"A digital twin is a digital replica of a living or non-living physical entity, such as a manufacturing process, medical device, piece of medical equipment, and even a person... to gain insight into present and future operational states of each physical twin." NIH -Interagency Modeling Analysis WG (2019)

> "Digital Twin -the application of interdisciplinary modeling and product lifecycle."

simulation across the John Vickers (2021)

"A digital twin is a virtual representation of an object or a system that spans its lifecycle, is updated from real-time data, and uses simulation, machine learning and reasoning to help decision-making." -IBM (2021)

"A Digital Twin is an integrated multiphysics, multiscale, probabilistic simulation of an as-built vehicle or system that uses the best available physical models, sensor updates, fleet history, etc., to mirror the life of its corresponding flying twin" TA 11 (2010)

"A digital twin is a virtual replica of an object, being, or system that can be continuously updated with data from its physical counterpart." Purdy, MIT Sloan