



Deliverable Report

Grant Agreement number: 255914

Project acronym: PHORBITECH

Project title: A Toolbox for Photon Orbital Angular Momentum Technology

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Deliverable table

Deliverable no.	D5.1
Deliverable name	Logo and web
WP no.	5
Lead beneficiary no.	1 (UNAP)
Nature	O
Dissemination level	PU
Delivery date from Annex I	Month 6
Actual delivery date	May 2011





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LOGO

Logo development

The logo was meant to be reminiscent of the physics of the orbital angular momentum (OAM) of light, which is the core topic of PHORBITECH. The topic of OAM is best represented by the helical wavefront structures of a light beam carrying nonzero OAM, as shown in figure 1. The logo was designed to be graphically appealing and include a reference to the project acronym.

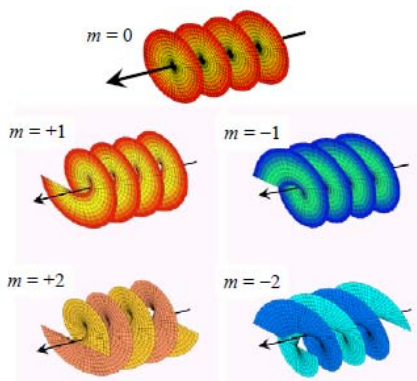


Figure 1: Wavefront shape of optical beams carrying orbital angular momentum (OAM).

Six logos were developed and circulated among PHORBITECH partners for their comments.

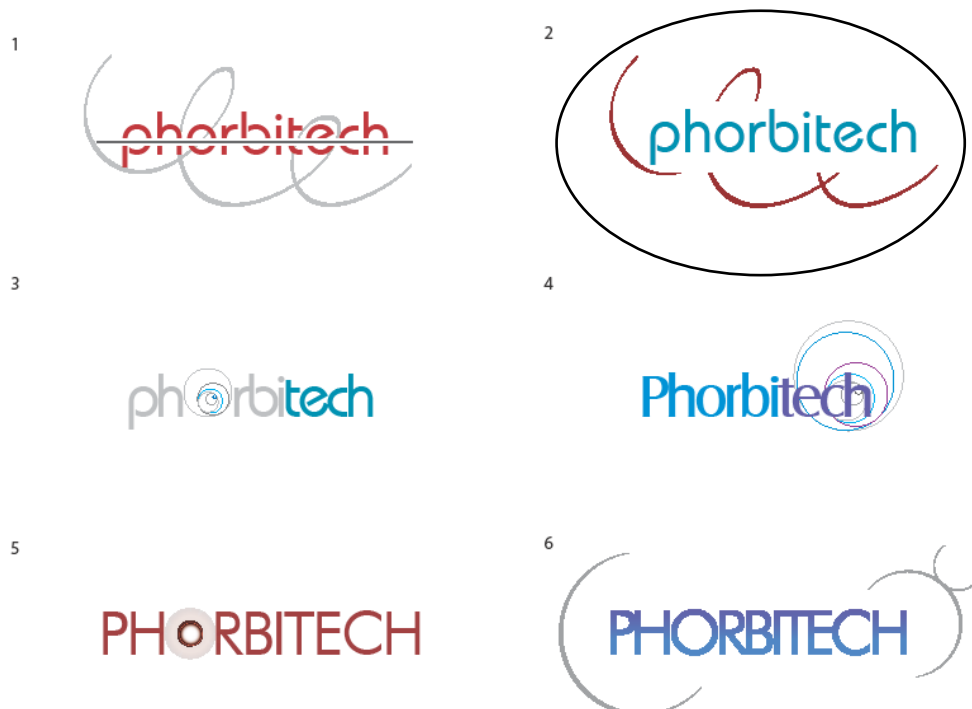


Figure 2. Logo proposals





Based on the indications received from the Consortium, logo 2 has been slightly modified to obtain the final PHORBITECH logo. As shown in figure 3, the PHORBITECH logo is designed to be versatile for many media supports including one-colour printing.

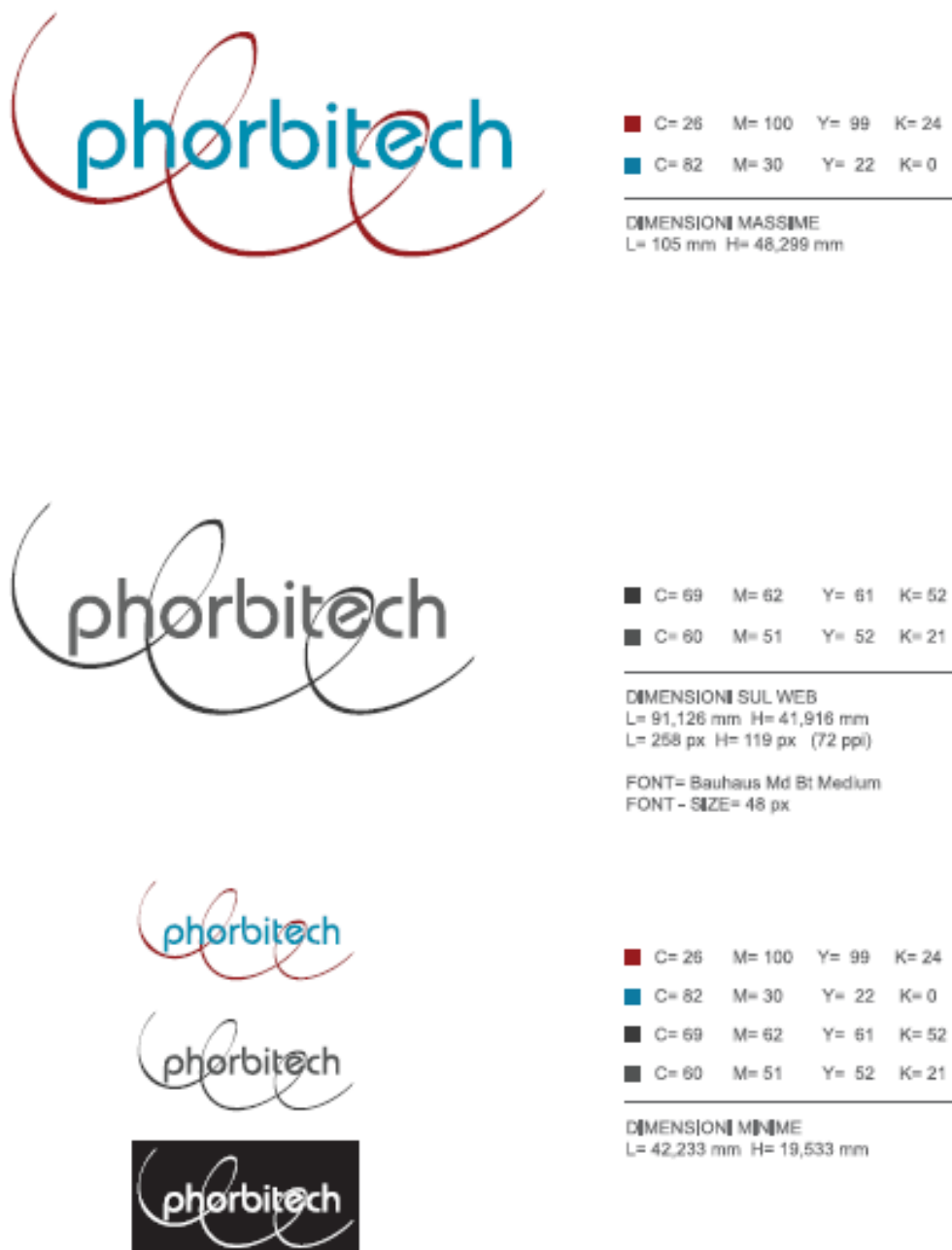


Figure 3. PHORBITECH logo

The logo is intended to be the key of the visual identity of the project and will be used on the website, in all publicity material, presentations, letter heads, etc. The logo has been distributed to the partners with instructions on its use (Fig. 3).



WEBSITE

The website is the project's key communication tool. The website is intended to be a mean of public dissemination of the project results and an effective way to share information among the project participants. It includes public pages with information on the project and its results, and a restricted-access area for internal information exchanges. It also includes a project calendar with all the important dates (meetings, etc.). The aim is to post the project results, including videos and non-technical descriptions of scientific results in appropriate sections.

Website updating and management will be a task of the Management Team, but all project members can post relevant information in the appropriate areas.

Domain

We have registered a .eu domain name: **www.phorbitech.eu**

Website development

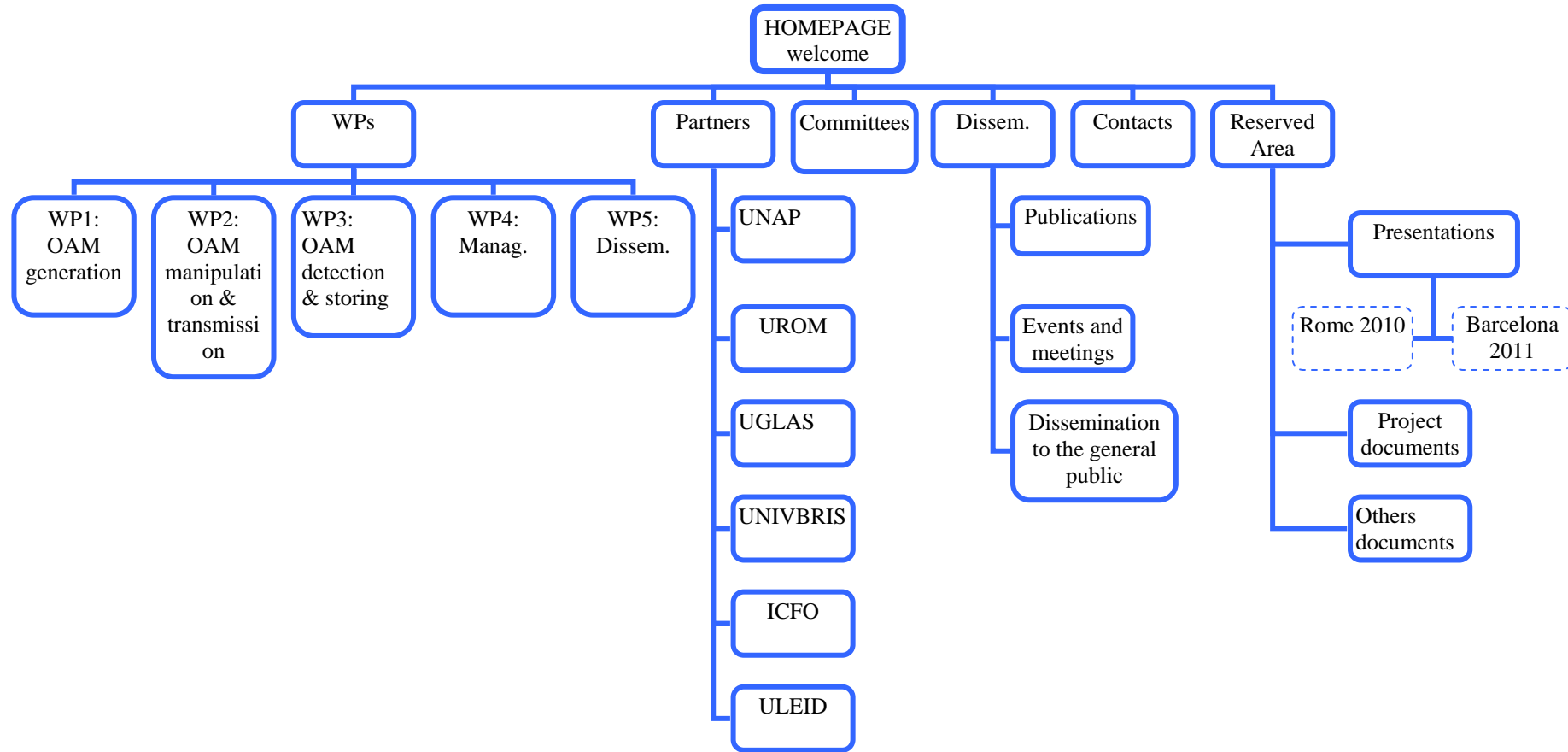
To develop the website, we have analyzed the needs of the consortium and similar websites. A first demo was circulated among the consortium partners and their comments were collected.

The website was developed according to all comments received and according to the most recent standards, and it is optimized for search engines. A content management system is used to allow timely updates.

Site Map

Home	PHORBITECH: Overview, main concepts and description of OAM PHORBITECH overall structure (WPs description) Events News
Partners	UNAP UROM UGLAS UNIVBRIS ICFO ULEID
WPs	WP1: OAM generation WP2: OAM manipulation & transmission WP3: OAM detection & storing WP4: Management WP5: Dissemination
Dissemination	Publications Events and meetings Dissemination to the general public
Contacts	
Restricted area	Meeting presentations and other documents Rome 2010 Barcelona 2011 Project documents (GA, CA, reports, deliverables etc) Others documents (publications, preprints, etc.)

Site tree



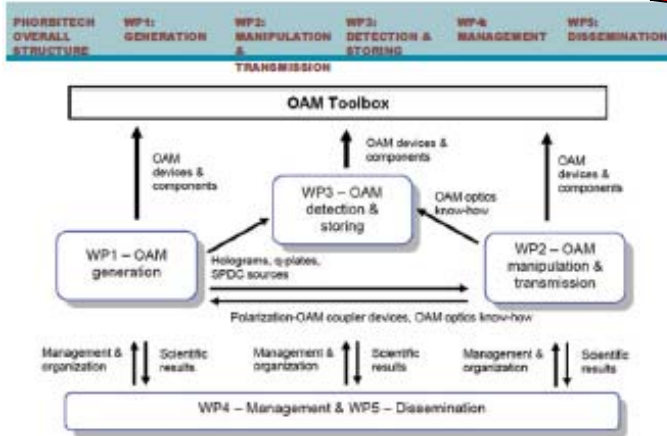


Homepage

To ensure accessibility to all project core data, the homepage is structured in 2 sections. The upper section contains a welcome area with a brief description of the project. Below there is a section in which the workplan and the description of the WPs are reported. Also displayed are recent news and events to help consortium members to keep updated and to attract investigators and non-investigators to the project and enable them to access to PHORBITECH progresses and results.



← Section menu



← Tab menu to WPs brief description



Figure 4. Website homepage



WP1 – OAM Generation

WP1 Manager: [Juan Pérez \(ICFO\)](#)

This work package is aimed at the development of high-efficiency robust sources of OAM light, both in a classical regime and in a quantum one (uncorrelated photon pair generation). The developed sources should be tunable, e.g. in the accessible OAM subspace, in the specific quantum state generated, etc. A method for switching among different OAM states or OAM superpositions should be ideally included in the source device. This WP includes the realization of the following planned devices: holographic OAM multiplexer; polarization-OAM couplers for OAM generation; SPDC-based quantum sources. To achieve these goals, this WP will include the investigation of fundamental issues associated with OAM generation, such as those concerned with the light-matter interaction effects involving an exchange of angular momentum.

Figure 5 WP page

UGLAS

University Of Glasgow, UK



Optics group
Department of Physics and Astronomy

Website: <http://www.physics.gla.ac.uk/Optics/>

UNIVERSITY
of
GLASGOW

Within the department of Physics and Astronomy, the Optics group was highlighted both for the quality of its research papers and its esteem indicators. The group has an international reputation for its contribution to the fundamental understanding of light's angular momentum, including conversion of optical tweezers to optical spanners, observation of a rotational form of the Doppler shift, an angular form of Heisenberg's uncertainty principle, demonstration of a free-space communication link using high-dimensional states and most recently the violation of Bell-inequality for OAM states. Hence the group's work on OAM uniquely spans, micromanipulation, classical and quantum features. The group has published over 200 papers in the world's leading scientific journals that have amassed nearly 5000 citations. Members of the group give around 10 invited talks at major conferences each year. The optics group comprises 3 academics, 4 post-docs and 8 PhD students.

Main tasks in the project: UGLAS will manage WP3, on OAM detection and storing in matter. It will also lead tasks WP1.1, on holographic OAM multiplexing methods, WP2.3 on OAM photon pair transmission, WP3.1 on OAM detection by phase unfolding, and WP3.3, on OAM storing and it will contribute to tasks WP2.2 on polarization-OAM coupler devices.

People



Sonja Franke-Arnold
RCUK Fellow And Lecturer
University Of Glasgow



Miles Padgett
Professor Of Optics
University Of Glasgow

Figure 6 Partner page



Dissemination

To ensure an effective dissemination to experts and non-experts, we developed a section where the science and technology of the project is explained to non-experts in an easy-to-understand and attractive fashion, which includes the use of short videos, interviews, recordings of project meeting lectures, etc. A specific page is dedicated to all the scientific publications related to the project; this will be regularly updated with links to open access articles when available, or to abstracts.



Figure 7 Dissemination internal menu



Figure 8 PHORBITECH Publications





Acknowledgement

PHORBITECH website clearly acknowledges the EU as a source of funding. The EU flag (http://europa.eu/abc/symbols/emblem/index_en.htm), the 7th FP logo (downloaded from http://ec.europa.eu/research/fp7/index_en.cfm?pg=logos) and the FET-open logo have been posted and linked to the 7th FP homepage and FET-Open homepage.

EU funds have been acknowledged also using the standard form <<The project PHORBITECH acknowledges the financial support of the Future and Emerging Technologies (FET) programme within the Seventh Framework Programme for Research of the European Commission, under FET-Open grant number: 255914.>>

