





Optec-Berlin-Brandenburg (OpTecBB) e.V.

Dr. Janina Bolling



About OpTecBB



- Optec-Berlin-Brandenburg (OpTecBB) e.V. is the competence network for optical technologies and micro systems technologies in the federal states of Berlin and Brandenburg.
- OpTecBB e.V. is and initiative of companies and research institutions in Berlin and Brandenburg that collaboratively explore and exploit the possibilities of these technologies
- OpTecBB e.V. was founded on September 14th 2000 by companies, universities, research institutions and associations and with the support of the Berlin Senate and the relevant ministries in Brandenburg
- Today the association has about 120 institutional members.
- National collaboration in OptecNet Deutschland e.V., the association of all German regional competence networks for optical technologies (more than 500 member organizations)
- Member of European Photonics Industry Consortium (EPIC) and engaged in Photonics21
- cooperating with SPECTARIS in all matters relating to foreign trade, regulatory affairs, and industry marketing

About the Photonics Cluster Berlin Brandenburg



- Cluster management: OpTecBB, Berlin Partner and WFBB (Economic Development Agency Brandenburg)
- Photonics has a 200 year tradition in Berlin and Brandenburg.
- The innovative core of the cluster:
 - 445 technology oriented companies
 - 10 universities and 26 non-university research organizations
- Approx. 16.600 employees and approx. 2,8 bn. Euro revenues
- Annual growth (revenues) on average 5 to 8%, export share 70 %, R&D share almost 10 %.

Competences

- Lighting technology,
- Laser technology,
- Photonics and Quantum Technologies for Communication and Sensors
- Optical analysis,
- Biophotonics and Ophtalmic Optics
- Microelectronic and Microsystems Technology

Support to Members

- recruitment,
- qualification,
- internationalization, market access,
- start-up support, mentoring,
- public relations, location marketing,
- consultation to politics, lobbying,
- cluster management.

AgriPhotonics

Using photonics in agriculture and horticulture







<u>Goal</u>: Data collection of plant material for knowledge-based, locally adapted, and sustainable plant production using photonics technologies.

<u>Challenge</u>: Photonic technologies such as e.g. imaging and spectral measuring techniques are already used in agriculture, but restricted potential due to

- limited data generation due to one parameter sensors,
- limited ability of multi-dimensional approaches,
- the variability of biological samples such as cereals, fruit and whole trees, and the
- costs requested to implement the new technologies.

<u>Scope</u>: of the teamwork and future collaborations will be **photonics sensor technologies**, while **improving existing solutions** by making them **smaller**, **less energy** consuming, better (**higher resolution**), **cheaper**. In addition, sensor fusion, data collection and management including machine learning algorithms should be covered **helping farmers** to make smarter/faster, more economic crop management decisions.

AgriPhotonics - Project management







	e.v.
	 9000

Optec-Berlin-Brandenburg (OpTecBB) e.V. Kompetenznetz Optische Technologien Rudower Chaussee 25 D-12489 Berlin

Dr. Frank Lerch
Dr. Janina Bolling
lerch@optecbb.de
bolling@optecbb.de
www.optecbb.de



Photonics Israel

Photonics Israel
The Association of Photonics Industries in Israel
200 Dizengoff street
Tel-Aviv, Israel

Haim Rousso Shlomo Glazer shlomoglazer@hotmail.com

Photonics Israel

The Association of Photonics Industries in Israel

ATB

Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB) Max-Eyth-Allee 100 D-14469 Potsdam-Bornim

Dr. Manuela Zude-Sasse mzude@atb-potsdam.de www.atb-potsdam.de



ARO Volcani Institute

Agricultural Research Organization (ARO) - the Volcani Center, 68 HaMaccabim Road, P.O.B 15159 Rishon LeZion 7505101, Israel

Victor Alchanatis, D.Sc. victor@volcani.agri.gov.il www.agri.gov.il



Partners







Partners













small and medium sized companies, research institutes

and the big players

to join or network

to strengthen the collective expertise and

knowledge in ArgriPhotonics.























Contact details



Dr. Janina Bolling
OpTecBB e.V.
Rudower Chaussee 25
12489 Berlin

Tel.: +49 30 6392 1727

Mail: bolling@optecbb.de

Web: www.optecbb.de

Save the date!

German-Israeli online **AgriPhotonics** workshop during the <u>Photonics Days</u> Berlin Brandenburg 2020, on October 7, 2020.



Supported by:



on the basis of a decision by the German Bundestag