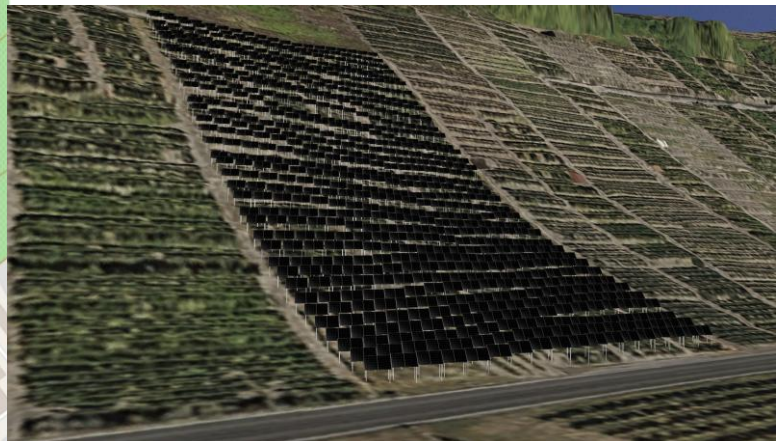






Spatial planning and public participation:

You will be working on Automatic AI classification of vineyards to assess the status of dry walls and vines and create a 3D digital twin of steep slope vineyards on the river Neckar.



Collaborative virtual environments: Virtual environments can be linked through the network to form a collaborative workspace. Remote users are typically represented as avatars. Our current avatars are minimalistic and only consist of 3D glasses, a hand and feet. You will be working on configurable 3D avatars probably featuring full body motion tracking.





Wheelchair simulator: You will be writing a real time vehicle dynamics with force feedback for our new wheelchair simulator. The existing vehicle dynamics simulation could be extended by adding a torque sensor to the hand wheels.



Paraglider simulator: You will be improving the flight dynamics of our Glider simulator. You could also be working on adding force feedback to the brake lines or add a speed bar. You will be programming a micro controller such as an esp32 to read the required sensors and control the torque of a motor.



