

## New Dassault Systèmes Virtual Twin Experience Helps Protect Vulnerable Patients and Educate Caregivers at Saint-Louis Hospital AP-HP in Paris

- Dassault Systèmes used its 3DEXPERIENCE platform to create a virtual twin experience for hospital stakeholders to better understand the respiratory transmission of viruses and optimize patient care
- Simulation and augmented reality were used to visualize and predict different scenarios in which viral particles could circulate through the air in the dialysis unit
- Virtual twins can help improve risk awareness among health professionals and encourage broader transformation across the sector

[Dassault Systèmes](#) (Euronext Paris: FR0014003TT8, DSY.PA) today announced its collaboration with the Saint-Louis Hospital AP-HP in Paris on an airflow simulation and augmented reality experience to better understand the respiratory transmission of viruses and optimize patient care.

Dassault Systèmes created a unique learning experience featuring a virtual twin of the hospital's dialysis unit – an open space where 50 people receive dialysis each week – that enabled physicians and nurses to see exactly how virus particles could circulate through the air, and understand the roles of ventilation and masks, for example, in optimizing the care of immunocompromised patients.



To create this virtual twin, Dassault Systèmes worked with building blueprints, coupled with a 3D scan of the room made on site using its HomeByMe mobile application to check for any discrepancies. It then used its SIMULIA applications powered by its 3DEXPERIENCE platform to visualize, simulate and predict the transmission of respiratory and viral particles based on different scenarios involving ventilation, the locations of medical equipment and patients in the space, mask-wearing, breathing and airflow rates. Equipped with this information, Dassault Systèmes developed the augmented reality experience enabling the stakeholders to view the virtual simulations within the real-life setting.

“Dassault Systèmes had already worked on projects at other hospitals in Paris and understood our mission to offer the highest level of care. Its solutions allowed us to visualize the production of respiratory particles, follow their trajectory, and see how they could spread from patient to patient,” said Dr. Guillaume Mellon, Attending Physician, Head of Infection Prevention and Control team, Saint-Louis Hospital AP-HP. “This incredibly innovative educational experience made our health professionals more aware of respiratory cross-transmission risks in the hospital. The entire experience exceeded my expectations.”

“Virtual twins are poised to transform daily patient care and infection prevention in the coming years,” said Claire Biot, Vice President, Life Sciences and Healthcare Industry, Dassault Systèmes. “We’ve already completed projects with a number of major hospitals that successfully demonstrated how our virtual twin technology can help identify and optimize safety measures. Our long-standing partnership with Saint-Louis Hospital AP-HP allows them to access these technologies without having to invest in them upfront or develop new IT capabilities in house. It also boosts the hospital as a leading health provider and encourages broader transformation across the sector to enhance patient outcomes.”

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## FOR MORE INFORMATION

Read the full customer story: <https://www.3ds.com/insights/customer-stories/hopital-saint-louis-airflow-simulation>

Dassault Systèmes' 3DEXPERIENCE platform, 3D design software, 3D Digital Mock Up and Product Lifecycle Management (PLM) solutions: <http://www.3ds.com>

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## ABOUT DASSAULT SYSTÈMES

Dassault Systèmes, the 3DEXPERIENCE® Company, is a catalyst for human progress. We provide business and people with collaborative virtual environments to imagine sustainable innovations. By creating virtual twin experiences of the real world with our 3DEXPERIENCE platform and applications, our customers can redefine the creation, production and life-cycle-management processes of their offer and thus have a meaningful impact to make the world more sustainable. The beauty of the Experience Economy is that it is a human-centered economy for the benefit of all –consumers, patients and citizens. Dassault Systèmes brings value to more than 300,000 customers of all sizes, in all industries, in more than 150 countries. For more information, visit [www.3ds.com](http://www.3ds.com)

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