**Why do this?**

Creating a physical model from a digital twin for the transportation sector can offer several benefits:

1. **Visualization**:
   * **Community Outreach**: 3D printed models of proposed transportation projects can be used for public consultations and engagement, allowing stakeholders to visualize and provide feedback on future infrastructure developments.
   * **Tactical Visualization**: 3D printing allows for the creation of detailed physical models that can provide a better understanding.
   * **Rapid Prototyping**: 3D printing enables quick and cost-effective prototyping of transportation infrastructure components, such as road signs, barriers, and traffic lights, facilitating the testing of new designs before full-scale implementation.
   * **City Infrastructure Modeling**: 3D printed digital twins can help DOTs visualize and plan urban infrastructure projects, such as road networks, bridges, and public transportation systems, to optimize traffic flow and urban development.
   * **Tangible representation:** Creating a physical model of a digital twin in the transportation sector allows for a tangible representation of a virtual transportation system, enabling better visualization, testing, and optimization of designs for infrastructure like roads, bridges, and traffic flow, ultimately leading to improved efficiency, safety, and informed decision-making before committing to real-world construction or modifications.
2. **Historical Preservation**:
   * **Heritage Conservation**: 3D printed models can be utilized by DOTs to preserve and document historical transportation structures, such as heritage bridges or railway stations, for conservation efforts and cultural heritage management.