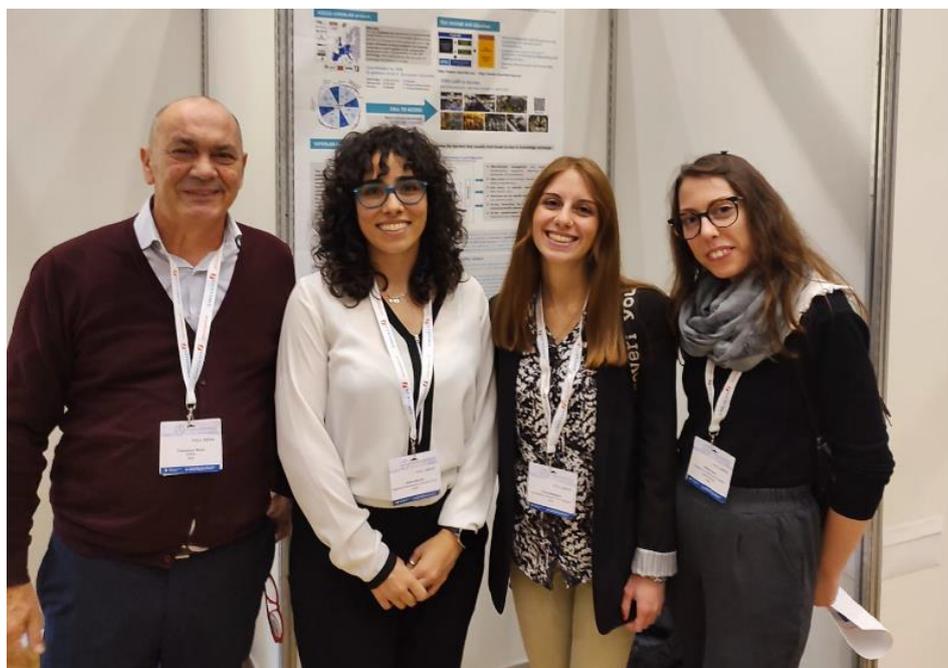




WELCOME ADDRESS

During the last six months, the VIPERLAB consortium has been working hard to fulfill the objectives of the project.

Do you want to know more? Keep reading!



VIPERLAB Poster @ 8th World Conference on Photovoltaic Energy Conversion

5TH CALL TO ACCESS

Wednesday 30th November (EOB) has been the deadline to submit proposals to free access in our excellent and complimentary **EU perovskite PV infrastructures**. These calls aim to foster perovskite PV development and testing in Europe to build a unified access service towards EU academic and industrial researchers. Find further information [here](#).

In one year of VIPERLAB calls (October 2021-September 2022) 43 projects coming from 18 different EU- and non-EU countries were granted. Sixteen projects related to fabrication, characterisation, simulation, and computing experiments related to perovskite research have already been implemented and the other are in progress.



PROJECT PROGRESS SO FAR

Harmonisation workshop

The “First strategic VIPERLAB workshop on main harmonisation/standardisation challenges for Perovskite PV” was organised by the [Austrian Institute of Technology](#) (AIT) on the 14th and 15th September 2022 in Vienna, Austria.

More information [here](#).



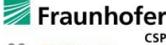
Figure 1 Part of in-person attendees at the Harmonisation workshop in Vienna, 14-15 September.

PAST EVENT(S)

Fraunhofer & EPFL/CSEM Research Infrastructures for the Perovskite PV



VIPERLAB INFRASTRUCTURES' PRESENTATION
FRAUNHOFER & CSEM/EPFL INFRASTRUCTURES

 **Fraunhofer ISE**
 **Fraunhofer CSP**
 **csem**
 **EPFL**

November 30th, 14:00 – 15:00 (CET)

The first infrastructure webinar from the series of physical VIPERLAB infrastructures was organised on 30th of November. Martin Schubert from [Fraunhofer](#) and Quentin Jeangros from [CSEM](#) introduced their characterisation and manufacture facilities to a wide audience.

Find [here](#). the video & slides (registered users only)

PEROSPACE workshop

On 28th and 29th November the PEROSPACE workshop took place in Rome (Italy). The workshop was organised by Dr. Narges Yaghoobi Nia and supported by the [University of Rome Tor Vergata](#). The VIPERLAB project and the Aerospace Engineering School of Sapienza University of Rome discussed about the last trends in “Perovskite solar module fabrication and commercialisation” and “Space application of perovskite solar photovoltaics”.



PEROSPACE
 2 days workshop

Day 1: Perovskite Solar Module Fabrication & Commercialization
 28th November 2022 University of Rome Tor Vergata

Day 2: Space Application of Perovskite Solar Photovoltaics
 29th November 2022 Sapienza University of Rome

Further information [here](#).

Webinar on Customising co-evaporated perovskites

On 29th June, Dr Annalisa Bruno, principal scientist at the [Energy Research Institute at Nanyang Technological University](#) addressed the topic “Customising co-evaporated perovskites: from small areas solar cells to mini-module”. During her presentation, Dr. Bruno showed why **thermal evaporation is a promising perovskite fabrication technique to**

bring this technology closer to reliable and extended production, by relying on excellent size scalability, promising stability, fine composition control, and surface adaptability.

The webinar showcased the highly efficient, large area device based on co-evaporated MAPbI₃ perovskite and their optimised and customised strategies for n-i-p and p-i-n structures. In addition, Dr. Bruno described how the co-evaporated MAPbI₃ is formed intrinsically strain-free with remarkable structural robustness and impressive thermal stability.

Find [here](#) the video & slides (registered users only)



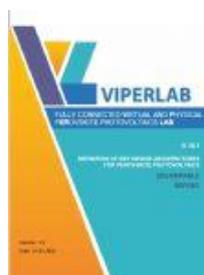
Conference on New Generation Photovoltaics for Space.

Dr Narges Yaghoobi Nia and Prof Aldo Di Carlo ([UNITOV - University Tor Vergata](#)) were organizers of the online conference on [New Generation Photovoltaics for Space](#) (PVSPACE). The conference took place from the 21st to the 22nd of June 2022. The scope of the conference was to gather international experts in new generation photovoltaics such as **perovskite**, organic PV or tandem between new generation and conventional PV, to have a fresh update on the development in the field and to define new opportunities of new generation **PV in space applications**.

Find more information [here](#).



VIPERLAB PUBLIC REPORTS



D3.5 VIPERLAB Ontology

D3.5 presents the basis for representing the Perovskite solar cells domain of knowledge for future development of the VIPERLAB Ontology that will serve as a platform for uniform data organization distribution, and knowledge machine interoperability.

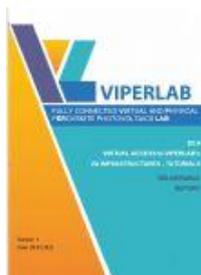
Download it [here](#)



[D10.1 Definition of key device architectures](#)

D10.1 provides guidance for the development of the VIPERLAB infrastructures and technologies by assessing and optimizing the environmental, social and economic impact of new perovskite-based technologies.

Download it [here](#)



[D3.4 Virtual access to VIPERLAB's VA infrastructures - tutorials](#)

D3.4 provides overview and content description of the online VIPERLAB workshop “Databases, modelling and high-performance computing for perovskite PV” organised by ENEA, CENER, HZB, and FZJ on the 8th of February 2022.

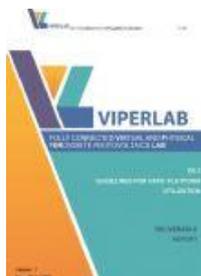
Download it [here](#)



[D8.1 Standardization of substrate dimensions, device layout, and best practices](#)

D8.1 aims to deliver a standardised architecture for device fabrication to enable seamless sample sharing.

Download it [here](#)



[D3.3 Guidelines for VAPo platform utilization](#)

D.3.3 provides the guidelines for the utilization of the **VAPo- Virtual Access Point platform**. This platform is designed to facilitate the access to virtual infrastructures, databases and simulation tools.

Download it [here](#)

UPCOMING EVENT(S)

Infrastructure webinars



University TOR Vergata & AIT VIPERLAB Research Infrastructures for the Perovskite PV

Join the VIPERLAB team on 15th December to know more about the **CHOSE@ROME** infrastructure based – focused on technological manufacturing processes and device characterisation – and the **CHOSE@TURIN** infrastructure – focused on characterization and reliability tools for the accreditation tests of PV modules and tools for PV deposition.

For further information about the infrastructure watch the video [here](#).

Register [here](#).

BREAKING NEWS

VIPERLAB interviewed on @Rai3-Tg Leonardo

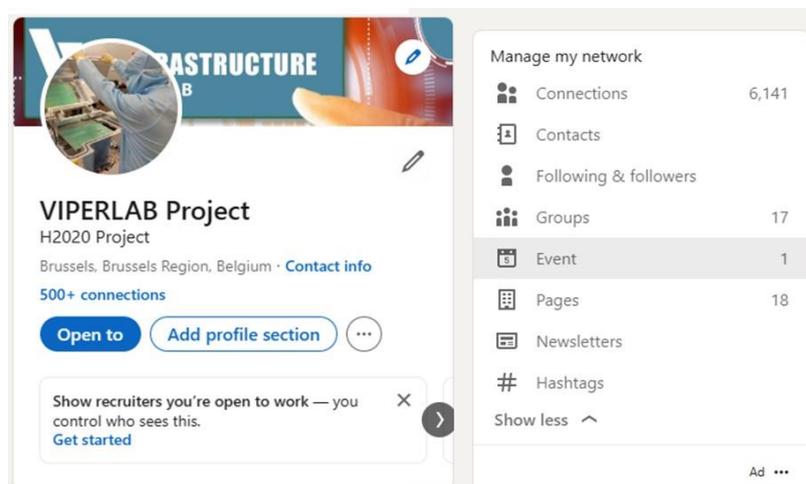
During the WCPEC-8 TGR Leonardo* interviewed Dr. Natalia Maticiuc, Technical Manager of the VIPERLAB project who explained the main objectives and goals of the project. The interview was broadcasted on 30 September 2022. Watch it [here](#).

*TGR Leonardo is an Italian thematic news program produced by RAI-RAI - Radiotelevisione Italiana. Its format is based on a 15-minute interview on daily news about topics such as technology, health, economy, environment, among others.



Fig. 4 Interview to Dr. Natalia Maticiuc (HZB) by RAI TGR Leonardo

VIPERLAB has reached 6K followers on LinkedIn Thank you!



The VIPERLAB C&D team is proud to announce that we have reached 6K followers on

LinkedIn. A heartfelt thank you to all those who have joined our community.

Talk about VIPERLAB to your peers and network to make a huge impact!

FOLLOW US!

We offer a wider range of communication tools
 to keep our followers to date.



Viperlab Knowledge Exchange platform

A unified platform to register in



KEP-Knowledge Exchange Platform, is the web platform based on SQL-Structured Query Language and Dynamic Database Management System (DBMS) that supports the project in transferring the information available by its *databases (infrastructures data, technical reports, files, contacts)* and the educational content offered by our on-line courses and webinars



VAPo (Virtual Access Portal) unifies the access to all Virtual Access Infrastructures of VIPERLAB project as a single point of access to the databases generated during the project regarding materials characteristics performance and durability of different perovskite materials and devices and it provides the access point on modeling and simulation results available by the project together with simulation tools benchmarking

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MEET THE CONSORTIUM



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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N°101006715