts

- Contribution to standardization bodies:
 - Submitted the Internet Draft, “Security Mechanisms and Key Refresh for P2PSIP Overlays” to the IETF P2PSIP Working Group;
 - Submitted the Internet Draft, “ChaMeLeon (CML): A hybrid and adaptive routing protocol for Emergency Situations” to the IETF MANET Working Group.
- Workshops/Special Sessions:
 - Peace Workshop/Special Session MOBIMEDIA 2009 (London, UK);
 - Peace Workshop/Special Session MOBIMEDIA 2010 (Lisboa, Portugal);

- Arrangements made to organize the 3rd PEACE Workshop/Special Session that will take place in 3th of January in Algarve, Portugal – Command and Control Center - Information Technologies for Emergency Management;

Arrangements made to co-organize and host the 8th Emergency Services Workshop were made but due to agenda collision from the Emergency Services Workshops Organization turn this impossible to make during the PEACE lifetime project.

- Publications:
 - The complete list of all the publications is available in the Deliverable D5.3_v3 Section 1.1 Table 2.1.
- Dissemination:
 - The complete list of all the dissemination activities is available in the Deliverable D5.3_v3 Section 1.2 Table 2.2.

3.5 Use of resources

During the 2nd year of PEACE the total effort spent by all the partners per WP exceeded in large quantity our initial project planning. This is clearly illustrated in the figure below where planned and actual effort is depicted for the entire project for all running WPs. It is noted that effort is accumulated over time to obtain a better picture for the progress of the work.

Our initial assessment of the total effort required to complete the project was clearly too optimistic. In fact that was the main reason why an extension was requested by the consortium: to be able to successfully achieve all objectives stated in the approved proposal.

And we did so, with distinction according to the final project evaluation. In order to do so, all partners have contributed with much more effort than initially expected. This extra effort of course is not reflected in anyway in the request budget from the commission, meaning all partners have accepted to add extra person months at no extra cost to the commission.

3.5.1 Total accumulated efforts

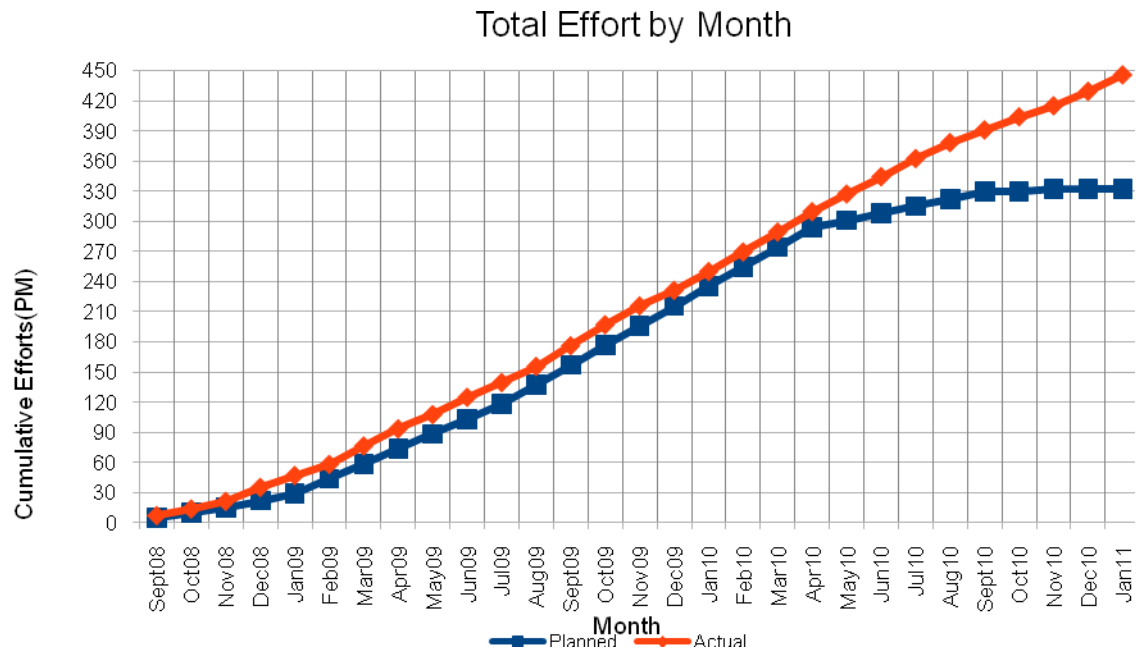


Figure 1 – Total Effort by Month

3.5.1.1 Effort justification

3.5.1.1.1 First Year

The actual cumulative effort for the whole consortium is a slightly higher than the originally plan. This occurred due to some necessary shifts in the workload of some partners. As the graphics below indicate, the discrepancies per partner are also minor. For each individual partner a detailed justification will be provided when required.

3.5.1.1.2 Second Year

During the second year and when the major developments of both software and hardware took place almost all partners have dedicted more person months than initially planned.

In particular the coordinator, PDMFC, took the responsibility to add in all WPs a significant extra effort in order to complete the project with success.

Since some budget was from the beginning allocated to Management Activities with the aim of being transferred to Development activities as required, the consortium agreed to use this resources to support the extra development activities of PDMFC.

3.5.2 PDMFC accumulated efforts

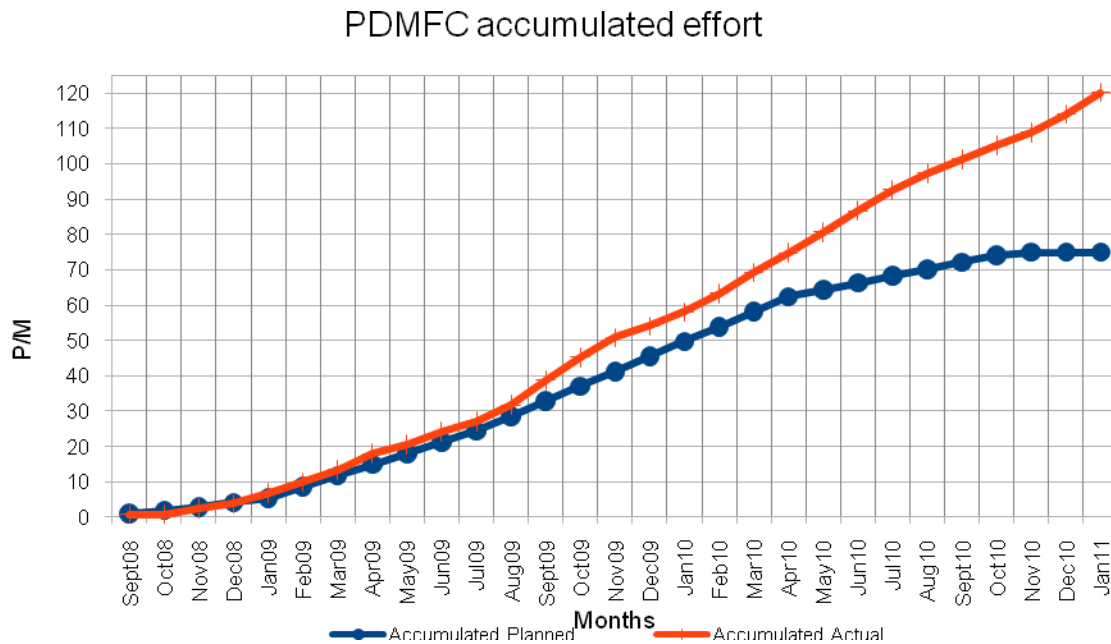


Figure 2 – PDMFC accumulated effort

3.5.2.1 Effort Analysis

3.5.2.1.1.1 First Year

PDMFC's actual effort is about 15% higher than the planned effort. Although the effort is slightly higher than expected, this does not have a direct correlation with the overall cost. In fact PDMFC costs are below expectations due to the fact that some of the effort incurred was done by junior staff (with lower PersonMonth costs) and due to lower travel expenses than planned. Although we expect a significant increase in the travel expenses related to the dissemination and exploitation of the results of the PEACE project during the second year of the project, we still expect our overall expenses to be below the original target, which means we will have an increased budget to engage the emergency works in Portugal during the latter part of the project.

The other important factor for the discrepancy is the added effort to implement the WSN that was at first outside the scope of the project and no effort had been planned for its implementation.

3.5.2.1.1.2 Second Year

PDMFC's actual effort is about 90% higher than the planned effort.

This large difference is justified by four main reasons:

- Several programmers involved in the project were more junior than initially predicted, which meant the required effort was higher than expected, but their cost was less than expected.
- A significant Management budget that was allocated to PDMFC in the beginning of the project to compensate the exit of one of the original project participants was naturally allocated to Research and Development Activities as planned since the beginning of the project.
- The work developed in the project went far beyond the original project objectives, as been acknowledged by the reviewers and therefore more development effort was required. This effort was more than compensated by the outstanding results obtained and which PDMFC expected to commercially exploit after the end of the project.
- Since the end date was extended very late in the course of the project, PaleBlue was unable to allocate effort in the last three months of the project due to prior commitments of their senior staff. PDMFC agreed to add extra effort in exchange for the contribution of 20.000 Euros to be added to the Research and Development budget of PDMFC. Therefore we increase our PersonMonth allocation in order to justify the additional 20.000 Euros we have received in budget from PaleBlue.

3.5.3 IT accumulated effort

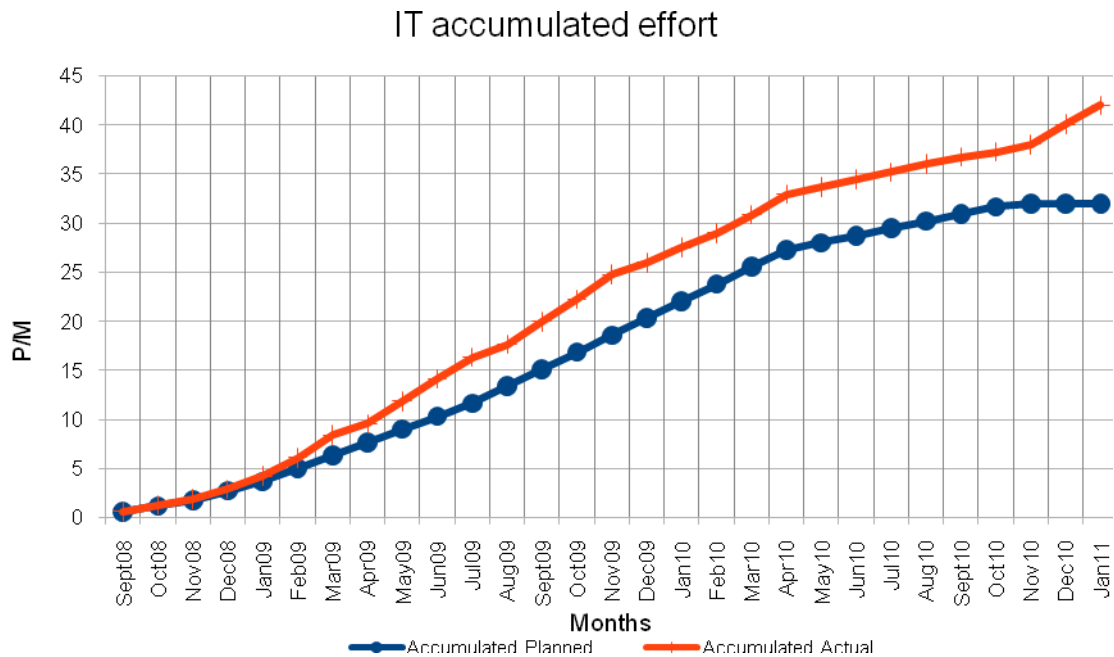


Figure 3 – IT accumulated effort

3.5.3.1 Effort Analysis

3.5.3.1.1.1 First Year

The IT's effort graph shows the actual effort a bit higher than the planned, the main reason for this is the anticipation of work, namely on the routing algorithms studies and implementation. The graph will converge as time goes by, since they now have less work to do in the future as compared to the original plan.

3.5.3.1.1.2 Second Year

In the second year IT actually took even more work than expected which was reflected in the extension required to finish the project successfully.

IT exceeds the original planned effort in almost all WPs due to their involvement in both the Dissemination effort as well as the Research effort. Most of the additional effort can be seen in WP4 and WP5.

3.5.4 KU accumulated effort

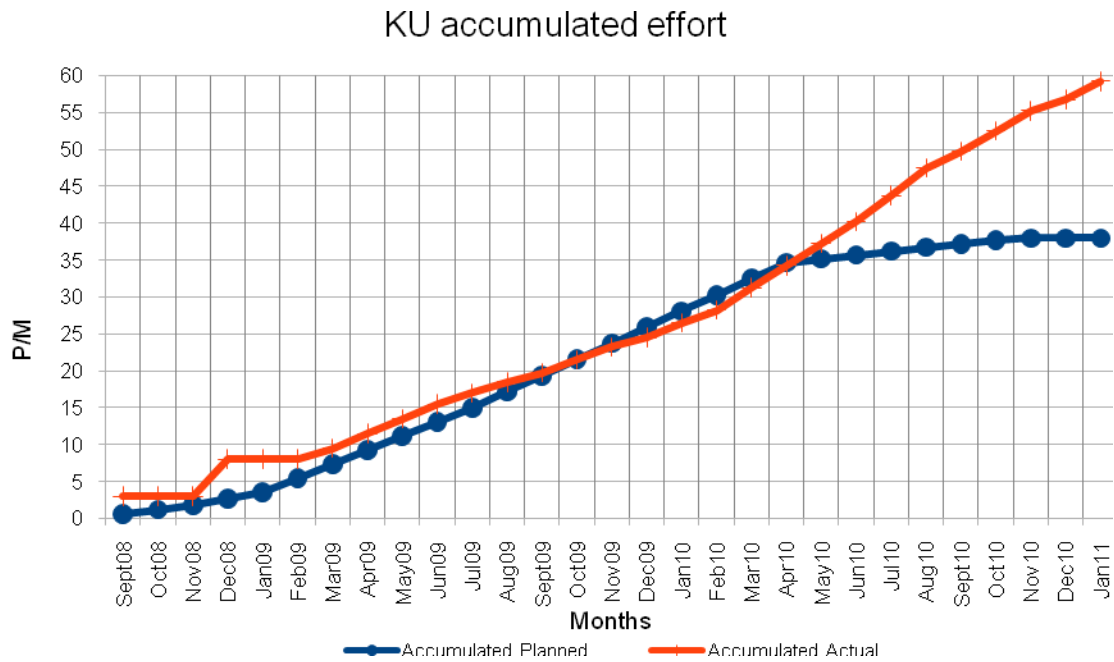


Figure 4 – KU accumulated effort

3.5.4.1 Effort Analysis

3.5.4.1.1.1 First Year

KU's actual effort closely matches planned.

3.5.4.1.1.2 Second Year

As with all other partners, KU accepted to invest more effort in the second year than planned in order to achieve its stated objectives.

Since in W2, the effort required by KU was significantly lower than the expected, that Person-Month were transferred to other WPs in particular to WP4 where KU dedicated a much larger effort than originally planned.

3.5.5 Fraunhofer Fokus accumulated effort

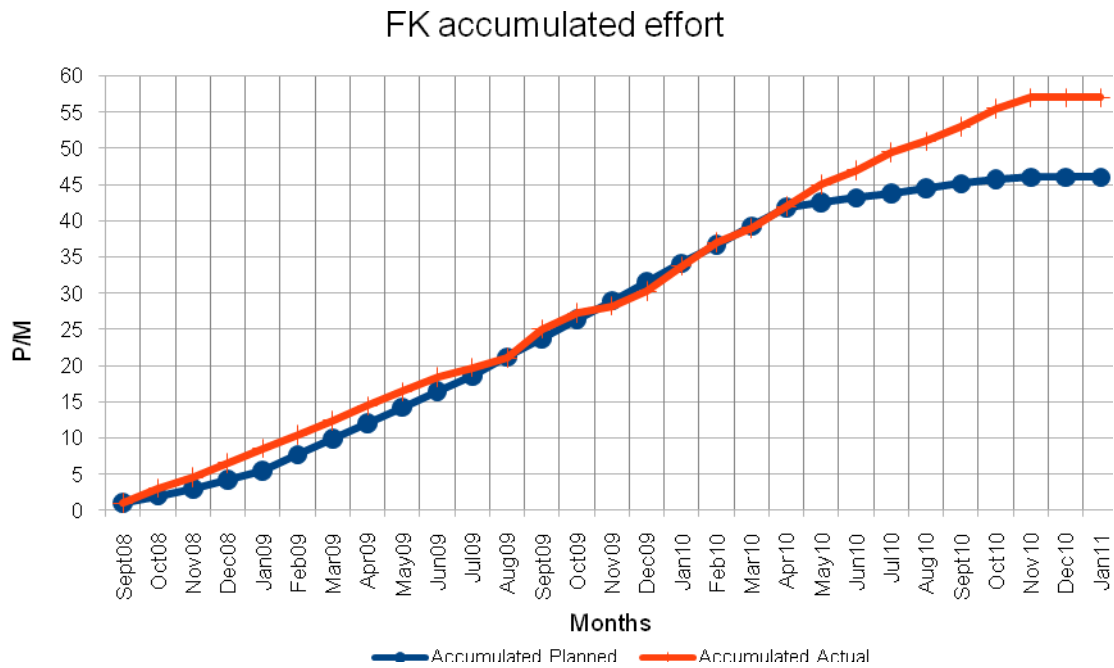


Figure 5 – FK accumulated effort

3.5.5.1 Effort Analysis

3.5.5.1.1.1 First Year

FK's actual effort closely matches planned.

3.5.5.1.1.2 Second Year

During second year of the project, FK also exceed the planned allocation, in about 45%

This extra effort was mostly the result of the extension requested by the consortium and it was evenly distributed among all WPs in the project.

3.5.6 UPAT accumulated effort

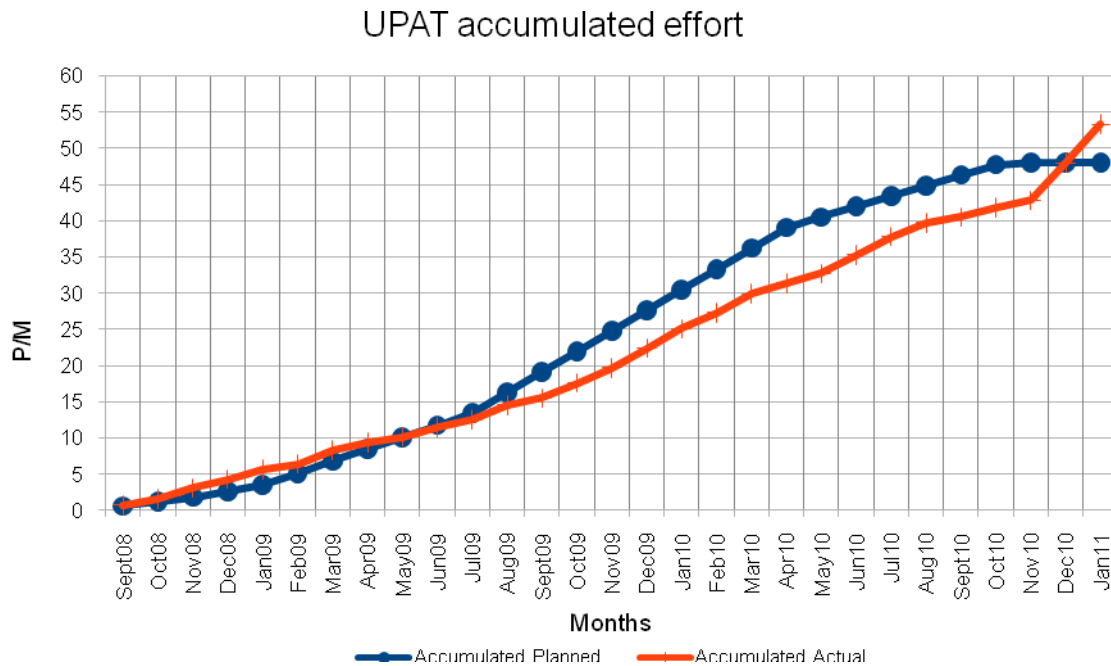


Figure 6 – UPAT accumulated effort

3.5.6.1 Effort analysis

3.5.6.1.1.1 First Year

UPAT's actual effort closely matches planned.

3.5.6.1.1.2 Second Year

UPAT's actual effort during the second year of the project only deviated from the planned in the last few months, which correspond to the extension request. Most of the deviation is the result of the extra effort in WP4, which required to all partners a heavily involvement in development of software and hardware.

3.5.7 TCC accumulated effort

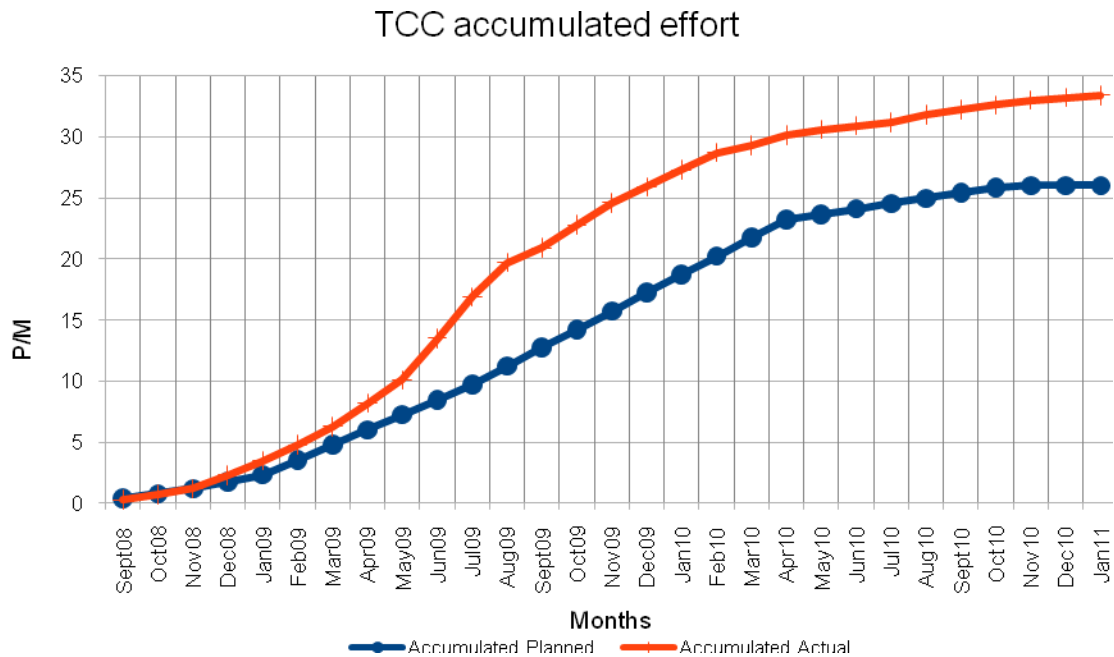


Figure 7 – TCC accumulated effort

3.5.7.1 Effort analysis

3.5.7.1.1.1 First Year

The actual effort for TCC is a lot higher than the planned due to the unexpected availability of a critical resource for the implementation of the multicast protocol. They took that opportunity and implemented ahead of time part of their work. The graphs should converge later on.

3.5.7.1.1.2 Second Year

In the second year of the project TCC, actual effort closely matches planned. The difference in total effort versus planned effort results simply from the deviation occurred in the first year of the project.

3.5.8 TID accumulated effort

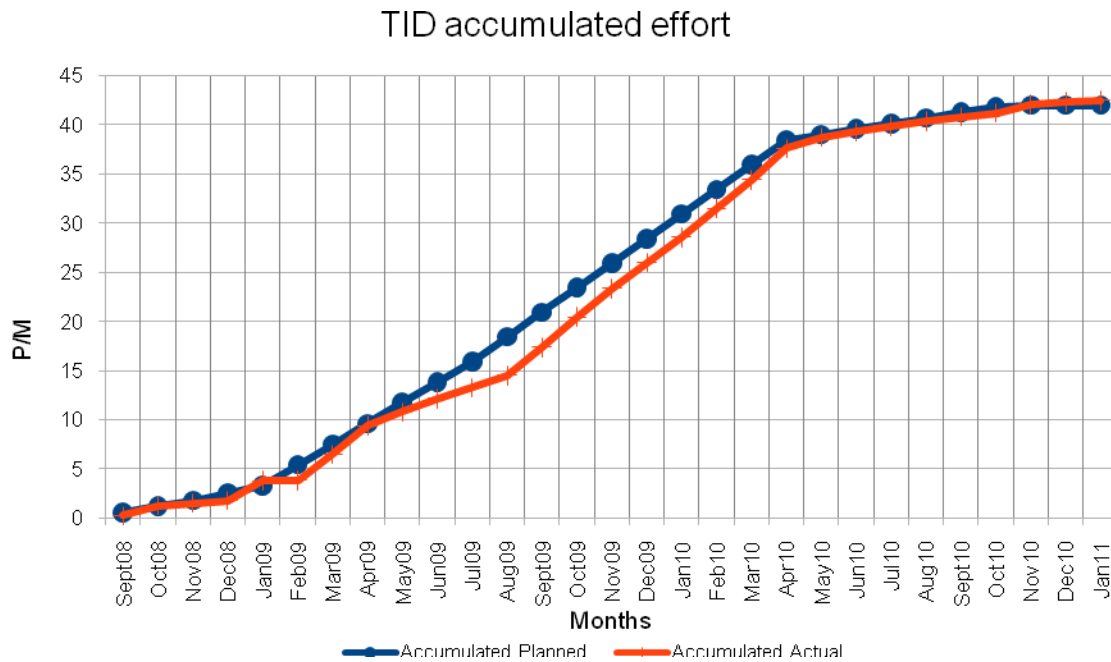


Figure 8 – TID accumulated effort

3.5.8.1 Effort analysis

3.5.8.1.1.1 First Year

TID was one of the partners that used less effort than the plan, since some of their work was delayed for a bit later in the project when the infrastructure work to be done by PDMFC, FK, TCC and PB is in a more mature state. It's expected their effort to rise up on the course of the next months.

3.5.8.1.1.2 Second Year

In the second year of the project TID's actual effort closely matches planned.

This very close match is the result of very large experience of TID in EU projects and their ability to manage their internal allocation to match the needs of the consortium overall.

3.5.9 PB accumulated effort

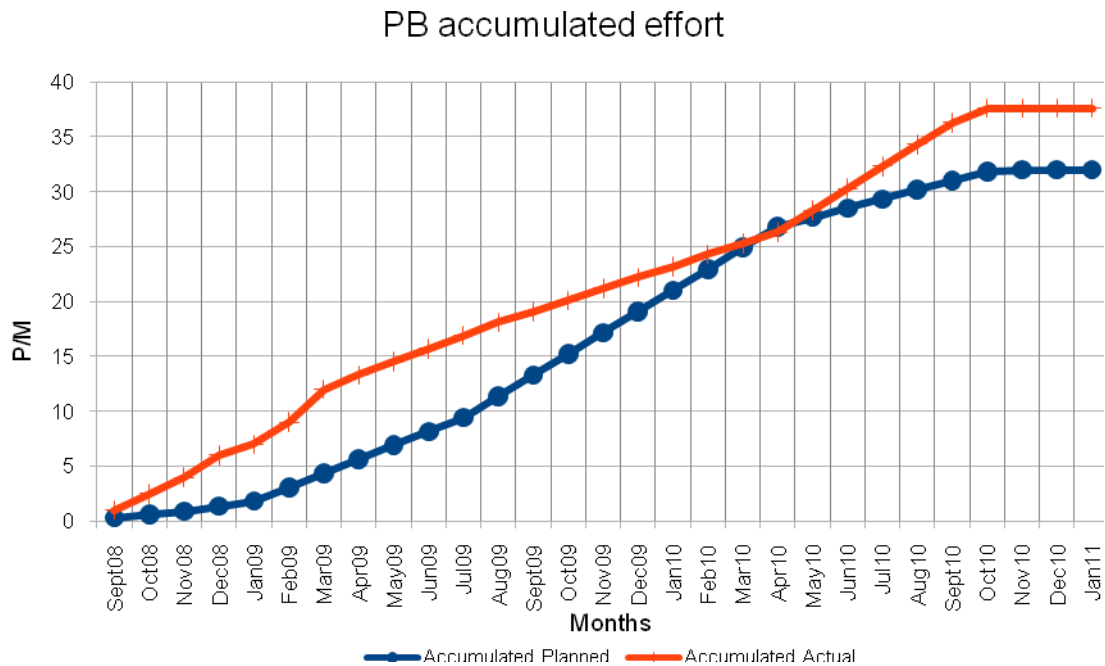


Figure 9 – PB accumulated effort

3.5.9.1 Effort analysis

3.5.9.1.1.1 First Year

This graph shows a significant difference on the part of PB efforts. They started early to work on the requirement assessment for the risk control framework meeting a number of contacts in Sweden. A large number of hours were spent in these meeting and they account for the majority of the difference between actual and planned efforts.

However during the second year of the project PaleBlue will see a dramatic reduction in effort since some of the planned developments have taken place in the first year. It is also to be noticed that some of the effort used by PaleBlue was executed by junior staff, which reduced the average PersonMonth cost.

3.5.9.1.1.2 Second Year

During the second year, PaleBlue's efforts were slightly less than planned although due to the extra effort during the first year it still surpassed the total planned effort.

However it is very important to mention that PaleBlue budget was in fact reduced in about 20.000 Euros and that amount was transferred to PDMFC, since PaleBlue could not allocated effort after the originally planned end date of the project (meaning after

October 2010) due to other prior commitments of their staff, and PDMFC took the responsibility to finish the work necessary for the conclusion of the project.

This decision was agreed between the two partners and approved by all.

This is the reason why PaleBlue's EU requested contribution is LESS than the original EU requested contribution.

3.5.10 WP1

3.5.10.1 WP1 Table

WP 1 – TOTAL: 15 PM			M1-M29		27 Months						UOP		TCC		TID		PB		Monthly Plan	Monthly Actual	Accumulated Planned	Accumulated Actual
	PDM		IT		KU		FHG				Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual				
	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual												
EffortsTotal	15.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00			
Sept08	0.56	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.78	0.56	0.78
Oct08	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.00	1.11	0.78
Nov08	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.00	1.67	0.78
Dec08	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.00	2.22	0.78
Jan09	0.56	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.67	2.78	1.45
Feb09	0.56	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.68	3.33	2.13
Mar09	0.56	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.71	3.89	2.84
Apr09	0.56	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.67	4.44	3.51
May09	0.56	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.79	5.00	4.30
Jun09	0.56	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.81	5.56	5.11
Jul09	0.56	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.73	6.11	5.84
Aug09	0.56	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.94	6.67	6.78
Year 1	6.67	6.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.67	6.78	6.67	6.78
Sept09	0.56	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	1.00	7.22	7.78
Oct09	0.56	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	1.50	7.78	9.28
Nov09	0.56	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.50	8.33	9.78
Dec09	0.56	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.50	8.89	10.28
Jan10	0.56	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.60	9.44	10.88
Feb10	0.56	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.80	10.00	11.68
Mar10	0.56	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.80	10.56	12.48
Apr10	0.56	1.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	1.10	11.11	13.58
May10	0.56	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.50	11.67	14.08
Jun10	0.56	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.50	12.22	14.58
Jul10	0.56	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.40	12.78	14.98
Aug10	0.56	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.40	13.33	15.38
Sept10	0.56	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.50	13.89	15.88
Oct10	0.56	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.50	14.44	16.38
Nov10	0.56	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.50	15.00	16.88
Dec10	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	15.00	18.38
Jan11	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	15.00	19.88
Year 2	8.33	13.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.33	13.10	8.33	13.10
TOTAL	15.00	19.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00	19.88	15.00	19.88

Table 1 – WP1 Efforts

3.5.10.2 WP1 Chart

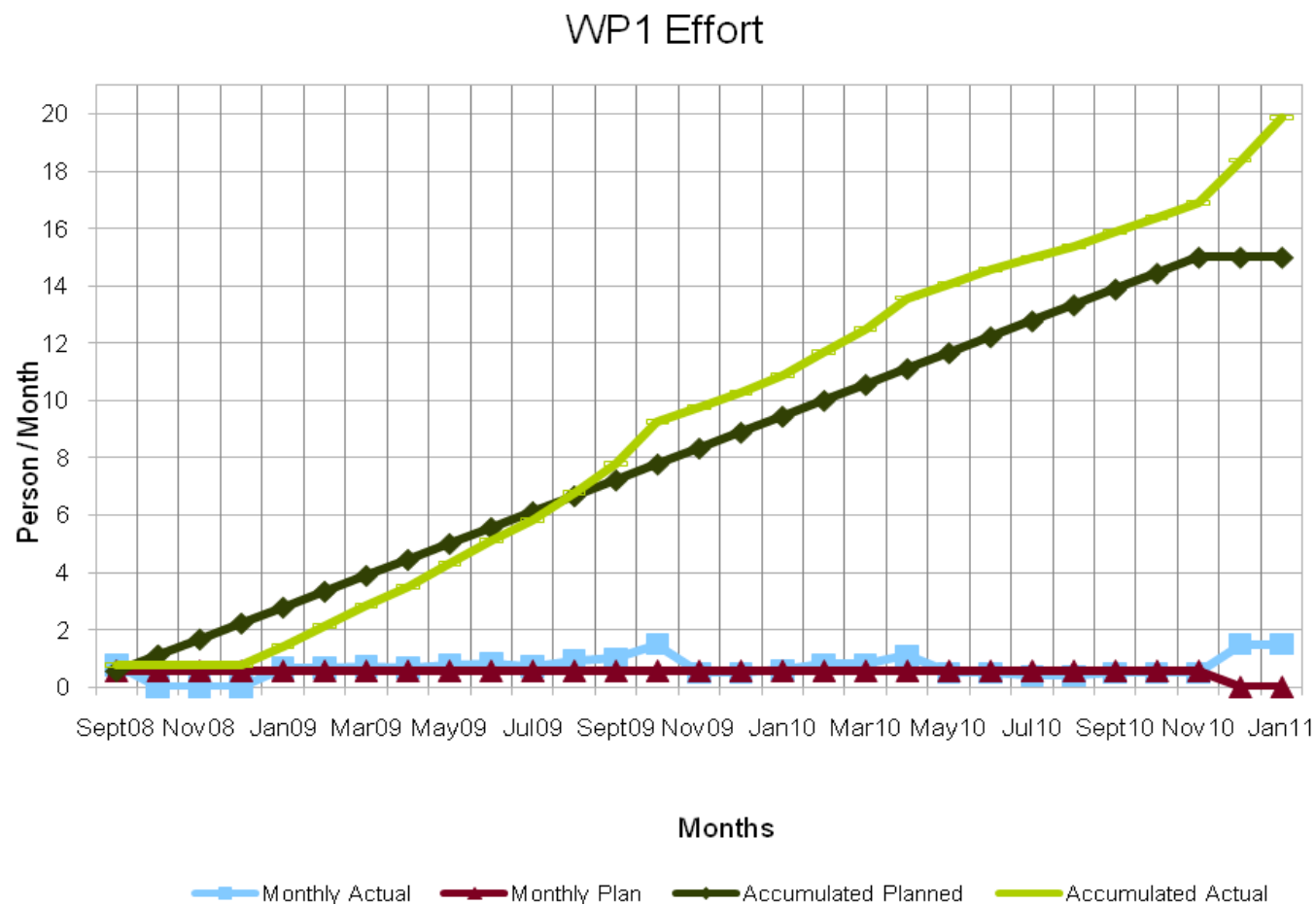


Figure 10 – WP1 efforts

3.5.11 WP2

3.5.11.1 WP2 Table

WP 2 – TOTAL: 94 PM				M1-M20		20 Months																
	PDM		IT		KU		FHG		UOP		TCC		TID		PB		Monthly Plan	Monthly Actual	Accumulated Planned	Accumulated Actual		
	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual						
Efforts Total	8.00		12.00		12.00		20.00		12.00		8.00		12.00		6.00							
Sept08	0.40	0.00	0.60	0.60	0.60	3.00	1.00	1.00	0.60	0.70	0.40	0.30	0.60	0.26	0.30	1.00	4.50	6.86	4.50	6.86		
Oct08	0.40	0.00	0.60	0.70	0.60	0.00	1.00	1.54	0.60	0.80	0.40	0.40	0.60	1.03	0.30	1.00	4.50	5.47	9.00	12.33		
Nov08	0.40	1.66	0.60	0.60	0.60	0.00	1.00	1.00	0.60	1.30	0.40	0.50	0.60	0.26	0.30	1.00	4.50	6.32	13.50	18.65		
Dec08	0.40	1.06	0.60	1.00	0.60	3.00	1.00	1.00	0.60	1.20	0.40	0.80	0.60	0.16	0.30	2.00	4.50	10.22	18.00	28.87		
Jan09	0.40	2.29	0.60	0.80	0.60	0.00	1.00	1.00	0.60	1.20	0.40	0.80	0.60	0.96	0.30	1.00	4.50	8.05	22.50	36.92		
Feb09	0.40	1.48	0.60	1.85	0.60	0.00	1.00	1.00	0.60	0.60	0.40	0.80	0.60	0.05	0.30	1.00	4.50	6.78	27.00	43.70		
Mar09	0.40	2.12	0.60	2.05	0.60	1.00	1.00	1.00	0.60	0.70	0.40	0.50	0.60	0.97	0.30	2.00	4.50	10.34	31.50	54.04		
Apr09	0.40	2.93	0.60	0.90	0.60	1.00	1.00	1.00	0.60	0.70	0.40	0.70	0.60	0.88	0.30	0.30	4.50	8.41	36.00	62.45		
May09	0.40	1.11	0.60	1.80	0.60	1.00	1.00	0.50	0.60	0.40	0.40	0.80	0.60	0.00	0.30	0.20	4.50	5.81	40.50	68.26		
Jun09	0.40	1.60	0.60	2.00	0.60	1.00	1.00	1.00	0.60	1.00	0.40	0.90	0.60	0.00	0.30	0.20	4.50	7.70	45.00	75.96		
Jul09	0.40	0.95	0.60	1.00	0.60	0.50	1.00	0.50	0.60	0.70	0.40	0.90	0.60	0.00	0.30	0.20	4.50	4.75	49.50	80.71		
Aug09	0.40	0.00	0.60	0.00	0.60	0.50	1.00	0.50	0.60	1.00	0.40	0.70	0.60	0.00	0.30	0.20	4.50	2.90	54.00	83.61		
Year 1	4.80	15.20	7.20	13.30	7.20	11.00	12.00	11.04	7.20	10.30	4.80	8.10	7.20	4.57	3.60	10.10	54.00	83.61	54.00	83.61		
Sept09	0.40	0.60	0.60	1.00	0.60	0.00	1.00	2.00	0.60	0.00	0.40	0.50	0.60	1.00	0.30	0.00	4.50	5.10	58.50	88.71		
Oct09	0.40	0.30	0.60	0.60	0.60	0.50	1.00	1.00	0.60	0.00	0.40	0.50	0.60	1.00	0.30	0.00	4.50	3.90	63.00	92.61		
Nov09	0.40	0.50	0.60	0.50	0.60	0.50	1.00	1.00	0.60	0.00	0.40	0.50	0.60	0.60	0.30	0.20	4.50	3.80	67.50	96.41		
Dec09	0.40	0.00	0.60	0.25	0.60	0.00	1.00	1.00	0.60	0.30	0.40	0.40	0.60	0.61	0.30	0.20	4.50	2.76	72.00	99.17		
Jan10	0.40	0.50	0.60	0.25	0.60	0.50	1.00	1.00	0.60	0.30	0.40	0.40	0.60	1.00	0.30	0.00	4.50	3.95	76.50	103.12		
Feb10	0.40	1.00	0.60	0.00	0.60	0.50	1.00	1.00	0.60	0.30	0.40	0.40	0.60	1.00	0.30	0.10	4.50	4.30	81.00	107.42		
Mar10	0.40	0.20	0.60	0.10	0.60	0.00	1.00	1.00	0.60	0.30	0.40	0.00	0.60	1.00	0.30	0.10	4.50	2.70	85.50	110.12		
Apr10	0.40	0.20	0.60	0.10	0.60	0.00	1.00	1.00	0.60	0.00	0.40	0.00	0.60	1.22	0.30	0.10	4.50	2.62	90.00	112.74		
May10	0.00	0.50	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	90.00	114.24		
Jun10	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	90.00	114.74		
Jul10	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	90.00	115.24		
Aug10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.00	115.24		
Sept10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.00	115.24		
Oct10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.00	115.24		
Nov10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.00	115.24		
Dec10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.00	115.24		
Jan11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.00	115.24		
Year 2	3.20	4.80	4.80	2.80	4.80	2.00	8.00	10.00	4.80	1.20	3.20	2.70	4.80	7.43	2.40	0.70	36.00	31.63	36.00	31.63		
TOTAL	8.00	20.00	12.00	16.10	12.00	13.00	20.00	21.04	12.00	11.50	8.00	10.80	12.00	12.00	6.00	10.80	90.00	115.24	90.00	115.24		

Table 2 – WP2 Efforts

3.5.11.2 WP2 Chart

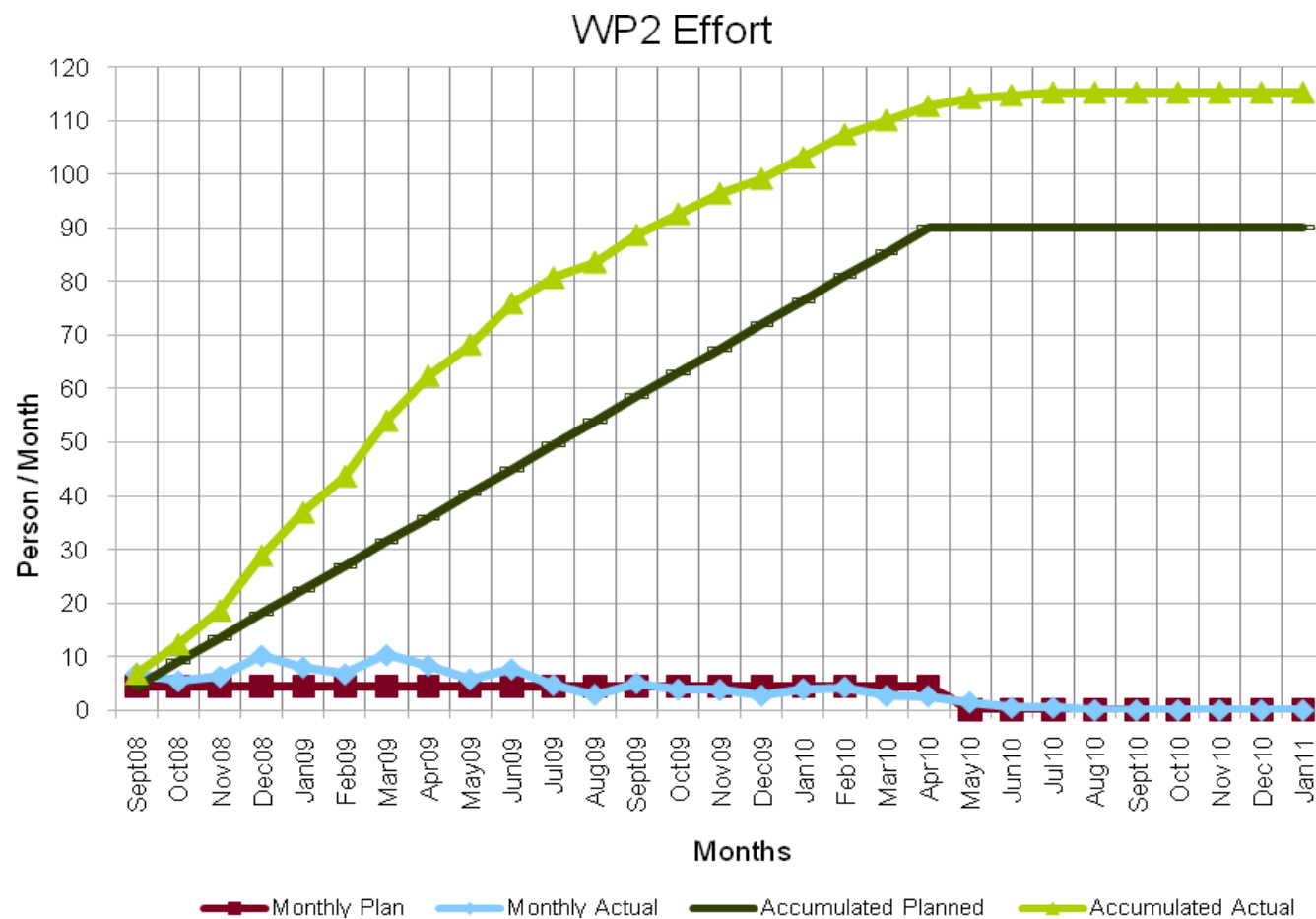


Figure 11 – WP2 efforts

3.5.12 WP3

3.5.12.1 WP3 Table

WP 3 – TOTAL: 114 PM				M6-M20		15 Months															
	PDM		IT		KU		FHG		UOP		TCC		TID		PB		Monthly Plan	Monthly Actual	Accumulated Planned	Accumulated Actual	
	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual					
EffortsTotal	28.00		6.00		16.00		14.00		12.00		10.00		20.00		12.00						
Sept08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Oct08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	
Nov08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	
Dec08	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00	2.30	0.00	
Jan09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.40	0.00	1.02	0.00	0.00	0.00	2.42	0.00	
Feb09	1.87	0.00	0.40	0.00	1.07	0.00	0.93	0.88	0.80	0.00	0.67	0.40	1.33	0.00	0.80	1.00	7.87	2.28	7.87	8.00	
Mar09	1.87	0.00	0.40	0.00	1.07	0.50	0.93	1.00	0.80	1.00	0.67	1.00	1.33	1.69	0.80	1.00	7.87	6.19	15.73	14.19	
Apr09	1.87	0.00	0.40	0.00	1.07	0.50	0.93	1.00	0.80	0.25	0.67	1.10	1.33	2.03	0.80	1.00	7.87	5.88	23.60	20.07	
May09	1.87	0.00	0.40	0.00	1.07	0.50	0.93	1.00	0.80	0.25	0.67	1.10	1.33	1.14	0.80	1.00	7.87	4.99	31.47	25.06	
Jun09	1.87	0.00	0.40	0.00	1.07	0.50	0.93	1.00	0.80	0.20	0.67	2.50	1.33	1.11	0.80	1.00	7.87	6.31	39.33	31.37	
Jul09	1.87	1.11	0.40	0.70	1.07	0.50	0.93	0.82	0.80	0.20	0.67	2.40	1.33	1.09	0.80	1.00	7.87	7.82	47.20	39.19	
Aug09	1.87	3.67	0.40	1.00	1.07	0.50	0.93	0.50	0.80	0.25	0.67	2.00	1.33	1.23	0.80	1.00	7.87	10.15	55.07	49.34	
Year 1	13.07	4.78	2.80	1.70	7.47	4.00	6.53	9.20	5.60	2.15	4.67	11.20	9.33	9.31	5.60	7.00	55.07	49.34	55.07	49.34	
Sept09	1.87	3.50	0.40	1.00	1.07	0.75	0.93	1.00	0.80	0.20	0.67	0.70	1.33	1.20	0.80	0.60	7.87	8.95	62.93	58.29	
Oct09	1.87	3.50	0.40	0.70	1.07	0.75	0.93	1.00	0.80	1.35	0.67	0.70	1.33	1.63	0.80	1.00	7.87	10.63	70.80	68.92	
Nov09	1.87	3.00	0.40	1.00	1.07	0.75	0.93	0.00	0.80	1.35	0.67	0.70	1.33	1.64	0.80	0.50	7.87	8.94	78.67	77.86	
Dec09	1.87	1.80	0.40	0.25	1.07	0.75	0.93	1.00	0.80	0.80	0.67	0.70	1.33	1.01	0.80	0.60	7.87	6.91	86.53	84.77	
Jan10	1.87	1.80	0.40	0.25	1.07	1.00	0.93	1.00	0.80	0.80	0.67	0.70	1.33	1.24	0.80	0.50	7.87	7.29	94.40	92.06	
Feb10	1.87	2.20	0.40	0.50	1.07	0.75	0.93	0.74	0.80	0.30	0.67	0.60	1.33	1.33	0.80	0.70	7.87	7.12	102.27	99.18	
Mar10	1.87	3.50	0.40	0.50	1.07	1.00	0.93	1.00	0.80	1.00	0.67	0.30	1.33	1.33	0.80	0.50	7.87	9.13	110.13	108.31	
Apr10	1.87	2.50	0.40	0.75	1.07	1.00	0.93	0.50	0.80	0.40	0.67	0.30	1.33	1.33	0.80	0.50	7.87	7.28	118.00	115.59	
May10	0.00	2.50	0.00	0.25	0.00	1.00	0.00	0.50	0.00	0.30	0.00	0.20	0.00	0.00	0.00	0.50	0.00	5.25	118.00	120.84	
Jun10	0.00	2.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	5.50	118.00	126.34	
Jul10	0.00	2.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.50	0.00	5.30	118.00	131.64	
Aug10	0.00	2.30	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.65	118.00	135.29	
Sept10	0.00	0.00	0.00	0.00	0.00	0.75	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.75	118.00	137.04	
Oct10	0.00	0.00	0.00	0.00	0.00	0.75	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.75	118.00	138.79	
Nov10	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	118.00	139.54	
Dez10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	118.00	139.54	
Jan11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	118.00	139.54	
Year 2	14.93	30.60	3.20	5.20	8.53	12.75	7.47	10.74	6.40	8.90	5.33	4.90	10.67	10.71	6.40	6.40	62.93	90.20	62.93	90.20	
TOTAL	28.00	35.38	6.00	6.90	16.00	16.75	14.00	19.94	12.00	11.05	10.00	16.10	20.00	20.02	12.00	13.40	118.00	139.54	118.00	139.54	

Table 3 – WP3 Efforts

3.5.12.2 WP3 Chart

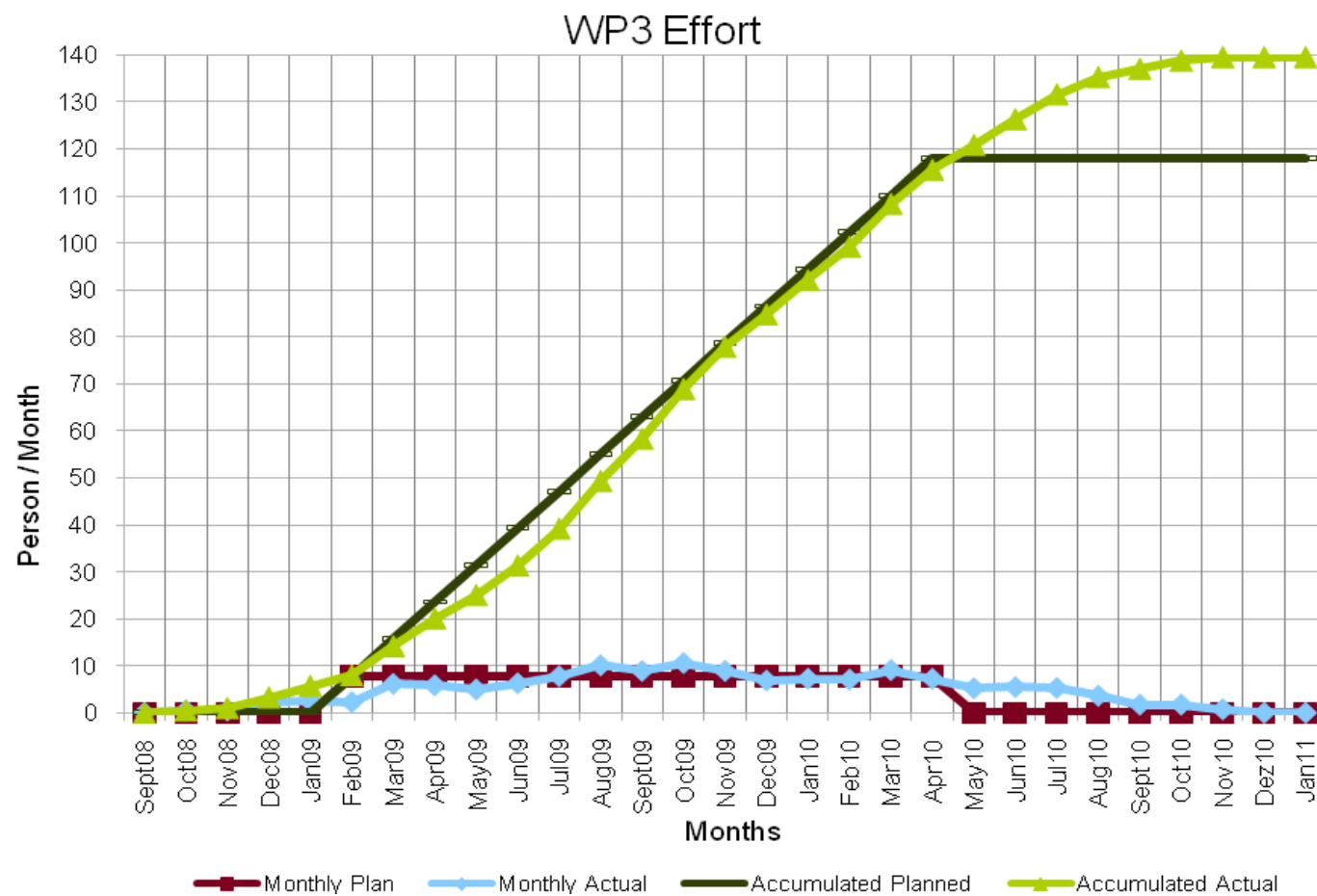


Figure 12 – WP3 efforts

3.5.13 WP4

3.5.13.1 WP4 Table

WP 4 – TOTAL: 70 PM				M1-M27		15 Months																			
	PDM		IT		KU		FHG		UOP		TCC		TID		PB		Monthly Plan	Monthly Actual	Accumulated Planned	Accumulated Actual					
	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual									
EffortsTotal	16.00		6.00		4.00		6.00		18.00		4.00		6.00		10.00										
Sept08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Oct08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Nov08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Dec08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Jan09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Feb09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Mar09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Apr09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
May09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Jun09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Jul09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Aug09	1.07	0.00	0.40	0.00	0.27	0.00	0.40	0.00	1.20	0.65	0.27	0.00	0.40	0.00	0.67	0.00	4.67	0.65	4.67	0.65	0.65				
Year 1	1.07	0.00	0.40	0.00	0.27	0.00	0.40	0.00	1.20	0.65	0.27	0.00	0.40	0.00	0.67	0.00	4.67	0.65	4.67	0.65	0.65				
Sept09	1.07	1.50	0.40	0.00	0.27	0.00	0.40	0.00	1.20	0.60	0.27	0.00	0.40	0.40	0.67	0.20	4.67	2.70	9.33	3.35					
Oct09	1.07	1.00	0.40	0.50	0.27	0.00	0.40	0.00	1.20	0.60	0.27	0.40	0.40	0.45	0.67	0.00	4.67	2.95	14.00	6.30					
Nov09	1.07	0.80	0.40	0.50	0.27	0.00	0.40	0.00	1.20	0.60	0.27	0.40	0.40	0.68	0.67	0.20	4.67	3.18	18.67	9.48					
Dec09	1.07	0.80	0.40	0.50	0.27	0.00	0.40	0.00	1.20	1.50	0.27	0.20	0.40	0.38	0.67	0.20	4.67	3.58	23.33	13.06					
Jan10	1.07	0.80	0.40	0.75	0.27	0.00	0.40	1.00	1.20	1.50	0.27	0.20	0.40	0.35	0.67	0.50	4.67	5.10	28.00	18.16					
Feb10	1.07	1.00	0.40	0.75	0.27	0.00	0.40	1.00	1.20	1.50	0.27	0.40	0.40	0.35	0.67	0.20	4.67	5.20	32.67	23.36					
Mar10	1.07	1.00	0.40	0.75	0.27	0.50	0.40	0.00	1.20	1.20	0.27	0.30	0.40	0.35	0.67	0.40	4.67	4.50	37.33	27.86					
Apr10	1.07	1.50	0.40	0.50	0.27	1.00	0.40	1.00	1.20	1.00	0.27	0.30	0.40	0.35	0.67	0.40	4.67	6.05	42.00	33.91					
May10	1.07	2.00	0.40	0.25	0.27	1.00	0.40	1.00	1.20	1.00	0.27	0.30	0.40	0.40	0.67	1.30	4.67	7.25	46.67	41.16					
Jun10	1.07	2.50	0.40	0.75	0.27	1.00	0.40	1.00	1.20	1.50	0.27	0.30	0.40	0.40	0.67	1.30	4.67	8.75	51.33	49.91					
Jul10	1.07	2.50	0.40	0.50	0.27	1.50	0.40	1.00	1.20	1.50	0.27	0.30	0.40	0.25	0.67	1.30	4.67	8.85	56.00	58.76					
Aug10	1.07	2.00	0.40	0.25	0.27	1.50	0.40	1.00	1.20	1.00	0.27	0.40	0.40	0.55	0.67	1.80	4.67	8.50	60.67	67.26					
Sept10	1.07	3.00	0.40	0.25	0.27	1.00	0.40	1.00	1.20	0.50	0.27	0.40	0.40	0.23	0.67	1.60	4.67	7.98	65.33	75.24					
Oct10	1.07	3.00	0.40	0.25	0.27	1.50	0.40	1.00	1.20	1.00	0.27	0.40	0.40	0.28	0.67	1.30	4.67	8.73	70.00	83.97					
Nov10	0.00	2.90	0.00	0.50	0.00	1.50	0.00	1.00	0.00	0.80	0.00	0.40	0.00	0.59	0.00	0.00	0.00	7.69	70.00	91.66					
Dez10	0.00	3.00	0.00	1.08	0.00	1.00	0.00	0.00	0.00	5.00	0.00	0.20	0.00	0.26	0.00	0.00	0.00	10.54	70.00	102.20					
Jan11	0.00	3.50	0.00	1.03	0.00	1.50	0.00	0.00	0.00	5.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	11.23	70.00	113.42					
Year 2	14.93	32.80	5.60	9.10	3.73	13.00	5.60	10.00	16.80	25.80	3.73	5.10	5.60	6.27	9.33	10.70	65.33	112.77	65.33	112.77					
TOTAL	16.00	32.80	6.00	9.10	4.00	13.00	6.00	10.00	18.00	26.45	4.00	5.10	6.00	6.27	10.00	10.70	70.00	113.42	70.00	113.42					

Table 4 – WP4 efforts

3.5.13.2 WP4 Chart

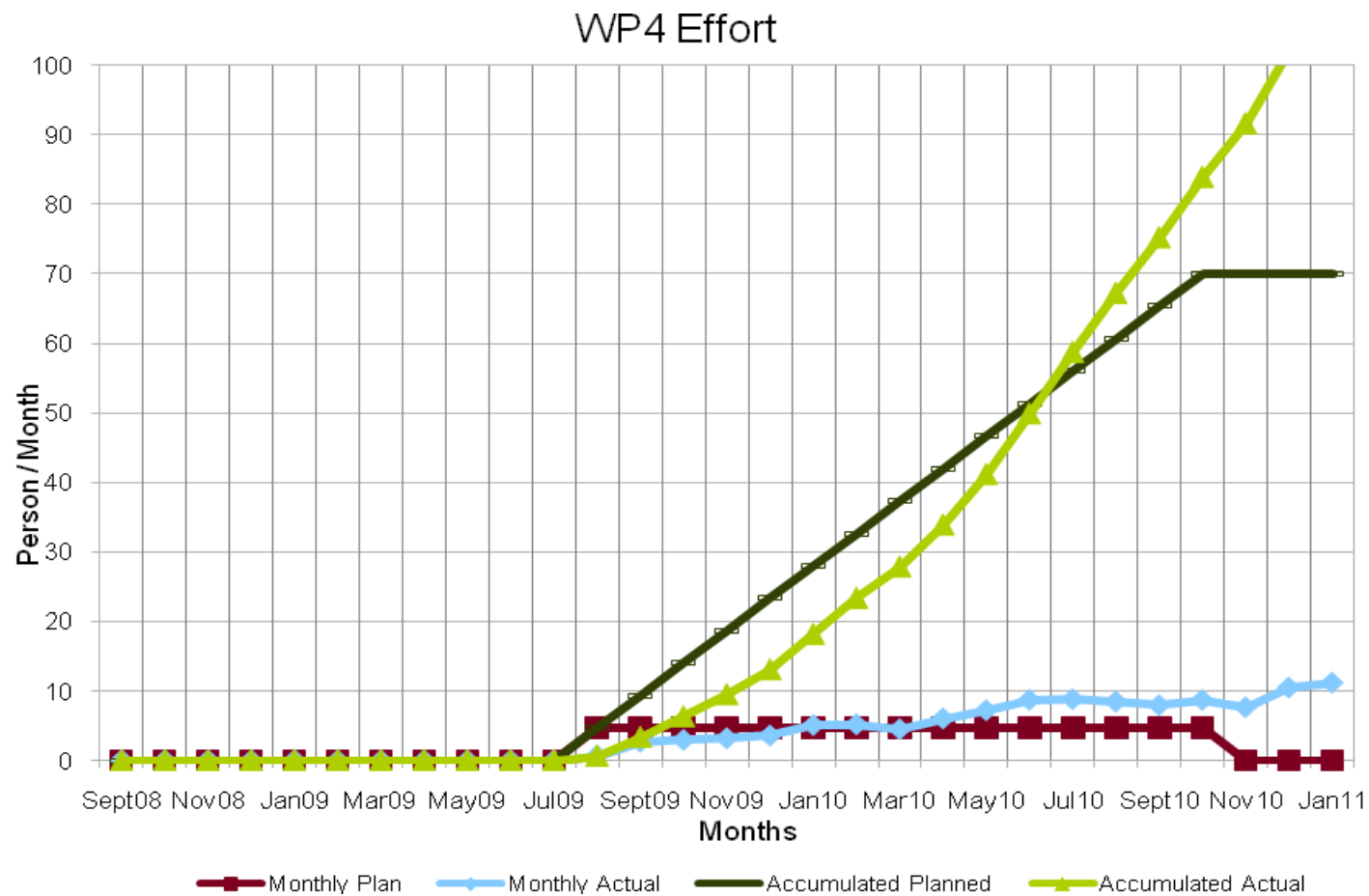


Figure 13 – WP4 efforts

3.5.14 WP5

3.5.14.1 WP5 Table

WP 5 – TOTAL: 46 PM			M4-M27		24		Months												Monthly Plan	Monthly Actual	Accumulated Planned	Accumulated Actual
	PDM		IT		KU		FHG		UOP		TCC		TID		PB							
	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual						
EffortsTotal	8.00		8.00		6.00		6.00		6.00		4.00		4.00		4.00							
Sept08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oct08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.60	0.00	0.60
Nov08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.70	0.00	1.30
Dec08	0.33	0.30	0.33	0.00	0.25	1.00	0.25	0.00	0.25	0.00	0.17	0.00	0.17	0.10	0.17	0.00	1.92	1.40	1.92	1.40	1.92	2.70
Jan09	0.33	0.04	0.33	0.55	0.25	0.00	0.25	0.00	0.25	0.10	0.17	0.00	0.17	0.00	0.17	0.00	1.92	0.69	3.83	0.69	3.39	3.39
Feb09	0.33	0.94	0.33	0.00	0.25	0.00	0.25	0.00	0.25	0.20	0.17	0.10	0.17	0.00	0.17	0.00	1.92	1.24	5.75	1.24	4.63	4.63
Mar09	0.33	0.66	0.33	0.25	0.25	0.00	0.25	0.00	0.25	0.15	0.17	0.00	0.17	0.00	0.17	0.00	1.92	1.06	7.67	1.06	5.69	5.69
Apr09	0.33	1.00	0.33	0.25	0.25	0.50	0.25	0.00	0.25	0.15	0.17	0.10	0.17	0.00	0.17	0.00	1.92	2.00	9.58	2.00	7.69	7.69
May09	0.33	0.70	0.33	0.50	0.25	0.50	0.25	0.48	0.25	0.15	0.17	0.00	0.17	0.26	0.17	0.00	1.92	2.59	11.50	2.59	10.28	10.28
Jun09	0.33	1.17	0.33	0.30	0.25	0.50	0.25	0.00	0.25	0.15	0.17	0.00	0.17	0.26	0.17	0.00	1.92	2.38	13.42	2.38	12.66	12.66
Jul09	0.33	0.18	0.33	0.50	0.25	0.50	0.25	0.00	0.25	0.12	0.17	0.10	0.17	0.00	0.17	0.00	1.92	1.40	15.33	1.40	14.06	14.06
Aug09	0.33	0.00	0.33	0.30	0.25	0.50	0.25	0.30	0.25	0.12	0.17	0.10	0.17	0.00	0.17	0.00	1.92	1.32	17.25	1.32	15.38	15.38
Year 1	3.00	4.99	3.00	2.65	2.25	3.50	2.25	0.78	2.25	1.44	1.50	0.40	1.50	0.62	1.50	1.00	17.25	15.38	17.25	15.38	15.38	15.38
Sept09	0.33	0.40	0.33	0.30	0.25	0.50	0.25	1.00	0.25	0.15	0.17	0.00	0.17	0.26	0.17	0.20	1.92	2.81	19.17	2.81	18.19	18.19
Oct09	0.33	0.20	0.33	0.50	0.25	0.50	0.25	0.22	0.25	0.15	0.17	0.30	0.17	0.00	0.17	0.00	1.92	1.87	21.08	1.87	20.06	20.06
Nov09	0.33	0.80	0.33	0.50	0.25	0.50	0.25	0.00	0.25	0.15	0.17	0.20	0.17	0.00	0.17	0.20	1.92	2.35	23.00	2.35	22.41	22.41
Dec09	0.33	0.10	0.33	0.25	0.25	0.50	0.25	0.00	0.25	0.10	0.17	0.00	0.17	0.62	0.17	0.00	1.92	1.57	24.92	1.57	23.98	23.98
Jan10	0.33	0.30	0.33	0.25	0.25	0.50	0.25	0.50	0.25	0.10	0.17	0.10	0.17	0.00	0.17	0.00	1.92	1.75	26.83	1.75	25.73	25.73
Feb10	0.33	0.30	0.33	0.25	0.25	0.50	0.25	0.50	0.25	0.10	0.17	0.00	0.17	0.25	0.17	0.10	1.92	2.00	28.75	2.00	27.73	27.73
Mar10	0.33	0.40	0.33	0.50	0.25	1.50	0.25	0.00	0.25	0.10	0.17	0.00	0.17	0.25	0.17	0.00	1.92	2.75	30.67	2.75	30.48	30.48
Apr10	0.33	0.30	0.33	0.75	0.25	1.00	0.25	0.50	0.25	0.10	0.17	0.20	0.17	0.25	0.17	0.00	1.92	3.10	32.58	3.10	33.58	33.58
May10	0.33	0.40	0.33	0.25	0.25	1.00	0.25	0.50	0.25	0.00	0.17	0.00	0.17	0.75	0.17	0.20	1.92	3.10	34.50	3.10	36.68	36.68
Jun10	0.33	0.50	0.33	0.00	0.25	1.00	0.25	0.00	0.25	0.10	0.17	0.00	0.17	0.15	0.17	0.20	1.92	1.95	36.42	1.95	38.63	38.63
Jul10	0.33	0.50	0.33	0.25	0.25	1.00	0.25	0.50	0.25	0.20	0.17	0.00	0.17	0.30	0.17	0.20	1.92	2.95	38.33	2.95	41.58	41.58
Aug10	0.33	0.00	0.33	0.55	0.25	1.50	0.25	0.50	0.25	0.30	0.17	0.20	0.17	0.00	0.17	0.20	1.92	3.25	40.25	3.25	44.83	44.83
Sept10	0.33	0.50	0.33	0.50	0.25	0.50	0.25	0.00	0.25	0.30	0.17	0.00	0.17	0.20	0.17	0.40	1.92	2.40	42.17	2.40	47.23	47.23
Oct10	0.33	0.40	0.33	0.25	0.25	0.50	0.25	0.50	0.25	0.30	0.17	0.00	0.17	0.13	0.17	0.00	1.92	2.08	44.08	2.08	49.31	49.31
Nov10	0.33	0.30	0.33	0.25	0.25	0.50	0.25	0.50	0.25	0.20	0.17	0.00	0.17	0.22	0.17	0.00	1.92	1.97	46.00	1.97	51.28	51.28
Dec10	0.00	0.60	0.00	1.00	0.00	0.50	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30	46.00	2.30	53.58	53.58
Jan11	0.00	1.20	0.00	0.90	0.00	1.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.20	0.00	0.00	0.00	3.60	46.00	3.60	57.18	57.18
Year 2	5.00	7.20	5.00	7.25	3.75	13.00	3.75	5.22	3.75	2.85	2.50	1.00	2.50	3.58	2.50	1.70	28.75	41.80	28.75	41.80	41.80	41.80
TOTAL	8.00	12.19	8.00	9.90	6.00	16.50	6.00	6.00	6.00	4.29	4.00	1.40	4.00	4.20	4.00	2.70	46.00	57.18	46.00	57.18	57.18	57.18

Table 5 – WP5 efforts

3.5.14.2 WP5 Chart

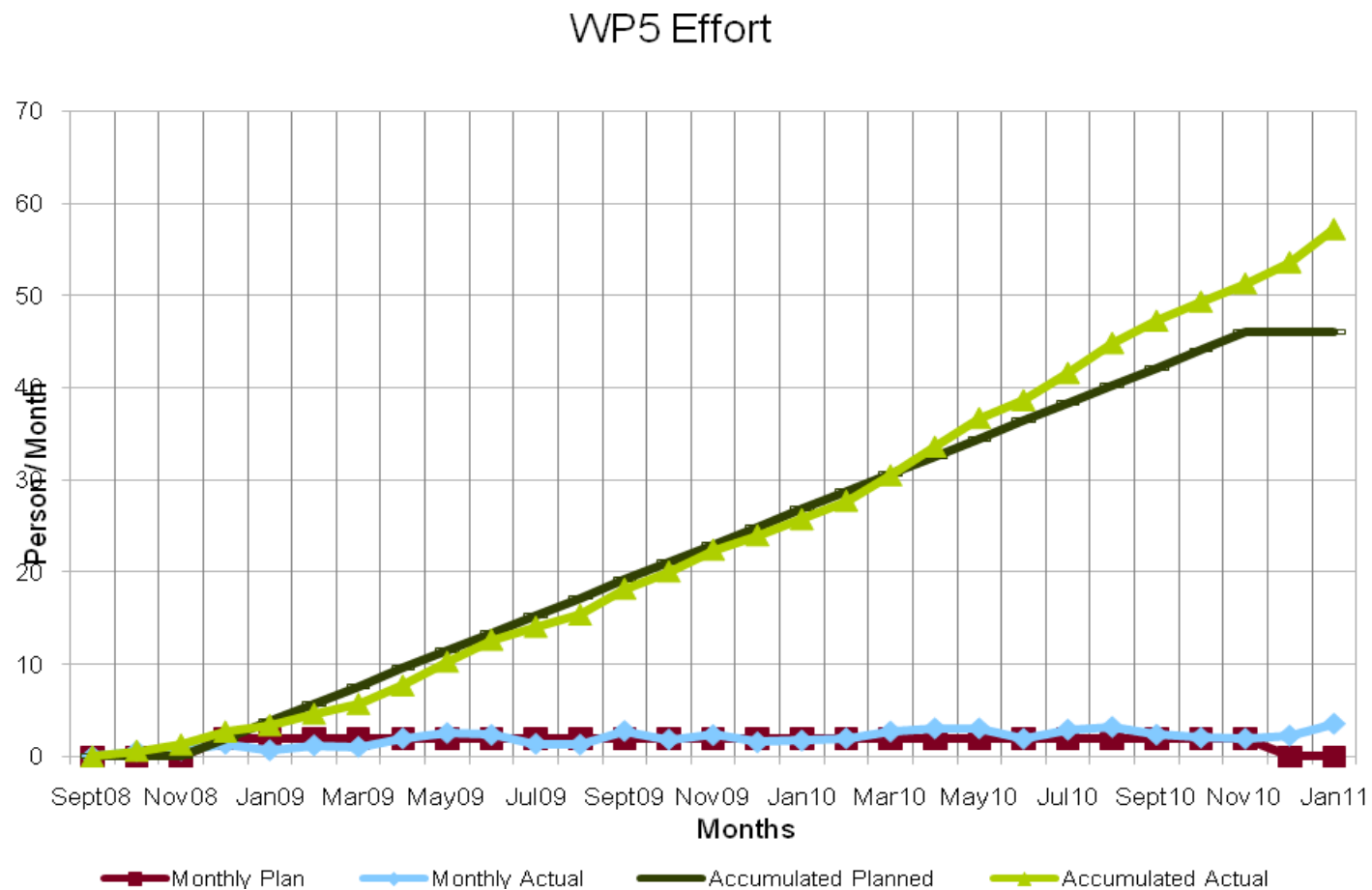


Figure 14 – WP5 efforts

4 Deliverables and milestones tables

4.1 Deliverables

Deliverables ²									
Del. no.	Deliverable name	WP no.	Lead participant	Nature	Dissemination level	Due delivery date from Annex I	Delivered Yes/No	Actual / Forecast delivery date	Comments
D1.1	Project Handbook	WP1	PDM	R	RE	M2	YES	M2	
D1.2	Periodic Report	WP1	PDM	R	RE	M12	YES	M14	
D1.3	Final Report	WP1	PDM	R	RE	M27	YES	M29	
D2.1	State of the art and general requirements	WP1	FK	R	PU	M3	YES	M3	
D2.2	First draft of the emergency framework	WP2	FK	R	PU	M8	YES	M9	
D2.3	Functional models and plan scenarios	WP2	FK	R	PU	M14	YES	M15	

² For Security Projects the template for the deliverables list in Annex A1 has to be used

D2.4	Final specification of emergency framework	WP2	FK	R	PU	M20	YES	M23	
D3.1	PEACE SW architecture (Components, interfaces, planning and models), first release	WP3	TID	R	RE	M12	YES	M14	
D3.2	PEACE SW architecture, final release	WP3	TID	R	RE	M20	YES	M23	
D4.1	Definition and Specification of Trials and Demonstrations	WP4	UPAT	R	PU	M14	YES	M16	
D4.2	PEACE Test and Integration Results (Laboratory results)	WP4	UPAT	R	PU	M20	YES	M23	
D4.3	PEACE Test and Integration Results (Trial results)	WP4	UPAT	R	PU	M27	YES	M29	
D5.1	Public Web Site	WP 5	IT	R	PU	M6	YES	M6	
D5.2	Early Project Dissemination and Use Plan	WP5	IT	R	CO	M9	YES	M11	
D5.3	Workshop Proceedings and Training Material	WP 5	IT	R	CO	M20	YES	M23	
D5.3b	Workshop Proceedings and Training Material	WP5	IT	R	CO	M27	YES	M29	

Table 6 – Deliverables Table

4.2 Milestones

Milestones					
Milestone no.	Milestone name	Due achievement date from Annex I	Achieved	Actual / Forecast achievement date	Comments
M1.1	Periodic Project Meetings (every 3 months), for progress assessment and short-term planning	M1	YES	M1	Kick-off meeting in Samos Island, Greece, 18-19 September 2008. The minutes of the meeting are given in QMR1.
M2.1	First concepts of integration of VoIP and emergency services	M6	YES	M6	
M2.2	Specifications of emergency handling of catastrophe situations	M9	YES	M9	
M2.3	Update of the final specification based on implementation and evaluation	M20	YES	M23	
M3.1	Identification of available components and implementations	M12	YES	M14	

MS3.2	Emergency System available for testing and demonstration	M20	YES	M23	
MS4.1	Setup of test and integration environment at developing partners	M14	YES	M16	
MS4.2	Results of public test and trials with users	M27	YES	M29	
MS5.1	Setup of the Web Site	M6	YES	M6	
MS5.2	Workshop Organization and Training Sessions	M20, M27	YES	M29	

Table 7 – Milestones Table

5 Project management

5.1 Consortium management tasks and achievements

- Concerning QMR01, the following WP1 tasks have been undertaken:
 - Prepared for, organized and held PEACE kick-off meeting in Samos Island, Greece (18-19/09/2009);
 - The first instalment of the pre-financing of EUR 1.567.560 (One Million Five Hundred and Sixty Seven Thousand Five Hundred and Sixty Euro) has been distributed to the partners within 45 days following the date of entry into force of the Grant Agreement;
 - The PEACE Project Handbook (D1.1) has been delivered to PO at M2 according to the schedule of Annex I;
 - A complete draft of the Consortium Agreement has been delivered and agreed among the partners of the PEACE Consortium. A short amendment is anticipated to cover the case of a low performance of a PEACE beneficiary for the common project good;
 - An initial set of templates for use within the project has been delivered to the consortium;
 - The PEACE fact sheet has been prepared and included to the DG INFSO Handbook of FP7 Future Networks projects;
 - PEACE organization issues including: Role of PM, PCC, TM and PTC, Project Committees Relationships, Project Handbook, Project Responsibilities – Reporting, Project plan overview. Documentation, publicity and confidentiality, Meeting schedule, Clustering events.
 - Management, Coordination PEACE project. Financial and Cost Management;
- Concerning the QMR02, the following WP1 tasks have been undertaken:
 - Prepared for and participation at the 2nd PEACE plenary meeting (Algarve, Portugal - 18-19/12/2008). The minutes of the kick-off meeting have been approved and signed by the PTC members;

- Completion and issue of the minutes of the 2nd PEACE plenary meeting. The minutes of this meeting will be approved and signed by the PTC members at the 3rd PEACE plenary meeting.
- Management, Coordination PEACE project. Financial and Cost Management;
- Concerning the QMR03, the following WP1 tasks have been undertaken:
 - Prepared for and participation at the 3rd PEACE Plenary meeting (Paris, France – 29-30/04/2009). The minutes of the 2nd plenary meeting have been approved and signed by the PTC members;
 - Completion of issues of the minutes of the 3rd plenary meeting. The minutes of this meeting will be approved and signed by the PTC members at the 4th PEACE plenary meeting.
 - Management, Coordination PEACE project. Financial and Cost Management;
- Concerning the QMR04, the following WP1 tasks have been undertaken:
 - Management, Coordination PEACE project. Financial and Cost Management;
- Concerning the QMR05, the following WP1 tasks have been undertaken:
 - Prepare the First Year Report Deliverable D1.2;
 - Management, Coordination PEACE project. Financial and Cost Management;
 - Prepared for and participation at the 4th PEACE plenary meeting (London, UK – 10-11/09/2009). The minutes of the 3rd plenary meeting have been approved and signed by the PTC members;
 - Coordinating the 5th PEACE Plenary Meeting (Brussels, Belgium – 01/10/2009). The minutes of the 4th plenary meeting have been approved and signed by the PTC members;
 - Attendance to the First Year Report (Brussels, Belgium – 02/10/2009).
- Concerning the QMR06, the following WP1 tasks have been undertaken:
 - Management and Coordination PEACE project;
 - Financial and Cost Management;

- Coordinating the 6th PEACE plenary meeting (Aveiro, Portugal – 18-20/01/2010). The minutes of the 5th plenary meeting have been approved and signed by the PTC members;
- Corrections to the Deliverable 1.2 according with the reviewers comments;
- Concerning the QMR07, the following WP1 tasks have been undertaken:
 - Management and Coordination PEACE project;
 - Financial and Cost Management;
 - Technical Requirements about the final demo of the project;
 - Coordinating the 7th PEACE plenary meeting (Madrid, Spain – 08-09/04/2010);
 - The minutes of the 6th plenary meeting have been approved and signed by the PTC members.
- Concerning the QMR08, the following WP1 tasks have been undertaken:
 - Management and Coordination PEACE project;
 - Financial and Cost Management;
 - Deliver the last versions of the first Year Deliverables to the PO;
 - Review the information from the PO regarding the approval the first year costs;
 - Start the Deliverable D1.3 – Second Year Report;
- Concerning the QMR09, the following WP1 tasks have been undertaken:
 - Management and Coordination PEACE project;
 - Financial and Cost Management;
 - Coordinating the 8th PEACE plenary meeting (Berlin, Germany – 23-24/09/2010);
 - Coordinating the 9th PEACE plenary meeting (London, UK – 18-19/11/2010);
 - The minutes of the 7th and 8th plenary meeting have been approved and signed by the PTC members.
- Concerning the QMR10, the following WP1 tasks have been undertaken:
 - Management and Coordination PEACE project;

- Financial and Cost Management;
- Coordinating the 10th PEACE plenary meeting (Algarve, Portugal – 01-03/02/2011);
- Coordinating the Final Project Review (Algarve, Portugal – 04/02/2011);
- Prepare, Coordination and Organize the Workshop “Command and Control Center - Information Technologies for Emergency Management”;
- The minutes of the 9th and 10th plenary meeting have been approved and signed by the PTC members.

5.2 List of project meetings, dates and venues

LIST OF PEACE MEETINGS			
Meeting	Date	Organizer	Location
Kick-off, 1 st Plenary Meeting	18-19 September 2008	PDMFC	Samos island, Greece
2 nd Plenary Meeting	18-19 December 2008	PDMFC	Algarve, Portugal
3 rd Plenary Meeting	29-30 April 2009	Thales	Paris, France
4 th Plenary Meeting	10-11 September 2009	KU	London, UK
5 th Plenary Meeting	01 October 2009	PDMFC	Brussels, Belgium
First Year Review	02 October 2009	PDMFC	Brussels, Belgium
6 th Plenary Meeting	18-20 January 2010	IT	Aveiro, Portugal
7 th Plenary Meeting	08-09 April 2010	TID	Madrid, Spain
8 th Plenary Meeting	23-24 September 2010	FOKUS	Berlin, Germany
9 th Plenary Meeting	18-19 November 2010	KU	London, UK
10 th Plenary Meeting	01-03 February 2010	PDMFC	Algarve, Portugal
Second and Final Year Review	04 February 2010	PDMFC	Algarve, Portugal

Table 8 – List of PEACE Meetings

5.3 Project planning and status

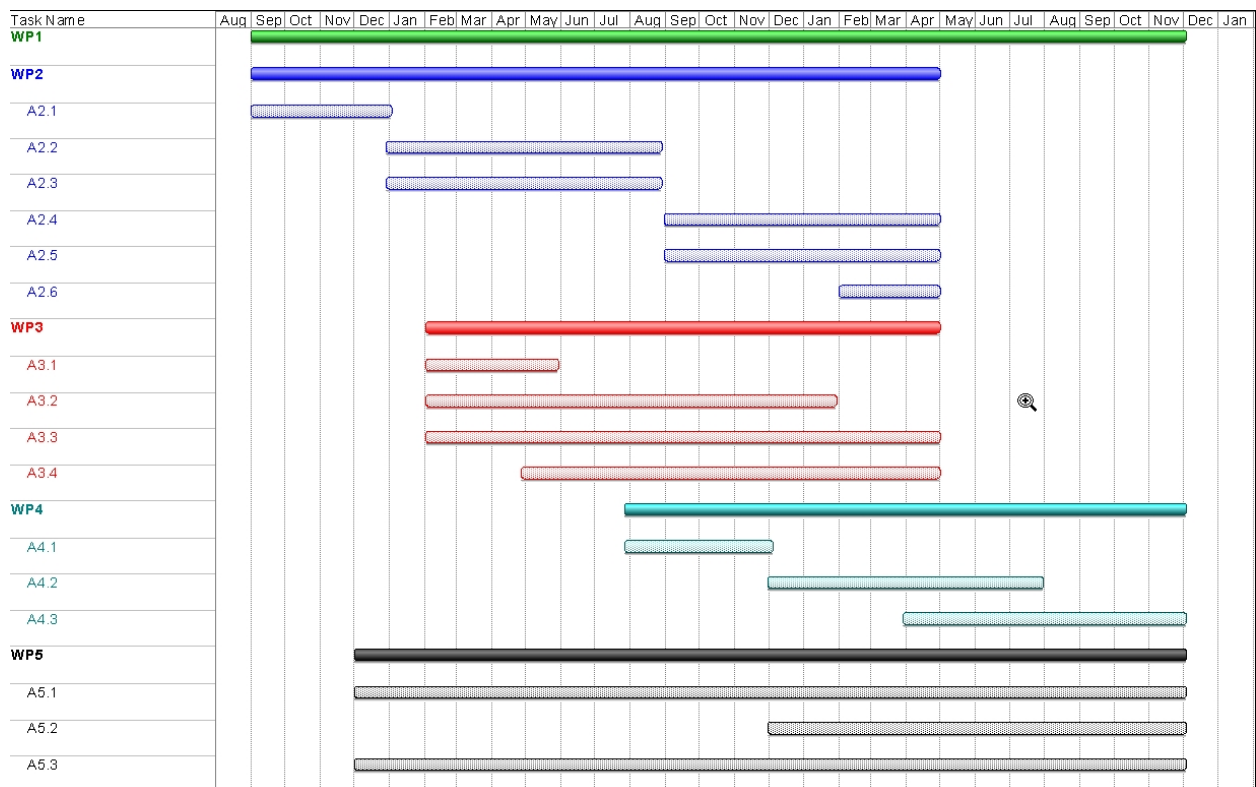


Figure 15 – GantChart and Project Planning

5.4 Project website and Webtools

PEACE project website is available at <http://www.ict-peace.eu> running on an Apache HTTPD server with MySQL and PHP 5.1 support, installed and configured on CentOS 5 unix based distribution.

Several open source tools are available in the site and we took some efforts to integrate all of the authentication procedures for the different projects: phpBB (a forum), mediawiki (a wiki), efileman (a web based ftp client).

The URLs are kept up to date in the Wiki pages (so that they may be more easily updated when the software or the configuration is upgraded).

All private URLs are password protected, using a master username, and a shared password between project partners.

5.4.1 PhpBB Forum

All partners use the forum to be able to discuss several issues that are somehow important to the PEACE project. The forum is also used to publish a list of conferences in Europe that we would like to attend, as they cover some important issues for the PEACE project.

5.4.2 Mediawiki

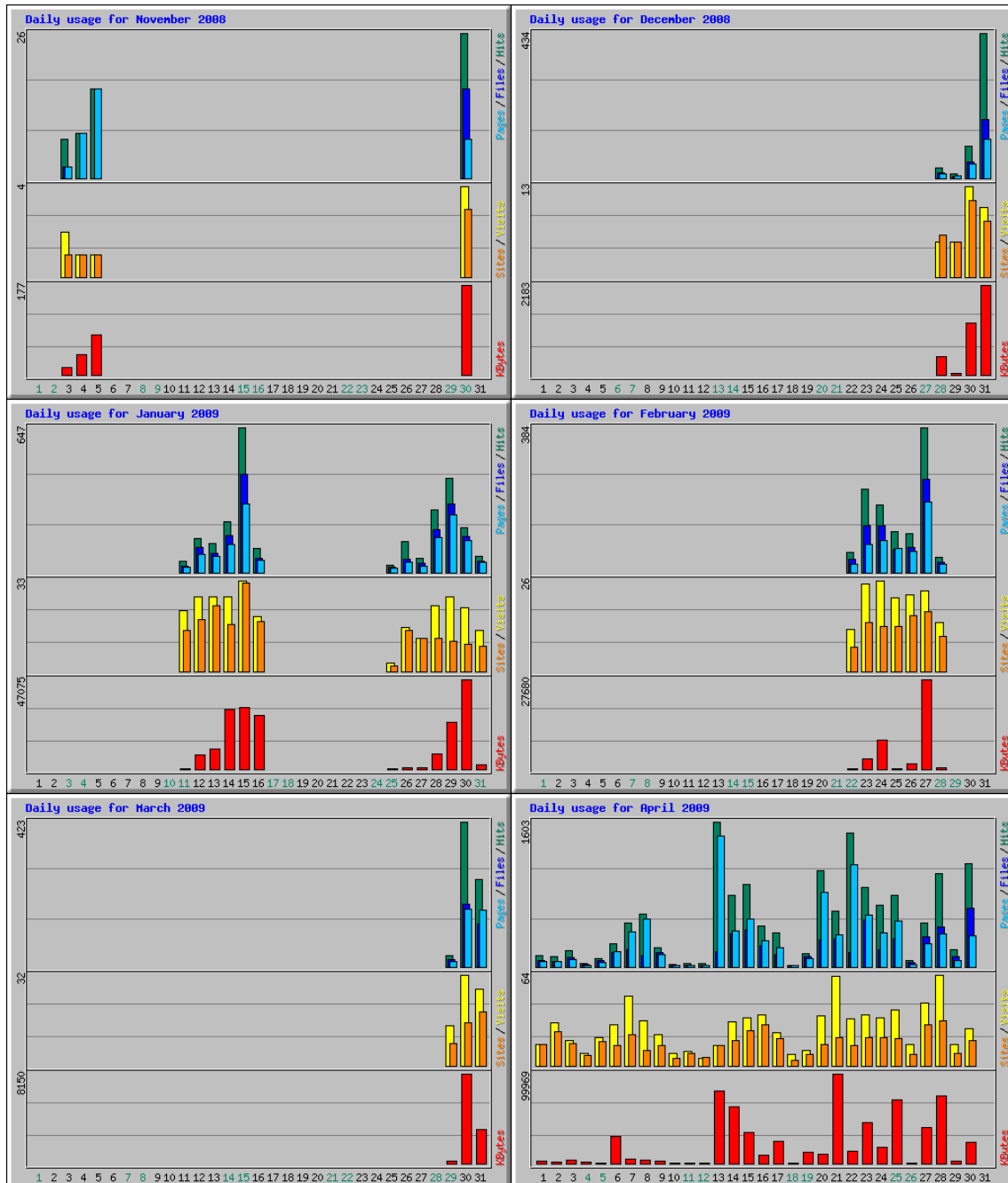
Wiki is used by all partners to contribute with important articles that can summarize information found in several different places. This is very important for all of us to share our information with each other, so the others can find it quickly and in a summarized form.

5.4.3 Efileman

Available for all partners, we have a web based FTP client in our site, so the partners don't need to install/configure any FTP Client in their computers. Efilemanager allows us to download files, upload files, create directories, change file permissions, among other common tasks for any FTP client.

5.4.4 Statistics

The Apache server that supports PEACE site has a webalizer tool installed and configured to allow us to check our site visits, hits, what tools are used more often, what are the most busy days in each month, what are the most busy hours in each day, what countries are visiting our website, among many other important statistics. These are available at <http://www.ict-peace.eu/stats/>.









5.4.5 SVN Webdav repository

In any medium/large project, there is always a need to have one or more repositories to store source code files. As we have several partners, and in some point in time, a partner X should need to integrate its software with partner Y, the site also has installed and configured one system running SVN via HTTPS protocol (WEBDAV) and we can create as many repositories as we need. Also we can give different permissions for different partners and repositories. For the Linux clients that use this, they don't need any external

software, as they can check-out/check-in any repository that they have permissions to access. For the Windows users they should consider the tortoiseSVN project available at <http://tortoisesvn.net/>, which is free to download and allows windows users to have some directory with the repository. The repositories are available at <http://www.ict-peace.eu/svn/>. Each partner may request to create new repositories and keep us up to date with the credentials allowed to access them.

5.4.6 Mailing lists @ict-peace.eu

Project mailing lists are managed by GNU Mailman software. This allows for archiving of all mails exchanged through these mailing lists, and there is a self care interface for every subscriber to self-update his own subscription options.

5.5 Dissemination Activities

5.5.1 Conferences, workshop, presentation, publications and participation on IETF

The complete information is in the deliverable D5.3b version 3.

6 Explanation of the use of the resources

6.1 PDM&FC Personnel Costs

TABLE PDMFC PERSONNEL, SUBCONTRACTING AND OTHER MAJOR COST ITEMS FOR BENEFICIARY 1			
Work Package	Item description	Amount	Explanations
1, 2, 3, 4, 5	Personnel Costs	404.796,00 €	88.50 person-months – 12744 person-hours (PH) distributed as follows: WP1: 13.10 PM 1886.4 PH WP2: 4.80 PM 691.2 PH WP3: 30.60 PM 4406.4 PH WP4: 32.80 PM 4723.2 PH WP5: 7.20 PM 1036.8 PH
	Subcontracting	2.500,00 €	Audit
1, 2, 3, 4, 5	Management	16.459,75 €	Travelling to Lagoa - Portugal - Peace Final Review and room rental
	Major cost item 'Equipment'	19.149,99 €	Components, Accelerometer, boxes, GPS development Kit, batteries, Assembly of hardware kit, ICD 3 in-circuit debugger, G-Node G301 Starter Kit, Wireless Sensor Networks, Add-on expansion boards, Apple IPAD's, sensors & switches
	Major cost item 'Travel Cost'	20.806,61 €	Travelling to London-UK, 4th plenary meeting + Mobimedia Conference Travelling to Brussels-Belgium, 5th plenary meeting + Audit Meeting Travelling to Aveiro-Portugal, 6th plenary meeting Travelling to Stockholm-Sweden, Meetings with Security forces Lisbon-Portugal, Meeting with partner Paleblue Travelling to Barcelona-Spain, Black Hat Europe Conference 2010 Travelling to Madrid-Spain, 7th plenary meeting Travelling to Florence-Italy, Future Internet Summit Travelling to Crete-Greece, Future Internet Summit Lisbon-Portugal, Mobimedia Conference 2010 Travelling to Berlin-Germany, 8th plenary meeting Travelling to London-UK, 9th plenary meeting
	Remaining costs	1.801,20 €	Mail expenses, communications, Room rental for Audit meeting review, event participation related to User's Interfaces area, Website domain renovation, Management expenses, flyers
TOTAL DIRECT COSTS AS CLAIMED ON FORM C		465.513,55 €	
TOTAL INDIRECT COSTS AS CLAIMED ON FORM C		277.807,00 €	
TOTAL COSTS AS CLAIMED ON FORM C		743.320,55 €	

Table 9 – PDM&FC Personnel Costs Second Period

6.2 IT Personnel Costs

TABLE IT PERSONNEL, SUBCONTRACTING AND OTHER MAJOR COST ITEMS FOR BENEFICIARY 2 FOR THE ADJUSTMENT OF FIRST PERIOD			
Work Package	Item description	Amount	Explanations
1, 2, 3, 5	Personnel Costs	6.540,00 €	The adjustments are based on the difference between the precalculated personnel costs applied for the period and the postcalculated personnel costs for the same months/period, calculated after the end of the year.
	Subcontracting		
1, 2, 3, 5	Major cost item 'Travel Cost'		
	Remaining costs		
TOTAL DIRECT COSTS AS CLAIMED ON FORM C		6.540,00 €	
TOTAL INDIRECT COSTS AS CLAIMED ON FORM C		-1.375,00 €	
TOTAL COSTS AS CLAIMED ON FORM C		5.165,00 €	

Table 10 – IT Personnel Costs First Period Adjustment

TABLE IT PERSONNEL, SUBCONTRACTING AND OTHER MAJOR COST ITEMS FOR BENEFICIARY 2			
Work Package	Item description	Amount	Explanations
2, 3, 4, 5	Personnel Costs	122.421,00 €	24.35 person-months – 3409.00 person-hours (PH) distributed as WP2: 2.80 PM 392.00 PH WP3: 5.20 PM 728.00 PH WP4: 9.10 PM 1274.00 PH WP5: 7.25 PM 1015.00 PH
	Subcontracting		
2, 3, 4, 5	Major cost item 'Travel Cost'	25.391,00 €	Travelling to London - UK, Mobimedia Conference Travelling to S. Petersburg - Russia, Conference ICUMT 2009 Travelling to Brussels - Belgium, PEACE 1st Year audit Travelling to Madrid - Spain, 7th Plenary Meeting Travelling to Zurich - Switzerland, ICCCN 2010 Conference Travelling to Momedia 2010 - Lisbon Portugal Travelling to Berlin - Germany, 8th Plenary Meeting Travelling to London - UK - WWRF Meeting Travelling to London - UK - Peace Integration Meeting Travelling to Las Vegas Nevada USA - IEEE CCNC Conference Travelling to Castelo Branco - Portugal, Project Internal Meeting Travelling to Lagoa - Portugal - Peace Final Review
	Remaining costs		
TOTAL DIRECT COSTS AS CLAIMED ON FORM C		147.812,00 €	
TOTAL INDIRECT COSTS AS CLAIMED ON FORM C		109.493,00 €	
TOTAL COSTS AS CLAIMED ON FORM C		257.305,00 €	

Table 11 – IT Personnel Costs Second Period

6.3 CARIS/KU Personnel Costs

TABLE CARIS/KU PERSONNEL, SUBCONTRACTING AND OTHER MAJOR COST ITEMS FOR BENEFICIARY 3			
Work Package	Item description	Amount	Explanations
1, 2, 3, 4, 5	Personnel Costs	153.559,00 €	40.75 person-months – 5705.00 person-hours (PH) distributed as follows: WP2: 2.00 PM 280 PH WP3: 12.75 PM 1785.00 PH WP4: 13.00 PM 1820.00 PH WP5: 13.00 PM 1820.00 PH
	Subcontracting		
1, 2, 3, 4, 5	Major cost item 'Travel Cost'	23.183,00 €	Travelling to Madrid - Spain, Pre-review PEACE Meeting Travelling to Brussels - Belgium, PEACE 1st Year audit Travelling to Aveiro - Portugal, 5th Plenary meeting Travelling to Zurich - Switzerland, IEEE LCN Conference, CONWIRE Workshop Travelling to Anaheim - USA, IEFT Meeting Travelling to Florence - Italy, ICT Mobile Summit Travelling to Maastricht - Holland, IEFT 78 Meeting Travelling to Lisbon - Portugal, ACM Mobimedia Conference Travelling to Berlin-Germany, 7th plenary meeting Travelling to London-UK, 8th plenary meeting Lisbon-Portugal, Mobimedia Conference 2010 International Journal of Network Security and its Applications Travelling to Warsaw-Poland, ICT Mobile Summit 2011 Travelling to Lagoa - Portugal - Peace Final Review
TOTAL DIRECT COSTS AS CLAIMED ON FORM C		176.742,00 €	
TOTAL INDIRECT COSTS AS CLAIMED ON FORM C		106.045,20 €	
TOTAL COSTS AS CLAIMED ON FORM C		282.787,20 €	

Table 12 – KU Personnel Costs Second Period

6.4 FHG Personnel Costs

TABLE FHG PERSONNEL, SUBCONTRACTING AND OTHER MAJOR COST ITEMS FOR BENEFICIARY 4			
Work Package	Item description	Amount	Explanations
2, 3, 4, 5	Personnel Costs	188.594,00 €	35.96 person-months – 5034.40 person-hours (PH) distributed as follows: WP2: 10.00 PM 1400.00 PH WP3: 10.74 PM 1503.60 PH WP4: 10.00 PM 1400.00 PH WP5: 5.22 PM 730.80 PH
	Subcontracting	3.100,00 €	Audit
2, 3, 4, 5	Major cost item 'Equipment'	70,00 €	Article publication fee - Network Protocols and Algorithms
	Major cost item 'Travel Cost'	5.411,75 €	Travelling to London - UK, Mobimedia Conference Travelling to Brussels - Belgium, PEACE 1st Year audit Travelling to Madrid - Spain, 7th Plenary Meeting
	Remaining costs	892,25 €	Article publication fee - Network Protocols and Algorithms Publication of a paper in the UNGN Journal Publication of a paper in IARCS Printing costs PEACE Meeting at Fraunhofer in Berlin 23.09 - 24.09.2010 - meals and drinks
TOTAL DIRECT COSTS AS CLAIMED ON FORM C		198.068,00 €	
TOTAL INDIRECT COSTS AS CLAIMED ON FORM C		165.065,00 €	
TOTAL COSTS AS CLAIMED ON FORM C		363.133,00 €	

Table 13 – FHG Personnel Costs Second Period

TABLE FHG PERSONNEL, SUBCONTRACTING AND OTHER MAJOR COST ITEMS FOR BENEFICIARY 4 ADJUSTMENT FOR THE FIRST PERIOD			
Work Package	Item description	Amount	Explanations
1, 2, 3, 5	Personnel Costs	1.306,00 €	The adjustments are based on the difference between the precalculated personnel costs applied for the period and the postcalculated personnel costs for the same months/period, calculated after the end of the year.
	Subcontracting		
1, 2, 3, 5	Major cost item 'Travel Cost'	1.430,00 €	Yacine Rabine went to the ICT Mobile Summit 2009, Santander/Spain, 09.06.2009 - 13.06.2009. At the time of the reporting it was only possible to claim part of these costs. In the adjustment it is claimed the rest of the costs of this travel.
	Remaining costs		
TOTAL DIRECT COSTS AS CLAIMED ON FORM C		2.736,00 €	
TOTAL INDIRECT COSTS AS CLAIMED ON FORM C		1.973,00 €	
TOTAL COSTS AS CLAIMED ON FORM C		4.709,00 €	

Table 14 – FHG Personnel Costs Second Period Adjustment

6.5 UOP Personnel Costs

TABLE UOP PERSONNEL, SUBCONTRACTING AND OTHER MAJOR COST ITEMS FOR BENEFICIARY 5			
Work Package	Item description	Amount	Explanations
2, 3, 4, 5	Personnel Costs	148.000,00 €	38.75 person-months – 5425 person-hours (PH) distributed WP2: 1.20 PM 168 PH WP3: 8.90 PM 1246 PH WP4: 25.80 PM 3612 PH WP5: 2.85 PM 399 PH
	Subcontracting		
2, 3, 4, 5	Major cost item 'Travel Cost'	33.942,00 €	Travelling to Brussels - Belgium, PEACE 1st Year audit Travelling to Aveiro - Portugal, 5th Plenary Meeting Travelling to Athens - Greece, Meeting the Emergency Response Team (Rescue Workers) Travelling to Athens - Greece, Meeting with the Greek Regulatory regarding use of ad-hoc for emergency communication Travelling to Anaheim - USA, IEFT Meeting Travelling to Madrid - Spain, Pre-review PEACE Meeting Travelling to Lisbon-Portugal, Mobimedia Conference 2010 Travelling to Berlin-Germany, 7th plenary meeting Travelling to Venice-Italy, Paper presentation at IFIP Wireless Days Travelling to Bordum-Turkey, Paper presentation at ACM Q2SWinet 2010 Travelling to London-UK, 8th plenary meeting
	Remaining costs	787,00 €	Vsoft SDK Video Codec Update
TOTAL DIRECT COSTS AS CLAIMED ON FORM C		182.729,00 €	
TOTAL INDIRECT COSTS AS CLAIMED ON FORM C		102.328,00 €	
TOTAL COSTS AS CLAIMED ON FORM C		285.057,00 €	

Table 15 – UOP Personnel Costs Second Period

6.6 TCC Personnel Costs

TABLE TCC PERSONNEL, SUBCONTRACTING AND OTHER MAJOR COST ITEMS FOR BENEFICIARY 7 FOR THE FIRST PERIOD			
Work Package	Item description	Amount	Explanations
1, 2, 3, 5	Personnel Costs	-3.718,00 €	The adjustments are based on the difference between the precalculated personnel costs applied for the period and the postcalculated personnel costs for the same months/period, calculated after the end of the year.
	Subcontracting		
1, 2, 3, 5	Major cost item 'Travel Cost'		
	Remaining costs		
TOTAL DIRECT COSTS AS CLAIMED ON FORM C		-3.718,00 €	
TOTAL INDIRECT COSTS AS CLAIMED ON FORM C		-6.643,00 €	
TOTAL COSTS AS CLAIMED ON FORM C		-10.361,00 €	

Table 16 – TCC Personnel Costs First Period Adjustment

TABLE TCC PERSONNEL, SUBCONTRACTING AND OTHER MAJOR COST ITEMS FOR BENEFICIARY 7			
Work Package	Item description	Amount	Explanations
1, 2, 3, 5	Personnel Costs	82.771,00 €	13,70 person-months – 1.918 person-hours (PH) distributed WP2: 2.70 PM 378 PH WP3: 4.90 PM 686 PH WP4: 5.10 PM 714 PH WP5: 1 PM 140 PH
	Subcontracting		
1, 2, 3, 5	Major cost item 'Travel Cost'	9.129,00 €	Travelling to Brussels - Belgium, PEACE 1st Year audit Travelling to Aveiro - Portugal, 5th Plenary Meeting Travelling to Madrid - Spain, Pre-review PEACE Meeting Travelling to Berlin-Germany, 7th plenary meeting
	Remaining costs		
TOTAL DIRECT COSTS AS CLAIMED ON FORM C		91.900,00 €	
TOTAL INDIRECT COSTS AS CLAIMED ON FORM C		104.772,00 €	
TOTAL COSTS AS CLAIMED ON FORM C		196.672,00 €	

Table 17 – TCC Personnel Costs Second Period

6.7 TID Personnel Costs

TABLE TID PERSONNEL, SUBCONTRACTING AND OTHER MAJOR COST ITEMS FOR BENEFICIARY 8 FOR THE FIRST PERIOD			
Work Package	Item description	Amount	Explanations
1, 2, 3, 5	Personnel Costs	698,00 €	The personnel costs had been revised because the personnel rate used on form c for the year 2010 was estimated and not consolidated.
	Subcontracting		
1, 2, 3, 5	Major cost item 'Travel Cost'	-28,00 €	Indirect taxes and duties, including VAT in other countries where the expense was incurred, not just in partner's home country, were included in the first report.
	Remaining costs		
TOTAL DIRECT COSTS AS CLAIMED ON FORM C		670,00 €	
TOTAL INDIRECT COSTS AS CLAIMED ON FORM C		-5.322,00 €	The overhead costs had been revised because the overhead rate used on Form C for year 2010 was estimated and not consolidated.
TOTAL COSTS AS CLAIMED ON FORM C		-4.652,00 €	

Table 18 – TID Personnel Costs First Period Adjustment

TABLE TID PERSONNEL, SUBCONTRACTING AND OTHER MAJOR COST ITEMS FOR BENEFICIARY 8			
Work Package	Item description	Amount	Explanations
2, 3, 4, 5	Personnel Costs	188.575,00 €	27.99 person-months – 3918.60 person-hours (PH) distributed as follows: WP2: 7.43 PM 1040.20 PH WP3: 10.71 PM 1499.40 PH WP4: 6.27 PM 877.80 PH WP5: 3.58 PM 501.20 PH
	Subcontracting		
2, 3, 4, 5	Major cost item 'Travel Cost'	6.091,16 €	Travelling to London - UK, Mobimedia Conference and 4th Plenary Meeting Travelling to Brussels - Belgium, PEACE 1st Year audit Travelling to Aveiro - Portugal, 5th Plenary Meeting
	Managment	2.307,26 €	Travelling to Faro - Portugal, Final Review Peace
	Remaining costs	718,40 €	Conference registration for MOBIMEDIA 2010 Conference fee Workshop Secure & Reliable Multimedia 2009
TOTAL DIRECT COSTS AS CLAIMED ON FORM C		197.691,82 €	
TOTAL INDIRECT COSTS AS CLAIMED ON FORM C		150.013,00 €	
TOTAL COSTS AS CLAIMED ON FORM C		347.704,82 €	

Table 19 – TID Personnel Costs Second Period

6.8 PALE BLUE Personnel Costs

TABLE PALE BLUE PERSONNEL, SUBCONTRACTING AND OTHER MAJOR COST ITEMS FOR BENEFICIARY 9			
Work Package	Item description	Amount	Explanations
2, 3, 4, 5	Personnel Costs	72.871,00 €	19.50 person-months – 2730.00 person-hours (PH) distributed as follows: WP2: 0.70 PM 98.00 PH WP3: 6.40 PM 896.00 PH WP4: 10.70 PM 1498.00 PH WP5: 1.70 PM 238.00 PH
	Subcontracting		
2, 3, 4, 5	Major cost item 'Equipment'	12.500,00 €	Components, Accelerometer, boxes, GPS development Kit, batteries, Assembly of hardware kit, ICD 3 in-circuit debugger, G-Node G301 Starter Kit, Wireless Sensor Networks, Add-on expansion boards, sensors & switches
	Major cost item 'Travel Cost'	1.752,22 €	Travelling to Brussels-Belgium, 5th plenary meeting + Audit Meeting Travelling to Aveiro-Portugal, 6th plenary meeting Lisbon-Portugal, Meeting with partner Paleblue Travelling to Madrid-Spain, project meeting
	Remaining costs		
TOTAL DIRECT COSTS AS CLAIMED ON FORM C		87.123,22 €	
TOTAL INDIRECT COSTS AS CLAIMED ON FORM C		17.424,00 €	
TOTAL COSTS AS CLAIMED ON FORM C		104.547,22 €	

Table 20 – PaleBlue Personnel Costs Second Period

7 Financial statements – Form C and Summary financial report

7.1 PEACE summary financial report

FP7 - Grant Agreement - Annex VI - Collaborative project

Summary Financial report - Collaborative project																				
Project acronym			PEACE		Project nr		225654		Reporting period from		01/09/2009		to		31/01/2011		Page		1/1	
Funding scheme		CP		Type of activity								Total								
Benef. nr	If 3rd Party, linked to benef.	Adjustment (Yes/No)	Organisation Short Name	RTD (A)		Demonstration (B)		Management (C)		Other (D)		Total (A+B+C+D)		Req. EC Contrib.	Receipts	Interest				
				Total	Max EC Contrib.	Total	Max EC Contrib.	Total	Max EC Contrib.	Total	Max EC Contrib.	Total	Max EC Contrib.							
1		No	PDM&FC	539,158	449,170	0	0	144,152	144,152	0	0	743,320	593,320	593,320	0	250				
2		No	IT	257,365	192,978	0	0	0	0	0	0	257,365	192,978	192,978	0					
3		Yes (1)	IT	5,165	3,873	0	0	0	0	0	0	5,165	3,873	3,873	0					
3		No	CARES/KU	282,787	212,096	0	0	0	0	0	0	282,787	212,096	212,096	0					
4		No	FHG	360,033	270,024	0	0	3,100	3,100	0	0	363,133	273,124	273,124	0					
4		Yes (2)	FHG	4,709	3,531	0	0	0	0	0	0	4,709	3,531	3,531	0					
5		No	UCP	285,057	213,792	0	0	0	0	0	0	285,057	213,792	213,792	0					
7		No	TCC	156,672	98,336	0	0	0	0	0	0	156,672	98,336	98,336	0					
7		Yes (1)	TCC	-10,361	-5,180	0	0	0	0	0	0	-10,361	-5,180	-5,180	0					
8		No	TID	345,298	172,608	0	0	2,307	2,307	0	0	347,605	175,006	175,006	0					
8		Yes (1)	TID	-4,652	-2,326	0	0	0	0	0	0	-4,652	-2,326	-2,326	0					
9		No	PALM/BLU	104,547	78,410	0	0	0	0	0	0	104,547	78,410	78,410	0					
Total				2,425,828	1,887,823	0	0	149,529	149,529	0	0	2,575,357	1,837,362	1,837,362	0					

Figure 16 – Peace Summary Financial Report Second Period Submitted

7.2 PDMFC's Form C

FP7 - Grant Agreement - Annex VI - Collaborative project

Form C - Financial Statement (to be filled in by each beneficiary)

Project Number	225654	Funding scheme	Collaborative project
Project Acronym	PEACE		
Period from	01/09/2009	Is this an adjustment to a previous statement?	No
To	31/01/2011		
Legal Name	PDM E PC PROJECTO DESENVOLVIMENTO MANUTENCAO FORMACAO E CONSULTORIA LDA	Participant Identity Code	999742335
Organisation Short Name	PDMFC	Beneficiary nr	1
Funding % for RTD activities (A)	75.0	If flat rate for indirect costs, specify %	60

1. Declaration of eligible costs/ump sum/flat-rate/scale of unit (in €)

	Type of Activity				Total (A+B+C+D)
	RTD (A)	Demonstration (B)	Management (C)	Other (D)	
Personnel costs	330,722	0	72,074	0	404,796
Subcontracting	0	0	2,500	0	2,500
Other direct costs	41,750	0	16,456	0	58,217
Indirect costs	224,600	0	53,119	0	277,607
Total costs	596,160	0	144,150	0	740,310
Maximum EU contribution	446,370	0	144,150	0	590,520
Requested EU contribution					590,520

2. Declaration of receipts

Did you receive any financial transfers or contributions in kind, free of charge from third parties or did the project generate any income which could be considered a receipt according to Art.II.17 of the grant agreement?
If yes, please mention the amount (in €)

No

3. Declaration of interest yielded by the pre-financing (to be completed only by the coordinator)

Did the pre-financing you received generate any interest according to Art.II.19?
If yes, please mention the amount (in €)

Yes
250

4. Certificate on the methodology

Do you declare average personnel costs according to Art.II.14.1?
Is there a certificate on the methodology provided by an independent auditor and accepted by the Commission according to Art.II.4.4?

No
No

Name of the auditor	Cost of the certificate (in €), if charged under this project
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5. Certificate on the financial statements

Is there a certificate on the financial statements provided by an independent auditor attached to this financial statement according to Art.II.4.4?

Yes

Name of the auditor	Victor Joel & Associados	Cost of the certificate (in €)	2,500
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6. Beneficiary's declaration on its honour

We declare on our honour that:

- the costs declared above are directly related to the resources used to attain the objectives of the project and fall within the definition of eligible costs specified in Articles II.14 and II.15 of the grant agreement, and, if relevant, Annex II and Article 7 (special clauses) of the grant agreement;
- the receipts declared above are the only financial transfers or contributions in kind, free of charge, from third parties and the only income generated by the project which could be considered as receipts according to Art.II.17 of the grant agreement;
- the interest declared above is the only interest yielded by the pre-financing which falls within the definition of Art.II.19 of the grant agreement;
- there is full supporting documentation to justify the information hereby declared. It will be made available at the request of the Commission and in the event of an audit by the Commission and/or by the Court of Auditors and/or their authorised representatives.

Beneficiary's Stamp	Name of the Person(s) Authorised to sign this Financial Statement
	Luis Miguel Campos
	Date & signature

Figure 17 – PDMFC Form C Second Period Submitted

7.3 IT's Form C

FP7 - Grant Agreement - Annex VI - Collaborative project

Form C - Financial Statement (to be filled in by each beneficiary)					
Project Number	225654	Funding scheme	Collaborative project		
Project Acronym	PEACE				
Period from	01/09/2009	Is this an adjustment to a previous statement ?	Yes		
To	31/01/2011	Adjustment relates to Period :	1		
Legal Name	INSTITUTO DE TELECOMUNICACOES		Participant Identity Code	999580248	
Organisation Short Name	IT		Beneficiary nr	2	
Funding % for RTD activities		If flat rate for indirect costs, specify %	N/A		
1. Declaration of eligible costs/lump sum/flat-rate/scale of unit (in €)					
	Type of Activity				
	RTD (A)	Demonstration (B)	Management (C)	Other (D)	Total (A+B+C+D)
Personnel costs	6,540	0	0	0	6,540
Subcontracting	0	0	0	0	0
Other direct costs	0	0	0	0	0
Indirect costs	-1,375	0	0	0	-1,375
Total costs	5,165	0	0	0	5,165
Maximum EU contribution	3,873	0	0	0	3,873
Requested EU contribution					3,873
2. Declaration of receipts					
Did you receive any financial transfers or contributions in kind, free of charge from third parties or did the project generate any income which could be considered a receipt according to Art.II. 17 of the grant agreement ?					No
If yes, please mention the amount (in €)					
4. Certificate on the methodology					
Do you declare average personnel costs according to Art.II.14.1 ?					No
Is there a certificate on the methodology provided by an independent auditor and accepted by the Commission according to Art.II.4.4 ?					No
Name of the auditor		Cost of the certificate (in €), if charged under this project			
5. Certificate on the financial statements					
Is there a certificate on the financial statements provided by an independent auditor attached to this financial statement according to Art.II.4.4 ?					No
Name of the auditor		Cost of the certificate (in €)			
6. Beneficiary's declaration on its honour					
We declare on our honour that:					
- the costs declared above are directly related to the resources used to attain the objectives of the project and fall within the definition of eligible costs specified in Articles II.14 and II.15 of the grant agreement, and, if relevant, Annex III and Article 7 (special clauses) of the grant agreement; - the receipts declared above are the only financial transfers or contributions in kind, free of charge, from third parties and the only income generated by the project which could be considered as receipts according to Art.II.17 of the grant agreement; - the interest declared above is the only interest yielded by the pre-financing which falls within the definition of Art.II.19 of the grant agreement; - there is full supporting documentation to justify the information hereby declared. It will be made available at the request of the Commission and in the event of an audit by the Commission and/or by the Court of Auditors and/or their authorised representatives.					
Beneficiary's Stamp		Name of the Person(s) Authorised to sign this Financial Statement			
		José Carlos da Silva Neves			
		Date & signature			

Figure 18 – IT Form C First Period Adjustment Submitted

FP7 - Grant Agreement - Annex VI - Collaborative project

Form C - Financial Statement (to be filled in by each beneficiary)			
Project Number	225654	Funding scheme	Collaborative project
Project Acronym	PEACE		
Period from	01/09/2009	Is this an adjustment to a previous statement ?	No
To	31/01/2011		
Legal Name	INSTITUTO DE TELECOMUNICACOES	Participant Identity Code	999580248
Organisation Short Name	IT	Beneficiary nr	2
Funding % for RTD activities		If flat rate for indirect costs, specify %	N/A

1. Declaration of eligible costs/lump sum/flat-rate/scale of unit (in €)

	Type of Activity				Total (A+B+C+D)
	RTD (A)	Demonstration (B)	Management (C)	Other (D)	
Personnel costs	122,421	0	0	0	122,421
Subcontracting	0	0	0	0	0
Other direct costs	25,391	0	0	0	25,391
Indirect costs	109,493	0	0	0	109,493
Total costs	257,305	0	0	0	257,305
Maximum EU contribution	192,978	0	0	0	192,978
Requested EU contribution					192,978

2. Declaration of receipts

Did you receive any financial transfers or contributions in kind, free of charge from third parties or did the project generate any income which could be considered a receipt according to Art.II. 17 of the grant agreement ?

No

If yes, please mention the amount (in €)

4. Certificate on the methodology

Do you declare average personnel costs according to Art.II.14.1 ?

No

Is there a certificate on the methodology provided by an independent auditor and accepted by the Commission according to Art.II.4.4 ?

No

Name of the auditor

Cost of the certificate (in €), if charged under this project

5. Certificate on the financial statements

Is there a certificate on the financial statements provided by an independent auditor attached to this financial statement according to Art.II.4.4 ?

No

Name of the auditor

Cost of the certificate (in €)

6. Beneficiary's declaration on its honour

We declare on our honour that:

- the costs declared above are directly related to the resources used to attain the objectives of the project and fall within the definition of eligible costs specified in Articles II.14 and II.15 of the grant agreement, and, if relevant, Annex III and Article 7 (special clauses) of the grant agreement;
- the receipts declared above are the only financial transfers or contributions in kind, free of charge, from third parties and the only income generated by the project which could be considered as receipts according to Art.II.17 of the grant agreement;
- the interest declared above is the only interest yielded by the pre-financing which falls within the definition of Art.II.19 of the grant agreement;
- there is full supporting documentation to justify the information hereby declared. It will be made available at the request of the Commission and in the event of an audit by the Commission and/or by the Court of Auditors and/or their authorised representatives.

Beneficiary's Stamp	Name of the Person(s) Authorised to sign this Financial Statement
	José Carlos da Silva Neves
	Date & signature

Figure 19 – IT Form C Second Period Submitted

7.4 KU's Form C

FP7 - Grant Agreement - Annex VI - Collaborative project

Form C - Financial Statement (to be filled in by each beneficiary)

Project Number	225654	Funding scheme	Collaborative project
Project Acronym	PEACE		
Period from	01/09/2009	Is this an adjustment to a previous statement?	No
To	31/01/2011		
Legal Name	KINGSTON UNIVERSITY HIGHER EDUCATION CORPORATION	Participant Identity Code	999864852
Organisation Short Name	CARISKU	Beneficiary nr	3
Funding % for RTD activities		If flat rate for indirect costs, specify %	60

1. Declaration of eligible costs/rate/sum/rate-rate/scale of unit (in €)

	Type of Activity				Total (A+B+C+D)
	RTD (A)	Demonstration (B)	Management (C)	Other (D)	
Personnel costs	153,559	0	0	0	153,559
Subcontracting	0	0	0	0	0
Other direct costs	23,183	0	0	0	23,183
Indirect costs	106,045	0	0	0	106,045
Total costs	282,787	0	0	0	282,787
Maximum EU contribution	212,090	0	0	0	212,090
Requested EU contribution					212,090

2. Declaration of receipts

Did you receive any financial transfers or contributions in kind, free of charge from third parties or did the project generate any income which could be considered a receipt according to Art.II.17 of the grant agreement? If yes, please mention the amount (in €)

No

4. Certificate on the methodology

Do you declare average personnel costs according to Art.II.14.1?

Is there a certificate on the methodology provided by an independent auditor and accepted by the Commission according to Art.II.4.4?

No

No

Name of the auditor

Cost of the certificate (in €), if charged under this project

5. Certificate on the financial statements

Is there a certificate on the financial statements provided by an independent auditor attached to this financial statement according to Art.II.4.4?

No

Name of the auditor

Cost of the certificate (in €)

6. Beneficiary's declaration on its honour

We declare on our honour that:

- the costs declared above are directly related to the resources used to attain the objectives of the project and fall within the definition of eligible costs specified in Articles II.14 and II.15 of the grant agreement, and, if relevant, Annex II and Article 7 (special clauses) of the grant agreement;
- the receipts declared above are the only financial transfers or contributions in kind, free of charge, from third parties and the only income generated by the project which could be considered as receipts according to Art.II.17 of the grant agreement;
- the interest declared above is the only interest yielded by the pre-financing which falls within the definition of Art.II.19 of the grant agreement;
- there is full supporting documentation to justify the information hereby declared. It will be made available at the request of the Commission and in the event of an audit by the Commission and/or by the Court of Auditors and/or their authorised representatives.

Beneficiary's Stamp	Name of the Person(s) Authorised to sign this Financial Statement
	Bee Tieng
	Date & signature

Figure 20 – KU Form C Second Year Submitted

7.5 Fraunhofer's Form C

FP7 - Grant Agreement - Annex VI - Collaborative Project			
Form C - Financial Statement (to be filled in by each beneficiary)			
Project nr	225654	Funding scheme	Collaborative Project
Project Acronym	PEACE		
Period from	01.09.09	Is this an adjustment to a previous statement ?	No
To	30.11.10		
Legal Name	Fraunhofer Gesellschaft zur Förderung der angewandten Forschung e.V.	Participant Identity Code	999984059
Organisation short Name	Fraunhofer	Beneficiary nr	4
Funding % for RTD activities (A)	75%	If flat rate for indirect costs, specify %	-

1- Declaration of eligible costs/lump sum/flat-rate/scale of unit (in €)

	Type of Activity				TOTAL (A+B+C+D)
	RTD (A)	Demonstration (B)	Management (C)	Other (D)	
Personnel costs	188.593,56	0,00	0,00	0,00	188.593,56
Subcontracting	0,00	0,00	3.100,00	0,00	3.100,00
Other direct costs	6.374,40	0,00	0,00	0,00	6.374,40
Indirect costs	165.064,76	0,00	0,00	0,00	165.064,76
Lump sums/flat-rate/scale of unit declared					0,00
Total	360.032,72	0,00	3.100,00	0,00	363.132,72
Maximum EC contribution	270.024,54	0,00	3.100,00	0,00	273.124,54
Requested EC contribution					273.124,54

2- Declaration of receipts

Did you receive any financial transfers or contributions in kind, free of charge from third parties or did the project generate any income which could be considered a receipt according to Art. II. 17 of the grant agreement ?
If yes, please mention the amount (in €)

No
0,00

3- Declaration of interest yielded by the pre-financing (to be completed only by the coordinator)

Did the pre-financing you received generate any interest according to Art. II. 19 ?
If yes, please mention the amount (in €)

No
0,00

4- Certificate on the methodology

Do you declare average personnel costs according to Art. II. 14.1 ?

Is there a certificate on the methodology provided by an independent auditor and accepted by the Commission according to Art. II. 4.4 ?

Name of the auditor	KPMG Deutsche Treuhand-Gesellschaft	Cost of the certificate (in €), if charged under this project	0,00
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5- Certificate on the financial statements

Is there a certificate on the financial statements provided by an independent auditor attached to this financial statement according to Art. II. 4.4 ?

Name of the auditor	KPMG Deutsche Treuhand-Gesellschaft	Cost of the certificate (in €)	3100
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6- Beneficiary's declaration on its honour

We declare on our honour that:

- the costs declared above are directly related to the resources used to attain the objectives of the project and fall within the definition of eligible costs specified in Articles II. 14 and II. 15 of the grant agreement, and, if relevant, Annex III and Article 7 (special clauses) of the grant agreement;
- the receipts declared above are the only financial transfers or contributions in kind, free of charge, from third parties and the only income generated by the project which could be considered as receipts according to Art. II. 17 of the grant agreement;
- the interest declared above is the only interest yielded by the pre-financing which falls within the definition of Art. II. 19 of the grant agreement ;
- there is full supporting documentation to justify the information hereby declared. It will be made available at the request of the Commission and in the event of an audit by the Commission and/or by the Court of Auditors and/or their authorised representatives.


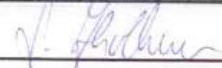
Beneficiary's Stamp	Name of the Person(s) Authorised to sign this Financial Statement
	Stephan Kollmer
	Date & signature
	20 December 2010 

Figure 21 – FOKUS Form C Second Period

FP7 - Grant Agreement - Annex VI - Collaborative Project

Form C - Financial Statement (to be filled in by each beneficiary)

Project nr	225654	Funding scheme	Collaborative Project
Project Acronym	PEACE		
Period from	01.09.08	Is this an adjustment to a previous statement ?	Yes
To	31.08.09		
Legal Name	Fraunhofer Gesellschaft zur Förderung der angewandten Forschung e.V.	Participant Identity Code	999984059
Organisation short Name	Fraunhofer	Beneficiary nr	4
Funding % for RTD activities (A)	75%	If flat rate for indirect costs, specify %	-

1- Declaration of eligible costs/lump sum/flat-rate/scale of unit (in €)

	Type of Activity				TOTAL (A+B+C+D)
	RTD (A)	Demonstration (B)	Management (C)	Other (D)	
Personnel costs	1.306,26	0,00	0,00	0,00	1.306,26
Subcontracting	0,00	0,00	0,00	0,00	0,00
Other direct costs	1.429,76	0,00	0,00	0,00	1.429,76
Indirect costs	1.972,65	0,00	0,00	0,00	1.972,65
Lump sums/flat-rate/scale of unit declared					0,00
Total	4.708,67	0,00	0,00	0,00	4.708,67
Maximum EC contribution	3.531,50	0,00	0,00	0,00	3.531,50
Requested EC contribution					3.531,50

2- Declaration of receipts

Did you receive any financial transfers or contributions in kind, free of charge from third parties or did the project generate any income which could be considered a receipt according to Art. II.17 of the grant agreement ?
If yes, please mention the amount (in €)

No

0,00

3- Declaration of interest yielded by the pre-financing (to be completed only by the coordinator)

Did the pre-financing you received generate any interest according to Art. II.19 ?
If yes, please mention the amount (in €)

No

0,00

4- Certificate on the methodology

Do you declare average personnel costs according to Art. II.14.1 ?

Yes

Is there a certificate on the methodology provided by an independent auditor and accepted by the Commission according to Art. II.4.4 ?

Yes

Name of the auditor	KPMG Deutsche Treuhand-Gesellschaft	Cost of the certificate (in €), if charged under this project	0,00
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5- Certificate on the financial statements

Is there a certificate on the financial statements provided by an independent auditor attached to this financial statement according to Art. II.4.4 ?

Yes

Name of the auditor	KPMG Deutsche Treuhand-Gesellschaft	Cost of the certificate (in €)	3100
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6- Beneficiary's declaration on its honour

We declare on our honour that:

- the costs declared above are directly related to the resources used to attain the objectives of the project and fall within the definition of eligible costs specified in Articles II.14 and II.15 of the grant agreement, and, if relevant, Annex III and Article 7 (special clauses) of the grant agreement;

- the receipts declared above are the only financial transfers or contributions in kind, free of charge, from third parties and the only income generated by the project which could be considered as receipts according to Art. II.17 of the grant agreement;

- the interest declared above is the only interest yielded by the pre-financing which falls within the definition of Art. II.19 of the grant agreement ;

- there is full supporting documentation to justify the information hereby declared. It will be made available at the request of the Commission and in the event of an audit by the Commission and/or by the Court of Auditors and/or their authorised representatives.


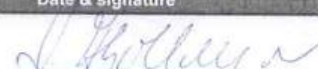
Beneficiary's Stamp	Name of the Person(s) Authorised to sign this Financial Statement	
	Stephan Kollmer	
	Date & signature	
	20 December 2010	

Figure 22 – FOKUS Form C Second Period Adjustment

7.6 University of Patras's Form C

FP7 - Grant Agreement - Annex VI - Collaborative project

Form C - Financial Statement (to be filled in by each beneficiary)			
Project Number	225654	Funding scheme	Collaborative project
Project Acronym	PEACE		
Period from	01/09/2009	Is this an adjustment to a previous statement ?	No
To	31/01/2011		
Legal Name	UNIVERSITY OF PATRAS	Participant Identity Code	999894528
Organisation Short Name	UOP	Beneficiary nr	5
Funding % for RTD activities		If flat rate for indirect costs, specify %	60

1. Declaration of eligible costs/lump sum/flat-rate/scale of unit (in €)

	Type of Activity				Total (A+B+C+D)
	RTD (A)	Demonstration (B)	Management (C)	Other (D)	
Personnel costs	148,000	0	0	0	148,000
Subcontracting	0	0	0	0	0
Other direct costs	34,729	0	0	0	34,729
Indirect costs	102,328	0	0	0	102,328
Total costs	285,057	0	0	0	285,057
Maximum EU contribution	213,792	0	0	0	213,792
Requested EU contribution					213,792

2. Declaration of receipts

Did you receive any financial transfers or contributions in kind, free of charge from third parties or did the project generate any income which could be considered a receipt according to Art.II. 17 of the grant agreement ?

If yes, please mention the amount (in €)

Yes
258,400

4. Certificate on the methodology

Do you declare average personnel costs according to Art.II.14.1 ?

Is there a certificate on the methodology provided by an independent auditor and accepted by the Commission according to Art.II.4.4 ?

No
No

Name of the auditor	Cost of the certificate (in €), if charged under this project
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5. Certificate on the financial statements

Is there a certificate on the financial statements provided by an independent auditor attached to this financial statement according to Art.II.4.4 ?

No

Name of the auditor	Cost of the certificate (in €)
---------------------	--------------------------------

6. Beneficiary's declaration on its honour

We declare on our honour that:

- the costs declared above are directly related to the resources used to attain the objectives of the project and fall within the definition of eligible costs specified in Articles II.14 and II.15 of the grant agreement, and, if relevant, Annex III and Article 7 (special clauses) of the grant agreement;
- the receipts declared above are the only financial transfers or contributions in kind, free of charge, from third parties and the only income generated by the project which could be considered as receipts according to Art.II.17 of the grant agreement;
- the interest declared above is the only interest yielded by the pre-financing which falls within the definition of Art.II.19 of the grant agreement;
- there is full supporting documentation to justify the information hereby declared. It will be made available at the request of the Commission and in the event of an audit by the Commission and/or by the Court of Auditors and/or their authorised representatives.

Beneficiary's Stamp	Name of the Person(s) Authorised to sign this Financial Statement
	Tasos Dagiuklas
	Date & signature

Figure 23 – UPAT Form C Second Period Submitted

7.7 Thales's Form C

FP7 - Grant Agreement - Annex VI - Collaborative project

Form C - Financial Statement (to be filled in by each beneficiary)			
Project Number	225654	Funding scheme	Collaborative project
Project Acronym	PEACE		
Period from	01/09/2009	Is this an adjustment to a previous statement ?	Yes
To	31/01/2011	Adjustment relates to Period :	1
Legal Name	THALES COMMUNICATIONS SA	Participant Identity Code	999971934
Organisation Short Name	TCC	Beneficiary nr	7
Funding % for RTD activities		If flat rate for indirect costs, specify %	N/A

1. Declaration of eligible costs/lump sum/flat-rate/scale of unit (in €)

	Type of Activity				Total (A+B+C+D)
	RTD (A)	Demonstration (B)	Management (C)	Other (D)	
Personnel costs	-3,718	0	0	0	-3,718
Subcontracting	0	0	0	0	0
Other direct costs	0	0	0	0	0
Indirect costs	-6,643	0	0	0	-6,643
Total costs	-10,361	0	0	0	-10,361
Maximum EU contribution	-5,180	0	0	0	-5,180
Requested EU contribution					-5,180

2. Declaration of receipts

Did you receive any financial transfers or contributions in kind, free of charge from third parties or did the project generate any income which could be considered a receipt according to Art.II. 17 of the grant agreement ?

If yes, please mention the amount (in €)

No

4. Certificate on the methodology

Do you declare average personnel costs according to Art.II.14.1 ?

Is there a certificate on the methodology provided by an independent auditor and accepted by the Commission according to Art.II.4.4 ?

No

No

Name of the auditor

Cost of the certificate (in €), if charged under this project

5. Certificate on the financial statements

Is there a certificate on the financial statements provided by an independent auditor attached to this financial statement according to Art.II.4.4 ?

No

Name of the auditor

Cost of the certificate (in €)

6. Beneficiary's declaration on its honour

We declare on our honour that:

- the costs declared above are directly related to the resources used to attain the objectives of the project and fall within the definition of eligible costs specified in Articles II.14 and II.15 of the grant agreement, and, if relevant, Annex III and Article 7 (special clauses) of the grant agreement;
- the receipts declared above are the only financial transfers or contributions in kind, free of charge, from third parties and the only income generated by the project which could be considered as receipts according to Art.II.17 of the grant agreement;
- the interest declared above is the only interest yielded by the pre-financing which falls within the definition of Art.II.19 of the grant agreement;
- there is full supporting documentation to justify the information hereby declared. It will be made available at the request of the Commission and in the event of an audit by the Commission and/or by the Court of Auditors and/or their authorised representatives.

Beneficiary's Stamp	Name of the Person(s) Authorised to sign this Financial Statement
	Ronan PERON
	Date & signature

Figure 24 – TCC Form C First Period Adjustment Submitted

FP7 - Grant Agreement - Annex VI - Collaborative project

Form C - Financial Statement (to be filled in by each beneficiary)			
Project Number	225654	Funding scheme	Collaborative project
Project Acronym	PEACE		
Period from	01/09/2009	Is this an adjustment to a previous statement ?	No
To	31/01/2011		
Legal Name	THALES COMMUNICATIONS SA	Participant Identity Code	999971934
Organisation Short Name	TCC	Beneficiary nr	7
Funding % for RTD activities		If flat rate for indirect costs, specify %	N/A

1. Declaration of eligible costs/lump sum/flat-rate/scale of unit (in €)

	Type of Activity				Total (A+B+C+D)
	RTD (A)	Demonstration (B)	Management (C)	Other (D)	
Personnel costs	82,771	0	0	0	82,771
Subcontracting	0	0	0	0	0
Other direct costs	9,129	0	0	0	9,129
Indirect costs	104,772	0	0	0	104,772
Total costs	196,672	0	0	0	196,672
Maximum EU contribution	98,336	0	0	0	98,336
Requested EU contribution					98,336

2. Declaration of receipts

Did you receive any financial transfers or contributions in kind, free of charge from third parties or did the project generate any income which could be considered a receipt according to Art.II. 17 of the grant agreement ?
If yes, please mention the amount (in €)

No

4. Certificate on the methodology

Do you declare average personnel costs according to Art.II.14.1 ?

No

Is there a certificate on the methodology provided by an independent auditor and accepted by the Commission according to Art.II.4.4 ?

No

Name of the auditor		Cost of the certificate (in €), if charged under this project	
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5. Certificate on the financial statements

Is there a certificate on the financial statements provided by an independent auditor attached to this financial statement according to Art.II.4.4 ?

No

Name of the auditor		Cost of the certificate (in €)	
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6. Beneficiary's declaration on its honour

We declare on our honour that:

- the costs declared above are directly related to the resources used to attain the objectives of the project and fall within the definition of eligible costs specified in Articles II.14 and II.15 of the grant agreement, and, if relevant, Annex III and Article 7 (special clauses) of the grant agreement;
- the receipts declared above are the only financial transfers or contributions in kind, free of charge, from third parties and the only income generated by the project which could be considered as receipts according to Art.II.17 of the grant agreement;
- the interest declared above is the only interest yielded by the pre-financing which falls within the definition of Art.II.19 of the grant agreement;
- there is full supporting documentation to justify the information hereby declared. It will be made available at the request of the Commission and in the event of an audit by the Commission and/or by the Court of Auditors and/or their authorised representatives.

Beneficiary's Stamp	Name of the Person(s) Authorised to sign this Financial Statement
	Ronan PERON
	Date & signature

Figure 25 – TCC Form C Second Period Submitted

7.8 Telefonica's Form C

FP7 - Grant Agreement - Annex VI - Collaborative project

Form C - Financial Statement (to be filled in by each beneficiary)			
Project Number	225654	Funding scheme	Collaborative project
Project Acronym	PEACE		
Period from	01/09/2009	Is this an adjustment to a previous statement ?	Yes
To	31/01/2011	Adjustment relates to Period :	1
Legal Name	TELEFONICA INVESTIGACION Y DESARROLLO SA	Participant Identity Code	999910824
Organisation Short Name	TID	Beneficiary nr	8
Funding % for RTD activities		If flat rate for indirect costs, specify %	N/A

1. Declaration of eligible costs/lump sum/flat-rate/scale of unit (in €)

	Type of Activity				Total (A+B+C+D)
	RTD (A)	Demonstration (B)	Management (C)	Other (D)	
Personnel costs	698	0	0	0	698
Subcontracting	0	0	0	0	0
Other direct costs	-28	0	0	0	-28
Indirect costs	-5,322	0	0	0	-5,322
Total costs	-4,652	0	0	0	-4,652
Maximum EU contribution	-2,326	0	0	0	-2,326
Requested EU contribution					-2,326

2. Declaration of receipts

Did you receive any financial transfers or contributions in kind, free of charge from third parties or did the project generate any income which could be considered a receipt according to Art.II. 17 of the grant agreement ?

No

If yes, please mention the amount (in €)

4. Certificate on the methodology

Do you declare average personnel costs according to Art.II.14.1 ?

No

Is there a certificate on the methodology provided by an independent auditor and accepted by the Commission according to Art.II.4.4 ?

Yes

Name of the auditor	Cost of the certificate (in €), if charged under this project	0
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5. Certificate on the financial statements

Is there a certificate on the financial statements provided by an independent auditor attached to this financial statement according to Art.II.4.4 ?

No

Name of the auditor	Cost of the certificate (in €)	
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6. Beneficiary's declaration on its honour

We declare on our honour that:

- the costs declared above are directly related to the resources used to attain the objectives of the project and fall within the definition of eligible costs specified in Articles II.14 and II.15 of the grant agreement, and, if relevant, Annex III and Article 7 (special clauses) of the grant agreement;
- the receipts declared above are the only financial transfers or contributions in kind, free of charge, from third parties and the only income generated by the project which could be considered as receipts according to Art.II.17 of the grant agreement;
- the interest declared above is the only interest yielded by the pre-financing which falls within the definition of Art.II.19 of the grant agreement;
- there is full supporting documentation to justify the information hereby declared. It will be made available at the request of the Commission and in the event of an audit by the Commission and/or by the Court of Auditors and/or their authorised representatives.

Beneficiary's Stamp	Name of the Person(s) Authorised to sign this Financial Statement
	Mr. Emilio Rodríguez Pérez
	Date & signature

Figure 26 – TCC Form C First Period Adjustment Submitted

FP7 - Grant Agreement - Annex VI - Collaborative project

Form C - Financial Statement (to be filled in by each beneficiary)			
Project Number	225654	Funding scheme	Collaborative project
Project Acronym	PEACE		
Period from	01/09/2009	Is this an adjustment to a previous statement ?	No
To	31/01/2011		
Legal Name	TELEFONICA INVESTIGACION Y DESARROLLO SA	Participant Identity Code	999910824
Organisation Short Name	TID	Beneficiary nr	8
Funding % for RTD activities		If flat rate for indirect costs, specify %	N/A

1. Declaration of eligible costs/lump sum/flat-rate/scale of unit (in €)

	Type of Activity				Total (A+B+C+D)
	RTD (A)	Demonstration (B)	Management (C)	Other (D)	
Personnel costs	188,575	0	0	0	188,575
Subcontracting	0	0	0	0	0
Other direct costs	6,810	0	2,307	0	9,117
Indirect costs	150,013	0	0	0	150,013
Total costs	345,398	0	2,307	0	347,705
Maximum EU contribution	172,699	0	2,307	0	175,006
Requested EU contribution					175,006

2. Declaration of receipts

Did you receive any financial transfers or contributions in kind, free of charge from third parties or did the project generate any income which could be considered a receipt according to Art.II. 17 of the grant agreement ?
If yes, please mention the amount (in €)

No

4. Certificate on the methodology

Do you declare average personnel costs according to Art.II.14.1 ?

No

Is there a certificate on the methodology provided by an independent auditor and accepted by the Commission according to Art.II.4.4 ?

Yes

Name of the auditor

Cost of the certificate (in €), if charged under this project

0

5. Certificate on the financial statements

Is there a certificate on the financial statements provided by an independent auditor attached to this financial statement according to Art.II.4.4 ?

No

Name of the auditor

Cost of the certificate (in €)

6. Beneficiary's declaration on its honour

We declare on our honour that:

- the costs declared above are directly related to the resources used to attain the objectives of the project and fall within the definition of eligible costs specified in Articles II.14 and II.15 of the grant agreement, and, if relevant, Annex III and Article 7 (special clauses) of the grant agreement;
- the receipts declared above are the only financial transfers or contributions in kind, free of charge, from third parties and the only income generated by the project which could be considered as receipts according to Art.II.17 of the grant agreement;
- the interest declared above is the only interest yielded by the pre-financing which falls within the definition of Art.II.19 of the grant agreement;
- there is full supporting documentation to justify the information hereby declared. It will be made available at the request of the Commission and in the event of an audit by the Commission and/or by the Court of Auditors and/or their authorised representatives.

Beneficiary's Stamp	Name of the Person(s) Authorised to sign this Financial Statement
	Mr. Emilio Rodríguez Pérez
	Date & signature

Figure 27 – TID Form C Second Period Submitted

7.9 Paleblue's Form C

FP7 - Grant Agreement - Annex VI - Collaborative project

Form C - Financial Statement (to be filled in by each beneficiary)

Project Number	225054	Funding scheme	Collaborative project
Project Acronym	PEACE		
Period from	01/09/2009	Is this an adjustment to a previous statement?	No
To	31/01/2011		
Legal Name	PALE BLUE AB	Participant Identity Code	990002236
Organisation Short Name	PALE BLUE	Beneficiary nr	9
Funding % for RTD activities (A)	75.0	If flat rate for indirect costs, specify %	20

1. Declaration of eligible costs/lump sum/fixed-rate/scale of unit (in €)

	Type of Activity				Total (A+B+C+D)
	RTD (A)	Demonstration (B)	Management (C)	Other (D)	
Personnel costs	72,671	0	0	0	72,671
Subcontracting	0	0	0	0	0
Other direct costs	14,252	0	0	0	14,252
Indirect costs	17,424	0	0	0	17,424
Total costs	104,547	0	0	0	104,547
Maximum EU contribution	78,410	0	0	0	78,410
Requested EU contribution					78,410

2. Declaration of receipts

Did you receive any financial transfers or contributions in kind, free of charge from third parties or did the project generate any income which could be considered a receipt according to Art. II.17 of the grant agreement? If yes, please mention the amount (in €)

No

4. Certificate on the methodology

Do you declare average personnel costs according to Art. II.14.1?

No

Is there a certificate on the methodology provided by an independent auditor and accepted by the Commission according to Art. II.4.4?

No

Name of the auditor	Cost of the certificate (in €), if charged under this project

5. Certificate on the financial statements

Is there a certificate on the financial statements provided by an independent auditor attached to this financial statement according to Art. II.4.4?

No

Name of the auditor	Cost of the certificate (in €)

6. Beneficiary's declaration on its honour

We declare on our honour that:

- the costs declared above are directly related to the resources used to attain the objectives of the project and fall within the definition of eligible costs specified in Articles II.14 and II.15 of the grant agreement, and, if relevant, Annex II and Article 7 (special clauses) of the grant agreement;
- the receipts declared above are the only financial transfers or contributions in kind, free of charge, from third parties and the only income generated by the project which could be considered as receipts according to Art. II.17 of the grant agreement;
- the interest declared above is the only interest yielded by the pre-financing which falls within the definition of Art. II.19 of the grant agreement;
- there is full supporting documentation to justify the information hereby declared. It will be made available at the request of the Commission and in the event of an audit by the Commission and/or by the Court of Auditors and/or their authorised representatives.

Beneficiary's Stamp	Name of the Person(s) Authorised to sign this Financial Statement
	Anders Fredriksson
	Date & signature

Figure 28 – PB Form C Second Period Submitted

8 Certificates

In accordance with Article II.4.4 of the Grant Agreement, there is no certificate due for the reported period for any Peace beneficiary.