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the European Union

BioQantSense
Project

NEWSLETTER

Vol.1 - 2022/2023

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BioQantSense

Welcome to the first edition of the BioQantSense project's **NEWSLETTER**! The BioQantSense project, **Twinning for excellence of the Serbian Research Center for quantum biophotonics**, started on the 1st of October 2022. It is a research project funded by the European Commission under the Horizon Europe Programme of the European Union.

The project is coordinated by the **Institute of Physics Belgrade, Serbia (IPB)** and its partners are:

1) Consiglio Nazionale delle Ricerche - Firenze, Italy (**CNR-INO, National Institute of Optics**),

2) Friedrich-Schiller University - Jena, Germany (**ABBE Center of Photonics**), and

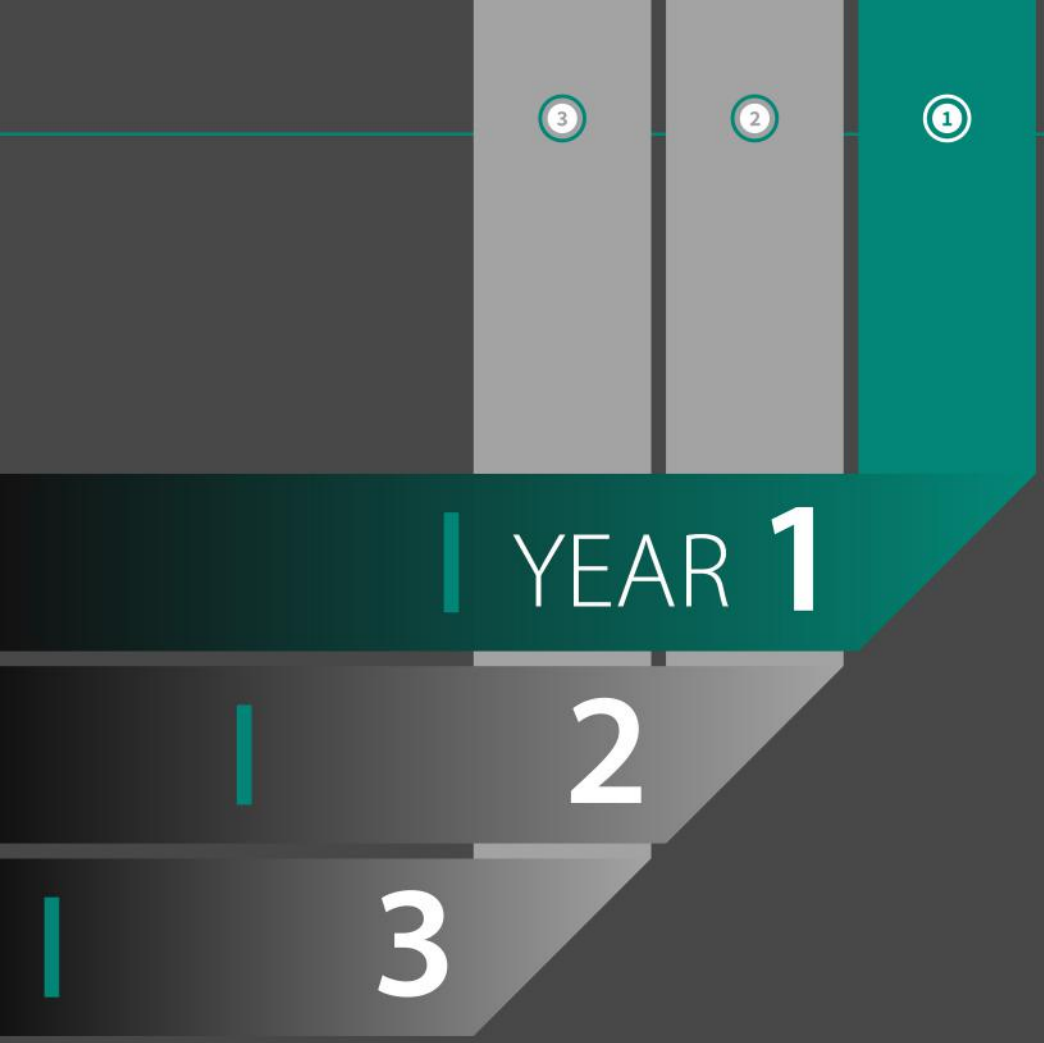
3) Faculty of Biology, University of Belgrade, Serbia (**CLM, The Centre for Laser Microscopy**).

UNIVERSITY OF BELGRADE | INSTITUTE OF PHYSICS | BELGRADE
NATIONAL INSTITUTE OF THE REPUBLIC OF SERBIA

CNR-INO
ISTITUTO NAZIONALE DI OTTICA
CONSIGLIO NAZIONALE DELLE RICERCHE

Abbe Center of Photonics | JENA
Friedrich-Schiller-Universität

The Centre for Laser Microscopy
capacities for the cell and tissue imaging



The BioQantSense project is envisaged to last for 3 years, with a total budget of 1.060.605 EUR. This newsletter looks back on **THE FIRST YEAR** of BioQantSense project.

In this three years our mission is:

- to raise the excellence and reputation of the IPB in management and administrational aspects;

- to raise scientific excellence of the Institute of Physics Belgrade (IPB) through development of the state-of-the-art center for quantum biophotonics;

- development of the imaging system based on quantum interference and quantum holography;

- development of a miniaturized functional lab-on-chip platform for imaging micron-sized biological objects;

- integration of the two developments in a compact imaging device for cancer diagnostic purposes.

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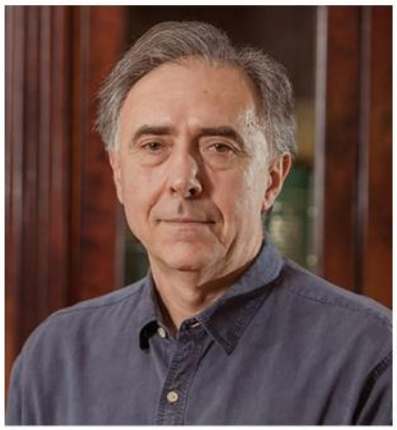
PROJECT MANAGEMENT


Dr. Branislav Jelenković


Dr. Caterina Credi

Project Management board:

Dr. Branislav Jelenković, IPB, Belgrade
Dr. Caterina Credi, CNR, Florence
Dr. Christian Helgert, FSU, Jena
Dr. Pavle Andjus, FBUB, Belgrade


Dr. Dušan Arsenović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Dr. Pavle Andjus

Project Leader:
Dr. Dušan Arsenović, IPB, Belgrade

Project Manager:
Dr. Marina Lekić, IPB, Belgrade


Dr. Marina Lekić

PROGRESS REPORT NUMBERS

11 Deliverables

12 Online meetings

8 Visits

2 Conference attendings

1 Workshop

3 Social Web Accounts

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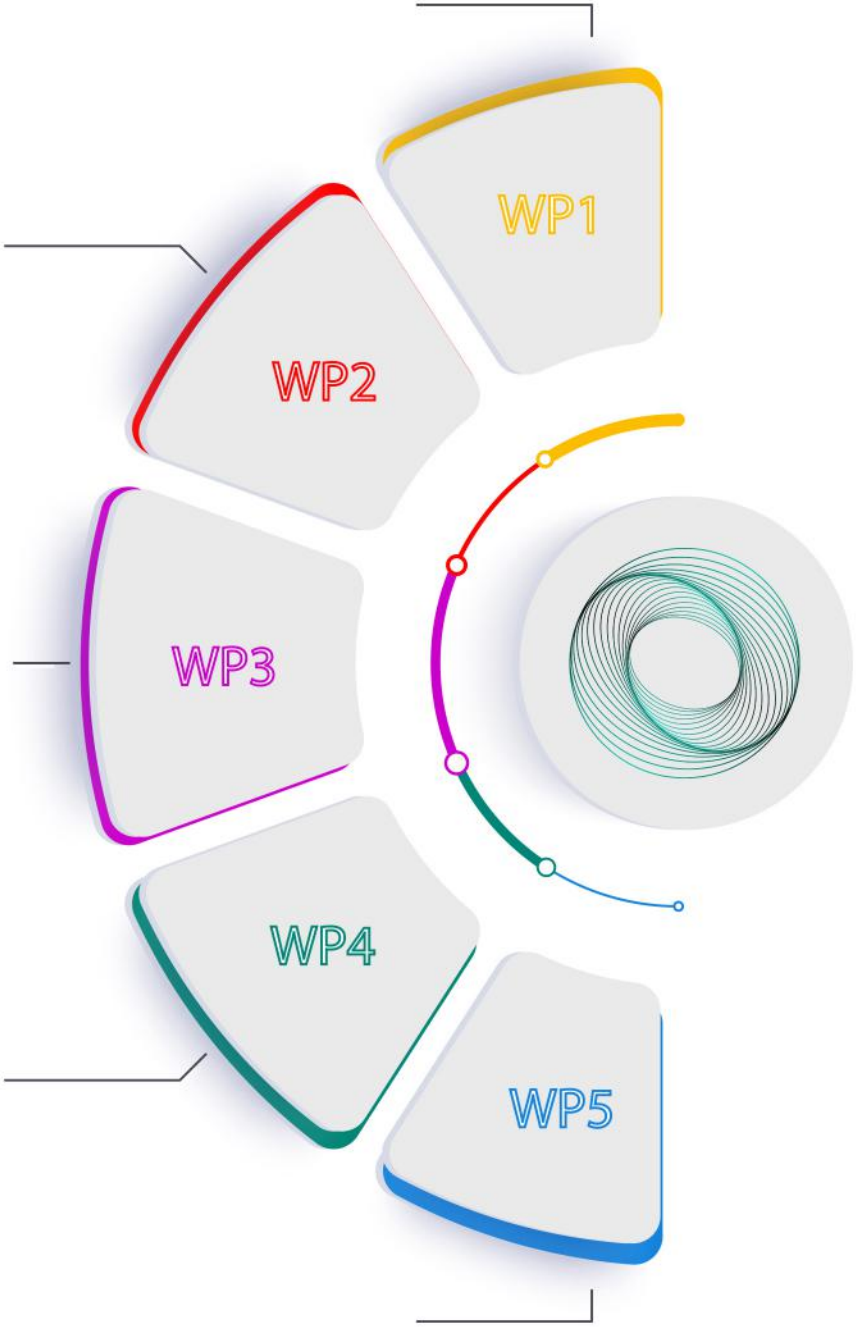
WHAT DOES THE PROJECT DO?

To achieve the BioQantSense objectives, a work plan of the project is divided into five Work Packages (WPs):

WP1 - Development of institutional strategy;
WP2 - Knowledge and skill transfer/exchange;
WP3 - Dissemination, exploitation and communication;
WP4 - Project management, coordination and monitoring;
WP5 - Exploratory project: Quantum microscope for bioimaging;

During the first year, **44%** of the deliverables foreseen in the project were completed. The progress of each WP, of the BioQantSense project, is shown through their **realized**/**unrealized** deliverables, in the following graphical presentation.

D 1.1. Benchmarking analyses
D 1.2. Report on recommendations
D 1.3. Catalogue of measures implement at IPB
D 1.4. Overview of evaluation measures
D 1.5. White paper / roadmap on IPB strategy
D 2.1. Implemented measures and processes to improve strengthen IPB capabilities
D 2.2. Mid-term Reports on visits at CNR
D 2.3. Mid-term reports on visits at FSU
D 2.4. Improved methods and techniques at IPB
D 2.5. Final report on visits at CNR
D 2.6. Final report on visits at FSU
D 3.1. Plan communication, dissemination and exploitations
D 3.2. Project website, logo
D 3.3. Project newsletter
D 3.4. Final report on participation at conferences, submitted publications
D 3.5. Plan for dissemination and exploitation including communication - update
D 4.1. Project kick-off
D 4.2. Schedule for project meetings
D 4.3. Data Management Plan
D 4.4. Progress report
D 4.5. Mid-project Data Management Plan updated
D 5.1. Quantum holography system
D 5.2. Microcantilever array
D 5.3. Lab-on-chip
D 5.4. Quantum and classical holography



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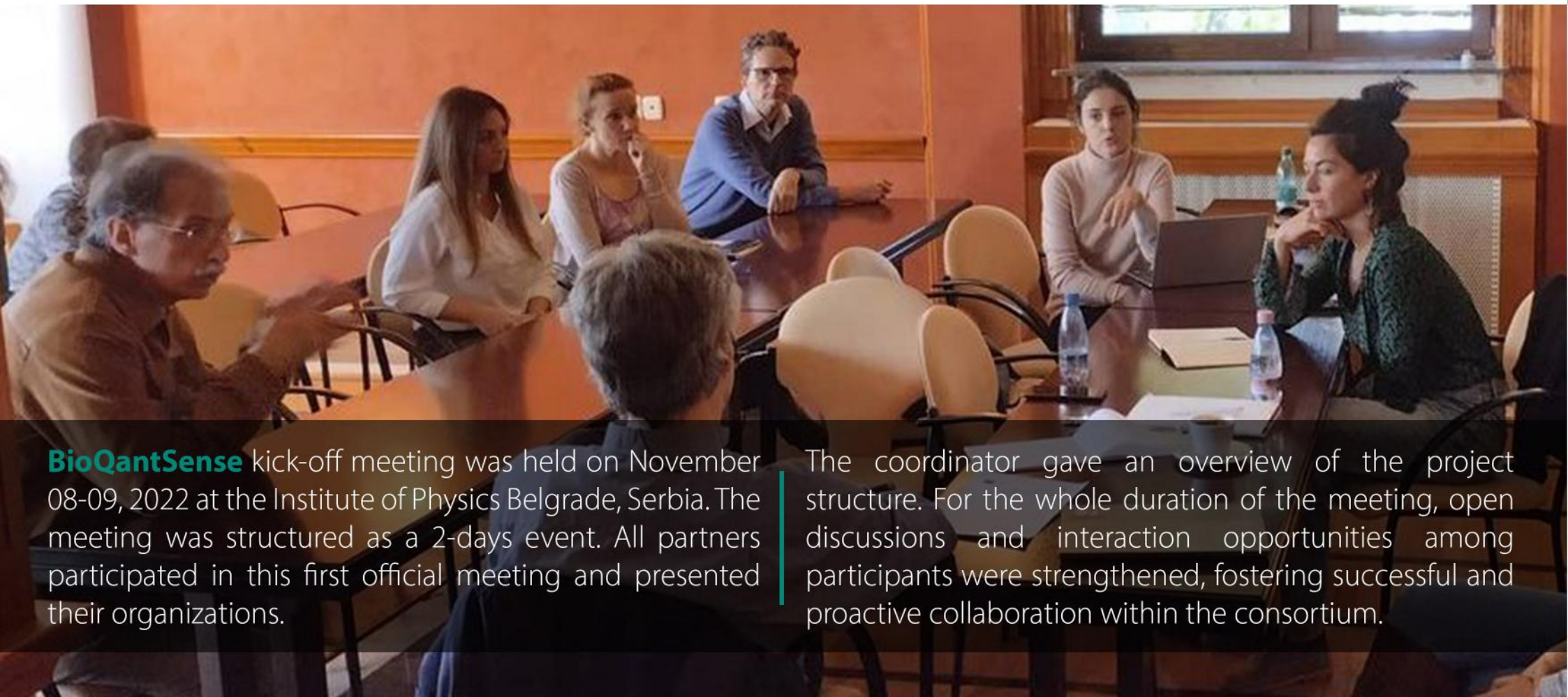
KICK-OFF MEETING in Belgrade



BioQantSense kick-off meeting was held on November 08-09, 2022 at the Institute of Physics Belgrade, Serbia. The meeting was structured as a 2-days event. All partners participated in this first official meeting and presented their organizations.

The coordinator gave an overview of the project structure. For the whole duration of the meeting, open discussions and interaction opportunities among participants were strengthened, fostering successful and proactive collaboration within the consortium.

VISUAL IDENTITY

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Home Consortium Publications News & Events Contact

The **BioQantSense logo** designed at the beginning of the project provides a consistent image that will be used extensively throughout the project, thus creating an easily recognizable brand.

The **BioQantSense website**, that can be reached at the URL address **www.bioqsense.ipb.ac.rs**, went online in March 2023. The website is the main source of information on the activities carried out in the framework of BioQantSense and is designed to be an attractive showcase for the project and a vehicle for the effective dissemination of the project objectives, products and latest news.

A **project brochure** was created to indicate the objectives and scope of the project. The brochure will be distributed in all relevant workshops organized or attended within the second period of the project, but also in conferences of relevant topics.

Social networks play an important role in getting the public interested in the BioQantSense project and allowing participation and interaction. To this purpose, **LinkedIn**, **Facebook** and **Twitter** accounts have been created with the aim to share project announcements and developments in short messages suitable for this type of media.

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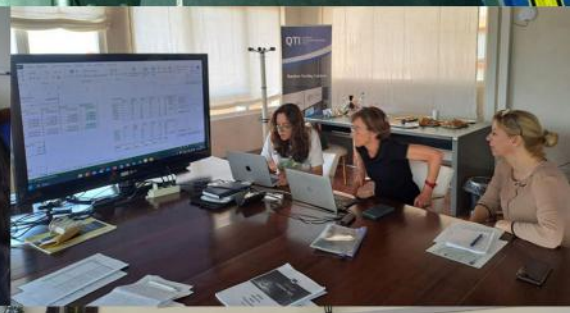
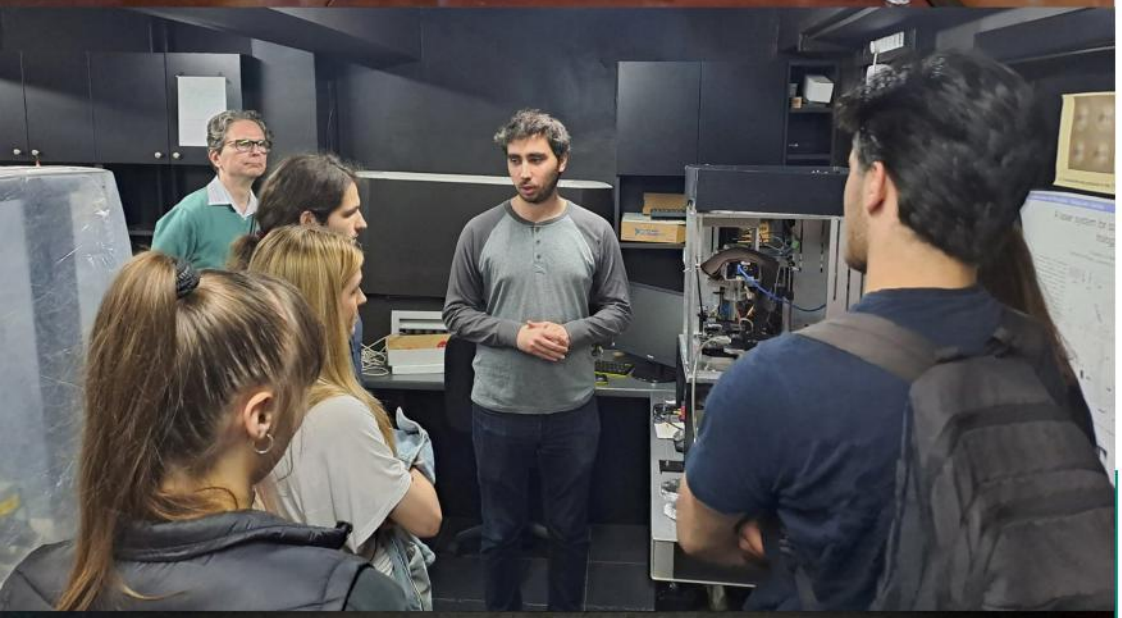
KNOWLEDGE AND SKILL TRANSFER



VISITS - According to the plan defined in project WP2, the visits from IPB to FSU and CNR include 20 visits and partner's visits to IPB include 8 visits. During the first 12 months of the project duration, BioQantSense partners realized all 8 visits planned within WP2.

ONLINE MEETINGS - During the first 12 months of the project, the partners held a series of online meetings where they had technical discussions about the project. The online meetings made it possible to present the state of work and to put the conditions in place for the next steps.



WORKSHOP - BioQantSense workshop "Quantum Sensing Integration within Microfluidic Lab-on-a-chips for Biomedical Applications" was held at the Serbian Academy of Sciences and Arts - SASA, Belgrade, Serbia, on August 31st, as a joint event of the Photonica2023 Conference.

STUDENTS - Students of the Faculty of Science and Mathematics of the University of Novi Sad and students of the Faculty of Mathematics of the University of Belgrade visited the Institute of Physics in May 2023. The students, accompanied by their professors, visited the Photonics Center, where the researchers introduced them to the scientific topics of the BioQantSense project.

CONFERENCES - BioQantSense Partners participated in the 16th Photonics Workshop, organized by the Institute of Physics Belgrade. The 16th Photonics Workshop was held between 12-15 March 2023 at Kopaonik, Serbia.
- During the first day of the Photonica2023 conference, on August 28th, 2023, the participants of the BioQantSense project held a series of lectures within the special section called Quantum Biophotonics.

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