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**Title of the deliverable:** Workshop organized by FFCUL at the moment the website will be launched

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Abstract:

This deliverable describes the Workshop to officially launch the NUTRIAGEING website. NUTRIAGEING is a nutrition module of the PERSILAA project, developed to promote healthy nutrition, to educate on how to make healthier food choices and improve food habits. The “NUTRIAGEING workshop: Nutrition literacy for a healthy ageing” was organized at FCUL on the 27th of November 2015, and had the presence of stakeholders and end-users from academia, industry, Portuguese governmental agencies and from the Lisbon City Council. The NUTRIAGEING website is available at [http://nutriageing.fc.ul.pt/](http://nutriageing.fc.ul.pt/).

Keyword list: Workshop, Nutriageing, interactive nutrition website
# Document History

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1 Executive Summary

The “PERsonalised ICT Supported Services for Independent Living and Active Ageing” project (PERSSILAA) is a FP7 funded European project aiming at developing and validating a new service model for screening, monitoring and training, integrating nutrition, cognitive and physical function. PERSSILAA innovates the way care services are organised moving from disease management into preventive personalised services, offered through local community services. Health promotion and supported training services are developed to promote healthy behaviour in terms of nutrition, physical activities and cognitive stimulation and are offered via various service configurations. For the promotion of healthy nutrition, an innovative interactive nutrition website has been developed to promote healthier food habits and disease prevention through foods, within the activities carried out in Task 3.3.1 dedicated to nutrition.

This document describes the organization of the Workshop to launch the nutrition module package of PERSSILAA: the NUTRIAGEING website (http://nutriageing.fc.ul.pt/). NUTRIAGEING is an interactive and easy-to-use website, with simple but reliable information supported by experts from different scientific areas e.g. nutrition, chemistry, biochemistry, statistics, landscape architecture and organic agriculture.

The “NUTRIAGEING workshop: Nutrition literacy for a healthy ageing” took place at Faculdade de Ciências da Universidade de Lisboa (FCUL) on the 27th of November 2015 and was organized around the thematic topics of the website: healthy eating, recipes and videos, and vegetable gardens. The goal of this workshop was to promote and disseminate the NUTRIAGEING website for the scientific community, the general public, end-users and potential stakeholders from industry, the Lisbon City Council and Portuguese governmental laboratories.
2 About this document

Deliverable D6.5.2 is dedicated to the organization of the Workshop for the official launch of the NUTRIAGEING website. This website (available at http://nutriageing.fc.ul.pt/) is the nutrition module of the project PERSSILAA and was specifically developed as a major platform for the transfer of scientific knowledge into advice to the general public.

The “NUTRIAGEING workshop: Nutrition literacy for a healthy ageing” took place at FCUL on the 27th of November 2015, and in the audience were present stakeholders and end-users from research, academia, industry, Lisbon City Council and Portuguese governmental laboratories. In this document we report the organization of this workshop, the participants and the presentations delivered.

2.1 Role of the deliverable

Deliverable D6.5.2 describes the organization of the Workshop “NUTRIAGEING workshop: Nutrition literacy for a healthy ageing”, aiming at the official launch of the nutrition module of PERSSILAA.

2.2 Relationships to other PERSSILAA deliverables

D6.5.2 is related to deliverable D3.3 (Package of remotely available services for health promotion and supervised training), which describes the development and validation of the service modules focused on cognitive functioning, physical functioning, and nutrition.

This website will be integrated into the interoperable platform of PERSSILAA, being therefore related to the deliverables D4.2 (Description of generic services for the interoperable infrastructure) and D4.3 (Description of procedures for integration of external services).

2.3 Structure of this document

The introduction section (section 3) briefly describes the NUTRIAGEING website and the workshop. In section 4, we present the Organization team and the participants that attended the workshop. Section 5 describes the workshop programme, and includes a short abstract of the delivered presentations.
3 Introduction

Nutrition plays an important role all over our life span, especially in older adults. The importance of nutrition education and the impact of consumer misinformation about the benefits of healthy food choices becomes clear with the recognition that nutritional status influences the rate of physiologic and functional decline with age. Helping people to choose foods contributes to maintain good health, improve cognitive function, increase energy levels and prevent frailty. These are the goals of NUTRIAGEING, a website developed to provide information, advice and simple services focused on the nutritional status of elderly people. The innovative character of the NUTRIAGEING website relies on the fact that it is an easy-to-use website with simple but reliable information supported by experts from different scientific areas e.g. nutrition, chemistry, biochemistry, statistics, landscape architecture and organic agriculture. It was developed to be a major platform for the transfer of scientific knowledge into advice to the general public. The website is structured around the sections: 1. Healthy eating; 2. Recipes and videos, and 3. Vegetable gardens. In the first section, a subsection about how to make food choices and improve health status covers 10 items, describing how much should we eat related to macronutrients and micronutrients, the importance of fats, fibre, water, calcium and salt intake, antioxidants, functional ingredients, and finally interactions between foods and drugs. The next subsection of Healthy eating is dedicated to clinical nutrition. Nutritional risk factors, clinical nutrition evaluation, nutritional intake, anthropometric measurements, how to classify nutritional status and dietary plans are covered, showing that clinical nutrition evaluation is an integrated approach, based on individual assessment, used to determine nutritional status and a dietary plan, according to the needs defined. Nutritional labelling is the next subsection, dedicated to help the general public to a better interpretation of the food labels, giving them comprehensive information and education on the current legislation (Regulation EU nº 1169/2011). The aim is to support healthy choices at the point of purchase. Finally the Enjoy subsection comprehends games developed for this website e.g. word puzzles in which the user can enjoy him(her)self by recognizing how much he(she) has learnt with the nutrition literacy offered in the healthy eating section. The section Recipes and videos comprises 15 recipes and 15 videos, where the Chef Hélio Loureiro cooks each recipe and discusses with a panel of experts the nutritional values and the benefits of the functional foods and ingredients. It should be highlighted that condiments and vegetables are linked to the Vegetable garden section, where a landscape architect has taught how to grow them in an indoor or outdoor garden. In this last Vegetable gardens section the user also learns how to plan a vegetable garden, targeting home and day care center gardens. In summary, this interactive healthy nutrition website has a unique structure linking important areas to promote healthier food habits. Comprising nutrition literacy and offering innovation on functional ingredients for disease prevention, it covers theory, cook shows and horticulture.
The “NUTRIAGEING workshop: Nutrition literacy for a healthy ageing” was held at Faculdade de Ciências da Universidade de Lisboa (FCUL) to launch the website to the general public and stakeholders from research, academia, industry, Lisbon Municipality and Portuguese governmental laboratories. It was organized by the Portuguese team members of PERSILAA, together with the FCUL External Cooperation Office.

4 Organizers and Participants

4.1 Organization of the workshop

The workshop was organized by FCUL team members of PERSILAA, together with the External Cooperation Office (ECO-FCUL) and the poster (Figure 1) and the flyer (Figure 2) have been used to announce the workshop in the Lisbon City Council, Academic Community and Companies and invite participants registration to this workshop.

Organizing committee:

- Amélia Pilar Rauter (Chair) | FCUL
- Alice Martins | FCUL
- Maria Antónia Turkman | FCUL
- Feridun Turkman | FCUL
- Marília Antunes | FCUL
- Ana Faísca | ECO-FCUL

Secretary:

- António Marques | ECO-FCUL
Figure 1. Poster of the Nutriageing workshop: nutrition literacy for a healthy ageing.

Workshop announcement was also made by email to several partners and stakeholders, as well as through several online channels:


https://twitter.com/FC_UL/status/667763682697457670

https://www.facebook.com/teclabs/photos/a.284597278315364.60549.255543651220727/827766253998461/?type=3&theater
5  

Programme and presentations

5.1  

Programme of the workshop

The workshop was structured around the three main topics of the website: Healthy eating, Recipes and videos, and Vegetable gardens, as shown in the flyer displayed in figure 2 and covered the Opening Session.

Figure 2.  

Flyer of the Nutriageing workshop: nutrition literacy for a healthy ageing, with the programme (front and back).
5.2 Opening session and presentations

The opening session of the Workshop had the presence of distinguished guests at the honour table, together with Amélia Pilar Rauter, Coordinator of the Portuguese team of PERSSILAA:

![Opening session of the Nutriageing workshop.](image)

Figure 3. Opening session of the Nutriageing workshop.

Professor Dr. João Gorjão Clara  
| Faculdade de Medicina de Lisboa

Geriatrics professor and Coordinator of the Geriatrics Unit at the Faculty of Medicine, University of Lisbon, Group coordinator of geriatrics studies, member of the European Academy for Medicine of Ageing, Full Board Member of the European Union Geriatric Medicine Society, Member of the Board of the Geriatric Section of the Union European Medical Specialists.

Dr. Pedro Grilo  
| Câmara Municipal de Lisboa (Lisbon City Council - Municipality)

Senior Economist and Urban Planner; Policy Advisor for Active Ageing, Social Innovation and Fundraising of The Deputy Mayor for Social Rights.
Dr. Helena Soares Costa | Instituto Nacional de Saúde Doutor Ricardo Jorge, National Institute of Health Dr. Ricardo Jorge (INSA)
Senior Researcher and Vice-President of Scientific Council of INSA, responsible for the Research & Development Unit of the Department of Food and Nutrition at INSA.

Chef Hélio Loureiro | HL Produções
Professional Chef, presently managing the kitchen of Porto Pálacio Hotel, organized several dinners at the opening of the Portuguese Presidency in the European Community and also at the European Portuguese Presidency in 2007, is currently the Chef of the Portuguese Football team. Wrote a number of healthy recipe books, namely anti-ageing recipes, and collaborates with the PERSSILAA Portuguese team in the Nutriageing website.

The presentations of the Nutriageing workshop were centred on the construction and design of the website and also on the three main topics: Healthy eating, Recipes and videos, and Vegetable gardens.

António Ferreira | FCUL
Nutriageing website: infrastructure and design

NUTRIAGEING (http://nutriageing.fc.ul.pt/) is an informative website with a very clean, easy-to-use, “app-like” interface. It embeds the popular framework Twitter Bootstrap 3 which provides a mobile-first grid system to create a responsive layout, automatically adjusting and adapting to different devices and any device screen size. The website has an app-like clean interface with minimal menus and other accessory elements, highly interactive and easy to use. Visually, it is similar to PERSSILAA platform entry point. Button glyphs are based on free fonts, being easier to load (because all font icons are loaded in a single font file), scalable when one increases the font of the webpage, keeping the resolution without losing quality, and their colours can be changed very easily.
Tânia Gonçalves Albuquerque  |  INSA

**PERSSILAA project: healthy eating for the elderly**

Nutritional education of the population aims at a general improvement of nutritional status by promoting proper and healthy eating habits thus eliminating an inadequate diet, introducing best practices of food hygiene and a more efficient use of food resources. The “Nutriageing website section entitled “Healthy eating” contains information on healthy eating habits, clinical nutrition, understanding food labels and crossword puzzles. In this workshop participants had the opportunity to deeply understand the objective of this section, and how they can use this information to make healthy dietary choices. An overview of the nutrition contents was performed and the information was briefly explained, as well as contents related with clinical nutrition and nutritional labelling. During the presentation, links with other parts of the website were performed, for example with the enjoy section, where older people have the opportunity to apply the acquired knowledge using crossword puzzles, true or false questionnaires, among others.

**Hélio Loureiro (Chef)  |  HL Produções**

**Culinary, wellbeing and science: recipes and videos**

All my work has been developed over the years into two parts: one dedicated to the kitchen, profession embraced with love and dedication, and the other linked to the mission to serve. To participate in this project was a very rewarding challenge, different from what I was used to. The “Recipes and videos” section is one of the innovations of this website. A total of 15 recipes and videos were especially developed for this project, focusing each of the total 15 topics. The recipes were prepared in parallel to a round table discussion with experts from science, nutrition and landscape architecture, and the videos were produced and integrated in the website.
**Vegetable gardens for health**

The benefits of gardening and food growing are immense. Recently, Tim Lang (Professor of Food Policy at City University London's Centre for Food Policy), wrote: "We can all benefit from gardening and community food-growing projects. It is widely recognised that regular contact with plants, animals and the natural environment can improve our physical health and mental well-being." (Lang, T. 2014). “Vegetable gardens” is an innovative topic of the NutriAgeing website. It focuses on an alternative horticulture with the purpose of producing maximum quality products using all the natural resources and avoiding the use of chemical products (organic agriculture methodologies). It is based on the knowledge of the needs of the cultures such as soil, sunlight exposure, water and nutrients, to obtain the needed quality in a sustainable way. These techniques can be used both inside (indoor) and outside (outdoor) in a variety of solutions, such as aromatic plants pots or in a vegetable garden.

**Innovation for Alzheimer’s disease prevention in Diabetes: the role of Genista tenera**

Type 2 diabetic patients have a 2-fold higher risk of developing Alzheimer’s disease, thus being urgent to search for a new antidiabetic therapy that is simultaneously able to prevent neurodegeneration. Genista tenera ethyl acetate extract was found to possess a notable antidiabetic activity in STZ-induced diabetic Wistar rats, to strongly inhibit glucosidases and to interact with Aβ1-42 toxic oligomers, pointing towards a multitarget mechanism of action.
Salvia sclareoides for misfolding diseases

*S. sclareoides* is a non-toxic aromatic herb used in folk medicine to treat memory loss. Plant extracts have shown a potent inhibition of acetylcholinesterase (AChE), the enzyme hydrolizing the neurotransmitter acetylcholine, thus improving the cholinergic function. AChE inhibition is a standard therapy to treat patients with Alzheimer’s disease (AD). In this context, NMR binding studies were accomplished to explain the inhibition of AChE activity by *Salvia sclareoides* extracts. Rosmarinic acid was found as the only explicit binder for AChE and a new binding site in AChE for rosmarinic acid has been discovered, which is now used for target developments. *S. sclareoides* extracts also interact with amyloid toxic oligomers destroying amyloid fibrils to form amorphous aggregates. Extracts have antioxidant activity, and one of them has prion binding properties. Extracts were not cytotoxic nor genotoxic, reinforcing the potential of the plant for nutraceutical purposes. This work, accomplished within an international and multidisciplinary driven investigation, justified the valorisation of this non-toxic plant for the functional food industry by identifying its properties against neurodegenerative disorders, and by disclosing the mechanism of action involved.

Website navigation and presentation of one of the videos

All sections and subsections were presented, highlighting the easy use and the innovative contributions of this website.
6 Participants of the workshop

The workshop was attended by 57 participants, from research centres and academia, industry, associations, management foundations and governmental laboratories.

![Distribution of participants by type of institution.](image)

7 Conclusion

The workshop was very successful, with the participation of end-users and stakeholders, that have shown their enthusiasm and their interest in using the website, and are committed to find other users and stakeholders, in particular the participants from the European Union Geriatric Medicine Society, from the Municipality and from some food companies present.

8 Future work

- Organization of another workshop in February 2016 to reach international projection
- Roadshow to disseminate the website all over the country
- Production of a Book of recipes, containing the recipes, nutritional values, growth of vegetable gardens, complemented with scientific information on the medicinal properties of herbs, condiments and other recipe components.
9 Bibliography

Tim Lang, *The benefits of gardening and food growing for health and wellbeing*, 2014