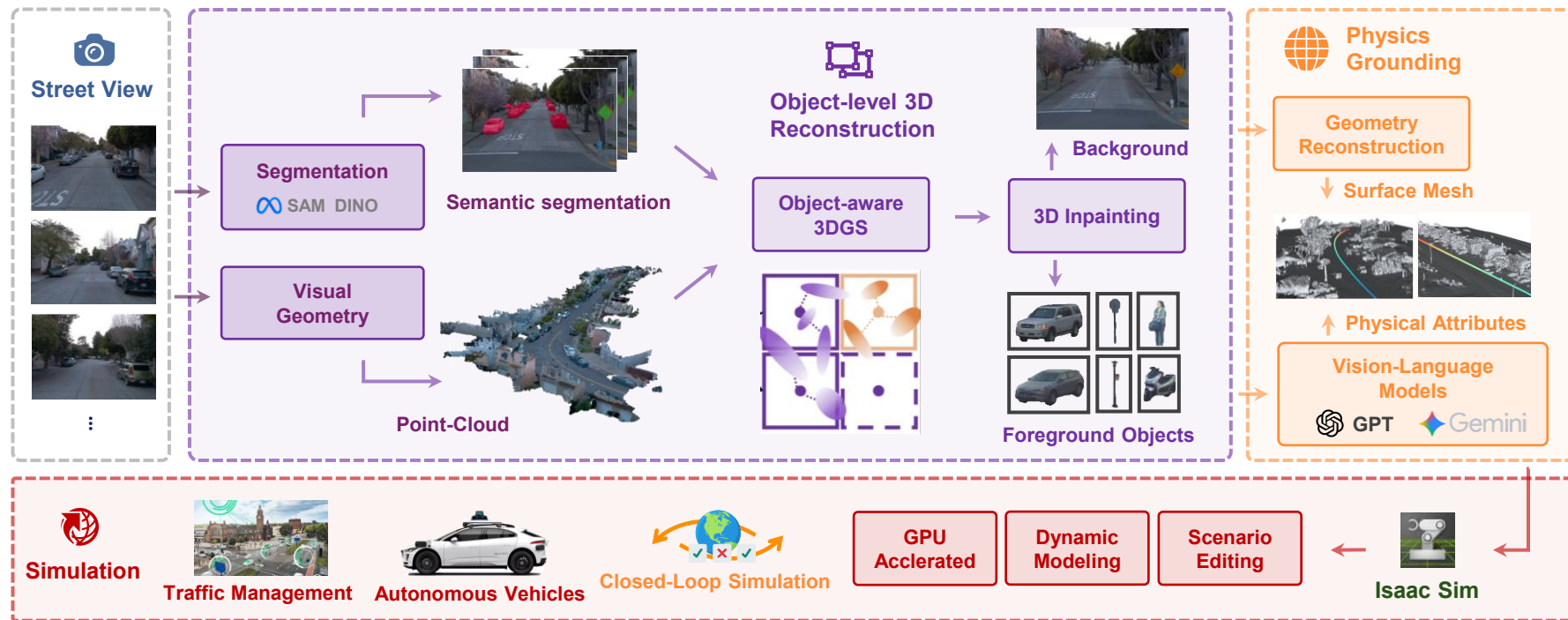


# CivicTwin: Physics-Grounded City-Scale Digital Twins from Real-World Data for Next-Generation Mobility System Simulation



**What if** we could compile everyday street-view data into continuously updated, high-fidelity, physics-aware digital twins of transportation corridors and cities to safely train, test, and certify autonomous vehicles and intelligent transportation systems **10× faster at 10× lower cost within hours instead of months?**

**How:** Unlike pipelines that rely on expensive, non-scalable multi-view capture (especially drone/aerial), CivicTwin eliminates overhead dependencies and instead uses 3DGS, generative video models and visual-geometric foundation models to reconstruct and fill unobserved regions with plausible, structured geometry

## Rapid and Scalable Digital Twin Creation

- Object-level 3DGS Reconstruction (City Scale)
- Physics-Property Inference
- Scenario Editing
- Continuous Model Updates