

University of Illinois Urbana-Champaign and GenH2 Advance Liquid Hydrogen Research for Next-generation Aviation

GenH2 to supply a lab-scale hydrogen liquefier, enabling University researchers to produce LH₂ on-site to advance storage, transfer and propulsion for aircraft.



TITUSVILLE, FL, UNITED STATES, August 6, 2026 /EINPresswire.com/ -- The

University of Illinois Urbana-Champaign and [GenH2](#) Corp., a leader in hydrogen infrastructure solutions and a subsidiary of Path2 Hydrogen AG (XETR: PTHH), today announced a collaboration to advance research in liquid hydrogen (LH₂) technologies for next-generation aviation. Under

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We are excited to support the University of Illinois Urbana-Champaign as it advances research that can help shape the future of sustainable aviation.”

*Christopher Wallington,
Senior Vice President at
GenH2*

the agreement, GenH2 will provide the University with a laboratory-scale hydrogen liquefier, giving researchers dedicated, on-site capability to produce liquid hydrogen for aerospace testing.

Hydrogen is widely viewed as a leading path to decarbonizing aviation, offering higher energy density than conventional battery technology and enabling zero-emission propulsion systems. Advancing cryogenic fuel system technologies for aviation decarbonization is a central focus of the Center for Sustainable Aviation at the University of Illinois. Yet research progress has long been

constrained by historically limited access to liquid hydrogen — many universities struggle to receive and maintain limited quantities of liquid hydrogen for laboratory research purposes. The liquefier changes that equation for University of Illinois researchers, enabling them to generate liquid hydrogen on-site, accelerate testing, validate new concepts, and support the development of future hydrogen-powered aircraft.

"Providing researchers with direct access to liquid hydrogen is an important step toward accelerating innovation," said Christopher Wallington, Senior Vice President at GenH2. "We are excited to support the University of Illinois Urbana-Champaign as it advances research that can

help shape the future of sustainable aviation."

"Reliable, on-site access to liquid hydrogen will significantly expand our research capabilities and accelerate the evaluation of advanced fuel systems and cryogenic technologies for aviation," said Phillip J. Ansell, associate professor in the Department of Aerospace Engineering, in The Grainger College of Engineering, University of Illinois Urbana-Champaign. Ansell is an Ormsbee Faculty Scholar, and director of the Center for Sustainable Aviation.

"This capability will help us generate the performance, safety, and operational data needed to advance the next generation of hydrogen-powered aircraft."

The collaboration pairs the University of Illinois Urbana-Champaign's aerospace research capabilities with GenH2's expertise in hydrogen liquefaction, cryogenic technologies, and liquid hydrogen infrastructure.

The new on-site liquefaction capability will support research that seeks to close several critical gaps in the implementation of hydrogen systems on aircraft related to system operational resiliency, technological readiness, safety and regulatory preparedness, and overall energy efficiency. Future research will be conducted on liquid hydrogen fuel systems, including component and fuel system performance assessments, as well as storage, transfer, and refueling technologies. Researchers will also evaluate pumps, valves, seals, and other vital system components under real liquid hydrogen operating conditions.

The local liquid hydrogen production capability will further enable researchers to evaluate critical cryogenic performance factors that influence the development of future hydrogen-powered aircraft, including heat transfer, multiphase flow dynamics, and the long-term durability of materials and components exposed to liquid hydrogen conditions. This work will support the advancement of emerging aviation technologies such as vapor-shielded tanks, ultra-high-endurance UAVs, and fault-tolerant cryogenic insulation strategies, while generating the performance, reliability, safety, and risk mitigation data needed to accelerate future aircraft integration and deployment.

By providing researchers with reliable, on-site access to liquid hydrogen, the collaboration is expected to accelerate the development of technologies that support a cleaner, more sustainable aviation industry. Both organizations look forward to expanding research



opportunities, training the next generation of engineers, and advancing the commercialization of liquid hydrogen technologies for aviation and other emerging applications.

About GenH2

GenH2 Corp. is a subsidiary of Path2 Hydrogen AG (XETR: PTHH), a German company listed on the Frankfurt Stock Exchange. GenH2 is a technology leader in liquid hydrogen infrastructure systems, including Zero-Loss Controlled Storage and advanced hydrogen liquefaction. The company focuses on producing standardized equipment to accelerate midstream hydrogen infrastructure buildout for hard-to-decarbonize sectors. The technology team includes former NASA Hall-of-Fame scientists with decades of experience researching, engineering, and deploying hydrogen solutions. Learn more at genh2.com.

About University of Illinois Urbana-Champaign

The University of Illinois at Urbana-Champaign is the flagship campus of the state's premiere public university. The university is composed of 16 colleges and instructional units with enrollment of over 59,000 students. The Grainger College of Engineering at Illinois is home to 42 top-10 ranked degree programs and specialties, with over 600 expert faculty and over \$300M in annual research expenditures. The Department of Aerospace Engineering at Illinois is an international leader in aerospace science and engineering. Consistently ranked within the top 10 for both undergraduate and graduate aerospace engineering programs by US News & World Report, the department is committed to excellence and leadership in teaching, research, and service.

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