Goal: To improve the effectiveness and frequency of tobacco cessation interventions in hospitals from two Southern European Countries (Portugal and Spain).

Target population: About 1200 health professionals from 2 hospitals per participant country (300 in each hospital) will be trained in the usage of a new tobacco cessation program. Smokers attended in each hospital will benefit of this intervention.

Methods: This implementation research project will design a comprehensive tobacco cessation program that combines two evidence-based tested products: (1) an online tobacco cessation course, and (2) tobacco cessation materials addressed to clinicians and smokers based on the Ottawa model. The translation and the adaptation of the materials will be done by local partners. The adoption and implementation of the tobacco cessation program will follow the AHRQ model for transferring evidence into practice.

Evaluation: Several pre-post evaluations are planned: (1) Process: to assess coverage, fidelity and satisfaction with the program (we will consider a positive coverage when smokers’ inclusion will be ≥50% of smokers admitted); (2) Outcome: to measure changes on health professionals’ knowledge, attitudes and behaviors after the training (we will consider a positive change with an increase of ≥20% of these indicators); (3) Impact: to assess whether the intervention increases the number of smokers assisted and whether smoking rates increase compared to baseline (good level consider with rates over ≥10% after 6 months of discharge).

Diffusion: Results will give a depth view to policy-makers and healthcare professionals of the impact of a comprehensive smoking cessation program applied in hospitals.
B. Table of Contents

C. REVIEWER COMMENTS ........................................................................................................... 3

D. MAIN SECTION OF THE PROPOSAL .......................................................................................... 4
    D1: Overall Goal & Objectives .................................................................................................. 4
    D2: Assessment of need: Smoking is prevalent and most smokers quit unaided ...................... 6
    D2.1: GAPs: “What is versus What should be” OR the “Three identified Gaps”: ...................... 7
    D3: Target Audience ................................................................................................................. 10
    D4 Project design and methods ................................................................................................. 11
        D4.1: Description of the overall strategy, methodology and analysis ............................... 11
        D4.2.2: Product 2: The Ottawa model implementation tools and systematic approach ........ 12
        D4.2.3: Model for transferring evidence into practice (the AHRQ model) ...................... 13
    D5: Evaluation .......................................................................................................................... 14
        D5.1. Process Evaluation .................................................................................................... 14
        D5.2. Outcome evaluation .................................................................................................. 15
        D5.3. Impact evaluation ..................................................................................................... 15
        D5.4 Questionnaires .......................................................................................................... 16
        D5.5 Metrics ...................................................................................................................... 17
        D5.6. Statistical analysis ..................................................................................................... 17
        D5.7. Innovation .................................................................................................................. 17
    D6. Detailed Workplan and Deliverables Schedule .................................................................. 17
        Table 1: Workpages and Deliverables of the ISCI_SEC Project ........................................... 21
        Figure 1: Event Planning Timeline ....................................................................................... 25

E. REFERENCES ............................................................................................................................. 26

F. ORGANIZATIONAL DETAILS ................................................................................................ 30
    F1: Organizational Capability: Partnership among organizations implicated: .......................... 30
    F2. Leadership and Staff Capacity ............................................................................................ 32

H. BIOSKETCHES .......................................................................................................................... 34

J. SUPPORT LETTERS ................................................................................................................ 64
C. REVIEWER COMMENTS (C) and Responses (R)

Thank you for your comments provided after reviewing our Letter of Intent for the project “Improving smoking cessation interventions in Southern European Countries” (ISCI_SEC). Below, we reply point-by-point each of the reviewers’ comments, indicating changes introduced in the full proposal.

C1: In your full proposal, please provide information on the plan for European accreditation.

R1: The “Brief Intervention for Smoking Cessation” course in Spanish offered through the online e-oncologia platform (www.e-oncologia.org) has been accredited by the Council of Oncology in Europe (ACOE, www.acoe.be) in support of Continuing Medical Education for physicians since 2012. These credits are also recognized as Physician’s Recognition Award (AMA PRA Category 1 credits) by the American Medical Association. Once the course will be adapted and translated into Portuguese we will ask for its accreditation to the Council of Oncology in Europe (ACOE, www.acoe.be).

C2: Please describe the European partner(s) for the project.

R2: The project will be run by the Catalan Institute of Oncology (ICO) in Spain, the University of Beira Interior (UBI) in Portugal (in partnership with the University of Minho (UM), the Cova da Beira Hospital Center (CHCB) and the Hospital of Braga) and The Hellenic Cancer Society Greece (HCS) in Greece (in partnership with the University of Ottawa (UO) in Canada). We provide a comprehensive description of our European partners in section F: Organizational Detail (page 30).

C3: Please verify that the reference supporting the statement about the prior online program implemented in 45 hospitals is correct as the review panel could not correlate the reference provided in the LOI with this information.

R3: At the time we wrote the letter of intent (January 2016) about 1000 health care professionals (HCPs) from 45 hospitals in Catalonia had taken the course; however the current data has slightly grown up to 50 hospitals. You can find more information on the website of the Catalan Network for Smoke free Hospitals: http://www.xchsf.cat/news.php?id=191&lang=cat. A manuscript that evaluates the impact of this course on the first 850 participants, which compares the pre-post gains in health professionals’ knowledge, attitudes and behaviors in smoking cessation after the training, is been drafted.

C4: The review panel also suggests that the project and full proposal could be made stronger if you focus only on Spain and Portugal and do not include the Greek component.

R4: We appreciate the suggestion of the review panel and we have discussed this internally and we will focus on developing the rollout of the project in Spain and Portugal. The two experts from Greece will be part of the research consortium and will give expert scientific support with the development of the Ottawa model.
D. MAIN SECTION OF THE PROPOSAL: Grant Area: Category 1: Capacity Building

D.1: Overall Goal & Objectives

The application addresses the call priority to develop new healthcare professional training programs in Europe based on recent evidence and best practice, and it is grounded in an organizational change model. The research proposal aims to develop a collaborative network of health organizations and health professionals from three different countries to foster evidence-based tobacco cessation practices.

Problems and barriers: While several countries have developed efforts to deliver treatment to tobacco users, integration of smoking cessation into routine health care practice is still weak and few smokers quit with professional support. In Europe and elsewhere, hospital cessation interventions are rather scarce and inconsistent. There is a need to engage and train hospital-based healthcare providers (HCPs) with cessation and to implement a system-level intervention. This project will be applied in Southern European Countries where (i) smoking consumption is still high [1]; (ii) smokers are low motivated to quit and less likely to have tried to quit and to use cessation aids [1]; and (iii) cessation programs in hospitals are rather infrequent and inconsistent [2]. Our ambition is to develop a hospital-oriented smoking cessation intervention program and increase the number of smokers who quit or intend to quit during and after hospitalization in Spain and Portugal. Our project can be viewed as a vehicle for improving the systematic implementation of smoking cessation interventions through the combination of two tested products and the use of a model for transferring evidence to practice. The proposed implementation study is responsive to Global Bridges (GB) research priority on improving smoking cessation interventions through the partnership of three organizations that combine their different experiences to create a Capacity Building Strategy Project for developing and strengthening the skills, processes and resources that health care services need to adjust and offer tobacco cessation services.

Goal: This implementation research project is designed to improve the effectiveness and frequency of tobacco cessation interventions in hospitals from two Southern European Countries (Portugal and Spain). This project will support HCPs’ training through the combination of two evidence-based products which have been tested as part of two previous Global Bridges projects:

1. the Online Training Program “Brief Intervention for Smoking Cessation” designed by the Tobacco control Unit (Unitat de Control de Tabaquisme, UCT) at Catalan Institute of Oncology (Spain) which aimed to increase HCPs’ knowledge and skills on behavioral and pharmaceutical interventions for smoking cessation, and has been adapted for use in three Latin American countries [FRUITFUL GB-13520139];

2. the “Ottawa Model for Smoking Cessation” (OMSC) implementation tools which have been part of the [TiTAN-Crete GB-13522581] lead by the University of Crete (Greece).

These projects have achieved success separately in the past and their joint collaboration aims to expand the best of each initiative to the European territory by starting with the Southern Europe countries (where smoking is still highly prevalent).
Objectives: The main objective of the proposed project is to evaluate the organizational adoption, the implementation, and the effectiveness of an evidence-based and system-level tobacco cessation program after training clinicians on the delivery of a smoking cessation intervention and promoting the use of implementation tools among two hospitals in each participant country (Portugal and Spain). Furthermore, we will assess whether patients progress in their intention to quit, increase the number of quit attempts, and achieve abstinence after hospitalization.

Specific Aims

- Aim 1: To translate and adapt the contents of the Online Training Program to the hospital care context in Portugal.
- Aim 2: To translate and adapt the contents of the implementation tools (patient brochures, consult form, therapy pocket-size reminder chart for clinicians, record system, evaluation questionnaires) to the hospital care in Portugal and Spain.
- Aim 3: To design and implement processes to change clinical practices among staff providing care to hospitalized smokers.
- Aim 4: To evaluate the process approach by measuring the adoption and delivery of tobacco cessation services (process evaluation).
- Aim 5: To evaluate tobacco cessation knowledge, attitudes, self-confidence, and performance (outcome/effectiveness evaluation) among clinicians before and after the intervention.
- Aim 6: To evaluate intention to quit, quit attempts and abstinence among smokers (impact evaluation).

How they are intended to address the established need for this project: We propose to implement a bedside smoking cessation intervention in the hospital by training HCPs using the Online Training Program in “Brief Intervention for Smoking Cessation” (designed by the UCT) and the toolkit materials based on the “Ottawa Model for Smoking Cessation”) designed by the Hellenic Cancer Society. We will transfer these interventions into practice by using the Agency for Healthcare Research and Quality (AHRQ) model for transferring evidence [3, 4]. This model facilitates organizational change and professional engagement, and ultimately will help to systematically identify, motivate, treat, and follow-up smokers after discharge.

Goals of the applicant organizations: The three participant organizations include in their strategic milestones tobacco control and smoking cessation interventions. This project is built on the partnership of three organizations: The Catalan Institute of Oncology, the Hellenic Cancer Society, and University of Beira Interior.

The three organizations aim to integrate evidence based products that have been designed and tested before. On one hand, the Catalan Institute of Oncology (ICO) has developed the implementation of tobacco control policies in healthcare organizations, such as the Catalan Network for Tobacco-free Health care Services (www.xhcsf.com). In addition, it has designed and disseminated several tobacco cessation training programs including the Online Training Program “Brief Intervention for Smoking Cessation” that has been applied in 50 Catalan Hospitals. This training has been successfully adapted and tested in 3 hospitals in Latin American
Countries through the FRUITFUL project [GB-13520139] [5] demonstrating the feasibility of adapting online learning programs in other cultural contexts.

On the other hand, the experts from Greece have designed and implemented a multi-component tobacco treatment training program tailored to Primary Care practices in Crete based on the OMSC [6] through the TiTAN-Crete project [GB-13522581]. This project has created several resources including: a tobacco use survey, a smoking cessation consult forms, a patient quit plan booklet, a cost of medication/smoking reference sheet, waiting room poster, and a number of videos to support clinicians. These materials are intended to support the delivery of the 5As model in a busy practice, provide real-time reminders and share teaching tools for general practitioners. The toolkit developed was adapted from the OMSC and translated to Primary Care and can well be adjusted for the hospital settings [7].

Finally, Portugal, one of the few European countries where smoking female prevalence is increasing, presents a complicated situation in tobacco control since hospitals are not actively involved in tobacco cessation and most HCPs lack specific training [8, 9]. Therefore, tobacco cessation interventions in Portuguese hospitals are rather scarce and inconsistent. No previous pilot projects have been launched and they need the support of external and successful experiences. Consequently, there is a need to adapt and integrate fruitful models to train hospital-based HCPs with cessation and engage hospitals in cessation delivery.

D2: Assessment of need: Smoking is prevalent and most smokers quit unaided

Southern European countries still have a high number of smokers with the highest prevalence (males and females) recorded in Greece (38%), followed by Spain (29%) and Portugal (25%) [1]. The high smoking prevalence is consequence of several aspects including a former pro-tobacco culture, the spread of the epidemic among women and the youth [10], and the inefficient tobacco control legislation applied for years [11, 12]. Smokers from these countries are low motivated to quit, few quit or use cessation aids [1], and consequently, half of them will die due to tobacco-related diseases in their middle age (between 30 to 69 years) [13].

Smokers are frequent users of health care services, and their contact with the health system might be an adequate teachable moment for quitting [14]. In fact, between 60% and 70% of patients make a quit attempt while they are hospitalized [15]. Thus, hospitalization provides a unique opportunity to identify and engage smokers, initiate cessation treatments, and facilitate appropriate follow-up and support. Smoking cessation programs that begin during a hospital stay and include counselling with follow-up support for at least 1 month after discharge are effective in increasing smoking cessation. Such programs are effective regardless of the reason for admission. The addition of nicotine replacement therapy to a counselling program increases cessation rates [16]. However, in spite of these favorable conditions, evidence-based cessation programs are hardly available in hospitals from Southern European countries [17, 18].
D2.1: Gaps: “What is” versus “What should be” or the “Three identified Gaps”:

<table>
<thead>
<tr>
<th>Gap 1: Insufficient leadership to guide hospitals through implementation process</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What is?</strong></td>
</tr>
<tr>
<td>Hospitals are complex social networks where it has been difficult to develop effective health promotion programs [19]. In Southern European countries is still necessary to offer outreach facilitators who can guide hospitals through implementation process in order to avoid major difficulties when introducing evidence into routine daily practice [17, 18]. These interventions should be implemented as a whole organization strategic initiative.</td>
</tr>
<tr>
<td><strong>In Catalonia</strong> (Spain) several actions have been undertaken to implement tobacco control interventions in hospitals beyond the legislative framework [20, 21]. Since 2000, the Tobacco Control Unit at ICO coordinates the Catalan Network for Smoke-free Hospitals (<a href="http://www.xchsf.cat">www.xchsf.cat</a>) that promotes a “tobacco control hospital model” based on organizational and cultural change. This project requires the commitment of the organization in adopting integrally and progressively a series of ten standards. Hence, the organizational changes involve creating a policy-working group integrated by hospital management and other key people of the institution (champions). This working group is responsible for the design, scaling down, communication, monitoring, and evaluation of the tobacco-control policy [21]. The working group then clearly communicates the policies to the rest of the staff members, the patients, and the community. The tobacco control champions have taken an extraordinary interest in the adoption, implementation, and success of the hospital program and have been essential for its success [21].</td>
</tr>
<tr>
<td>The Tobacco Control Unit provides expert advice, training and development of specific projects and working groups (ie, that devoted to smoking and mental health), smoking cessation for patients and staff, teacher training, smoke-free campuses, etc. The Unit is responsible for coordinating and evaluating these activities [22-25]. Since training is a key factor for the sustainability of these programs, the Catalan Network has offered in person and online training every year to reach a broad number of hospital workers [26].</td>
</tr>
<tr>
<td><strong>What should be?</strong></td>
</tr>
<tr>
<td>Implementing evidence-based practices is difficult and needs strategies and systems that could address the complexity of the health care systems and the individuals involved. This requires changing cultures, adapting processes and developing sustainable tools [27].</td>
</tr>
<tr>
<td>At the organizational level, in a hospital, the Chief Executive should endorse the initiative and disseminate this endorsement through senior management meetings and routine communication mechanisms. In addition, an implementation committee led by a champion and members of the executive board should establish a feasible execution plan.</td>
</tr>
<tr>
<td>The experience of the Catalan Network for Smoke-free Hospital, that has followed an organizational implementation model, could be transferred to Portuguese hospitals using a framework for transferring evidence to practice (AQHD model) [3, 4] that would promote tobacco cessation interventions.</td>
</tr>
</tbody>
</table>
Gap 2: Hospital-based health professionals lack tobacco cessation training, but are interested in, mainly if there are distant learning programs available

What is?
Support from multiple HCPs increases smoking abstinence rates [28]. In hospitals in particular, team-based cessation programs should always involve multiprofessional groups. The most common barriers to incorporating tobacco cessation interventions into hospitals involve lack of training, expertise, and time. In addition, organizational and financial constraints threaten the suitability of smoking cessation interventions [18, 29]. Particularly Southern European hospital-based HCPs lack tobacco cessation training [17, 29].

In Catalonia (Spain): As mentioned above the Catalan Institute of Oncology has launched several courses addressed to HCPs. In 2009, we decided to offer the Online training program “Brief Intervention for Smoking Cessation” through e-oncologia, an online learning platform (http://www.e-oncologia.org/en/), to reduce the cost and increase the training coverage among the hospital network in less time. This course is based on the in-person courses offered during the last 10 years, and the curriculum was developed based on the content of numerous meta-analysis and clinical practice guidelines [28, 30-33]. We created a fully referenced curriculum online, and the feedback of an expert advisory group was incorporated. We then developed the curriculum slides and supporting materials, which were tested by 10 voluntary participants [34]. The “ICO Online Training Program” has been implemented in 50 Catalan hospitals with more than 1000 participants (and with a success rate of 90%). Training initiatives have proven to increase the level of implementation of tobacco control in hospitals (according to the self-audit questionnaire) and the engagement of health professionals [17]

In Portugal: There is room to improve article 14 of the WHO-FCTC: while many HCPs are motivated to work in smoking cessation, there is a need for cessation training and for an interdisciplinary healthcare team approach targeting nurses as the main healthcare work force, as well as fostering interaction between the different healthcare settings [18, 29]. HCPs have shown their interest in tobacco cessation training, mainly in distant learning programs [18, 29]. HCPs do not intervene in smokers due to the false believe that it is not worthy to address non-motivated smokers [35].

What should be?
Training HCPs in brief intervention is crucial to ensure a system-approach. Training has measureable effects on patients’ prevalence of smoking, continuous abstinence, and professional performance [32]. There is a need for translating evidence-based tobacco cessation interventions into hospital practice that could embrace a comprehensive approach at different levels (administrators, health professionals, etc) and could be specifically tailored to each hospital in order to reach a well-established system-level delivery.

Using previous established programs can save time and money while increasing the likelihood of achieving successful outcomes [36,37]. A previous research training study has shown that is possible to modify smoking cessation training programs based on existing ones [38]. In addition, ICO has experience adapting and implementing this course in Latin American Countries [5]. This background could be of help to do this in a neighbor country like Portugal.
**Gap 3: Healthcare professionals do not intervene in smokers due to lack of reminders and support from the organizations**

**What is?** Quantitative baseline data summary:

**In Catalonia:** A multicenter survey conducted among 1058 hospitalized patients in 17 hospitals has revealed that 21.1% of patients are smokers (95% CI: 19.0-22.0). Being younger than 45 years (OR = 3.3, 95% CI: 2.7 to 3.6) and male (OR = 3.1; 95% CI: 2.7-3.6) were associated with smoking. In addition, 92.6% of patients had not received information about the smoke-free regulation. Only 58.1% patients were ASKED whether they smoked, and among smokers 45.5% received ADVICE to quit smoking, 28.1% were ASSESSED about their quit desire, 16.9% were assisted with cessation support, and 6.2% indicated that received an ARRANGE follow-up meeting [39]. This research points out the poor level of implementation of 5As in spite of efforts to educate HCPs in Catalan Hospitals.

**In Portugal:** A survey has shown that the most important barriers to cessation care identified by HCPs were intervening in non-motivated smokers (51.7%), followed by time constraints (28.1%), poor cessation training (27.6%) and poor rate on smoking cessation efficacy (17.1%) [35]. HCPs and smokers themselves believe that motivation to quit is a mandatory pre-requisite for smoking cessation interventions. However, clinician-delivered brief interventions enhance motivation and trigger quit attempts, even when patients are not willing to make a quit attempt [8, 9]. Moreover, an exploratory cross-sectional study, conducted in 2009 during two major national medical conferences in Portugal using a purposive-sampling procedure revealed that only a minority of physicians (9.0%) participated regularly in tobacco control activities [smoking prevention: 8.8%; CI: 6.5-11.1%; smoking cessation: 5.5%, CI:3.3-6.7%]. Hospital doctors were less involved in tobacco control activities than primary care doctors. (p < 0.001) [40]. Thus, the gap between optimal level of smoking cessation interventions in hospitals and current levels is significant.

**What should be?**

To address these deficiencies and improve smoking cessation care, additional strategies are needed besides training. Implementation tools can facilitate the broader application of evidence-based behavioral counseling practices without adversely affecting clinical flow or patient care. Neither Catalonia nor Portugal have designed clinical guidelines that could be recommended to hospital settings including: nicotine-dependence assessment of all smokers, provision of NRT during inpatient stay; provision of brief smoking cessation advice, provision of NRT on discharge; and referral to community services.

The OMSC has developed several clinical tools which facilitate effective smoking support such as: withdrawal assessment tool; protocol for HCPs-initiated, Nicotine Replacement Treatment (NRT) provision; nicotine-dependence care form to prompt offer and provision of treatment (included the Heavy Smokers Index); a bedside audit tool and a mandatory reporting tool.

The “OMSC implementation tools” significantly increase long-term cessation rates by an absolute 15% (from 29% to 44%) in cardiac patients, and by 11% (from 18% to 29%) in general hospital populations [6].

Taking into account the experience of a previous Global Bridges grant (TITAN) in translating and adapting these materials, other Southern European countries -such as Portugal and Spain- could benefit of these evidence-based materials.
SOLUTION: We foresee covering the lack of well-established tobacco cessation interventions in hospital routine practice by offering a comprehensive tobacco cessation program for hospital settings that combines two tested tobacco cessation products: (1) the ICO Online Training Program on Brief Intervention to smoking cessation and (2) the Ottawa implementation tools (practice guidelines). Using previously established resources can save time and money while increasing the likelihood of achieving successful outcomes [36] The project will be eased by the Agency for Healthcare Research and Quality (AHRQ) conceptual framework [3, 4], for maximizing and accelerating the transfer of research results.

D3: Target Audience

We can distinguish three target audiences: hospitals, HCPs, and patients

Hospitals: A convenience sample of four acute high technology hospitals, two in each participant Southern European country (Portugal, and Spain).

<table>
<thead>
<tr>
<th>In Portugal:</th>
<th>Cova da Beira Hospital Center (CHCB), Covilhã, Portugal- <a href="http://www.chcbeira.pt">www.chcbeira.pt</a></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hospital of Braga <a href="https://www.hospitaldebraga.pt/">https://www.hospitaldebraga.pt/</a></td>
</tr>
<tr>
<td>In Spain:</td>
<td>The Catalan Institute of Oncology <a href="http://www.ico.net">www.ico.net</a></td>
</tr>
<tr>
<td></td>
<td>Hospital General de Granollers <a href="http://www.fphag.org/">http://www.fphag.org/</a></td>
</tr>
</tbody>
</table>

We have selected high technology hospitals with solid reputation as a target audience for this project to pilot the two main products that will be designed and tested. In these organizations we will see whether we will reach our goal of improving the effectiveness and frequency of tobacco cessation interventions in hospitals. The fact that these hospitals hold a high level excellence in their health care systems will facilitate the dissemination of the program to other hospitals in the future.

HCPs: All HCPs in the selected hospitals, including nurses, doctors and other health professionals, could be trained, although we will prioritize to train clinical staff (about 300 HCPs in each hospital, a total of 1200 HCPs). The strategy of dissemination within each hospital will be unit per unit by empowering inter-professional team approach. Each local coordinator with the help of the champions from each hospital will recruit participants from units and departments over 6 months through informative sessions, leaflets and posters (designed to inform about the training program).

Our project is based on the potential benefit to engage hospitals and health professionals to be an active part of the tobacco epidemic solution.

Patients: Ultimate, patients attended in participant hospital will benefit of this project. The effectiveness of the intervention will be evaluated and is detailed on page 15.
D4 Project design and methods

D4.1: Description of the overall strategy, methodology and analysis

**Overall Strategy:** The ISCI_SEC project is a two-year implementation project intended to design a comprehensive tobacco cessation program that combines an online smoking cessation training course and a toolkit for delivering smoking cessation in the hospital setting to increase and improve the frequency and the effectiveness of tobacco cessation interventions in Southern European Countries (Portugal and Spain).

This project envisions to fill the gap regarding the scarcity of hospital system-level cessation delivery in Southern Europe, due to both the lack of distant learning tobacco cessation training programs and the lack of implementation tools. This will be done by adapting and calibrating the contents of two tested products implemented in similar countries (FRUITFUL and TiTAN projects).

D.4.2: The products the stages to its development are described below:

**D.4.2.1: Product 1: The Online Training Program “Brief Intervention for Smoking Cessation”**

The original smoking cessation training course designed by the Tobacco Control Unit is a 10-hour online tobacco cessation training program for hospital-based HCPs created through its consolidated online platform “e-oncología”, (http://www.e-oncologia.org/en/). This course is based on in-person courses offered during the last 10 years by the Tobacco Control Unit of the Catalan Institute of Oncology. The theoretical framework underpinning the training program is the Stages of Change Model [41] and the curriculum was developed with the content of numerous meta-analysis and clinical practice guidelines [16, 28]. This course has been accredited by the Council of Oncology in Europe (ACOE, www.acoe.be) in support of Continuing Medical Education for physicians. These credits are also recognized as Physician’s Recognition Award (AMA PRA Category 1 credits) by the American Medical Association. The final curriculum content of the Online Training Program “Brief Intervention for Smoking Cessation” is composed of 5 modules that include the following contents: the tobacco epidemic, assessing intention to quit and nicotine-dependence; promoting motivation to quit; managing nicotine-dependence, prescribing NRT, monitoring withdrawal symptoms, and discharge and referral procedures relating to ongoing smoking cessation care. The course employs multiple modalities of learning to engage students such as didactic text, case simulations, quizzes, interactive learning objects, and discussion forums. The course also reinforces the role of a team-approach in hospital settings to trigger quit attempts.

**Step 1: Translate and adapt the ICO Online Training Program for Portuguese**

The selected original training program has been chosen because it has been shaped using evidence-based guidelines [16, 28], it was originally designed for Spanish hospitals - culturally and organizationally similar to Portuguese hospitals-, and is addressed to hospital workers. Furthermore, offering the course through an online platform network will reduce the cost but increase the training coverage within participant hospitals in less time [42]. In addition, Portuguese HCPs have expressed their preference for online courses [18, 29].

Adaptation implies not only replicate or translate a program. It is the process of altering a program to reduce mismatches between its characteristics and the target participants in the
new context. Adapting a tobacco cessation education program should take into account the epidemiology of smoking in Portugal, treatment regulation, the existence guidance and proceedings, and health organizations’ dynamic [43]. Card et.al propose a science-based pragmatic steps to adapt an existing program to new contexts, based on the following [36]: 1) Select a suitable effective program; (2) gather the original program materials; (3) develop a program model; (4) identify the program score components and best-practice characteristics; (5) identify and categorize mismatches between the original program model or materials and the new context; (6) adapt the original program model, if warranted; and (7) adapt the original program materials. To fill the gap of the lack of tobacco cessation training programs in Portuguese hospitals, we will use the Card’s method and applied to the ICO Online Training Program “Brief Intervention for Smoking Cessation”.

The adaptation will be done with local partners and other stakeholders. First, a group of professionals with extensive experience in tobacco control in their country will be selected for identifying and categorizing mismatches between the original materials and the new context (Dr. Ravara and Dr. Precioso, both of them fluent in Spanish and Portuguese). Based on a previous experience adapting the original course to the reality of three Latin American Countries, we expect the following mismatches: description of the smoking epidemic, difference in tobacco cessation treatment services available among countries, family names of simulated cases, questions and answers of the assessment and evaluation.

Once the mismatches will be detected by the group of experts, they will be modified into a new version that will be pilot-tested by 8 to 10 volunteers. Once the course will be adapted and translated we will ask for the accreditation of the by the Council of Oncology in Europe (ACOE, www.acoe.be).

**D4.2.2: Product 2: The Ottawa model implementation tools and systematic approach**

The Ottawa model (OMSC) is a successful tobacco cessation intervention initiated as part of an effort to improve cardiac outcomes at the University of Ottawa Heart Institute. The OMSC is an evidence-based systematic approach, easy to implement, that promotes cessation among smokers. Researchers at the University of Ottawa designed an inpatient program that systematically identifies, provides treatment, and offers follow-up to all admitted smokers [6].

The Ottawa model is a variation of the 5As model. During admissions, patients are ASKED about tobacco use during the preceding six months. Those who have recently quit are congratulated on their success, encouraged to remain smoke-free, and provided with a list of community resources and phone numbers for cessation assistance if they experience difficulty. Smoking status and data on prior quit attempts for all patients is documented in a cessation database. All smokers are ADVISED to quit, ASSESSSED for willingness to quit, and ASSISTED with brief counseling and pharmacotherapy. Follow up after hospitalization is offered to all smokers and is ARRANGED by registering the patient into an interactive voice response-mediated telephone system and database [6].
Step 2: Translate and adapt the Ottawa model materials to Spanish and Portuguese hospitals and clinicians

The ISCI_SEC project will use the experience of the TiTAN project (a multi-component tobacco treatment training program) who has adapted the “Ottawa model” to the Greek health system. The tools that have been designed to support evidence treatment in practice routines are:

Care delivery tools addressed to HCPs: to clue clinicians about appropriate assistance for patients who are interested and those who are not interested in standardizing data collection for process and outcome evaluation. These include:

- Tobacco use screener: tool to collect tobacco use profile of patients to be given to patients.
- Consult form: provider tool for initial and follow-up consultation including real time reminders and rapid documentation.
- Nicotine Replacement Therapies (NRT) brochure for HCPs.
- Pocket side guidelines addressed to HCPs to remind the intervention.

Care delivery tools addressed to patients:
- Leaflets of the project addressing inpatient smokers.
- Quit plan booklet: an educational resource for patients ready to quit smoking.

Implementation forms:
- Pre-implementation needs assessment form that will assess the institutional best practices for treating tobacco use and dependence before the project.
- Post-implementation assessment repeated 6-months later to evaluate the effect of the program on the delivery of evidence-based tobacco treatments.

The development of these tools in Spanish and Portuguese will be available publicly at no cost.

The phases of implementation that the creators of the OMSC encourage to undertake to implement its prototype are: (1) Gaining commitment; (2) Baseline audit and assessment; (3) Consensus building and planning; (4) Frontline training; (5) Delivery of Service; (6) Ongoing Audit and Feedback. These phases are in line with the AHRQ model that will be used in the ISCI_SEC project. The project coordinator in each country (Dr. Ravara in Portugal and Dr. Martinez in Spain) and the assistant researchers will execute the implementation activities in each participant hospital.

D4.2.3: Model for transferring evidence into practice using the AHRQ model that consists of:

Knowledge creation and distillation requires conducting research and then packaging relevant research findings into products that can be put into action. We have covered this stage through two previous projects (FRUITFUL and TiTAN) and consequently, we have the two above mentioned products.
Step 3: Adoption of the tobacco cessation program to the participant hospitals

Adoption, implementation, and institutionalization focuses on getting organizations, teams, and individuals to adopt and consistently use evidence-based research findings and innovations in everyday practice. This will require a variety of strategies for implementation including: selecting a champion/s in the organization who can address potential implementation challenges, piloting/trying the change in a particular patient care area of the organization, and using multidisciplinary implementation teams to assist in the practical aspects of embedding innovations into ongoing organizational processes, etc. We will also involve the quality care department on the implementation and assessment of the program.

To warrant the commitment on the different levels of responsibility in this project, the research consortium has created a partnership to exchange experiences to build a comprehensive and sustainable model that could be disseminated into hospitals network. In order to implement this model, we count on the leadership of one organization in its territory (ICO in Catalonia and University of Beira in Portugal). In addition, the Chief Executive of each participant hospital in Spain and Portugal will sign an agreement document in which they will engage to implement the project as established in this protocol. Each hospital with the help of the national coordinator will select the ground facilitators (champions) that will help to (a) enhance the change by increasing knowledge and skills; (b) enable change by promoting favorable conditions in the practice environment and (c) reinforce change through outcome tracking and performance feedback.

Commitment and Communication activities: (i) Communication activities: The rationale and progress of the intervention will be communicated to hospital staff via electronic newsletters, broadcast emails, fact sheets and executive, management and staff meetings. The Chief Executive will actively promote smoking cessation care through newsletters and executive meetings. (ii) Practice change support activities: Tailored visits and telephone calls will be done over the 12 month intervention period. The visits will review how the training is being spread, how the materials are used, how the provision of brief advice is given, the main barriers and opportunities in each organization, provision of advice, problem solving and feedback in response of difficulties. (iii) Care delivery monitoring and feedback activities: Structured bedside audits will be done before and after the intervention period (pre-program evaluation: baseline and 6 months after; post-program evaluation: baseline and 6 moths follow-up) (see evaluation below: pages 14-15).

D5. Evaluation Design: Process and Outcome Evaluation

D.5.1. Process Evaluation: The process evaluation will assess the adoption, implementation and maintenance of the training program. We will measure the program coverage, the compliance, the fidelity with the training program, the usage of the materials and the satisfaction with the training. We will use qualitative and quantitative methods to gather this information.
**Indicators** linked to the performance of the program:

- Number of participants and characteristics (profession, units, gender, age) that registered in the course.
- Number of participants and characteristics (profession, units, gender, age) that completed the course.
- Number of hours dedicated to the training program.
- Program performance/Fidelity to the curriculum plan (whether the students completed all the modules, the exercises as planned).
- Service utilization or dosage use of the training (time applied for undertaking the course, number of downloads of the materials, etc).
- Opinions, experience, perceptions, satisfaction with the training course.

**D.5.2. Outcome evaluation:** Pre-post evaluation measuring HCPs’ knowledge and level of smoking cessation intervention implemented in each participant hospital.

- Level of implementation of tobacco control policies within the participant hospitals before and after the training by using the ENSH Selfaudit questionnaire (ENSH-SAQ) (Q1) and the pre-implementation needs assessment form that will assess the institutional best practices for treating tobacco use and dependence before the project (Q2).
- The Ottawa implementation tools such as the pre-test assessment tool will assess the level of smoking cessation services provided in each hospital at baseline. A continuing monitoring of the implementation will be done every month.
- Participants’ attitudes, knowledge and behaviors before and after the training using a questionnaire (Q3).

**Sample size:** We expect to train 1200 HCPs (300 in each hospital).

**D.5.3. Impact evaluation:** Lastly, to evaluate the impact of the program we will conduct a pre-post evaluation tests to gauge the effect of the program on cessation rates 6 months after patient discharge. A sample of smokers who will give informed consent will be recruited (this will be the pre-intervention data). This data will be compared with the post-intervention data collected 6 months after hospital units launch the program. Both assessments of level of smoking services provided in each hospital/unit will be conducted and a sample of smokers will be enrolled. Individuals from the pre-post intervention period will be recontacted 6 months after discharge to ask for their smoking status, and quit attempts and abstinence period will be compared between groups. The Ottawa implementation tools (Q4) such as the record system and evaluation questionnaires will support the impact evaluation (these tools are based on the 5’As).
**Sample size:** for the impact evaluation, as we expect a 10% difference in smoking cessation between the baseline (10%) to at 6-months groups (20%) we will need a minimum of 240 patients before and after (overall 480), 60 per participating hospital (criteria: alfa error=0.05 beta=0.1, 15% dropouts).

D.5.4 Questionnaires (Q):

**Q1:** We will use the ENSH-SAQ to assess differences in tobacco control policies implemented within hospitals. The questionnaire is composed of 10 policy standards and each standard contains a number of items for its definition: commitment (6 items), communication (4 items), education and training (4 items), identification and cessation support (8 items), tobacco control (5 items), environment (6 items), healthy workplace (5 items), health promotion (1 item), compliance monitoring (2 item), and policy implementation (1 item). Each item is scored as follows: 1=not implemented, 2=less than half the aspects are implemented, 3= more than half are implemented, 4= fully implemented. The maximum score of the ENSH-SAQ is 168 points, as the sum of its 10 standards (17,21,23). At baseline, the SAQ provides information of the tobacco control policies undertaken within the organization. Once is used to monitor the project, the instrument detects the fulfilled standards and the areas for improvement. This tool was developed for the ENSH-Global Network for Tobacco Healthcare Services with active participation of Drs. Fernández and Martínez, and has been used in several studies (17, 21, 23).

**Q2:** Pre-implementation needs assessment form and post-implementation form. Gather information on the units that have implemented the Ottawa Model, the baseline situation of tobacco cessation interventions, the existence or not of self-help materials, use of pharmacotherapy, existence of reference pathways, process in place to follow the patients after discharge, etc.

**Q3:** Trainers’ attitudes, knowledge and behaviors will be assessed by using a questionnaire composed of 63-items. The web-site delivered questionnaire is e-mailed to the participants at baseline and 3 months after finishing the training. The questionnaire takes 30-40 minutes to complete. It has been designed according to Sheffer work [44]. The questionnaire gathers information about the HCP: gender, tobacco use history, previous tobacco cessation education, level of proactivity addressing tobacco use, and perceived success in helping patients stop using tobacco [44]. Assessment of the perceived knowledge and attitudes regarding treatment of tobacco use include levels of: 1) motivation, 2) knowledge about tobacco cessation, 3) self-efficacy, 4) importance of providing tobacco use interventions, 5) effectiveness of interventions, 6) importance of barriers, 7) preparedness, and 8) level of tobacco cessation intervention provided (assessed by the 5A’s model). All items are assessed on a discrete scale of 0-10 with 0 being “none or not at all” and 10 being “the most possible”. The pre-test will be administered immediately before to the training. Post-training assessment is composed of a 37-items assessing providers’ knowledge, attitudes and behaviors as assessed in the pre-test.
Q4: Record systems and Smoking Cessation Consult forms that gather information on the interventions provided according to the 5As model: ASK- patients’ smoking pattern; ADVICE-provision of tailored advice to quit; ASSESS-smokers’ readiness to quit; ASSIST-provision of behavioral and pharmacological aid; ARRANGE-a follow-up.

D.5.5 Metrics: Process: We will consider a positive coverage when smokers’ inclusion will be ≥50% of smokers admitted into the hospital; Outcome: we will consider a positive change of health professionals’ knowledge, attitudes and behaviors when obtained ≥20% of these indicators; Impact: pre- and post-evaluations to assess whether the intervention increases the number of smokers assisted and whether smoking rates increase compared to baseline. A good level of smoking rates will have been reached when smoking cessation rates will be ≥10% after 6 months of discharge (similar studies have reported 10-17%) [6].

D.5.6. Statistical analysis: For quantitative indicators we will use descriptive and inferential statistics. Usual statistics will be used to describe the sample and t-test for paired samples will be used for pre -post paired comparisons for tobacco control policies (measured by Q1 and Q2). The trainees’ knowledge, attitudes and behaviors (measure by the Q3) and smoking cessation rates at baseline (before the program at admission and 6 months after discharge) will be compared to smoking cessation rates after the program (baseline and 6 months after discharge) (measure by Q4).

The qualitative indicators will be obtained by qualitative methods (focus groups and extensive interviews) will be summarized by using the classical content analysis approach (creating codes and chunk of information and the researcher complements the codes with description of the codes). Analysis of the data will be validated with informants to increase the reliability.

With these results policy makers and hospital administrators will have an in-depth view of the impact of smoking cessation services applied in hospital settings. We will disseminate results both for health professionals and scientists (publishing in scientific journals and organizing symposia) and for the public (using the internet and social networks).

D.5.7. Innovation: By means of our program we will evaluate for the first time the adoption of the tobacco cessation services by training health professionals in the combination of two products created by ongoing Global Bridges projects and using a model for transferring evidence into practice. In order to implement and institutionalize a new service a variety of strategies will be applied accordingly to the AHRQ model. Results should demonstrate the feasibility of this model across three countries that share similarities in their smoking rates and hospital organizational style but start from different situations:

Greece: provides its experience in the translation, adaptation and usage of the Ottawa implementation tools.
Spain: provides its experience in the development and dissemination of its online smoking cessation training program and the ENSH-SAQ but has not applied the Ottawa implementation tools.
Portugal: has not previous experience regarding the implementation of any of the two products.
The results of this research and the comparison among countries will provide information about the effectiveness of smoking cessation counseling programs when implemented routinely in hospitals and its impact in patients in different countries.

With these results policy makers and hospital administrators will have an in-depth view of the impact of smoking cessation services implemented in hospital settings. We will disseminate results both for health professionals and scientists (publishing in scientific journals and organizing symposia) and for the public (using the internet and social networks).

**D6. Detailed Workplan and Deliverables Schedule**

The ISCI_SEC is a 24-month research program that has been designed to respond to the project objectives and has derived in 6 Work Packages (WP) that will break down in several Tasks (T) and Deliverables (D) described in and table 1 (see pages 21).

**WP0: Project Management: Overall coordination and synchronization of the project**

**Rationale:** This WP will be led by the Catalan Institute of Oncology (ICO) and will involve the management of the project and the coordination with the rest of the partners. It will ensure that the coordinated activities are met in accordance with the planned proposal, and the milestones are reached as intended. In addition, this WP will involve the coordination of required meetings of the partners’ consortium. This work package has been outlined to guarantee the design, planning, organizing and monitoring of the integrated activities in order to meet the project objectives within consortium’s constraints of planned budget and timetable.

**WP1: Development Online Training Program (online course, support materials and tools)**

**Rationale:** This WP constitutes the main developmental part of the proposal and involves the participation of all the members of the consortium and local experts in smoking cessation. The aim of this WP will be to design and elaborate all the elements of the training program.

**WP1.1: Translate and adapt the online training:** First, we will translate and adapt the 5 Modules of the online training course into Portuguese. The adaptation of the on-line course is crucial to enhance the program’s cultural appropriateness, local acceptance, and feasibility, to maintain its effectiveness. Therefore, the adaptation process will be grounded on Card et.al. framework [36]: (see pages 12-13).

**WP1.2: Implementation Materials (OMSC):** Second, we will adapt and translate the OMSC materials, tools and evaluation questionnaires into the three languages, which will be needed to properly carry out the project (Spanish, Catalan, and Portuguese).

**WP2: Preparation of training program for its utilization**

**Rationale:** Once the materials will be translated and reviewed by experts from each country, we will transfer them into a digital format. This WP will comprise proper transferability and digital design of the course onto the on-line platform e-oncologia (http://www.e-oncologia.org/en/). The transferability and usability testing will be done after the migration. The same individuals that have checked the translation quality of the materials will test the transferability and
usability on the materials into the on-line platform. Findings from the usability evaluation will inform about required amendments prior to the pilot study.

**WP3: Pilot the training program with volunteers**

**Rationale:** This WP will test all the components included in the smoking cessation training program. The consortium will test the delivery of the training program with ten volunteers in each country. Each partner of the consortium will be responsible for piloting the training in their country. The partners will be also responsible for choosing the tutors for providing the on-line support to the trainees (who will be a local smoking cessation specialist, ideally the same person who has collaborated to proof read the materials after translation). 10 volunteers will do the entire on-line course and materials. To evaluate the pilot, we will assess the fidelity of the course, its usage, and the volunteers’ level of satisfaction with the course. To do this, we will conduct a focus group in each country to widely assess volunteer’s opinions, experiences, and perceptions. We will use a semi-structured interview. Focus groups will be taped. During and after the delivery of each pilot program, we will also test the process and outcome evaluation tools (T) described in WP5.1.

After running the pilot of the training program, we will prepare a manual describing the protocol of how to correctly undertake the training program (using the online course and the OMSC materials). This manual will be distributed by the members of the consortium to tutors, hospital coordinators, and relevant stakeholders in the hospital such as head nurses, supervisors, and so on.

**WP4: Launching and Offering of the program in 2 hospitals in Portugal and 2 in Spain**

**Rationale:** This WP is based on the steps AHRQ model (described on page 13-14). The strategy launch and implementation within each hospital will be unit per unit by empowering inter-professional team approach. Different task will be undertaken including commitment activities; communication, diffusion, and dissemination of the training within each organization (see tasks and deliverables page 21)

Commitment activities: organizational commitment has been fully describe on page 14.

**WP5: Process, outcome, and impact evaluation**

**Rationale:** This WP is responsible for the execution process of the research proposal. It implies to carry out the smoking cessation training program among hospitals allocated in the intervention group (IG), and to continue with the standard care in hospitals allocated in the Control Group (CG) as detailed below. This part implies the pre-test and post-test evaluations in both groups and delivery the training program in the IG.

**WP6: Translational dissemination of the project findings**

**Rationale:** The ISCI_SEC findings will be of importance to the adoption of future smoking cessation interventions addressed to hospitalized patients in Southern countries. Complete information, including, findings and policy implications derived from this study must reach policy-makers and health care service administrators as well as scientific organizations. The dissemination efforts describe in this WP aim to reach a broad scope of audiences. The goal of
this WP is to generate an impact that will last beyond the end of the project by making results known to those who could benefit from them across different disciplines. On one hand, we will address the scientific audience through the publication of two papers (on the development of the course and the evaluation of the before-after outcomes changes). Papers will be submitted to journals in the first quartile of the following areas: public health, health education, and hospital administration. It is worth mentioning that the Coordination team has a long track of publications in international journals and some of the members (E. Fernandez and C. Martinez) have recognized experienced in tobacco control research in health care services. On the other hand, we will address to policy and decision makers and relevant stakeholders in hospital management and administration by disseminating our project and results. In addition, we will write a newsletter and a policy brief with the results of the study in English, and the languages of the three participant countries implicated in the study. This document will be sent to governments, health organizations, and NGOs by the Tobacco Control Unit as WHO Collaborating Center for Tobacco Control. To reach policy audiences, we will use our partnership with the European Network for Smoking Prevention (ENSP), European Respiratory Society (ERS), Global Bridges, and some of the most notorious Scientific Events devoted to tobacco control (e.g, World and European Tobacco Control Conferences).
### Table 1: Workpages and Deliverables of the ISCI_SEC Project

**WP0: Project Management: Overall coordination and synchronization of the project**

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Deliverables</th>
<th>Schedule for completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>T0.1: Review the workload of the phases</td>
<td>D0.1: Interim report</td>
<td>S: M1   E:M12</td>
</tr>
<tr>
<td>T0.2: Write a detailed document with all the tasks, requirements, and timeframe</td>
<td>D0.2: Final financial report</td>
<td>S: M23 E:M24</td>
</tr>
<tr>
<td>T0.3: Project Reporting and preparation of annual scientific and financial reports</td>
<td>D0.3: Minutes in-person &amp; on-line meetings (monthly)</td>
<td>S: M1 E: M24 (monthly)</td>
</tr>
<tr>
<td>T0.4: Organize the in person kick off meeting (Month M2)</td>
<td>D0.4: Kick of meeting (in October 2016)</td>
<td>S: M02 E:M02</td>
</tr>
<tr>
<td>T0.5: Follow up online monthly executive meetings</td>
<td>D0.5: Mid-term meeting (in Porto, ECTH March 2017)</td>
<td>S: M07 E:M07</td>
</tr>
<tr>
<td>T0.6: Follow up in person meeting (Midterm M7)</td>
<td>D0.6: Final meeting (in Barcelona June 2019)</td>
<td>S: M21 E:M21</td>
</tr>
<tr>
<td>T0.7: Final in person meeting (M21)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**WP1: Development of the training program (on-line course, support materials and tools)**

**WP1.1 : Translate and Adapt the online training**

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Deliverables</th>
<th>Schedule for completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1.1.1 : Translate the online course into Portuguese</td>
<td>D1.1.1 : Contents of the on-line course in Portuguese</td>
<td>S: M01 E:M04</td>
</tr>
<tr>
<td>T1.1.2: Review the content, materials, by the local experts</td>
<td>D1.1.2: Online course in Portuguese</td>
<td></td>
</tr>
<tr>
<td>T1.1.3: Pilot the online course in 10 volunteers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**WP1.2: Implementation Materials (OMSC)**

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Deliverables</th>
<th>Schedule for completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1.2.1: Translate the material of the implementation materials</td>
<td>D1.2.1: Care delivery tools in the 3 languages (3Ls)</td>
<td>S: M01 E:M04</td>
</tr>
<tr>
<td>T1.2.2: Review the content, materials, by the local experts</td>
<td>D1.2.2: Care delivery tools addressed to patients</td>
<td></td>
</tr>
<tr>
<td>T1.2.3: Pilot the online course in 10 volunteers</td>
<td>D1.2.3: Implementation forms in the 3Ls</td>
<td></td>
</tr>
<tr>
<td>T1.2.4: Print the materials and make them available (physically and online)</td>
<td>D1.2.4: Evaluation forms in the 3Ls</td>
<td></td>
</tr>
</tbody>
</table>
**WP2: Preparation of training program for its utilization**

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>T2.1: Virtualization (design and programming) of the on-line course: T2.2: Design and printing of support material (pdf) T2.3: Implementation of the support tool in the web</td>
<td>D2.1: On-line version of the course in Portuguese D2.2: On-line and printed versions of the supportive materials of the online course (pdf versions)</td>
</tr>
</tbody>
</table>

**WP3: Pilot the training program with volunteers**

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>T3.1: Test the online course with 10 volunteers (Portugal) T3.2: Test the OMSC materials with 10 volunteers (Portugal and Spain) T3.3: Evaluate the educational and pedagogical impact T3.4: Evaluate the adequacy of the examples, materials T3.5: Correct detected pitfalls T3.6: Implementation of the support tool in the web</td>
<td>D3.1: Focus groups with the volunteers D3.1: Final on-line course D3.2: Final version of the OMSC materials D3.3: Manual Describing the ISCI_SEC training program</td>
</tr>
</tbody>
</table>

**WP4: Launching and Offering of the training and materials in 2 hospitals (per country)**

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>T4.1: Select internal coordinators and champions in each hospital T4.2: Inform the managers and heads about the training project T4.3: Inform all members of the hospitals through different communication channels (intranet, email) about the program T4.4: Provide and make available the names and contacts of the coordinators T4.5: Create project champions in each unit T4.6: Target HCPs and reoffer to non-participants every 2 weeks T4.7: Create working sessions with the trainees T4.8: Design tailored interventions/circuits per unit (if necessary) T4.9: Delivery of training program in participant Hospitals</td>
<td>D4.1: Sessions with each unit D.4.2. Communicative campaign through emails, intranet, posters, leaflets informing about the training program D.4.3. In person and telephone meetings with the internal coordinators</td>
</tr>
</tbody>
</table>
### WP5: Process, Outcome, and Impact Evaluation & Analysis of Data

<table>
<thead>
<tr>
<th>WP5.1. Process</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>T1:</strong> Evaluate the program coverage, compliance, fidelity with the training program</td>
<td>D5.1.1: Monitor program coverage, compliance and fidelity</td>
<td>S: M09 E:M14</td>
</tr>
<tr>
<td><strong>T2:</strong> Evaluate the usage of the materials and the satisfaction with the training. We will use qualitative and quantitative methods to gather this information.</td>
<td>D5.1.2: Conduct a survey asking satisfaction with the training</td>
<td>S: M09 E:M13</td>
</tr>
<tr>
<td></td>
<td>D5.1.3: Conduct a focus group survey to grasp usage of online course contents and materials based on OMSC model</td>
<td>S: M10 E:M12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WP5.2. Outcome</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>T5.2.1:</strong> Evaluate the level of implementation of tobacco control policies within and after the training by using the ENSH Selfaudit questionnaire (SAQ)</td>
<td>D5.2.1: Baseline survey of tobacco control policies</td>
<td>S: M03 E:M6</td>
</tr>
<tr>
<td><strong>T5.2.2:</strong> Evaluate participants’ attitudes, knowledge and behaviors before and after the training using a questionnaire</td>
<td>D5.2.2: Post survey on tobacco control policies</td>
<td>S: M18 E:M21</td>
</tr>
<tr>
<td></td>
<td>D5.2.3: Pre HCPs’ survey of attitudes, knowledge and behaviors (AKB)</td>
<td>S: M09 E:M13</td>
</tr>
<tr>
<td></td>
<td>D5.2.4: Post HCPs’ survey of attitudes, knowledge and behaviors (AKB)</td>
<td>S: M12 E:M14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WP5.3. Impact</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>T5.3.1:</strong> Pre-test smoking cessation intervention survey in participants hospitals (5As implementation)</td>
<td>D5.3.1: Baseline survey of the performance smoking cessation interventions (SCI) in participant hospitals</td>
<td>S: M03 E:M6</td>
</tr>
<tr>
<td><strong>T5.3.2:</strong> Post-test smoking cessation intervention survey in participant hospitals (5As implementation)</td>
<td>D5.3.2: Post surveys of performance of SCI 1, 6, 12 months after the launch of the intervention</td>
<td>S: M12 E:M18</td>
</tr>
<tr>
<td><strong>T5.3.3:</strong> Assembling cohort smoking cessation rates pre-intervention at baseline, at 1 month, and 6 months, 12 months after discharge</td>
<td>D5.3.3: Create a cohort of smokers attended in the hospital before the training (pre-program)</td>
<td>S: M03 E:M6</td>
</tr>
<tr>
<td><strong>T5.3.4:</strong> Assembling cohort smoking cessation rates post-intervention at baseline, at 1 month, and 6 months, 12 months after discharge</td>
<td>D5.3.4: Conduct a follow-up evaluation of the cohort of smokers after discharge and evaluate smoking rates at 1 and 6 months after discharge</td>
<td>S: M04 E:M12</td>
</tr>
<tr>
<td></td>
<td>D5.3.5: Create a cohort of smokers attended in the hospitals after the training (post-program)</td>
<td>S: M12 E: M13</td>
</tr>
<tr>
<td></td>
<td>D5.3.6: Conduct a follow-up evaluation of the cohort of smokers after discharge and evaluate smoking rates at 1, 6 months after discharge</td>
<td>S: M14 E: 20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WP5.4.1: Data management and preparation of the database</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>T5.4.1:</strong> Data management and preparation of the database</td>
<td>D5.4.1: Creation of the data base for pre-data.</td>
<td>S: M15 E: 17</td>
</tr>
<tr>
<td><strong>T5.4.2:</strong> Data analysis of pre-post test data</td>
<td>D5.4.2: Creation of data base for post-data</td>
<td>S: M21 E: 23</td>
</tr>
<tr>
<td></td>
<td>D5.4.3: Analysis comparing pre-test and post-test results</td>
<td>S: M21 E: 23</td>
</tr>
</tbody>
</table>
### WP6: TRANSLATIONAL DISSEMINATION OF THE PROJECT FINDINGS

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Deliverables</th>
<th>S:</th>
<th>E:</th>
</tr>
</thead>
<tbody>
<tr>
<td>T6.2: Preparation of 2-3 scientific articles with main results</td>
<td>D6.2: Write 3 manuscripts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T6.3: Preparation of communications to present the main results</td>
<td>D6.3: Launching the policy brief.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>within two international conferences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T6.4: Preparation and dissemination of a policy brief targeting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>stakeholders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T6.5: Preparation and dissemination of a policy brief targeting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>stakeholders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T6.6: Preparation and dissemination of a policy brief targeting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>stakeholders</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Responsibilities:**

- The Catalan Institute of Oncology members will lead WP0 to WP6.
- The Hellenic Cancer Society members will co-lead WP1.2, and participate in WP5 and WP6.
- The University of Beira Interior and the University of Minho will co-lead WP1, WP3, WP4 and WP5 and will participate in WP6.
- The University of Ottawa Heart Institute will co-lead WP1.2.

Each organization will be providing support to the Catalan Institute of Oncology in WP0 when they hold in person meetings in their country.
The project starts in September 2016 and ends in September 2018.
E. REFERENCES


