

## **Winners of the 2025 Young Scientist Award Announced**

*The competition is the reference prize for under-35-year-old researchers on hydrogen*

Brussels, 25 November 2025

The five winners of the 2025 edition of the Young Scientist Award were announced yesterday at a ceremony in Brussels.

Held annually since 2018, the competition rewards studies, applications and analytical investigations of early-career scientists in the hydrogen and fuel cell sector.

A total of 42 researchers from 34 universities, academic institutions and research centres in 15 countries participated in the 2025 edition.

The competition is organised by Hydrogen Europe Research, the leading EU organisation fostering research and innovation in the hydrogen and fuel cell sector with more than 160 member organisations in 30 countries.

The 2025 Awards revolved around four categories, mirroring the key pillars of the [Clean Hydrogen Partnership](#), the EU's key programme to accelerate the deployment of clean hydrogen technologies. In addition, one scientist received the 'Best Researcher of the Year' award.

### **The 2025 winners are:**

- **Hydrogen production:** Filipp Temerov, University of Oulu, Finland.
- **Hydrogen storage and distribution:** Marco Maggini, UNITUS - University of Tuscia, Italy.
- **Hydrogen usages:** Marcos López Juárez, Universitat Politècnica de València – CMT Motores Térmicos, Spain.
- **Cross-cutting activities:** Federica Tamburini, Alma Mater Studiorum - University of Bologna, Italy.
- **Best researcher of the year:** Xinyi Wei, École polytechnique fédérale de Lausanne (EPFL), Switzerland.

**Ekaterina Zaharieva**, EU Commissioner for startups, research and innovation, congratulated the winners declaring: *“Warm congratulations to the five young scientists receiving the 2025 Young Scientist Award for their outstanding hydrogen research projects. Your talent and innovative spirit make Europe proud and highlight the extraordinary potential of the next generation of researchers. Your work is advancing clean hydrogen technologies and strengthening Europe’s leadership in one of the most promising energy solutions of our time. To all young researchers: your success reminds us how essential it is to attract, support, and retain top talent here in Europe — so that our continent remains the home of world-leading scientific excellence.”*

**Luigi Crema**, President of Hydrogen Europe Research and host of the ceremony, said: *“Year after year, we are witnessing a growing participation of talented young scientists from across Europe. This demonstrates the vitality and excellence of our hydrogen research community. The Young Scientist Award is much more than a recognition of individual merit - it is a symbol of visibility, of trust in the new generation, and a source of motivation to contribute to Europe’s*

*ambitious hydrogen goals. These young researchers embody the spirit of collaboration and innovation that drives the Clean Hydrogen Partnership.”*

Winners received €1,000 and a trophy. Laureates were selected by the members of the HER Executive Board.

The [winners of the Clean Hydrogen Partnership Awards 2025](#) were also revealed on 24 November, celebrating collaboration and achievements across the hydrogen value chain.

Both award ceremonies are taking place during the [EU Hydrogen Research and Innovation Days 2025](#) (Brussels on 24-25 November 2025), organised by the Clean Hydrogen Partnership.

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## Meet the 2025 winners



**Filipp Temerov, University of Oulu, Finland.**

**Winner in the Hydrogen production category.**

**Research summary:** the research advances innovation in solar-to-hydrogen production through scalable printed photocatalytic panel reactors designed for cold-climate and decentralised applications. Its interdisciplinary work integrates semiconductor nanomaterials, systems engineering and techno-economic validation, and is part of the H2BRIDGE project, which supports the development of affordable and resilient green hydrogen solutions.

**Statement:** *“This award reflects more than a personal milestone; it represents a shared belief that innovation, inclusivity, collaboration and sustainability must go hand in hand. Developing solar hydrogen technologies in the North has shown me how science can empower remote communities, transforming climate challenges into opportunities for growth and collective resilience. I hope it inspires young researchers to see hydrogen not just as a fuel, but as a bridge between technology, sustainability and people.”*



**Marco Maggini UNITUS - University of Tuscia, Italy.**

**Winner in the Hydrogen storage and distribution category.**

**Research summary:** The research advances solid-state hydrogen storage using hybrid metal hydride–phase change material (MH-PCM) systems for fast cycling and compact design. It combines multi-physics modelling and prototype development to optimize heat management, achieving major gains in efficiency and cycle time. The project contributes to the next-generation storage for modular refuelling and stationary applications.

**Statement:** *“This award comes just days before the defence of my PhD, marking a meaningful conclusion to this journey. I think I truly needed it- it feels like both encouragement to move forward and a solid recognition of the ideas and efforts of the research group I am part of. If I could talk to my past self, I’d tell him: it’s all worth it.”*



**Marcos López Juárez, UPV - Universitat Politècnica de Valencia – CMT-Motores Térmicos.**

**Winner in the Hydrogen usages category.**

**Research summary:** The research improves fuel cell powertrain efficiency, durability, and emissions through integrated modelling, degradation analysis, and real-world testing. It leads hydrogen mobility innovation across land and air transport in major EU and industrial programs. His tools support performance optimization, policy evaluation, and climate-aligned deployment of fuel cell technologies.

**Statement:** *The road towards a sustainable society has never been easy. That is why, since I started working on how to make hydrogen propulsion systems efficient and durable, I knew I was embarking on a long journey, but with extremely positive long-term benefits for generations to come. Recognitions such as the Young Scientist Award of Hydrogen Europe Research help researchers feel the support of the scientific community and keep alive the spark of effort.*



**Federica Tamburini, Alma Mater Studiorum - University of Bologna, Italy.**

**Winner in the Hydrogen cross-cutting activities category.**

**Research summary:** The research advances hydrogen safety through large-scale experimentation and risk modelling for liquid hydrogen and blue hydrogen systems. It develops probabilistic and resilience-based assessment methods to reduce hazards in cryogenic storage, bunkering, and infrastructure design. Her work informs standards and accelerates safe

hydrogen.

**Statement:** *"Ensuring safety in hydrogen technologies is key to building trust and accelerating the energy transition. This award reinforces my belief that innovation and safety must go hand in hand to achieve a clean, low-carbon future for all."*



**Xinyi Wei, École polytechnique fédérale de Lausanne (EPFL) Switzerland.**

**Winner in the 'Best Researcher of the Year' category.**

**Research summary:** The research develops advanced life cycle and techno-economic assessment models for hydrogen technologies including fuel cells and solid oxide electrolyzer systems. Her work optimizes efficiency, environmental performance, and industrial scalability of hydrogen value chains. Contributions span EU-funded projects, improving

system-level sustainability and techno-economic feasibility.

**Statement:** *"My PhD journey has been shaped by a series of EU-funded Clean Hydrogen Partnership projects, whose diversity and ambition truly define the clean energy pathway of the future. These collaborations made it possible to bridge academic research with industrial practice, turning scientific insights into actionable, real-world solutions that accelerate our transition toward a sustainable energy system."*

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