

# Press Release



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## The University of Cyprus DegradationLab Team is a Partner in Project TRANSMIT

*The new project on “Semi-transparent micro-stripped thin-film photovoltaics for energy-harvesting windows” is being coordinated by the Iberian International Nanotechnology Laboratory, engaging six partners across five countries.*



A new partnership that brings together six partners across five countries (Cyprus, Portugal, Italy, Hungary, and Turkey) has been launched for the implementation of a new research project with the acronym “TRANSMIT”.

The project, titled “Semi-transparent micro-stripped thin-film photovoltaics for energy-harvesting windows”, officially launched on 1 December 2023, with a kick-off meeting following in hybrid format in Braga, Portugal, on 18-19 January 2024.

The project consortium comprises the University of Cyprus (UCY), the Iberian International Nanotechnology Laboratory (INL) in Portugal (Coordinator), the National Interuniversity Consortium for the Science and Technology of Materials (*Consorzio Interuniversitario Nazionale Per La Scienza E Tecnologia Dei Materiali -INSTM*) in Italy, the Bay Zoltan Nonprofit Ltd. for Applied Research (BZN) in Hungary, the Middle East Technical University (METU) in Turkey, and the ODTU-GUNAM Centre for Solar Energy Research and Applications (*Odtu Gunes Enerjisiuygulama Ve Arastirma Merkezi*) in Turkey.



TRANSMIT's primary research focus, across its 36-month lifecycle, will be the emerging technology of semi-transparent photovoltaics (STPV). These STPVs can enable further development of power-generating windows, complementing existing building-integrated photovoltaics (BIPV). Photovoltaic (PV) windows (or solar windows) can have three functionalities: (i) as building blocks they transmit sunlight into the building; (ii) as power generators they convert solar energy into electricity; and (iii) as thermal regulators they block infrared radiation from entering the building, thus reducing undesired heating.

However, currently available STPV technologies either provide low performance or are unpleasantly coloured, which results in disturbed views. TRANSMIT aims to overcome this issue by creating micro-stripes indistinguishable to the human eye, which, when separated by clear glass, will allow light transmission without obstructing views. This will be achieved by using two key PV technologies with efficiencies superior to 20% in their opaque form (i) thin-film Cu(In,Ga)Se<sub>2</sub> (CIGS) solar cells, and (ii) halide perovskites, with prospects of being the next-generation PV technology. Device performance assessment, characterization, and outdoor testing will be performed, as well as life-cycle analysis, life-cycle cost, and screening future potential from sustainability and economic aspects.

The total project funding is €985.585, with the funding for the University of Cyprus amounting to €269.000. Project TRANSMIT is co-funded by the Republic of Cyprus and the European Regional Development Fund (ERDF), through the Research and Innovation Foundation (EP/CETP/0922/0059). TRANSMIT is funded by the Clean Energy Transition Partnership (CETPartnership), under the 2022 joint call for research proposals, co-funded by the European Commission (GA No 101069750), with the funding organisations detailed at <https://cetpartnership.eu/funding-agencies-and-call-modules>.

For more information, please contact the Project TRANSMIT UCY Coordinator, Professor George E. Georghiou (tel.: +357 22892272, email: [geg@ucy.ac.cy](mailto:geg@ucy.ac.cy)) or Dr. Maria Hadjipanayi (tel.: +357 22892287, email: [hadjipanayi.maria@ucy.ac.cy](mailto:hadjipanayi.maria@ucy.ac.cy)).

Stay tuned for more about project TRANSMIT!



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**End of announcement**