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Periodic Progress Report

M1-M6

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SWAN-iCare

Smart wearable and autonomous negative pressure device for wound monitoring and therapy

Contract Start Date: 1 September 2012
Contract Duration: 48 months

Project Partners: EXODUS S.A. (GR, Coordinator), CEA (FR), CSEM(CH), UNIPI-CHE (IT), UNIPI-WHR (IT), CHURG (FR), EUROR (IT), HBIO (IT), EWMA(DK), ICCS (GR), S&N (UK), SWINN (CH)
# Contributers

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marie Muller</td>
<td>CHURG</td>
</tr>
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<td>Marco Romanelli</td>
<td>UNIPI-WHR</td>
</tr>
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<td>Guy Voirin</td>
<td>CSEM</td>
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<td>Isabelle Texier-Nogues</td>
<td>CEA</td>
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<td>Andreas Raptopoulos</td>
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<td>Carl Saxby</td>
<td>S&amp;N</td>
</tr>
</tbody>
</table>

## Revision History

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Modifications</th>
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<tr>
<td>0.10</td>
<td>01/02/2013</td>
<td>Request for input for WP leaders (WP2, WP3, WP4, WP6, WP9).</td>
</tr>
<tr>
<td>0.90</td>
<td>15/03/2013</td>
<td>Input received from WP leaders (WP2, WP3, WP4, WP6, WP9).</td>
</tr>
<tr>
<td>1.00</td>
<td>02/04/2013</td>
<td>Submitted to the PO.</td>
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Executive Summary

This document provides a summary of the progress achieved and the resources used during the first six months of the project (M1-M6). The report is structured in terms of progress achieved per work package. The work packages included in this document are those that started their activities during the reporting period, according to the DoW. The relevant Work Packages are the following:

- WP1 Project management and Quality assurance (M1-M48)
- WP2 Clinical and End-user requirements (M1-M12)
- WP3 Complete system design (M1-M24)
- WP4 Development of sensors and actuators (M3-M38)
- WP6 Development of embedded software and medical applications (M4-M33)
- WP9 Dissemination and exploitation (M1-M48)

In a summary, WP1 organized the communication among the members of the consortium in terms of regular teleconferences, Wiki collaboration and has organized a number of teleconferences, where all partners participated, to discuss all management and major technical issues of the project. No significant problems were observed during the first six months of the project. A plenary meeting was organised in February 2013 to discuss the user and medical requirements and to discuss the strategy for the full value chain of the project.

WP2 started its activities towards defining the user and medical requirements, which will guide the design and specifications of the SWAN-iCare system. Workshops were organized by CHURG and UNIP-I-WHR, the two medical partners of the project, in order to gather requirements from patients for the Diabetes Foot Ulcer (DFU) and the Venus Leg Ulcer (VLU) use cases. During the workshops, the patients were informed about the scope of SWAN-iCare and filled questionnaires, which were decided among all partners. EWMA sent the same questionnaires to a group of patients and clinicians across European countries. The results of all questionnaires have been analysed to derive user and medical requirements that will guide the development of the SWAN-iCare device. The current version of user and medical requirements has been reported in Deliverable D2.1 “User requirements for the full system innovation chain, including clinical and End-users requirements”. The document will be updated in the next six months of the project and the final version of user and medical requirements will be presented in Deliverable D2.2 “User requirements for the full system innovation chain, including clinical and End-users requirements – Update”.

WP3 is based on the requirements defined in WP2. Therefore the main work done at this phase of the project was collaborative work with WP2 in order to define the requirements and the list of sensors for both Venous Leg Ulcer (VLU) and Diabetic Foot Ulcer (DFU).

WP4 started at M3 of the project. The first steps involved establishment of technical specifications and work plans for every sensor and actuator to be developed in the project. These technical specifications are based on the medical and user requirements defined in WP2, as well as on system design specifications that will be issued by WP3.

WP6 started at M4 of the project. Work started within this WP to understand the user and medical requirements, by collaborating with WP2. Furthermore, effort was devoted to reviewing wireless
standards for healthcare applications both for the smartphone and the medical gateways applications and an initial set of mock-ups was developed.

WP9 designed the project website www.swan-icare.eu and updated it with general information about the project. Work was held to compile the project flyer, the SWOT and value chain analysis and the dissemination plan for the first year of the project.
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1 WP1 Project management and Quality assurance

1.1 Summary of achievements

Project Management is realized within the scope of Work Package 1. The main activities concern ensuring that the project activities take place according to the plan (including timely delivery of reports), risks are managed and mitigated, consortium collaboration is both effective and efficient, project results are of good quality, international standards are monitored and applied when useful, and finally that ethical issues are taken into account for relevant parts of the project.

The achievements of WP1 during the first half of Year 1 of SWAN-iCare can be summarized as follows: coordination of project documentation, review of the respective deliverables to ensure consistency and quality and tracking of project activities to ensure project execution according to the project plan.

The Consortium Agreement (CA) was signed by all partners and sent to the European Commission. The pre-financing of the project was distributed by the coordinator (EXODUS) to all partners.

WP1 efforts maintained the collaboration infrastructure (Wiki site) for the project partners. The Wiki system was proven to be efficient and has improved collaboration significantly.

WP1 organized the kick-off meeting in Athens, October 10-11 2012 and the meeting in Neuchâtel, February 4-5 2013. The second meeting was devoted to discussing the user and medical requirements of the project and the strategy to achieve the full value chain of the project.

A monthly-basis teleconference is organized by the coordinator, where all partners participate. The scope of this teleconference is to discuss all management and major technical issues of the project. Per WP conference calls are organized by the WP leaders in a bi-weekly basis in order to discuss all technical issues within the WP.

An advisory board is formed to help the consortium. The members of the advisory board were decided by the consortium during two WP1 teleconferences. The criteria of selection were the expertise of the candidates in respect to the SWAN-iCare activities. The decided list of members of the advisory board is the following:

* Dr Georges Kotrotsios (VP of Marketing, CSEM)
* Prof Luc Téot (Head of Wound Healing Unit-Burns Unit, Montpellier University Hospital)
* Dr Cees Lanting (Senior Marketing Manager European Projects, CSEM)

1.1.1 Meetings and Conference Calls

Face-to-face meetings
One face to face meeting with participants from all partners took place during the reporting period.

Meeting scope: User and medical requirements – Strategy of the SWAN-iCare value chain
Location: Neuchâtel (premises of CSEM)
Date: February 4-5, 2013
Conference calls
During the reporting period, a number of WP1 calls with representative from all partners were organized. The scope was the close collaboration and timely communication among partners to discuss the progress and resolve any problem and deviation.

1.1.2 Collaboration & infrastructure

The project web site
The project web site (http://www.swan-icare.eu/) has been created. Public documents will be uploaded on the website as soon as they are approved by the EC.

Wiki site
The project Wiki site¹, maintained by EXODUS, has been used extensively by all partners to exchange and share project material, such as versions of deliverables and minutes from meetings and teleconferences.

Mailing lists
The mailing lists “swan-all@exodussa.com” has been extensively used during the reporting period. The complete history of messages is kept within the list server operated by EXODUS and is accessible by all list members.

¹ https://rwiki.exodussa.com/SWAN-iCare_project
### 1.1.3 Deliverables due M1-M6

<table>
<thead>
<tr>
<th>Del. no.</th>
<th>Deliverable name</th>
<th>Lead Partner</th>
<th>Dissemination level</th>
<th>Delivery date</th>
<th>Actual Delivery Date</th>
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<td>D1.1</td>
<td>Project Handbook</td>
<td>EXODUS</td>
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<td>PU</td>
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<td>CO</td>
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<td>PU</td>
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<td>27/02/2013</td>
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<td>D2.1</td>
<td>User requirements for the full system innovation chain, including clinical and End-user Requirements</td>
<td>CHURG</td>
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<td>02/04/2013</td>
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<td>01/03/2013</td>
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<td>D9.3</td>
<td>Early business approach, SWOT and value chain analysis</td>
<td>S&amp;N</td>
<td>PU</td>
<td>01/03/2013</td>
<td>01/03/2013</td>
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<tr>
<td>D1.3.1</td>
<td>Periodic Progress Report</td>
<td>EXODUS</td>
<td>CO</td>
<td>01/03/2013</td>
<td>02/04/2013</td>
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</tbody>
</table>

2 **PU** = Public, **PP** = Restricted to other programme participants (including the Commission Services), **RE** = Restricted to a group specified by the consortium (including the Commission Services), **CO** = Confidential, only for members of the consortium (including the Commission Services).
### 1.1.4 Milestones

<table>
<thead>
<tr>
<th>Milestone number</th>
<th>Milestone name</th>
<th>Work package(s) involved</th>
<th>Expected date</th>
<th>Actual Delivery Date</th>
<th>Means of verification</th>
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<td>1</td>
<td>User requirements for the full system innovation chain, including clinical and End-users requirements</td>
<td>WP2</td>
<td>01/03/2013</td>
<td>02/04/2013</td>
<td>D2.1</td>
</tr>
</tbody>
</table>
1.2 Next steps

WP1 will continue the day-to-day management activities and the monitoring of the progress of all Work Packages (WP2-WP9).

1.3 Use of resources

<table>
<thead>
<tr>
<th>Partner</th>
<th>Person Months</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXODUS</td>
<td>3,5</td>
<td>EXODUS contributed to project management, technical management and quality assurance tasks of WP1. Established the project management procedures and arranged payments to partners (pre-financing). Edited management reports D1.5.1 and D1.3.1.</td>
</tr>
</tbody>
</table>

2 WP2 Clinical and End-user requirements

2.1 Summary of achievements

WP2 prepared questionnaires for gathering patients and clinicians (doctors and nurses) requirements for the SWAN-iCare device. A number of teleconferences were organized within October and November, resulting into two questionnaires, one for patients and one for clinicians. The questionnaires are reported in Deliverable D2.1 “User requirements for the full system innovation chain, including clinical and End-user Requirements” which overall summarizes the work completed by WP2 in respect to the user and medical requirements.

The patients’ questionnaires were filled in during dedicated workshops that were organized by UNIPI-WHR and CHURG, the two medical partners of the project. In addition to the above workshops, the partner EWMA circulated the SWAN-iCare patients’ questionnaires to patients and clinicians across European countries (Diabetic Foot Ulcer - DFU: Germany, Spain and Sweden, Venous Leg Ulcer - VLU: Poland and England). Further to the patients’ questionnaires, the clinicians questionnaires were filled in by clinicians at Pisa (3), Grenoble (4). In addition, EWMA circulated the questionnaire to 20 clinicians (10 doctors and 10 nurses) across several European countries.

The results of all questionnaires were gathered and analysed and meaningful conclusions were driven in respect to the user and medical requirements, which are documented in Deliverable D2.1 “User requirements for the full system innovation chain, including clinical and End-user Requirements”.

2.2 Next steps

In the next six months, WP2 will update and finalize the user and medical requirements. The final version of user and medical requirements will be reported in Deliverable 2.2. At the same time, the two clinical partners, in agreement with the Industrial Partners, will establish the final design of clinical validation studies that will be conducted in WP8. The study protocol will be submitted to both local ethical committees for obtaining legal authorisation. This is the purpose of the upcoming Deliverable 2.3.
2.3 Use of resources

<table>
<thead>
<tr>
<th>Partner</th>
<th>Person Months</th>
<th>Explanation</th>
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</thead>
<tbody>
<tr>
<td>EXODUS</td>
<td>2,34</td>
<td>Contributed to D2.1, organized WP2 telephone conferences and revised D2.1.</td>
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<tr>
<td>CEA</td>
<td>3</td>
<td>Edited the medical requirements chapter of Deliverable D2.1.</td>
</tr>
<tr>
<td>CSEM</td>
<td>3,5</td>
<td>Participation in WP2 teleconferences, meetings, writing use case and user requirements, revising parts of D2.1.</td>
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<tr>
<td>UNIPI</td>
<td>5</td>
<td>Definition of user requirements, participation to writing up of D2.1.</td>
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<tr>
<td>CHURG</td>
<td>1,8</td>
<td>Organisation of workshops in CHURG, questionnaires to nurses and clinicians, redaction of D2.1.</td>
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<tr>
<td>EUROR</td>
<td>2</td>
<td>Analysis of current medical parameters + Clinical Design of validation studies</td>
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</table>
| EWMA    | 2,5           | Participation in tasks related to D2.1 (tasks 2.1, 2.2) in particular:  
- Recruitment of European clinicians for questionnaire and advisory panel;  
- Design, development, distribution, data processing, analysis and reporting on patient and clinician questionnaires;  
- Elaboration of text for economy chapter (chapter 8). |
| ICCS    | 1             | ICCS has been involved in WP2 in contributing to the user requirements analysis based on the inputs received from the questionnaires received from patients, medical doctors and nurses. The results of this work are part of D2.1 and will be used in WP3 and WP6 in order to drive the design of the system and its software. |
| S&N     | 0,2           | Documents review, participation to meetings, follow up of WP2. |
| SWINN   | 0,1           | Documents review, participation to meetings, follow up of WP2. |

3 WP3 Complete system design

3.1 Summary of achievements

WP3 is based on the requirements defined in WP2. Therefore the main work done at this phase of the project was collaborative work with WP2 in order to define the system requirements and the list of sensors for both Venous Leg Ulcer (VLU) and Diabetic Foot Ulcer (DFU).

The work of WP3 was organized in order to have responsible for each tasks and teleconferences every two weeks in average. Minutes of the teleconferences are sent to task leaders along with the action list. The work achieved in each of the tasks within WP3 is reported in the following.
Task 3.1 User scenario definition

Regarding Task 3.1 “User scenario definition”, general scenarios were defined and are being updated following the work performed in WP2. A software tool (Enterprise Architect) was tested and will be implemented for the maintenance and traceability of the requirements and use cases. Following the work done in WP2 and with the help of the Enterprise Architect software two interaction scenarios were defined, one for DFU and one for VLU. For both interaction scenarios, the Unified Modelling Language (UML) methodology will be used.

Task 3.2 Generic and specific architecture for both scenarios

Regarding Task 3.2 “Generic and specific architecture for both scenarios”, a first version of the generic architecture was defined. Furthermore, the requirements of the sensors that are specific for each scenario (DFU, LFU) are being identified (note that the location of sensors may be different in each scenario). Criteria were established for the selection of the sensors in the main stream and high risk categories.

Task 3.3 Design at system and sub-system level

The first part of this task is to establish the system requirements. It will start effectively when the user and medical requirements will be finalised.

Task 3.4 Design of the healthcare application

Several mock-ups of the different user interfaces have been prepared and presented in collaboration with WP6. The architecture will be developed once the user requirements are completed.

Task 3.5 Research on standardization and medical risk control

As the device will release medication in the wound, it will be in a class III medical device. All the standards that apply for this case are being researched.

3.2 Next steps

Regarding Task 3.1, two interaction scenarios, one for DFU and one for VLU will be developed in collaboration with WP2. These will take into account the best practices and the SWAN-iCare innovations in terms of new sensors and actuators and the capability for continuous monitoring of the patient. In parallel, WP3 will work on the specification of requirements at the system level.

Regarding Task 3.2, according to the requirements and interaction scenarios developed in task 3.1, sensors, actuators and their location will be defined within two specific architectures, one corresponding to the DFU scenario and the other to the VLU scenario for both system prototypes: main stream and high risk.

For task 3.3, after analysis of deliverable D2.1, the system requirement at system and sub-system level will be written before the implementation of the design.

Similar procedure will be followed for the healthcare application, first the system requirement will be established and then the application will be designed.

For task 3.5, the regulatory requirements due to the standards for a class III device will be established.
3.3 Use of resources

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<th>Partner</th>
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<th>Explanation</th>
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<tr>
<td>EXODUS</td>
<td>0,4264</td>
<td>Contribution to tasks 3.4 and 3.5. Design of mock-up user interfaces.</td>
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<td>CEA</td>
<td>0,28</td>
<td>Contribution to tasks 3.1 and 3.2.</td>
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<td>CSEM</td>
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<td>Organization of WP3, cooperation with WP2 for user requirements, review of software for requirements management.</td>
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<td>UNIPSI</td>
<td>1</td>
<td>Contribution to the early design of the system.</td>
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<tr>
<td>CHURG</td>
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<td>Participation in the WP3 meetings.</td>
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<td>HBIO</td>
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<tr>
<td>ICCS</td>
<td>0,3</td>
<td>Contribution in WP3/T3.1 in drafting the user scenario definitions, describing the ways the user, either patient, medical doctor, nurse, technician, etc., can interact with the device. Up to this point these (draft) user scenarios are in natural language and as the task progresses they will be described in technical language (UML diagrams) in order to be implemented (in WP6 regarding ICCS's contribution).</td>
</tr>
<tr>
<td>SWINN</td>
<td>0,1</td>
<td>Participation in the WP3 meetings, follow up of WP3.</td>
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4 WP4 Development of sensors and actuators

4.1 Summary of achievements

WP4 started at M3 of the project. The first step of WP4 concerns the establishment of technical specifications and work plans for every sensor and actuator to be developed in the project. These technical specifications are based on the medical and user requirements defined in WP2, as well as on system design specifications that will be issued by WP3. Therefore the work achieved during the M3-M6 period involved:

- collaborative work in link with WP2 in order to define the medical requirements and the list of sensors/actuators for both Venous Leg Ulcer (VLU) and Diabetic Foot Ulcer (DFU), and their medical priority status, as well as the frequency and localization of the measures to perform wound healing monitoring;
- collaborative work in link with WP3 in order to classify each sensor/actuator between the ‘main’ and ‘high risk’ streams, for both scenarios, the DFU scenario and the VLU scenario (work still on-going);
- collaborative work in link with WP3 in order to define a generic architecture and two specific architectures (1 per scenario) of the SWAN-iCare system (work still on-going).

The technology maturity and the risks associated with each sensor/actuator are presently being analyzed. A document summarizing the results of this analysis for each sensor/actuator, a short state-
of-the-art, a work plan development and technical specifications is presently under writing. Some points have already been identified, as discussed more in detail below:

**Task 4.1: Development of integrated sensors (optical sensors (CSEM, LETI), electrochemical sensors (UNIPICHE))**

According to the medical requirements listed during WP2, it appears that:

- **Wound surface** is an important information easily measured by a simple picture taken by the nurse or health professional at dressing change, and does not require more monitoring since the wound healing is a slow process (1 picture / 2 weeks is enough). Therefore, we decided to integrate in the SWAN-iCare interface (smartphone) the possibility to archive wound photos taken at regular times during the healing process. If not necessary to monitor wound area, impedance measurements could bring very relevant information on the nature and area of tissues inside the wound (necrotic tissues, infected tissues, fibrin, etc.), but again, there is no necessity of continuous monitoring (1 measure/week is enough). Similarly, SpO2 measurements should be performed on specific localization to be relevant (on the big toe and on the finger, since the relevant information is contained in the comparison of the two values), but frequency of 1/week is enough. Therefore, there is no medical relevance to include these two sensors in the SWAN-iCare ‘continuous’ wearable devices, and they will be more relevant to include in the SWAN-iCare system as “external devices”, such as body thermometer or glucometer (in the case of DFU).

- **Wound temperature and certainly pH measurements** are to be performed in or at the wound site itself. Therefore these sensors should certainly be included in the dressing so that they are in contact with the wound. This can bring about specific problems concerning dressing biocompatibility, manufacturing, and sterilization. Other measurements (MMPs, TNFα, CRP, bacteria) could be performed in exudate but we do not know at the present time the impact of the “aging” of exudate on the measure (“aging” that will be caused by exudate travelling through the dressing in order to reach the sensors if these latter are positioned on dressing top or in the tube connecting the canister/negative pressure pump to the dressing). This point will have to be addressed during the course of the project.

**Task 4.2: Development of micro-actuators (HBIO, S&N, CEA)**

This task concerns the delivery of active ingredients for wound therapy and is focused on the dressing design. Active ingredients have been identified (collagen, doxycycline, growth factors). Suppliers have to be identified. Work plans concerning the materials are under development.

**Task 4.3: Commercially available and wearable sensors selection/development/customisation (CSEM, UNIPICHE, CEA)**

This task will start in M7 once the medical and user requirements have been listed and agreed among partners.

**Task 4.4: Development of the pump (SWINN)**

The pump core technology has been developed and tested for fluid delivery (positive displacement pump) using disposable pump head. The choice of a durable pump or a pump using a disposable pump head is still open and will be part of the design phase that is presently starting in WP3.
Collaborative work in link with WP2 and WP3 was mainly carried out during phone calls (frequency ≈ 1/week during months December-February) and physical meetings at CSEM (February) and between LETI and CHURC. A planning of monthly conf-calls involving all WP4 partners has been issued for February-July, and will be intensified if necessary. Bilateral (or 3 partners) conf-calls on specific points are organized regularly according to work under course. In addition, each partner carried out individual work concerning the state-of-the-art, establishment of work plan, architecture design and specifications for each sensor/actuator (s)he is in charge of.

4.2 Next steps

The coming work concerning WP4 for the next period will be focused on achieving the definition of technical specifications and work plans for every sensor/actuator of the SWAN-iCare system.

4.3 Use of resources

<table>
<thead>
<tr>
<th>Partner</th>
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<td>CEA</td>
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<td>Organization of WP4, technical developments on sensors and dressings.</td>
</tr>
<tr>
<td>CSEM</td>
<td>1,1</td>
<td>Participation in the WP4 teleconferences, work on development of MMPs fibre sensor.</td>
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<td>UNIPI</td>
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<td>Organization of a new laboratory, preliminary measurement on sensors</td>
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<td>HBIO</td>
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<tr>
<td>SWINN</td>
<td>0,3</td>
<td>Documents review, meetings, follow up, Specification review.</td>
</tr>
</tbody>
</table>

5 WP4 Development of sensors and actuators

5.1 Summary of achievements

WP6 concerns the development of the embedded software and the medical applications of the SWAN-iCare system. This involves the development of the embedded software that will run within the SWAN-iCare device, the development of data fusion algorithms as well as the development of smartphone and medical gateway applications. WP6 depend on WP2 and WP3 in order to acquire the user and design requirements on which the WP6 software will be developed.

WP6 started in the 4th month of the project, thus the work reported in this document refers to the work done from M4 to M6 of the project.

Given the limited life of the work-package, the main effort was spent in the understanding of the user and medical requirements, by collaborating with WP2. Furthermore, effort was devoted to reviewing wireless standards for healthcare applications both for the smartphone and the medical gateways applications.
To provide a first look and feel of what it can be developed within WP6, we developed an initial set of mock-ups. Some of the mock-ups are provided below.

![Mock-ups of the smartphone application and more specifically of the main menu (left), of the representation of measurements (middle) and of the agenda functionality (right).](image)

### 5.2 Next Steps

The next steps will be focused on the analysis of user requirements (from WP2) and the system design (from WP3) that will affect the design of the WP6 applications. More specifically, the steps that will take place during the next period are:

- To follow the progress of WP2 and extract the relevant user requirements
- To define the system requirements in collaboration with WP3
- To initiate the specification of the applications
- To perform a technological overview to decide on technologies to be used within WP6
- To analyze further the architectures by fully specifying the involved modules and the processes taking place using a formal language (e.g. UML)
- To further work on the mock-ups
5.3 Use of resources

<table>
<thead>
<tr>
<th>Partner</th>
<th>Person Months</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXODUS</td>
<td>0,7955</td>
<td>Collaborative work with WP2 to understand the user and medical requirements, design of mock-ups and review of wireless standards for healthcare applications (medical gateway and smartphone/wireless connectivity).</td>
</tr>
<tr>
<td>ICCS</td>
<td>0,2</td>
<td>State of the art survey for the topic of data fusion within the context of SWAN-iCare.</td>
</tr>
</tbody>
</table>

6 WP9 Dissemination and exploitation

6.1 Summary of achievements

WP9 covers the whole period of the project and has a number of objectives as listed below. The purpose of this work package is to:

- To ensure wide dissemination of the project’s results to all potential interested parties
- Provide a positive impact on European economy through the planning and management of exploitation, dissemination and follow-on activities.
- To ensure the process of exploitation of results by understanding the full value chain and build competitive advantages and business case and to investigate the market exploitation potentials

The individual members of the consortium have pro-actively worked together, sharing their knowledge, experience, skills and contacts to deliver the first four deliverables of WP9:

- D9.1 Project Web Portal (Month 1)
- D9.2 Project Flier (Month 6)
- D9.3 Early business approach, SWOT and value chain analysis (Month 6)
- D9.5 Dissemination plan for the Year 1 (Month 3)

D9.1 Project Web Portal (M1)

The Project Web Portal was designed, coded and launched within the first month of the project (http://www.swanicare.eu/). The portal gives the reader a good overview of the project, clearly
identifies the individual work packages and how these link, and provides details on the consortium members. The Web portal also includes links to any news, papers or events as well as useful web addresses. Included within the portal is a dedicated “Members area” which requires a secure identifier and password to be entered to gain access.

It was a requirement of the project to have the portal up and active very early (1st Month) and due to this, the level of information is quite limited. As the project progresses the information available will be increased and become more specific relating to individual aspects of the required delivery.

Informal updates of the information that could be included within the WEB Portal will occur at regular intervals (approximately once a month), with formal reviews taking place at each consortium meeting. The outputs from these formal reviews will be used to update this document on a regular basis and be included within the portal as required. It has also been acknowledged that the portal overall does need to be reviewed and updated / revamped and this is planned for Q3/Q4 2013.

D9.2 Project flier (M6)

A small group of consortium members consisting of individuals from, CEA, EXODUS, UNIPI, EWMA and Smith & Nephew took away the action to review both other European Sponsored Project Fliers and Fliers they had produced for their own organisation. The output from this review was then used to draft a SWAN-iCare flier which was recently presented to the consortium members for comment. The output of these discussions was an agreement relating to the design and information included within. (Please review D9.2 Project Flier Report for further information and example of the flier).

It is acknowledged that the flier will require to be updated as the project progresses, possible earlier than deliverable D9.4 Project flier (Month 24). The revised fliers maybe tailored towards particular groups, doctors, patients, care providers, technical bodies etc. but will be produced to ensure a common message is presented to the reader so underpinning the aims and goals of the SWAN-iCare project.

It is understood by the consortium members that the project flier is one of the critical pieces of information that underpins the dissemination activities highlighted within deliverable D9.5.

Informal updates of the information that could be included within the flier will occur at regular intervals (approximately once a month), with formal reviews taking place at each consortium meeting. The outputs from these formal reviews will be used to update this document on a regular basis and be included within the flier as required.

D9.3 Early business approach, SWOT and Value Chain analysis (M6)

As with D9.2 a small group of consortium members took away the action to draft the “Early Business approach, SWOT and Value Chain analysis”. This group included individuals from EXODUS, UNIPI, SWINN and Smith & Nephew. The three sections of this deliverable were addressed individually, the SWOT analysis was developed on the premise that it would consider the project as a whole and address the issues that could impact on the successful delivery of a working prototype device rather than focusing in on the individual technical challenges for each part, subsystem or system which would make up the final delivery. During the review of the SWOT there was some discussion relating to if an item should be seen as an opportunity rather than a threat and could some of the opportunities be seen as strengths. It was recognised that as with all SWOT analysis this is a living document and would need to be addressed as new information becomes available.
D9.5 Dissemination plan for the Year 1 (M3)

As with D9.2 and D9.3 a small group of consortium members took away the action to draft the dissemination plan for year 1, this group included individuals from EXODUS, UNIPI, EWMA, ICCS, EUROR and Smith & Nephew. This deliverable was on a very short time line (3 months) and due to the time required to set up the team and engage with the other members of the consortium the required delivery by the end of December 2012 was missed. A draft report was ready by December but not all of the individual consortium members had provided their dissemination information by this date so it was not possible to issue a document for review. Early into 2013 it then became possible to finally capture information from all of the members, this information is still a little vague in some areas but this is due to lack of clarity over which conference / seminars the individual consortium members will be attending and the level of information that will be available at that time which can be shared with a wider audience. A number of consortium members have included links within their company websites to the SWAN-iCare site and have already done internal briefings or limited external exposure; these activities will continue and increase as the project progresses. Within this deliverable an outline action plan has been included for years 2, 3, and 4.

6.2 Next steps

WP9 will work to produce the following deliverables:

- D9.6.1 Yearly Exploitation Plan and Business Models (M12)
- D9.7.1 Yearly Dissemination Report including Dissemination Material, including Dissemination plan for next year (M12)
- D9.8.1 Yearly Impact Report (M12)

6.3 Use of resources

<table>
<thead>
<tr>
<th>Partner</th>
<th>Person Months</th>
<th>Explanation</th>
</tr>
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<tbody>
<tr>
<td>EXODUS</td>
<td>2,26</td>
<td>Created the <a href="http://www.swanicare.eu">www.swanicare.eu</a> website. Contributed to the project flyer, the SWOT analysis and the dissemination plan for the first year of the project.</td>
</tr>
<tr>
<td>CEA</td>
<td>0,41</td>
<td>Participation to flyer, organization of listing of conferences, publications.</td>
</tr>
<tr>
<td>UNIPI</td>
<td>0,5</td>
<td>Participation to project flyer and web site.</td>
</tr>
<tr>
<td>CHURG</td>
<td>0,05</td>
<td>Participation to the Project Web Portal and Flyer.</td>
</tr>
<tr>
<td>EUROR</td>
<td>0,5</td>
<td>Dissemination and awareness raising activities</td>
</tr>
<tr>
<td>EWMA</td>
<td>1</td>
<td>A) Participation in tasks related to D9.1, D9.2, D9.4 and D9.5 (task 9.2), in particular input for: - Content of Year 1 Dissemination Plan; - Project flyer design and content; - Dissemination of information about SWAN in the EWAM network through board meetings, newsletter, EWMA Journal etc. - Planning of web portal, linking to EWMA website, etc.</td>
</tr>
</tbody>
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B) General participation in coordination of WP 9, in particular:
<table>
<thead>
<tr>
<th></th>
<th>0.2</th>
<th>1.85</th>
</tr>
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<tbody>
<tr>
<td>ICCS</td>
<td>Contributed to and reviewed deliverables D9.1, D9.2 and D9.3.</td>
<td>Development and Manage the deliverables for WP9, Project Flier, Dissemination Information and Early Business case, SWOT and Value Chain Analyses. Attend Consortium Meetings at Exodus and CSEM. Managed WP group phone calls.</td>
</tr>
<tr>
<td>S&amp;N</td>
<td>Documents review, meetings, follow up, SWOT, Value chain.</td>
<td></td>
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