



Executive Agency, Education, Audiovisual and Culture



## **Supporting innovative learning approaches through Mobile Integration in the WorkpLacE-Oncology Nursing (SMILEON)**

Final Report

Public Part

## Project information

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## Executive Summary

The main objective of SMILEON was to develop a methodology for the seamless integration of learning into day-to-day practice in the workplace. The methodology has been developed and validated in the context of oncology nursing, though it is adaptable to other sectors. SMILEON has developed a methodology that integrates a 'virtual layer' (using mobile technology) into nursing practice in order to enhance the learning process and give it a social element.

The SMILEON project began on November 1<sup>st</sup> 2011 and ended on October 31<sup>st</sup> 2013. The partnership carrying out the project was composed of 7 partners, from 6 different countries, bringing together six institutions specialized in oncology nursing training and a technological partner.

During the first year of the project an analysis of the needs of nurses, trainers and learning program leaders was undertaken. Employed nurses were the target group. On the basis of the results of the analysis, the partnership developed a methodology for the use of mobile technologies in the oncology nursing context, based on interaction and collaboration of trainer and learner through the use of the technology, creating a social learning network. This process took into account the reality of the daily practice of the professionals involved, the technological functionalities of the tablets and the learning objectives and with these elements in mind the mobile toolkit to support this methodology was developed. This is a web app structured around a collection of tools with an accessible interface that facilitates the different kinds of activity proposed in the methodology.

During the second year the piloting was carried out. Two pilots were performed, partly to allow for iterative development of the methodology and the toolkit, and partly to allow for a slightly different focus in each of the pilots. While the focus of the first pilot was principally on the validation of the learning methodology, some of the activity in the second pilot was focused on sustainability issues and usage models in order to derive insights regarding the future exploitation of the methodology in other contexts.

The analysis of the results of the SMILEON pilots has demonstrated that this approach facilitates learning in the workplace and it was highly appreciated by the nurses participating in the pilots who considered that this approach can facilitate their day-to-day clinical work and help them to learn on the job.

The project has been broadly disseminated to the healthcare sector, and particularly the oncology sector as primary target, and beyond to the wider field of education and training. The dissemination has been done through a range of channels: from traditional face to face channels to online channels based on social networking platforms.

All participating institutions have declared their intention to extend the use of the SMILEON app to other areas of continuing professional training in their centers.

Further information on the project and its products can be found on the project website: <http://www.smileon-project.eu>.

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## 1. Project Objectives

The aim of the SMILE-ON project was to develop a new approach to vocational training by using mobile devices to incorporate learning activities into daily practice. The idea was to integrate theoretical learning with practical skills development. The project was carried out in the context of oncology nursing. The mobile communication aspects function as a “virtual layer” that integrates into nurses’ daily interaction with patients. Using tablets, the nurses can communicate in real time in the work place and access relevant content when needed. The idea was that the virtual “space” created facilitates exchange of experiences with tutors and with other participants.

Oncology nursing is a relatively new field, and the rapid increase in knowledge, combined with the availability of new treatment options, means that cancer care nurses require specialized educational training. The proposed approach established an important improvement in the way these new skills are learned, and increased the nurses' ability to perform their work in this new area of nursing. The project was therefore innovative, not only because it involved a new social approach to mobile learning, but also because it constituted an innovation in the area of nursing training.

The project involved an initial needs analysis, followed by the development of an appropriate learning methodology and a mobile toolkit to support it. The approach was piloted, in each of the partner countries, in two cycles.

During the project lifetime the following global objectives were achieved:

1. A methodology for integrated, “just-in-time” learning in the workplace using mobile devices was developed.
2. A web app toolkit that facilitates the implementation of the methodology was developed.
3. The methodology and software were piloted in a range of workplace contexts across Europe, in the sector of oncology nursing.
4. The results of the work were disseminated and efforts were made to ensure its adoption beyond the project life cycle.

The project activities involved the target users directly. In each participating country, a group of 30 nurses, nearly 200 in total, were interviewed to identify both training needs and their level of knowledge and use of mobile and web 2.0 technologies. The views of this target audience were then incorporated into the design of the toolkit. The piloting of the application was also done, in each of the countries, with groups of nurses currently working in oncology services.

The other main aim of the SMILEON project was the dissemination and extension of this methodology to other contexts and professional sectors that can benefit from this approach to learning. For this reason, the project dissemination process started during the first year of the project and as described in the Dissemination Plan, it has been strengthened during the second year. The dissemination has focused on the health sector and specifically on cancer, but also on other contexts like the educational and technological sectors.

## 2. Project Approach

The SMILEON project proposed a new approach to vocational training by using mobile devices to incorporate learning activities into daily practice. It is based on new paradigms for adult learning, that move beyond traditional approaches that take the informal and social learning processes that make up much of the learning an adult is involved into account, in ways that traditional models do not contemplate. The emergence of new technologies has facilitated this change, moving from an early model that replicated on a computer that activity of the classroom, to later models in which tutor and learners work at the same level in collaboration, sharing knowledge independently of who brings it to the group.

We live in a society in constant evolution. The increasing rate of scientific and technological development is leading to the emergence of new jobs, which involve new worker profiles and new collections of skills that are necessary to perform these jobs appropriately. Preparing people for these new jobs requires changes in education and training to take into account the new characteristics of the work involved, and this is not solely a question of the provision of new content, since learning new skills requires practical experience with appropriate support.

The field of healthcare in particular has undergone rapid change in recent years, and this is especially true in the field of oncology care. Approaches to cancer treatment have given rise to new procedures and techniques, and this has led to the emergence of a new specialist field of nursing -- oncology nursing. The partners who took part in this project are all active in the field of oncology nursing training, and have become increasingly aware in recent years of the need to improve the ways in which this training is provided to cater more fully to the needs of trainee nurses. A range of issues are involved but one that is of particular importance is the fact that in an emerging field such as this training cannot be considered as a single action, it needs to take into account continuous development in the field.

Traditional healthcare education has focused largely on the provision of content and theory entirely separate from clinical practice. Like many jobs, nursing requires intensive integration of the theoretical knowledge that underlies the practice with on-the-job activity. To give an example, a nurse may study a unit in which she or he learns the importance of the early diagnosis and treatment of extravasations when administering a chemotherapy treatment. However in order to apply this knowledge in practice and others may need support, which is not currently provided except informally by other staff on the ward. This lack of integration between theory and practice is a challenge that SMILEON aimed to address.

Furthermore the different problems that may emerge in practice, especially in the application of new procedures and approaches in oncology nursing required a more dynamic approach that would the discussion and exploration of new concepts (supported by appropriate content) in the workplace context.

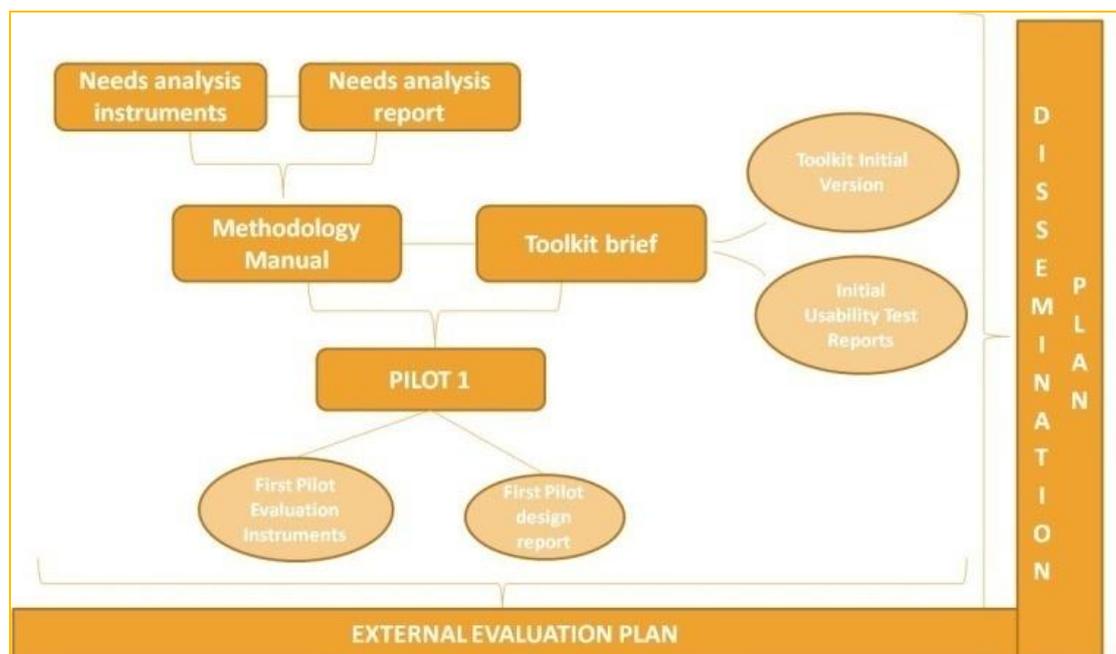
At the same time, the partners were aware of the emerging mobile technology both in their personal lives and as a training tool and had a perception of its potential for improving

learning processes by using them not only to the just-in-time provision of content, but also and very important, to provide support for social and informal learning in the workplace.

Reflecting on these different considerations; the need to integrate theory and practice more closely in oncology nursing training; the need to cater for the dynamic nature of a field in which new skills and procedures are emerging all the time; and the possible affordances of mobile technology to facilitate appropriate learning interactions between trainee nurses, and their tutors, and appropriate content as well; the partners developed a vision of a new methodology for learning, supported by mobile technology in which the nurses are continually accompanied and supported in their daily practice, thus enriching their learning. In the same way as mobile technology and the Internet increasingly are creating a "virtual layer" in our personal lives, the nurses had this virtual layer in their professional and learning lives. This was the main idea in SMILEON.

Although the intention was to focus in this project on getting the approach right for the field of oncology nursing in Europe, thanks to the success of the work we now see considerable scope for the extension of the approach into other sectors of healthcare and beyond into wider society, where in many fields, such as for example domotics, business, telecommunications and others, the continuing emergence of new technologies stimulates the emergence of new jobs that require new skills. There was a need for education to develop new approaches that can support the learning new skills and new jobs in an agile and appropriate manner. This project aimed to contribute to that development.

The following figure is a representation of the project life cycle:



The project was developed in the following phases:

- The needs analysis
- The development of methodology
- The development of the toolkit
- The piloting (2 pilots)
- The evaluation of the pilots
- The dissemination activities
- The exploitation planning

### **Need analysis:**

In the first stage to identify the user needs required the preparation of the needs analysis instruments. It was decided to use two principal instruments: questionnaires and semi structured interviews for the different stakeholders involved in the process (nurses, teachers, trainers and coordinators). While the questionnaires aimed to capture quantitative data, the interviews aimed to examine further the attitudes and perceptions that may underlie the result for the questionnaires. Nearly 200 persons, around 30 by country, were interviewed to identify both training needs and the level of knowledge and use of mobile and web 2.0 technologies.

The country results were summarized in one synthesized needs analysis report. That was the first milestone of the project, and the results fed into the next stage in which the methodology, on the one hand, and the toolkit, on the other were developed.

### **The development of the methodology**

The development of the methodology involved several stages. The first stage of the work included an overall definition of the pedagogical approach, based on the principle that learning is social and especially effective if it is grounded in and developed through practical experience and application of what is being learned. Kolb's experiential learning approach was used as a model for the development of the overall approach. Particular attention was paid to the fact that this is an emerging field in which practice is evolving, and this makes reflection and the exchange of experience all the more important as part of the learning process.

Once the overall approach was defined, the partners worked on the creation of the details of the methodology. This involved in particular the development of a range of learning activities that can take place in the workplace, simultaneously with the nurse's professional practice, using the range of mobile applications which were included in the toolkit. (Virtual layer)

These methodological considerations were given shape in a collection of activities that support experiential workplace learning for nurses that included:

- On-demand activities, centered on resources provided in the system. Such as watching a video.
- On-demand activities centered on resources generated by learners. Such as reading another nurses journal.

- Social learning activities centered on resources. Such as discussing an article with other nurses, or discussing a nurse's photo of a patient condition.
- Social learning activities centered on an emergent workplace issue, such as a problem with a treatment.
- Emergent activities, proposed by nurses or tutors related to emerging workplace issues that are learning opportunities.
- Sequenced sets of combinations of activities designed to promote the experiential learning cycle.
- Combinations of the above.

The pedagogical requirements defined in the methodological document influenced the choices made in the development of the toolkit, and at the same time were partially influenced by the affordances of the applications that make up the toolkit.

The final stage of this phase was the design of an appropriate teacher training strategy to introduce tutors to this new methodology, and the development of the tutor training handbook and training materials in order to ensure that tutors were able to use the methodology appropriately in the pilots and later.

### **The development of the toolkit**

The development of the toolkit was based on the results of the needs analysis report as well as on the methodology manual.

After the development of the first prototype, the toolkit was usability tested in each of the countries and the results were fed back into the design process and adjustments made.

The SMILEON app is a web app structured around a collection of tools with an accessible interface that facilitates the different kinds of activity proposed in the methodology.



The characteristics of the web app are as follows:

- It is versatile and accessible from any device
- It is not necessary to download the app to use it

- It updates automatically.

The app is available in English and each of the languages of the partner countries. It can be accessed at <http://www.smileon-project.eu/www/index.php?action=login>

### **The piloting (2 pilots)**

The next stage involved the development of the 2 pilots in each partner (excluding technology partner)

One of the key stages in the project was the organization and implementation of the two pilots. Two pilots were planned, partly to allow for iterative development of the methodology and the toolkit that would take into account the results of the first pilot in the second and thus guarantee a better final outcome, and partly to allow for a slightly different focus in each of the pilots. While the focus of the first pilot was principally on the validation of the learning methodology, some of the activity in the second pilot was focused on sustainability issues and usage models in order to derive insights regarding the future exploitation of the methodology in other contexts.

The duration of the pilots with learners was a period of 4 to 6 weeks, preceded by a period in which the teachers were trained in the use of the methodology and the toolkit.

The design of the pilots was similar across the different partner countries, although some flexibility was included to allow local characteristics and contextual issues to be taken into account.

The evaluation instruments used were both quantitative, and qualitative, based on Likert scale items, and included:

- **1<sup>st</sup> week questionnaire:** focused on students' expectations, applied once soon after the start of the pilot.
- **Final Questionnaire:** students' evaluation and satisfaction, applied at the end of the pilot using an adapted version of the 1<sup>st</sup> questionnaire that focused more on the experience of the pilot.
- **Quality Questionnaire:** At the end of the pilots.

These instruments were complemented by qualitative semi structured interviews which were carried out with a selection of the participants at the end of the pilot process.

In order to present the SMILEON application two training sessions were carried out in each of the pilots: a formal training session organized by the supervisor for the tutor and a formal training session organized by the supervisor and tutor for the pilot participants.

During the pilot, the tutor implemented the proposed activities ensuring that all students were participating properly. The supervisor ensured that everything was working properly, while the external observer(invisible in the app for participants) ensured that participants and tutors were participating as expected.

The impact of an innovative project such as SMILEON can be very high in a healthcare organization. The approach proposes a transformation in the way learning is integrated into the day-to-day activity of nursing. The new scenario that emerges can have a positive impact on the professional development of nurses and improve patient care, and for this reason the work that has been done the project is provoking a lot of interest not only among professionals in the health care training sector, but also among coordinators and medical and nursing directors, as well as in other education and training sectors.

## Evaluation of the pilot

Some of the most important results are as follows:

- The web app and the resources provided facilitate the learning process.
- The tutor plays a key role as an expert who is able to synthesise the contributions generated by the social learning process of all the participants and provide evidence to support the conclusions.
- The contributions of all the participants contribute to the creation of knowledge within the group.
- These contributions are shared on the web and become available for sharing with other professionals, so that what we know is shared by all.
- This approach is, clearly, an important tendency for the future of workplace learning.

## The dissemination activities

A high priority in SMILE-ON was the dissemination of the project and its results to interested parties. The central dissemination instrument was and still is the project website <http://www.smileon-project.eu/>, containing the basic information as well as a download area for products related to the project.

The other major channel for the dissemination of the project was and continues to be social networking platforms. Coinciding with the start of the pilots the SMILEON groups on LinkedIn and Facebook were set up. The SMILEON LinkedIn group has a private space for the pilot participants and a public space for debate and to disseminate the results.





During the 2 years duration of the project it was presented at various national meetings and conferences in participating countries and at several European and International conferences.

A final international workshop was held in Ankara in September 2013 where the project was presented along with the experiences of the participating countries, and the opportunity for networking and exchange with the European project partners was offered. Participants came from the education, training, health, and technology sectors.

### **Exploitation**

Exploitation activity in the project has taken place throughout but intensified particularly in the last months of the project. In addition to the continuous activity of interaction with visitors, colleagues and other training centres within the nursing sector that form part of the partners' networks, each partner organised a national workshop at which the SMILEON approach and toolkit were presented. These workshops involved presentation of the project and its ideas, discussion of the methodology, and most importantly, in order to promote the engagement of the participants, demonstrations of the toolkit were made and participants were able to get hands-on experience of the approach by using the tablets. They were able to explore the app and the different forums and activities that had been used in the pilots. This workshop approach proved successful and raised considerable interest in the different partner countries. Conversations are under way now about the use of the SMILEON approach in other centres than those run by the partners.

Exploitation activity has also included exploration of the commercial potential of the SMILEON approach, led by the technological partner and the aim is to continue to develop the SMILEON in order to make the prototype fully market ready. The overall picture that emerges from the project in relation to exploitation is of extensive activity by the partners to promote adoption of the SMILEON approach outside their own institutions, and there are strong indications of the future sustainability of the SMILEON approach, due to the strong commitment of each of the partners to continuing use of the approach as part of their range of training options.

### 3. Project Outcomes & Results

The SMILE-ON project began on November 1<sup>st</sup> 2011 and ended on October 31<sup>st</sup> 2013. The partnership carrying out the project was composed of 7 partners, from 6 different countries, gathering six institutions specialized on oncology nursing training and a technological partner.

The main achievements and activities of the SMILE-on project in its two years of funding (01.11.2011 – 31.10.2013) have been:

- Set up of the SMILEON partnership and organization of project work.
- Graphic design: logos, website and other promotional material have been developed.
- Development of the needs analysis methodology and the qualitative and quantitative instruments for needs analysis.
- National needs analysis with representatives of the target group in the six partner institutions.
- Definition of the learning methodology to be applied in the toolkit.
- Production of the SMILEON application.
- Production of dissemination products as project logo, website and fliers.
- Production of teacher training handbook.
- Definition of the evaluation tools to be used.
- Two pilots of the SMILEON approach and toolkit in each partner country
- Evaluation of the results of the pilots in each country and overall.
- Dissemination: scientific papers, presentation in national and international conferences, participation in social networks.
- The Exploitation plan.

Further information on the project and its products can be found on the project website:

<http://www.smileon-project.eu/>, and in: [https](https://www.linkedin.com/pub/smileon-project/5b/973/7b9)

<https://www.linkedin.com/pub/smileon-project/5b/973/7b9>

The project is grouped into four main phases:

- Design and development
- Piloting
- Valorisation
- Ongoing management and evaluation

#### **Design and development**

##### WP1: Needs analysis

The WP1 included determination of the needs analysis and the development of tools and methodology to be used. As a result two documents were developed:

1. The Needs analysis instruments report, including a description of the methodology and instruments, qualitative and quantitative, which were used.
2. The Needs analysis report, which includes the overall results of investigation as well as the particular analysis in each of the countries. In conclusion, it can be stated that nurses would prefer to have the following information on their tablets / smart phones: information on drugs, information on clinical signs of incipient and developed shock states and on procedures for treatment immediately after the extravasations/infiltration. Most of the respondents admitted that they needed to find

out information which is necessary for proper interventions during their practical experience.

### WP2: Methodology

WP2 developed the methodology that was the central focus of the project. The following documents were produced:

1. The Methodology Manual, including an overall definition of the pedagogical approach, as well as a description of the methodological details defined after a joint effort of all partners. This involved in particular the development of a range of learning activities that can take place in the workplace simultaneously with the nurse's professional practice.
2. Teacher handbook and training materials: which introduced the tutors to this new training methodology and facilitated their new role as tutors, by introducing them to the range of learning activities that can take place in the workplace in tandem with the nurses' professional practice using the tablet device and the SMILEON toolkit.

### WP3: Technological development

WP3 developed the toolkit that facilitates the "virtual layer" that integrates the nurses learning with their professional practice. The SMILEON app is a web app structured around a collection of tools with an accessible interface that facilitates the different kinds of activity proposed in the methodology. The toolkit was translated into all the languages of the consortium and includes common and specific information, clinical guidance, protocols etc pertaining to each of the participating hospitals

### **Piloting**

WP4: Pilot 1. This first pilot work package focused on the validation of the learning approach. The aim was to ensure that the toolkit and methodology proposed actually do facilitate and enrich the learning experience for the nurses. To ensure proper implementation of the pilot we developed a series of documents that describe: the pilot programs, the operational procedures to be done in each country before and during the pilot, the documents to support the communication session for pilot participants and the materials to support the tutors training. The first pilot was done independently in each country between November 9<sup>th</sup> of 2012 and February 28<sup>th</sup> of 2013 with the participation of 10 students in each country.

From the analysis of the results of Pilot 1, we created a document including the proposed changes and improvements to be made in the methodology and in the application.

WP5: Pilot 2. The general objective for this pilot was to validate the applicability of this type of informal learning and to demonstrate that it can be as useful as formal approaches in continuous adult learning, and to implement the changes to the methodology and the toolkit that had arisen out of the analysis of the results of the first pilot. The second pilot was done at the same time in all countries, from May 5<sup>th</sup>, 2013 to June 9<sup>th</sup>, 2013, this circumstance allowed us to create a common discussion group on LinkedIn for the 60 participants.

WP6: Evaluation of the approach. WP6 covered the evaluation results of both pilots and the generation of the corresponding report for each pilot as well as a final report that integrated the global evaluation results into one document. A part of the above mentioned reports; we

also generated two technical documents including a detailed description of the quantitative and qualitative tools used to assess each pilot.

### **Valorisation**

WP7: Dissemination, This included the planning and the implementation of intensive dissemination activities through different channels:

- Dissemination activities through scientific and academic channels: Publication of 5 scientific articles.
- Dissemination activities through presentation in scientific meeting and congresses:
  - Participation in 3 international congresses.
  - Participation in 11 national congresses or meetings.
- Dissemination activities through social networks: Facebook with more than 100 followers and LinkedIn with more than 50 contacts.

We also prepared a variety of promotional and dissemination materials, including the production of the project logo, website, flier, poster, USB's, T-shirts, pens, promotional videos, etc.

WP8: Exploitation, during the last year there were a total of 8 workshops (7 national ones, one for each participating partner), to disseminate the SMILEON results. In September 2013 a final international workshop was held in Ankara.

Potential stakeholders from the oncology sector, as well as from other health, technology and education domains were invited to these events.

The Exploitation Plan was prepared at the half way stage of the project and then updated at the end of the piloting phase.

### **Results**

The impact of an innovative project like SMILEON on can be very high in the healthcare organisation. We consider that the approach implies a transformation in the way learning is integrated into daily activity in nursing.

The SMILEON project has demonstrated that this learning approach is useful especially when three particular conditions are present:

- a learning culture in which professionals have the tools, the human resources and an appropriate working environment to define their learning needs, meet them and apply the learning to the challenges involved within the healthcare institution.
- an expert tutor who is able to synthesise the contributions generated by the social learning process of all the participants and provide evidence to support the conclusions.
- a model for the validation and assessment of the knowledge generated through these informal processes which cannot be measured with traditional instruments.

From this point on, it is the responsibility of each of the healthcare institutions and their professionals to promote a proactive attitude towards this approach. Institutions need to focus on creating working environments that facilitate learning and professionals need to maintain a responsible attitude with regard to their own development. In the end the objective is that all of this helps us to care for our patients in the best possible conditions.

## 4. Partnerships

The project consortium consisted of 7 partner organizations across 6 EU Member States – Check Republic, Italia, Lithuania, Slovenia, Spain and Turkey. Each partner had a specific role within the project reflecting their particular area of expertise and experience and provided added value to the project.

The consortium met on four occasions in Barcelona, in Milan, in Ljubljana, and in Ankara. In addition to these face to face meetings, during the second year there were virtual meetings via Skype every 15 days.

The consortium had appropriate knowledge of the field of oncology nursing and experience in education and training in the healthcare sector and particularly in nursing. The partnership taken together had a complementary range of skills and expertise that cover the needs of the project:

- Scientific know-how and particularly in oncology nursing.
- Experience in developing and implementing training and education.
- e-learning know-how.
- Close contacts to the with other areas of health care and the educational administration in Europe and in their respective countries, as for example The Multinational Association of Supportive Care in Cancer (MASCC), the International Agency for Research On Cancer (IARC) and the Union for International Cancer Control (UICC).
- Evaluation expertise.
- Experience with working in European projects.
- Experience in the development of healthcare e-learning solutions.

All the partners, except Delta Media, contributed to ALL work packages.

### **Institut Català d'Oncologia– Coordinator and responsible for WP2 – methodology, WP9 – management and WP10 quality assurance.**

ICO is a public organization, integrated within the Department of Health of the autonomous government of Catalonia. Based on a comprehensive cancer centre model, ICO is a single-purpose institution which includes primary and secondary prevention programs in its care service, carries out translational research and implements specialist training programs. ICO is a multicentre organization structured into a network of 3 oncology centers, 3 university hospitals and 16 county hospitals.

### **Delta Media S.L. – Responsible for WP3 - technological development.**

DELTA MEDIA is a company focused on management consulting and e-learning. Its R&I Department has developed different types of technologies and supports platforms for e-learning courses. The team is capable of providing an interdisciplinary team-oriented knowledge during the different phases of any e-learning project.

### **European Institute of Oncology – Responsible for WP6 – evaluation of the approach**

The European Institute of Oncology is a non-profit comprehensive cancer centre. The Institute became a research hospital and treatment centre in January 1996. In keeping with the standards of the most advanced international oncology centers, the Institute fully integrates different activities involved in three main pillars of cancer treatment: prevention and diagnosis, health education and training, research and treatment.

#### **Institute of Oncology Ljubljana – Responsible for WP4 – pilot 1**

Institute of Oncology Ljubljana is a public health institution providing health services at secondary and tertiary level as well as performing educational and research activities in oncology in Slovenia. The Institute employs over 1000 health care professionals, technician and administrative staff. As the principal national institution, the Institute supervises the programs on comprehensive management of cancer diseases in prevention, early detection, diagnostics, treatment and rehabilitation, research and education.

#### **Lithuanian University of Health Science – Responsible for WP5 – pilot 2**

Kaunas University of Medicine is the largest institution of medical education and training in Lithuania. In addition to its teaching function, Kaunas University of Medicine is also the largest medical research institution in Lithuania. In 1990 the Faculty of Nursing was established. In Lithuania PhD studies in Nursing are performed only in the Faculty of Nursing (Kaunas University of Medicine).

#### **Başkent University - Responsible for WP7 and WP8 – dissemination and exploitation**

Başkent University was the first private university to teach health sciences in Turkey, it was founded in 1993 with the cooperation of the Turkish Organ Transplant and Burns Treatment Foundation and the Haberal Education Foundation. The main objective was to build an academic institution that will ultimately be a fully-fledged and internationally prominent university. Currently, the university's enrolment includes 1,143 associate students, 7,160 undergraduate students and 408 graduate students. Başkent University has also been awarded a Quality System Certificate and respectively our education principles are designed in accordance with these quality standards.

#### **National Centre of Nursing and Other Health Care Professions Brno - Responsible for WP1 – needs analysis**

National Centre of Nursing and Other Health Care Professions Brno was founded by the Ministry of Health of the Czech Republic. The Centre provides a conceptual, analytical and methodical approach for the accreditation of activities in the fields of nursing and other non-medical health care professions and is the professional institution for the implementation and development of lifelong learning of health workers.

## 5. Plans for the Future

The future plans of the consortium in relation to the SMILEON approach can be divided into three main areas. These are further development, integration of the approach into the training activity of the partner and other organizations and commercial exploitation of the approach.

As can be seen in the discussions in the exploitation report most of the partners are of the view that the SMILEON approach is already usable within their contexts, and they have declared their intention to incorporate it into their training programs and in some cases their curricula in the coming year. In addition to this all of the partners are involved with conversations with stakeholders in their area, who either came to the workshops or became engaged with SMILEON through other exploitation activities, with a view to the adoption of the approach as it is now in their own training programs. Most of these stakeholders are from the nursing sector. These activities and plans are described in further detail in the exploitation report.

As has been discussed elsewhere, most partners share the view that to make the SMILEON approach commercially viable requires further development work in order to move beyond the prototype to a stable version of the web app. It is planned to engage in this further development as part of the overall thrust of the future commercialization activity. As mentioned in the report the exploitation activity has also included exploration of the commercial potential of the SMILEON approach, led by the technological partner. A range of different options were discussed by the partners and the final decision has been to delegate the commercialization of the SMILEON approach to the only partner who has the technological capacity and appropriate business focus to do this; the technological partner, Delta Media. This delegation of the responsibility to this company is seen as the most coherent approach to achieving sustainability in the mid-to long-term. Agreements are currently being drawn up to cover this relationship and all the partners will be involved in the process of marketing the fully developed stable version in their own contexts as well as having full rights to use the SMILEON approach themselves.

There are positive indications of the future sustainability of the SMILEON approach, due to on the one hand the strong commitment of each of the partners to continuing use of the approach as part of their range of training options, and on the other the clear commitment of the technological partner to further development and future commercialization of the approach, supported in their own contexts by the other partners. To sum up, it can be envisaged that a gradual process of consolidation of the approach in the partner institutions, accompanied by adoption in other institutions, and further development of the approach and commercial exploitation will take place moving into 2014 and beyond.

## 6. Contribution to EU policies

The project contributes to the following EU policy priorities:

*LLP-Obj-a: To contribute to the development of quality lifelong learning and to promote high performance, innovation and a European dimension in systems and practices in the field*

In the current healthcare context the capacity of nursing professionals to learn new skills and roles is increasingly important. There is a lack of trained personnel in many European countries and a need for appropriate training and specialization. As in other sectors, it is vital to integrate learning processes into the work place. This project contributed to the need for quality learning innovation in the sector, and also the need to establish common approaches across European contexts.

*LLP-Obj-h: To support the development of innovative ICT-based content, services, pedagogies and practice for lifelong learning*

The objective of the project was to develop a methodology supported by mobile technology for learning among nursing professionals that integrates learning into work place contexts and practices. This innovative pedagogical approach is now extendable to other groups with similar learning needs in the vocational training sector, particularly those undergoing rapid change, thus supporting lifelong approaches to learning.

*LEO-SpObj-b: To support improvements in quality and innovation in vocational education and training systems, institutions and practices*

The SMILEON project provided an innovative contribution to further education of nurses and other healthcare professional into the workplace, and this contributes to the quality of the healthcare institutions and patient care management.

*LEO-SpObj-b: To improve the quality and to increase the volume of cooperation between institutions or organizations providing learning opportunities, enterprises, social partners and other relevant bodies throughout Europe*

The partners between them represented a large number of different socio-cultural contexts, with countries such as Italy and Spain with a relatively high standard of living, through to the other extreme represented by Lithuania and Turkey particularly. The consortium also had different geographical diversity, with countries from the north south, east, west and centre of Europe represented, (and indeed the reach, due to the partners activity in different European networks, was wider still) As it works in this range of contexts, it is likely that it will be flexible enough to adapt to other European contexts. This adds considerable value with respect to the potential sustainability of the approach. A further aspect relating to European added value is the global nature of the field of oncology, and healthcare in general. The issues involved cross frontiers and therefore require a transnational response, and the sharing of experience involved in the needs analysis stage, and the pilot stages, as well as contributing to the success of the methodology has provided other benefits derived from the sharing of experiences and approaches to training in this field across the different countries.

