



DELIVERABLE REPORT

Grant Agreement number: 688303

Project acronym: LUCA

Project title: Laser and Ultrasound Co-Analyzer for thyroid nodules

Funding Scheme: H2020-ICT-28-2015

Deliverable reported: D6.1 Dissemination material

Due date: 29.04.2016

Name, title and organisation of partner: Núria Charles-Harris, ICFO – the Institute of Photonic Sciences.

Project website address: www.luca-project.eu



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Annex



1. Objectives

Design and production of dissemination material (logo, templates, fact-sheet, project presentation, leaflet, poster) with a unified “look and feel”, establishing a “strong” project identity. The leaflet- presenting the main objectives of the project, the consortium, the activities and results- to be distributed to nation al international events as well as to the local workshops and the international conference.

2. Logo

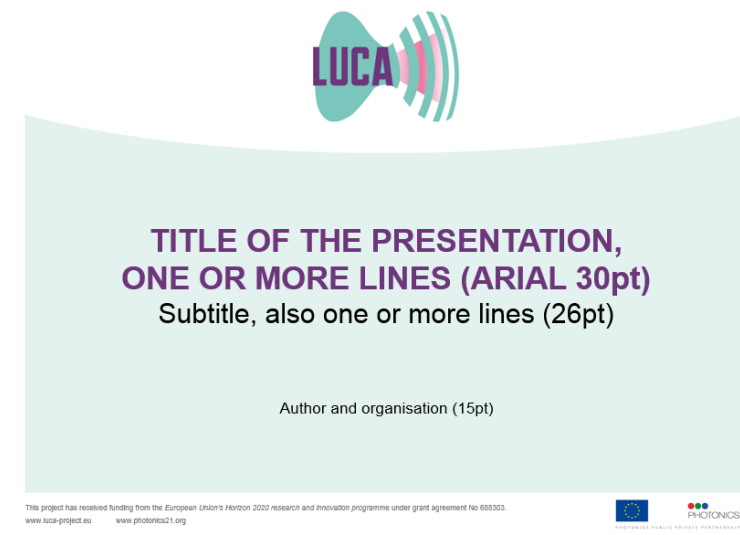
The LUCA logo colours are based on the colours of thyroid cancer awareness campaign, pink, purple and teal. The shape is that of a thyroid combined with the technological techniques used in the project: laser and ultrasound.

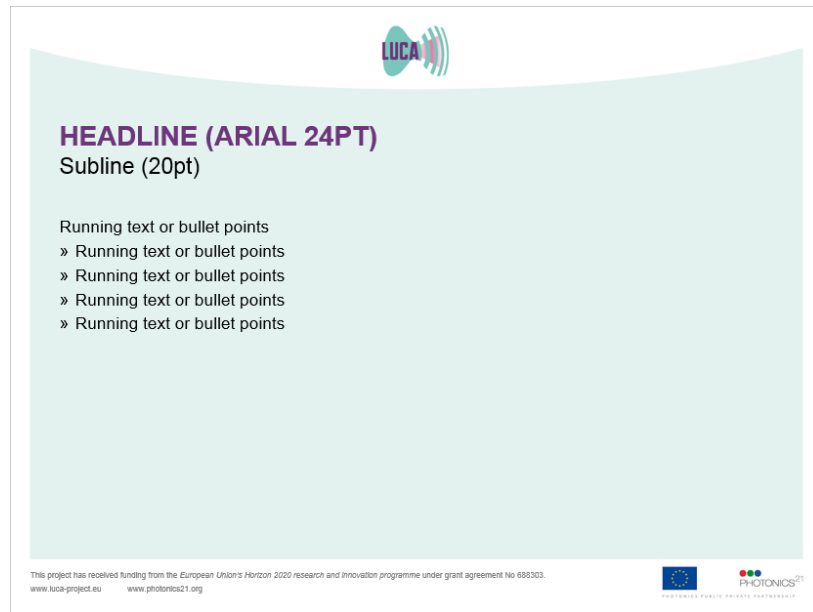


3. Templates:

Several templates have been done following the image and colors of the logo.

1. PPT:






2. Poster



3. Deliverables

Laser and Ultrasound Co-Analyzer for thyroid nodules



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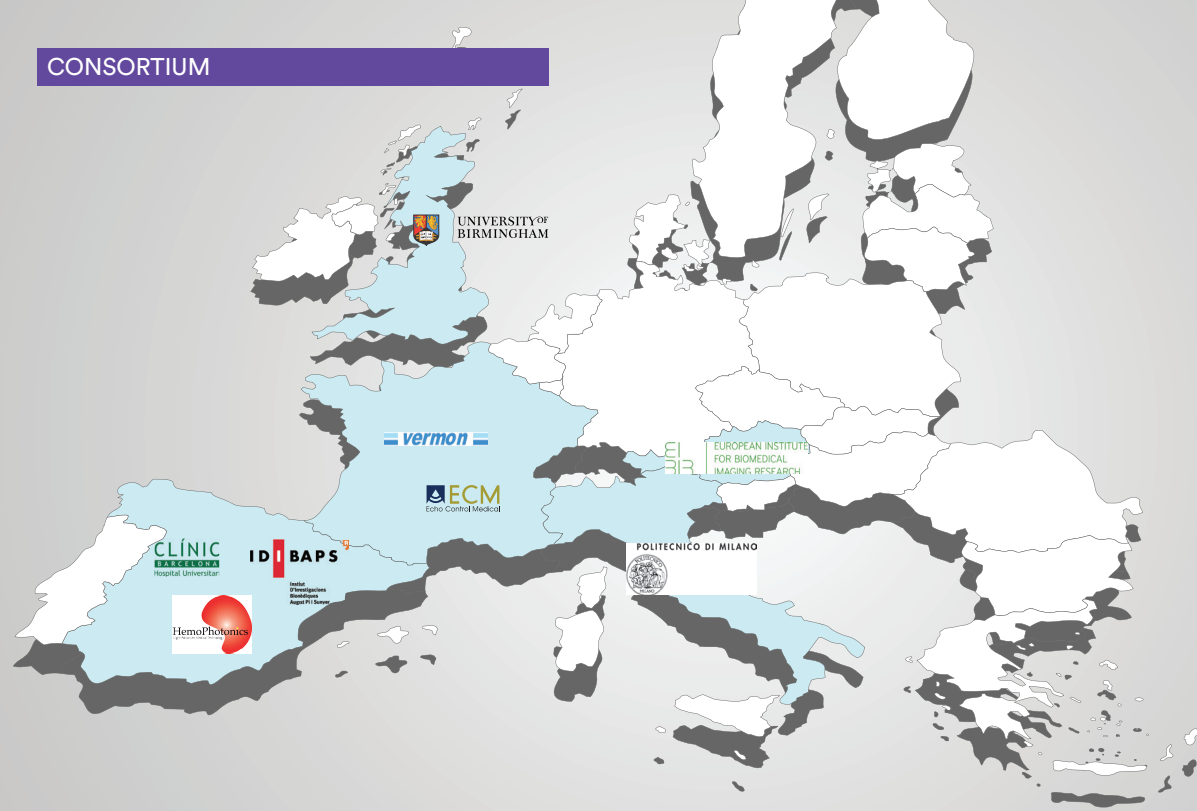
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4. Leaflet:

Concise information about the objectives of the project and expected results. It will be updated during the life of the project to reflect the progress made. We have used images of the video to keep in line with the look of the project. Enclosed is the leaflet.

5. Conclusions

Dissemination material has been created with a uniform image. The templates have been distributed between the members of the consortium. They will also be available on the webpage.



ICFO - MEDICAL GROUP PI:
TURGUT DURDURAN, LUCA COORDINATOR
 Diffuse Correlation Spectroscopy Knowledge &
 Technology Transfer

**POLIMI: DAVIDE CONTINI, DIPARTAMENTO
 DI FISICA**
 Time Resolved Spectroscopy

**IDIBAPS: RAMON GOMIS, ENDOCRINOLOGY
 DEPARTMENT**
 Clinical Endocrinology and Radiology

HEMO: UDO WEIGL
 Biomedical Optical Device Development

VERMON, AN NGUYEN -DINH
 Technology & Research
 Ultrasound Probes

ECM, SIXTE DE FRAGUIER, R&D
 Ultrasound Device Software

**UOB, HAMID DEGHANI, SCHOOL OF
 COMPUTER SCIENCE**
 Physical Modelling and Data Fusion

EIBIR, GABRIEL KRESTIN, RADIOLOGY
 Biomedical Imaging Research
 Project Management

INFORMATIONAL VIDEO



<https://youtu.be/GeVQS0MzJ4U>

CONTACT & WEB

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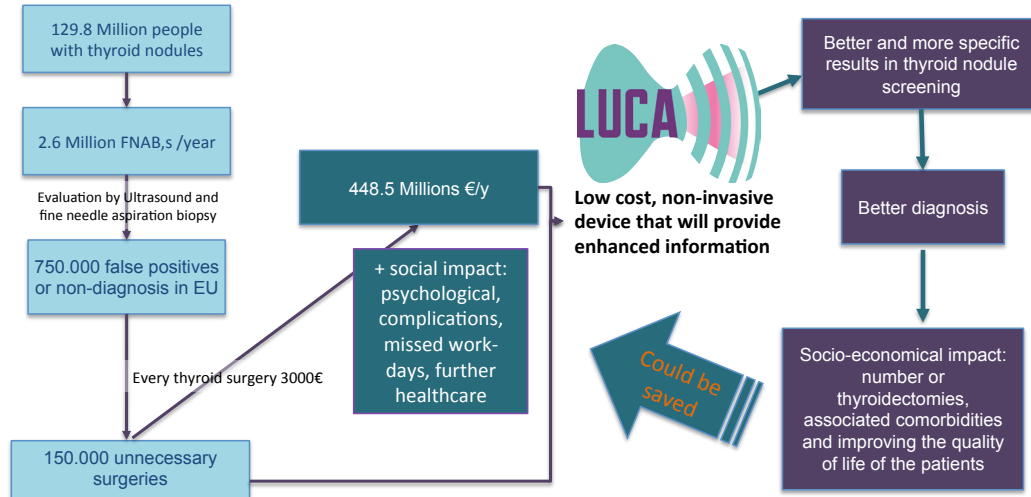
PHOTONICS²¹

Laser and Ultrasound Co-Analyzer for thyroid nodules **LUCA**

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688303. www.luca-project.eu / www.photonics21.org

MOTIVATION

Thyroid cancer is a major and growing health challenge. Chances of survival and full recovery heavily depend on an early and fast diagnosis and an effective treatment.



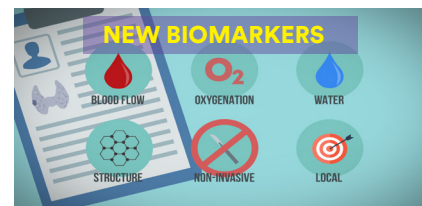
PROPOSED SOLUTION



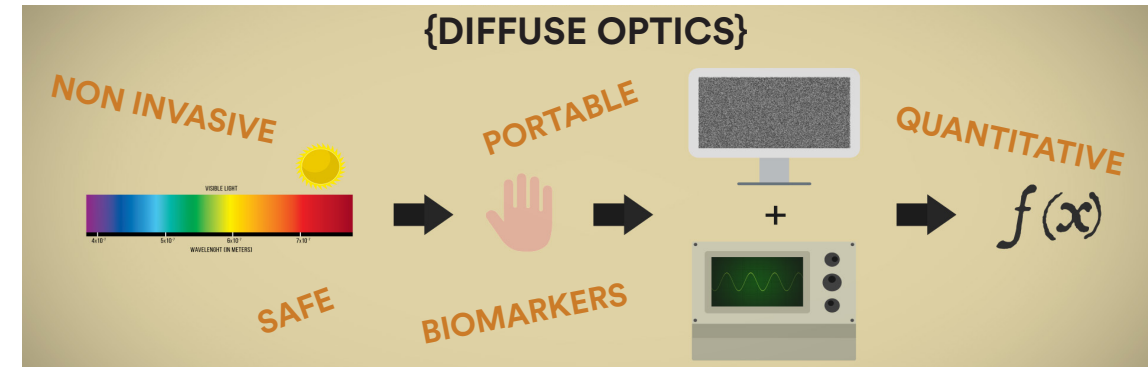
- Thyroid US
- Blood oxygen
- Water
- Tissue structure
- DCS - Blood

ACRONYMS

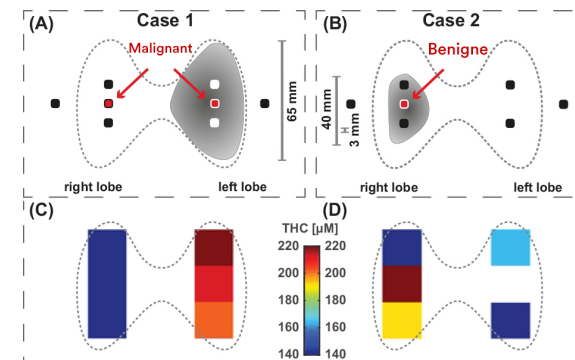
US: Ultrasound
 FNAB: Fine Needle Aspiration Biopsy
 TRS: Time Resolved Spectroscopy
 DCS: Diffuse correlation Spectroscopy



BACKGROUND



- Diffuse optical monitoring of the neoadjuvant breast cancer therapy R. Choe, T. Durduran IEEE J. Sel. Top. Quantum Electron. 18, 1367-1386 . (2012) Invited paper
- Diffuse optics for tissue monitoring and tomography T. Durduran, R. Choe, W. B. Baker, A. G. Yodh Rep. Prog. Phys. 73, 076701 (2010)
- Quarto, Giovanna, Alessandro Torricelli, Lorenzo Spinelli, Antonio Pifferi, Rinaldo Cubeddu, and Paola Taroni. "Breast Monitoring by Time-Resolved Diffuse Optical Imaging." In Advanced Time-Correlated Single Photon Counting Applications, pp. 587-611. Springer International Publishing, 2015.



(Top) Illustration of the probe placement and two case studies from a previous study. (Bottom) Total hemoglobin concentration (THC) contrast shows a strong change in a malignant (left) but not in a benign nodule (right).

Diffuse optical characterization of the healthy human thyroid tissue and two pathological case studies C. Lindner , M. Mora, P. Farzam, M. Squarcia , J. Johansson, U. M. Weigel, I. Halperin, F. A. Hanzu, T. Durduran PLoS ONE [online DOI: 10.1371/journal.pone.0147851] (2016)

LUCA VISION

