

The first Bulgarian Centre of Excellence in Plant Systems Biology presented a research complex unique in Europe

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On 13 October 2023, the official opening ceremony of the newly built scientific complex of the Center of Plant Systems Biology and Biotechnology (CPSBB) in Plovdiv took place.

The ribbon in front of the modern scientific campus was cut by Acad. Nikolay Denkov, Prime Minister of the Republic of Bulgaria, Prof. Galin Tsokov, PhD, Minister of Education and Science, Mr. Boyko Blagoev, Head of the Representation of the European Commission in Bulgaria, Mr. Ivan Popov, Deputy Executive Director of the EA "Education Programme", Mr. Stefan Stoyanov, Deputy Mayor of Plovdiv Municipality, together with the

PlantSYST project leaders from the partner organizations in the consortium – Prof. Tsanko Gechev, PhD, Director of CPSBB and Project Coordinator, Assoc. Prof. Dimitrina Kostova, PhD (Head of the “Breeding and Vegetable Crops” Department), Prof. Milen Georgiev, PhD, Head of the “Plant Cell Biotechnology” Department at CPSBB, and Prof. Bernd Müller-Röber, PhD, from the University of Potsdam, who heads the “Plant Development” Department at CPSBB.

The ceremony was also attended by CPSBB’s partners from industry, heads of academic institutes in Bulgaria and abroad, as well as journalists.

“I remember my first meeting with Prof. Tsanko Gechev nine years ago, when he came to see me in my capacity as Minister of Education and Science to present his idea to establish in Bulgaria a Center of Excellence in the field of plant systems biology and biotechnology. Even then I saw that behind this idea stood an exceptionally well-prepared development plan with timelines, funding sources, and partnerships with research organizations from Bulgaria and abroad. Thanks to this plan, as well as to the support of the Operational Programme ‘Science and Education for Smart Growth’, the European Commission, the Bulgarian government, and Plovdiv Municipality for the implementation of the PlantSYST project, today we have the pleasure to be in a high-tech research center that is equivalent to the most prestigious scientific institutes worldwide.” With these words, the Prime Minister, Acad. Nikolay Denkov, greeted those present at the official ceremony for the presentation of the CPSBB scientific complex.



"We are in a remarkable European institute that is a source of pride for Plovdiv and Bulgaria. The path we followed to get here was very long and difficult. The result can only make us proud – an international institute of world level, which gives many young people the opportunity to develop a scientific career in Bulgaria. An institute that is a bridge between science and business. An institute that translates fundamental scientific discoveries into concrete applied research and innovations for the benefit of our society. We hope that CPSBB will establish itself as a leading scientific organization in Europe and will contribute not only to scientific, but also to the socio-economic development of the region," stated the Director of CPSBB and leader of the "PlantSYST" project, Prof. Tsanko Gechev, PhD.

Center of Plant Systems Biology and Biotechnology in Bulgaria – science at a world-class level

Center of Plant Systems Biology and Biotechnology (CPSBB)

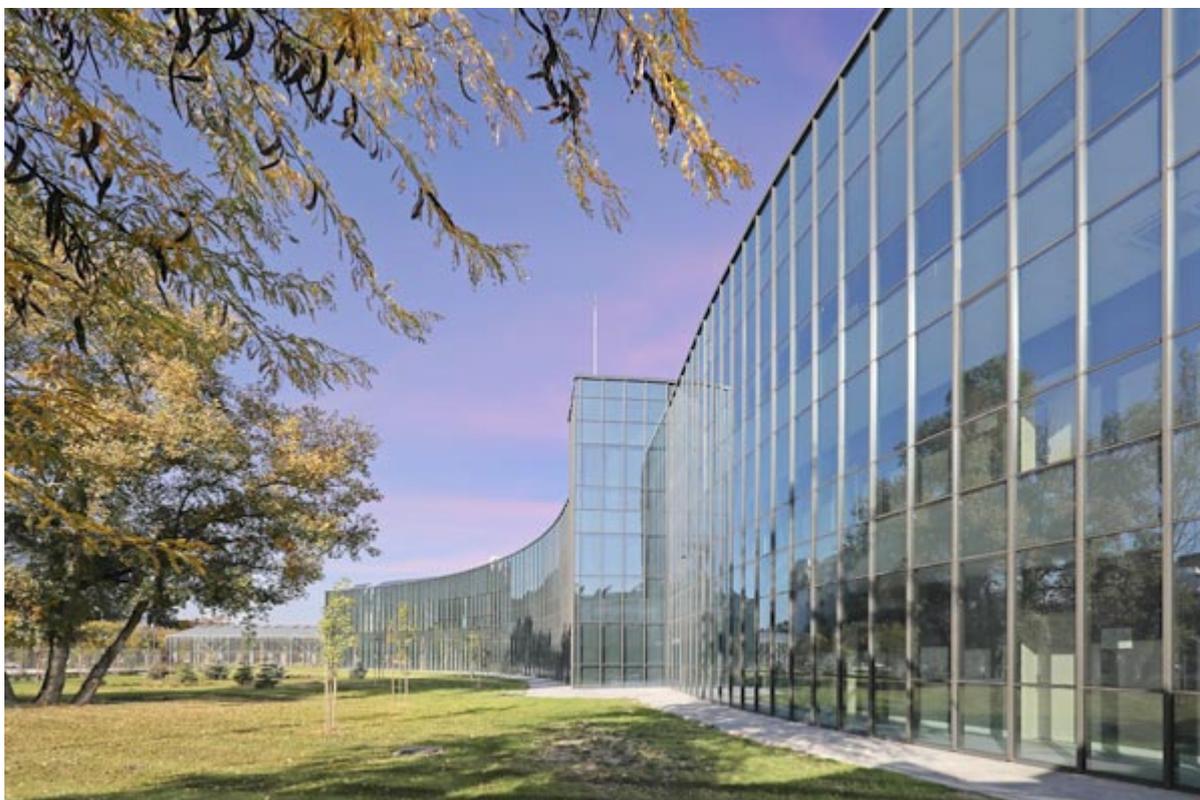
CPSBB is the first Center of Excellence in Bulgaria in the field of plant systems biology and biotechnology. It was built in less than two years under the "PlantSYST" project, which in 2017 was the only Bulgarian scientific project approved for European funding with the aim of establishing a Center of Excellence in plant systems biology.

At present, CPSBB has attracted a highly qualified research team of nearly 30 researchers from Bulgaria and abroad. In the last year alone, the Center's research team has published over 60 articles with medium and high impact factor, and from the beginning of the project to date the total number of scientific publications amounts to over 300 articles in international specialized journals. CPSBB has won and is implementing, together with partners from around the world, 20 research projects with a total funding volume of EUR 130 million, of which BGN 68 million will be implemented by the Center.

The construction of the complex was carried out with funding from the European Commission under the "Horizon 2020" Programme, within the "Teaming" financial instrument, and from the Operational Programme "Science and Education for Smart Growth" through the European Regional Development Fund.

The EC funding amounts to EUR 14,940,000.00. The funds provided cover the administrative expenses of the Center until the end of the project (28.02.2025), as well as the recruitment of highly qualified scientists from Bulgaria and abroad to work at CPSBB on international research projects. The funding granted under the OP "Science and Education for Smart Growth" amounts to EUR 15,337,750.68, which has been used for the design

and construction of the building, as well as for state-of-the-art technological equipment, which to a large extent has no equivalent in Eastern Europe.



The building of the research center is constructed on a total area of 23 decares on land granted with building rights by Plovdiv Municipality. The complex has 2 greenhouses with a total area of 4,000 sq.m, each consisting of 12 sections with individual climate control, 6 research laboratories, 8 climate chambers and 20 specialized rooms with equipment. There is also an administrative building with 26 office premises and a conference room for 15 people. A large amphitheatre hall with 300 seats for conferences, symposia and trainings has been built, as well as 4 seminar rooms, each with 80 seats.



Seven research departments operate within the Center, currently employing researchers from 4 continents – America (USA); Africa (Republic of South Africa); Asia (India, Pakistan, South Korea); Europe (Bulgaria, Germany).

The main areas of applied and fundamental research activities at CPSBB are related to plant development, molecular stress physiology, plant cell biotechnology, metabolomics, bioinformatics, and breeding of vegetable crops.

The applied research at CPSBB includes the development of technologies for improving the growth, development and resistance to biotic and abiotic stress of economically important crops; biotechnological production of valuable metabolites for the cosmetic and pharmaceutical industries; development of new vegetable crop varieties with improved nutritional value and resistance to changing climatic conditions.