

**ABSTRACT**

A method for generating map data comprising training a generator neural network by acquiring training data elements and training a generative adversarial network, comprising training a generator neural network to generate, for a satellite image and a road usage image of a training data element, the map data image of the training data element and comprising generating map data for a geographical region by acquiring road usage information specifying which parts of a geographical area have been used for driving a vehicle, acquiring a satellite image of the geographical area, forming a road usage image of the geographical area which has pixels, each pixel corresponding to a respective part of the geographical area and having a value indicating whether its part of the geographical area is specified by the road usage information to have been used; and feeding the satellite image and the road usage image to the trained generator neural network.

FIG. 4