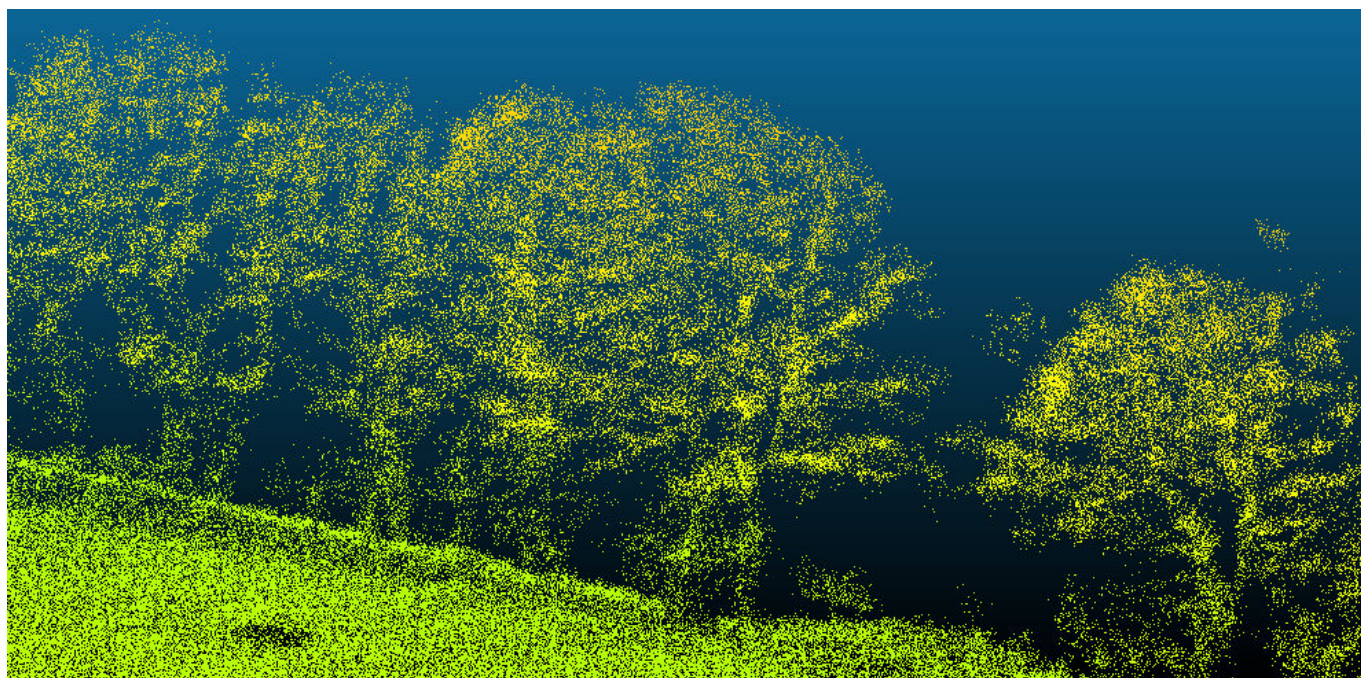
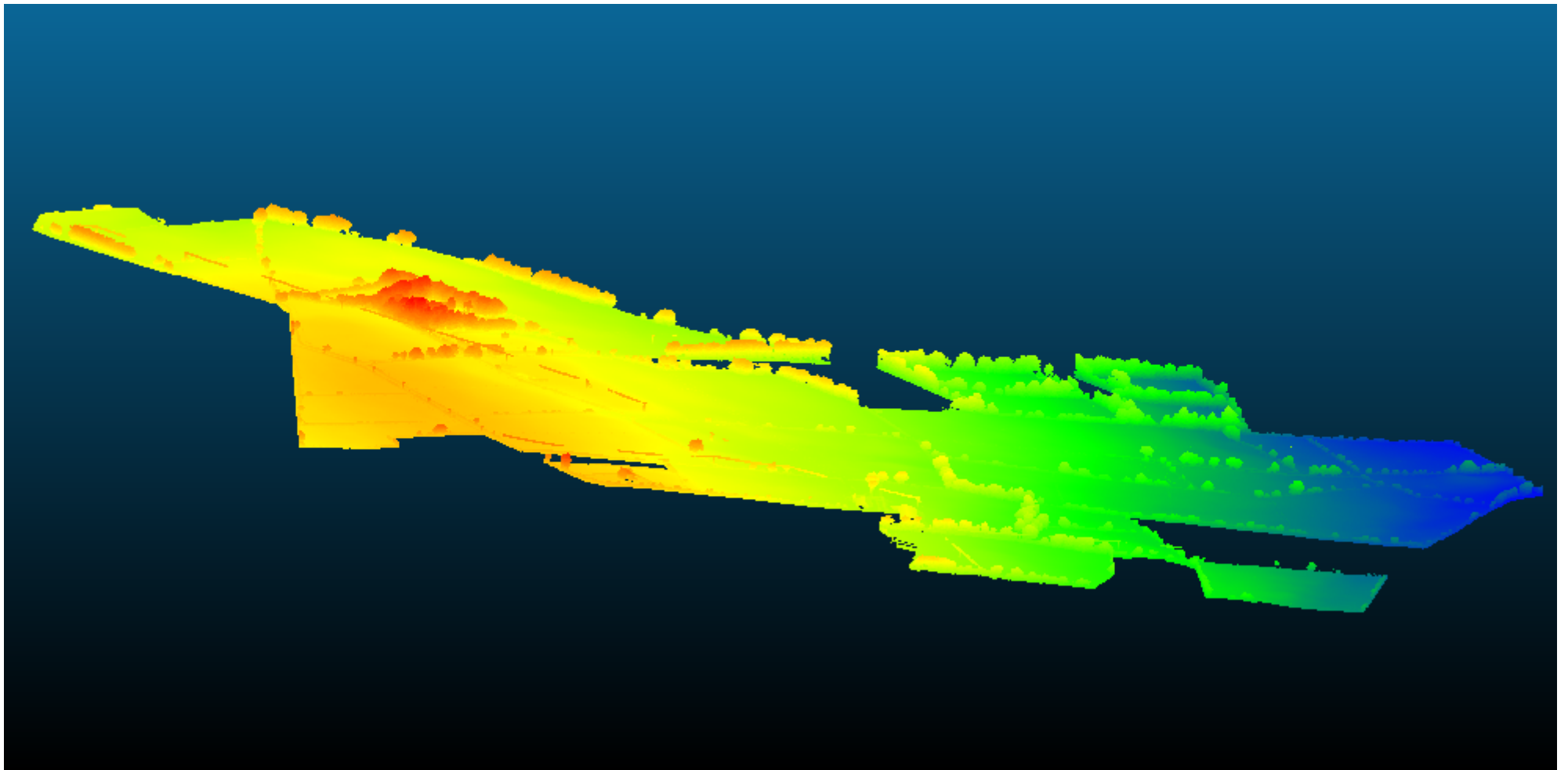


Laser Scanning on the Signpost Farms



The Signpost programme is a multi-annual campaign to lead climate action by all Irish farmers. The programme aims to achieve early progress in reducing gaseous emissions from Irish agriculture and also improve water quality, maintain and in some cases improving biodiversity, reduce costs, and create more profitable and sustainable farming enterprises.

There is a network of 110 farmers acting as demonstration farms for best practice in these areas. To see how the farms perform following implementation of measures, we need a benchmark of how the farms are today. The farms are being extensively surveyed for all aspects of the enterprise, habitats, economics, farm performance and more. One of the tools being used on the farms is Light Distance and Ranging (LIDAR) surveys. LIDAR is a laser scanning technology that gives an accurate 3D picture of each farm. We can use this 3D data to estimate the carbon stored in hedgerows and trees, and we use it to show overland flow of water on the farm - highlighting very precisely points on the farms that might be potential hotspots for pollution.

The image above is a 3D LIDAR scan of one of the signpost farms - the colours represent differences in height. The inset shows a close up zoom on a hedgerow each dot represents the laser scan reflecting of a leaf or a branch giving us a very detailed 3D model of the hedge (or any feature on the farm).