



# Newsletter

# online



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# Welcome to the PHOTOSINT newsletter!

As you may know, Photosint is an EU-funded project focusing on sustainable solutions for a fossil-free future. Our approach is based on solar-driven electrocatalysis, an environmentally friendly technology that offers the industry fossil-free, sustainable solutions to reduce greenhouse gas emissions and supports the goal of a climate-neutral Europe by 2050.

Click [here](#) and watch our first introductory video to learn more about the project





## Blog news

We have published several articles on our website with insights into PHOTOSINT technology, events, and regulations. Enjoy!

### PHOTOSINT Consortium Meets to Advance Hydrogen and Methanol Production Technologies



On September 18th, 2024, PHOTOSINT project partners convened at the Institute of Chemical Research of Catalonia (ICIQ-CERCA) to outline future steps in the development of hydrogen and methanol production from wastewater, CO<sub>2</sub>, and sunlight. This consortium meeting marked the first anniversary of the project's launch, offering an opportunity to reflect on

progress and plan for the path ahead.

Throughout the meeting, participants engaged in presentations covering key topics such as electrode materials, catalyst devices, PEC cell configurations, process modeling, and technology implementation. Additional sessions addressed communication strategies and project management. The day

culminated in a general assembly and a guided tour of ICIQ's facilities, underscoring the project's achievements in sustainable energy and its ambitious goals for the future.

The PHOTOSINT project is focused on developing a photo-electrochemical cell (PEC) that uses sunlight to convert wastewater and CO<sub>2</sub> into hydrogen and methanol. This breakthrough technology aims to produce valuable fuels with renewable energy, aligning with Europe's goals for sustainable energy innovation.

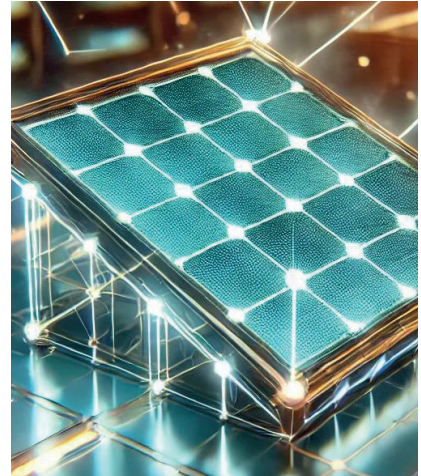
The project runs from September 2023 to August 2027 and is coordinated by Idener, bringing together leading research institutions and industrial partners from across Europe.

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## New Developments in Perovskite Solar Cells: A Step Toward Sustainable Energy Conversion

The PHOTOSINT project is driving innovation in perovskite solar cells (PSCs) for sustainable energy, achieving preliminary success in encapsulation methods that helped retain over 80% of the initial PCE in high-humidity conditions closer to real-world applications.

Read the full article by clicking [here](#).



## Understanding Sustainability Assessments

Sustainability assessments are powerful tools used to evaluate the environmental, economic, and social impacts of a system throughout its lifecycle. Sustainability is a complex concept that encompasses environmental, economic, and social aspects.

Read the full article by clicking [here](#).

## PHOTOSINT: Advancing Sustainable Innovation in the First 18 Months

The PHOTOSINT project is making remarkable progress in its mission to develop cutting-edge solutions for sustainable fuel production. Over the past 18 months, our consortium of researchers, industry leaders, and innovators has been working collaboratively to develop and refine key technologies that will transform how we harness solar energy for clean fuel generation.

Read the full article by clicking [here](#).



# Clustering

One of our goals at Photosint is to develop joint activities with sister projects to find cooperation opportunities such as:

- Joint dissemination to extend outreach and awareness.
- Co-hosted webinar where we will introduce CO<sub>2</sub> application technologies and welcome stakeholders' participation.
- EU-wide event attendance to introduce our integrated successes in CO<sub>2</sub>-to-fuel technology.

That is why we have been recently in touch with the **NEFERTITI** and **PHOTO2FUEL** projects, planning together a webinar and participating in the Photo2Fuel Final Conference in August 2025.



## Upcoming events



### Welcome to ICCDU 2025

23-27 June 2025 / Congress Center of IST / Lisbon, Portugal

Visit the website [here.](#)



### From Europe to the World: Building the First Global CCUS Industry

13-14 April 2027 / Postillion Hotel & WTC / Rotterdam

Visit the website [here.](#)



### CO<sub>2</sub>-based Fuels and Chemicals Conference

21-22 April 2027 / Maternushaus, Cologne (Germany), hybrid event

Visit the website [here.](#)

Continue to follow us on our journey toward a sustainable future for the heavy industry!

Visit our website and share our advances with your network!

**photosint.eu**

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