

# BioQantSense Brochure

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BioQantSense

## About the Project

Quantum Biophotonics is an emerging cross-disciplinary field of research where advancements in quantum technologies are used to improve the existing methods and to develop new ones for sensing and imaging, applied especially to the biomedical sector. Within the framework of the **BioQantSense** project, financed under the HE grant 101079355 the main goal is to raise the scientific excellence of the **Institute of Physics Belgrade** through development of the state of the art center for quantum biophotonics. To this end, the first part of the project will be devoted to extensive sharing of knowledge and skills transfer, on both scientific and administration/management aspects, through strategic networking with the high-profile European partners: the **Italian National Research Council** and the **Friedrich-Schiller University in Jena**. In the second part of BioQantSense, the acquired skills synergically combined with the expertise from biologist from the **Faculty of Biology of the University of Belgrade**, will be fundamental to accomplish the exploratory research project whose main scientific goals will be achieved through: i) development of the imaging system based on quantum interference and quantum holography, ii) development of a miniaturized functional lab-on-chip platform for imaging micron-sized biological objects, and iii) integration of the two developments in a compact imaging device for cancer diagnostic purposes.



Team leader of IPB:  
Dr. Dušan Arsenović



Team leader of CNR:  
Dr. Caterina Credi



Team leader of ABBE:  
Dr. Christian Helgert



Team leader of CLM:  
Dr. Pavle Andjus





**CONSORTIUM**

**EU FUNDING**

**DURATION**

**CALL**

**TYPE OF ACTION**

**PROJECT NAME**



4 scientific institutions from Serbia, Italy and Germany

€ 1 060 605

36 months

HORIZON - WIDERA - 2021 - ACCESS - 03

HORIZON Coordination and Support Actions

- Twinning for excellence of the Serbian Research Center for quantum biophotonics -





# BioQantSense Organization

The project is organized through 5 Work Packages (WPs):

## **WP1 - Development of institutional strategy -**

is devoted to development and implementation of scientific and management strategy on increasing reputation and visibility of IPB.

## **WP2 - Knowledge and skill transfer/exchange -**

is focused on raising the research capacity of IPB through a large number of short-term and long-term visits, trainings, lectures, seminars, hands in experiments.

## **WP3 - Dissemination, exploitation and communication -**

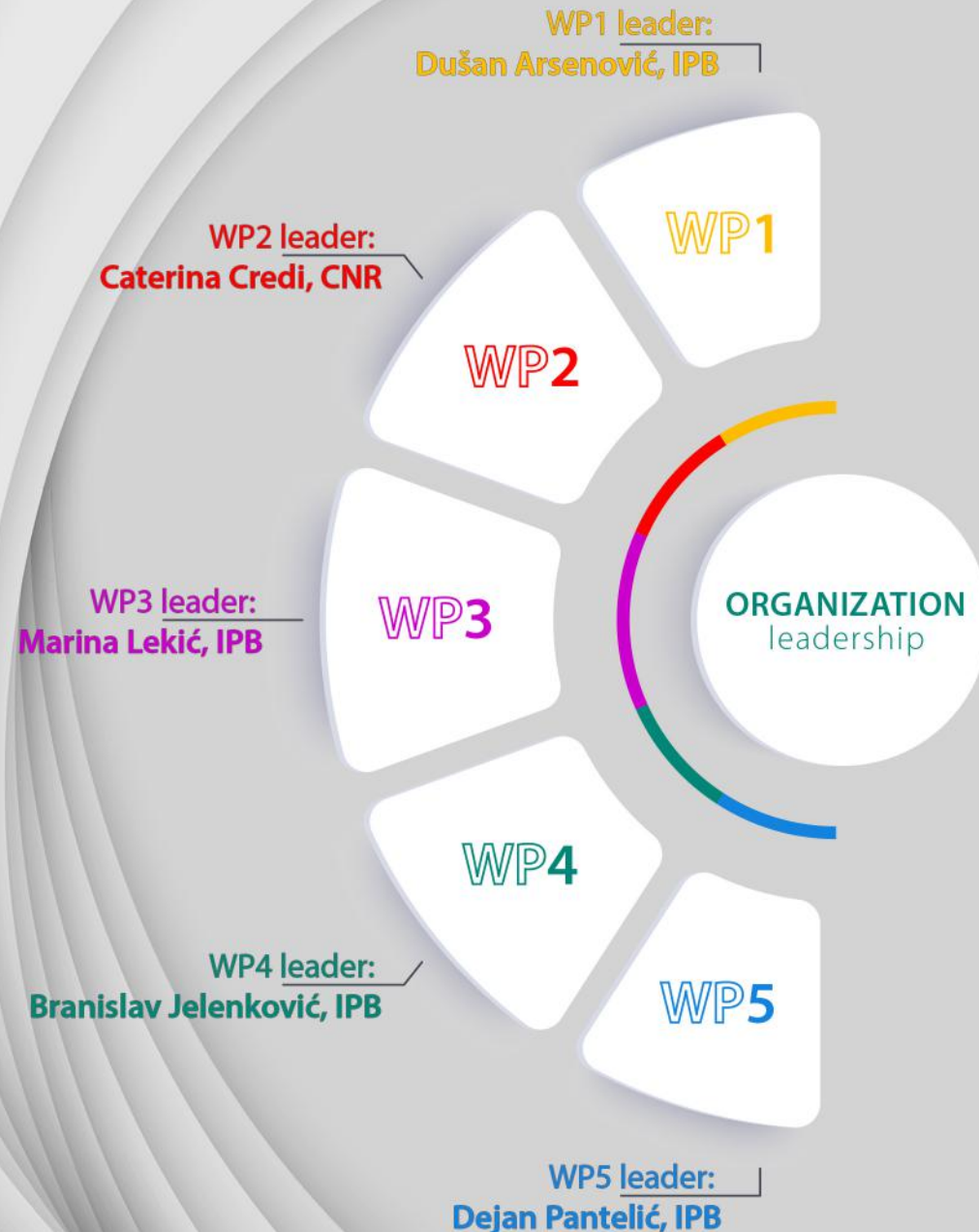
defines dissemination and communications activities that will target scientific community, national and international stakeholders, as well as wider audience.

## **WP4 - Project management, coordination and monitoring -**

is dealing with project management that leads the work of the project consortium to achieve all project goals.

## **WP5 - Exploratory project: quantum microscope for bio imaging -**

the main objective of this WP is to realize a quantum holography system and test its capabilities with respect to classical holographic imaging of micron size objects in a lab-on-a-chip device.





# BioQantSense Milestones



# Contact Us

On our website, by an e-mail or social networks' accounts:



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