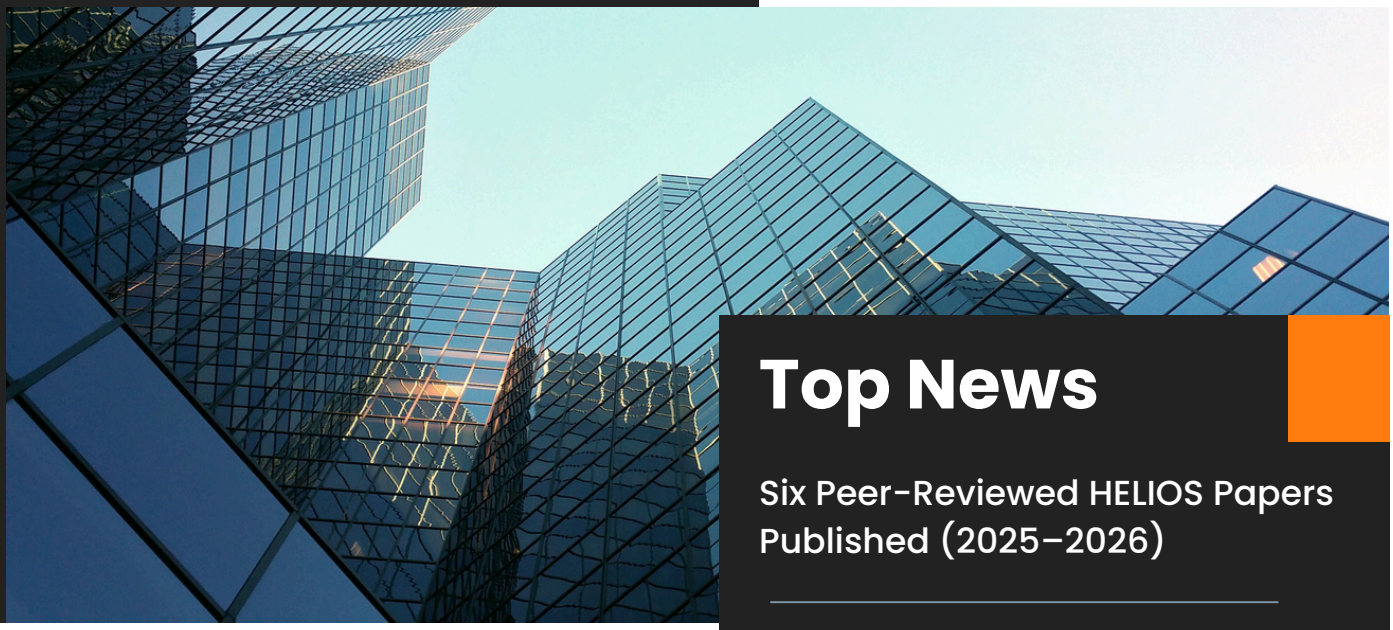
PROJECT NEWSLETTER

№2, November, 2026

HELIOS
WHITE-EMITTING ORGANIC LIGHTING SYSTEMS



Top News

Six Peer-Reviewed HELIOS Papers Published (2025–2026)

Best Poster Award for Nataliia Kuzyk at AMT 2026

HELIOS Summer School, Palanga, Lithuania (August 2026)

The **HELIOS** project is dedicated to advancing cutting-edge research in ultra-efficient white-emitting organic lighting systems. Through interdisciplinary collaboration, knowledge transfer, and breakthrough technologies, we strive to revolutionize sustainable lighting solutions for the future.

https://helios-euproject.eu



Second Year of HELIOS project

2026

We acknowledge the support of the European Union under Horizon Europe for the HELIOS project (Grant Agreement 101155017).

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Project overview

Grant agreement number: 101155017
Full name of the project: Research and innovation strategy for Lviv Polytechnic National University on white-emitting organic lighting s**ystems**
Type of action: HORIZON Coordination and Support Actions
Project start date: 01 October 2024
Duration: 36 months
Project budget (EU contribution): EUR 1,175,250.00

HELIOS
WHITE-EMITTING ORGANIC LIGHTING SYSTEMS

Aims & Objectives

HELIOS aims to accelerate the research and innovation capacity of LPNU and its partners in developing organic white light-emitting systems – focusing on WOLEDs and WLEDs (white organic light-emitting diodes and white LEDs). By combining fundamental research, technology development, and cross-institutional collaboration, the project aspires to pave the way for efficient, cost-effective, and sustainable lighting solutions of the future. To achieve this aim, HELIOS will implement a three-year research and innovation (R&I) strategy based on five objectives, which are implemented through nine closely interconnected work packages.

The HELIOS project aims to create and research innovative organic materials for next-generation lighting technologies

Project partners

The HELIOS project brings together leading universities and organisations specialising in advanced research in the field of organic light-emitting systems from Ukraine, Lithuania, the United Kingdom, Latvia, and Luxembourg: **Lviv Polytechnic National University (LPNU), Kaunas University of Technology (KTU), University of Glasgow (UoG), Riga Technical University (RTU), INTELLIGENTSIA CONSULTANTS SARL (INT).**

Six Peer-Reviewed HELIOS Papers Published (2025–2026)



HELIOS has reached an important dissemination milestone: six peer-reviewed articles produced within the project are now published in the Ukrainian Journal of Physical Optics, Materials Advances, ACS Applied Electronic Materials, ACS Applied Optical Materials and the Journal of Materials Chemistry C. They range from quantum-well OLED structures and a comprehensive review of the field to bright yellow emitters for white OLEDs and single-component blue and white devices. The clearest result so far, published open access in July 2026, reports doping-free OLEDs with stable warm-white electroluminescence and an external quantum efficiency of up to 8.23%.

Read more:



Best Poster Award for Nataliia Kuzyk at AMT 2026 (August 2026)



Nataliia Kuzyk, an early-stage researcher at Lviv Polytechnic working within HELIOS, won the Best Poster Award at the 28th International Conference-School “Advanced Materials and Technologies” (AMT 2026), held on 24–28 August 2026 in Palanga, Lithuania. The poster session took place on 27 August and the winner was chosen by a vote of the conference participants. Organised by Kaunas University of Technology together with universities from Lithuania, Latvia, Denmark and Estonia, AMT is built specifically for young scientists and PhD students – making the award a genuine peer verdict and a clear sign that HELIOS helps Ukrainian early-career researchers gain visibility in the European scientific community.



HELIOS Summer School

Palanga, Lithuania (August 2026)

AFrom 24 to 28 August 2026, Kaunas University of Technology hosted the HELIOS Summer School at Hotel Gabija in Palanga, co-located with the 28th International Conference-School “Advanced Materials and Technologies” (AMT 2026). Chaired by Dr. Dmytro Volyniuk (KTU), it brought together all consortium partners. Day one reviewed Work Package 1 – from the design and synthesis of white emitters (Dr. Lyudmyla Kanibolotska and Dr. Oleksandr Kanibolotskyy, UoG) and their characterisation (Dr. Dmytro Volyniuk) to a demonstrator device (Dr. Khrystyna Ivaniuk, LPNU) – and Prof. Iryna Yaremchuk reported on the training exchanges. Early-career researchers Liliia Deva, Nataliia Kuzyk and Serhii Melnykov presented their results. On 26 August, Kaspars Traskovskis (RTU) introduced his laboratory, and Giles Brandon (INT) delivered training on MSCA Staff Exchange and EIC Pathfinder Open, followed by planning of new proposals.





HELIOS at the UK–UA STEM PRO Programme







As part of the international programme UK–UA STEM PRO: Professional Development Programme for STEM Teachers and Young Scientists, held in the United Kingdom, HELIOS contributor Liliia Deva presented the project to the programme participants. She introduced HELIOS research on highly efficient white-emitting organic systems (WOLEDs and WLEDs) and the opportunities it offers for international collaboration. The programme combined workshops, visits to innovation centres and sessions on entrepreneurship, technology transfer and science communication. Future perspectives of HELIOS were also discussed with Dirk Schaefer (Warwick Science Park), Prof. Huw Edwards (University of Cambridge) and Prof. Mike Ward FRSC (University of Warwick).

HELIOS at NANO-2026 in Chernivtsi
(August 2026)



On 26–28 August 2026, HELIOS was represented at the International Conference on Nanotechnologies and Nanomaterials (NANO-2026) in Chernivtsi, organised by the Institute of Physics of the NAS of Ukraine and Yuriy Fedkovych Chernivtsi National University with international partners, which brought together more than 600 participants from over 30 countries. In the Nano-optics and photonics session, Prof. Pavlo Stakhira and Stepan Kutsiy (Department of Electronic Engineering, LPNU) presented "White Single-Molecule Organic Light-Emitting Heterostructures". Their warm-white OLEDs based on two novel single-molecule emitters showed remarkably stable colour: raising the driving voltage from 7 to 12 V shifted the CIE coordinates by no more than 0.01–0.02, with external quantum efficiency reaching 3.9%.

Read more:



A Year of HELIOS: Interview with the Coordinator



Marking just over a year of HELIOS, Project Coordinator Prof. Iryna Yaremchuk, Vice-Rector for Research and Innovation at Lviv Polytechnic, summarised the first results. The consortium has built a complete technological chain: the University of Glasgow synthesises new materials, partners in Kaunas and Riga characterise them, and Lviv Polytechnic develops WOLED prototypes based on single-molecule white emitters using TADF and room-temperature phosphorescence, without costly rare-earth metals. More than 90 researchers have taken part in HELIOS trainings on project management, scientific writing, presentations and science communication. “Even under the difficult conditions of war, Ukrainian researchers are not only remaining active participants in international science but are coordinating large-scale Horizon projects,” Prof. Yaremchuk noted.



HELIOS Workshop: First-Year Results and R&I Strategy

Lviv, Ukraine (November, 2025)

On 5 November 2025, Lviv Polytechnic hosted a hybrid HELIOS workshop dedicated to research and innovation in white-emitting organic lighting systems. The event highlighted the project's first-year achievements and featured presentations on scientific developments, career opportunities for early-stage researchers, project management and research communication. Researchers from LPNU, the University of Glasgow and KTU presented their findings, while industry representatives discussed opportunities for academia–industry collaboration.

Read more:





HELIOS Training for Horizon Europe Twinning 2026 (online, 15 December 2025)



On 15 December 2025, HELIOS organised an online training on the Horizon Europe winning 2026 call for researchers and research managers of Lviv Polytechnic National University. Led by Giles Brandon from Intelligentsia Consultants, the session focused on understanding the call, building a strong Twinning network, and preparing a competitive proposal. Participants also received practical guidance on proposal structure, evaluation logic, and LPNU's internal selection process. The training strengthened the university's readiness for future Horizon Europe participation.

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researchers and research managers trained:



HELIOS Monthly Review of Grant Proposals (March – July 2026)



In March 2026, the HELIOS team launched the Monthly Review of Grant Proposals – a regular digest helping researchers, universities and innovators navigate European funding. The first issue presented 13 selected calls under Horizon Europe, Erasmus+ and EU4Business, focusing on organic lighting, advanced materials, modern technologies and the bio-circular economy. Each entry summarises the call's objectives, key evaluation criteria, programme identifier and deadline. Issue №2 followed in May and Issue №3 in July 2026.

Read more:



New HELIOS Communication Products: Project Video and Podcast Series (Feb–Mar 2026)





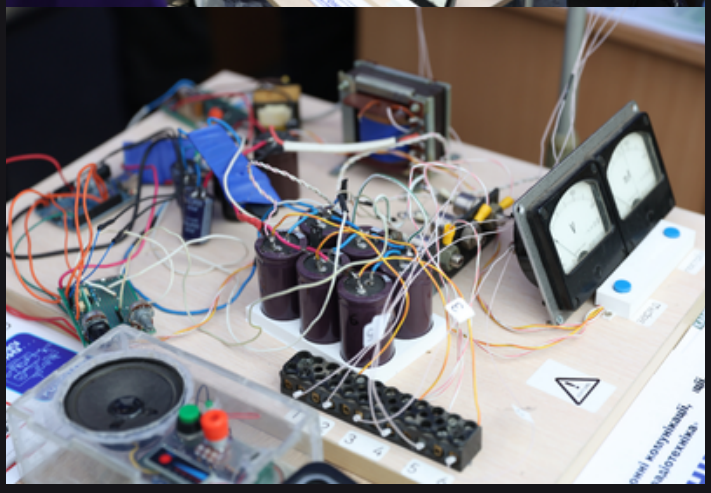
In February 2026, HELIOS released its official video "HELIOS: Shaping the Future of White Organic Lighting", highlighting the project's mission, advances in ultra-efficient WOLEDs, early-career researcher training and international cooperation. The project also launched the podcast "HELIOS: New Light on Science", hosted by Project Manager Nazariy Andrushchak. The first three episodes feature Prof. Iryna Yaremchuk on the project's mission and Ukrainian scientific resilience, researcher Nataliia Kuzyk on her early-career experience, and Prof. Khrystyna Ivaniuk on laboratory research. All episodes are available on the HELIOS YouTube channel.



HELIOS at the Lviv Polytechnic Science Fair (23 April 2026)

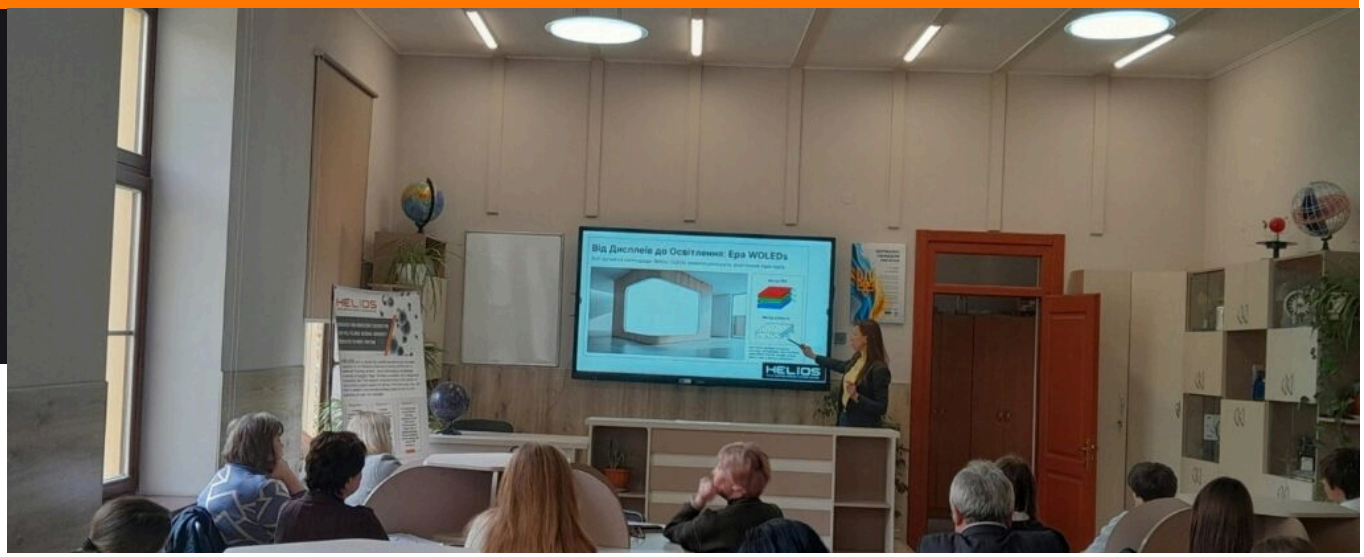






On 23 April 2026, HELIOS took part in the Science Fair (Naukovi Festyny) at Lviv Polytechnic – one of the university's largest and most beloved annual events, bringing science to life through hands-on demonstrations, interactive zones, open lectures and exhibitions of real research. Schoolchildren, students, teachers and future applicants discovered the world of organic light-emitting systems in a format designed for a broad audience. The presentation explained how ultra-efficient single-molecule WOLEDs and WLEDs can make lighting thinner, lighter, more flexible and more energy-efficient, highlighted the contribution of HELIOS to the European Green Deal, and showed the role of Lviv Polytechnic as coordinator of a five-country consortium.

HELIOS Inspires the Next Generation (May–June 2026)



FHELIOS researchers brought organic electronics into school classrooms. Nataliia Kuzyk, Early Stage Researcher of HELIOS, delivered an open lecture at the natural sciences conference of Lviv Academic Gymnasium, founded in 1784, introducing students to organic light-emitting materials, white-emitting single-molecule OLEDs and life as a young scientist in a Horizon Europe project. Later, Dr. Serhii Melnykov, Associate Professor at the Department of Electronic Engineering, held an educational session for pupils in grades 7–11 from across the Lviv region and demonstrated experimental WOLED structures developed within the project, turning abstract concepts into something tangible.





Find out more

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// HELIOS PROJECT OVERVIEW

Organic Lighting: Science And Market Applications

Efficiently bridge cutting-edge organic material science with advanced lighting technology for a sustainable future. Empower researchers with unique methodologies that shape the future of white light-emitting organic devices (WOLEDs), integrating theoretical advancements with real-world applications. Seamlessly integrate innovation into market-ready solutions, ensuring an eco-conscious approach to next-generation lighting systems.