

Autodesk And Virgin Hyperloop One Announce Joint-Effort To Explore Advanced Route Optimization, Transportation Design, And Construction Technology

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LAS VEGAS, Nov. 20, 2019 /PRNewswire/ -- <u>Autodesk. Inc.</u> (NASDAQ: ADSK) and <u>Virgin Hyperloop One</u>, a leader of hyperloop technology and the evolution of how the world moves people and goods, announced an alliance to explore new opportunities in extending the value of <u>Building Information</u> <u>Modeling</u> (BIM) for transportation route optimization and improved digital engineering and construction workflows.

"Virgin Hyperloop One is pushing the boundaries of transportation efficiency," said Josh Giegel, Co-Founder and Chief Technology Officer of Virgin Hyperloop One. "Together, with our global teams and shared customers, Virgin Hyperloop One and Autodesk will explore ways to optimize hyperloop routing and operations – in a way that not only propels the hyperloop industry forward, but also has ancillary benefits to more traditional forms of transportation such as railway and highway route optimization."

Virgin Hyperloop One's visionary technology features depressurized tubes that carry on-demand passenger or cargo pods at speeds of up to 670 miles per hour, powered by magnetic-levitation and electric propulsion. Its depressurized tube infrastructure eliminates the impacts of air-drag and friction, requiring less energy and cost to operate, and allows travel to occur at exceptionally high speeds.

"Autodesk technology is in the DNA of much of the built world everywhere – and I mean everywhere," said Nicolas Mangon, Vice President of AEC Business Strategy at Autodesk. "With the global population expected to hit 10 billion by 2050, the way infrastructure is designed and constructed, and how we move people and goods, must change. We have a choice to either accommodate the expected growth or become overwhelmed by it. I believe Virgin Hyperloop One and Autodesk together will help to tackle the challenges ahead."

Since 1984, Autodesk continues to be a recognized leader in BIM and an innovator of technology used by architects, engineers, and construction teams globally. Autodesk technology connects all stakeholders on infrastructure and building projects from design through construction to operations and maintenance. Autodesk technology has been used on some of the most complex building and infrastructure projects on the planet, including Pan Borneo Highway Sarawak, New York Metropolitan Transit Authority's East Side Access, the San Francisco Airport Terminal 1 redevelopment, Dubai's Museum of the Future, and the world's tallest skyscrapers including the Shanghai Tower, and many others around the world.

By bringing in the context of the real world into the design and engineering phases of a project, Autodesk and Virgin Hyperloop One hope to more efficiently calculate costs across the entire lifespan of a project – design, construction, operations, and maintenance.

More advanced design and engineering tools may allow for simpler optioneering. For example, quickly determining whether a hyperloop system should be placed adjacent to an existing highway or beneath the ground or above – and how these decisions may impact the adjacent cities or communities.

Virgin Hyperloop One currently leverages many Autodesk solutions in design, including Civil 3D, InfraWorks, Revit and Inventor. Virgin Hyperloop One is also adopting Autodesk's BIM 360 project delivery platform and global cloud collaboration tools.

About Autodesk

Autodesk makes software for people who make things. If you've ever driven a high-performance car, admired a towering skyscraper, used a smartphone, or watched a great film, chances are you've experienced what millions of Autodesk customers are doing with our software. Autodesk gives you the power to make anything. For more information visit <u>autodesk.com</u> or follow <u>@autodesk</u>.

About Virgin Hyperloop One

Virgin Hyperloop One is the only company in the world that has successfully tested its hyperloop technology at scale, launching the first new mode of mass transportation in over 100 years. The company successfully operated a full-scale hyperloop vehicle using electric propulsion and electromagnetic levitation under near-vacuum conditions, realizing a fundamentally new form of transportation that is faster, safer, cheaper, and more sustainable than existing modes. The company is now working with governments, partners, and investors around the world to make hyperloop a reality in years, not decades. They currently have projects underway in Missouri, Texas, Colorado, the Midwest, India, and the UAE. Learn more about Virgin Hyperloop One's technology, vision, and ongoing projects here.

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