# LIDAR SURVEYS, 3D AERIAL IMAGERY & DTM

Embracing exciting new technologies

At Orbital we are always keen to develop our skill set and embrace new technologies. And the major advances made with LiDAR and 3D modelling have allowed us to do just that.

We have taken our extensive aerial survey experience to new levels with the ability to offer our major clients around the globe incredible new insights into their assets with the use of LiDAR and 3D scanning.
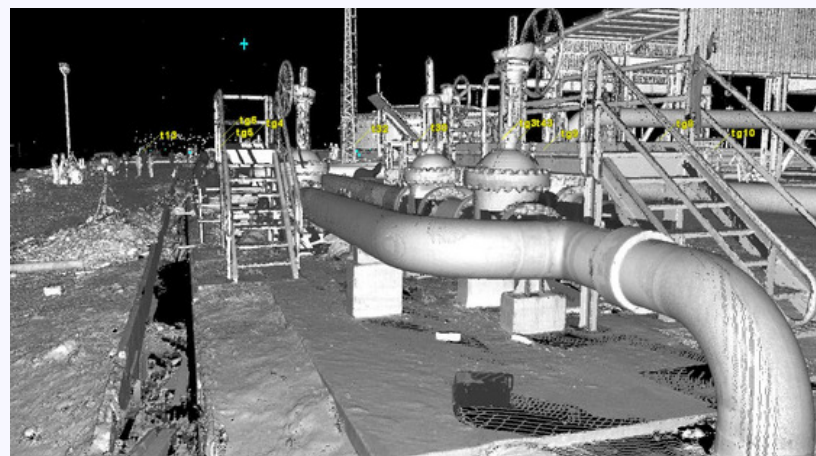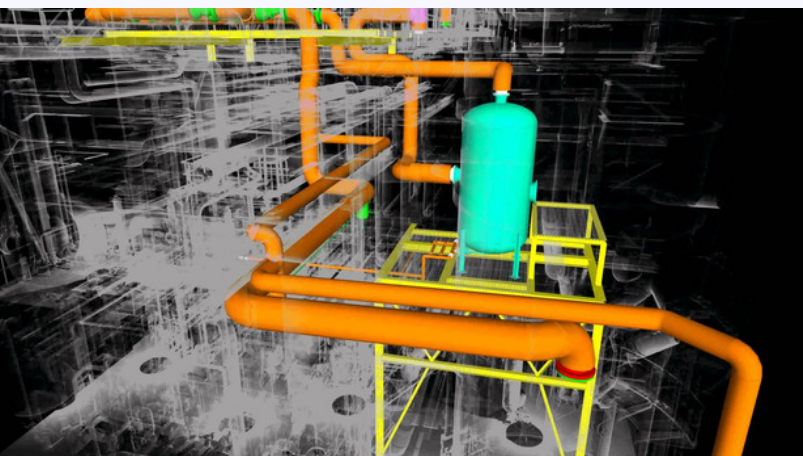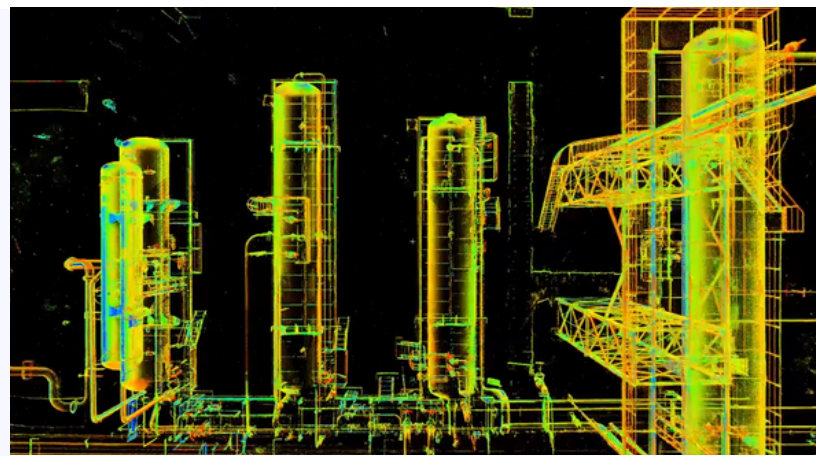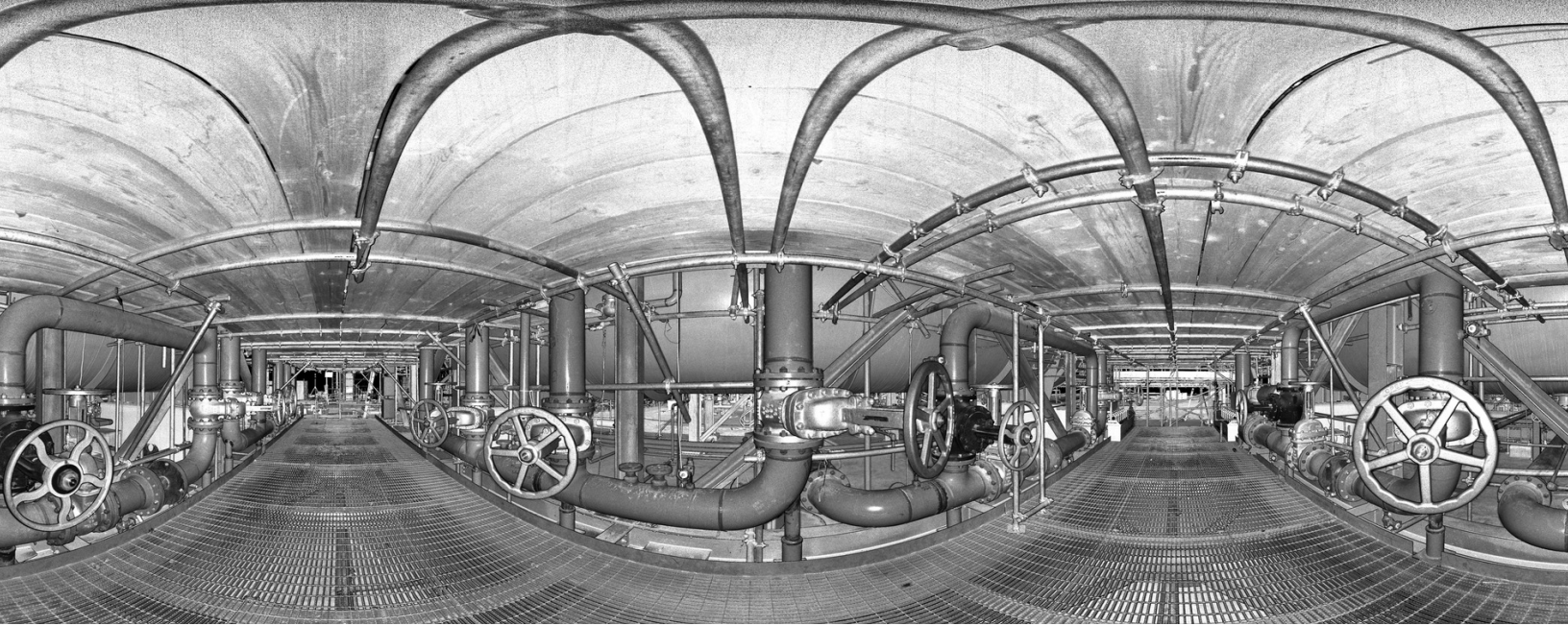
LiDAR

The use of LiDAR is becoming increasingly popular as the results achieved through this method of data capture are incredibly accurate. LiDAR is a remote sensing technology which measures distance by illuminating a target with a laser and analysing the reflected light. The resulting DTM (digital terrain model) can be used for analysis of road, rail, agriculture, industrial sites and for renewable technologies such as wind and solar farms.

Digital Terrain Modelling

DTM or Digital Terrain Models are digital models of the Earths surface. DEM's are closely related and show the elevation details of features on the surface. DTM and DEM are especially useful in the planning stages of any infrastructure or building project as they form the bare canvas on which to place the projected models.

3D Modelling

Orbital provide 3D models are derived from orthophotos, oblique photos and/or laser scanner data – LiDAR. The data sets can be utilised as stand-alone online viewers, integrated geo-datasets compatible with our clients own GIS or via our own data management tool, Visivi.

With 3D aerial imagery, we are able to analyse a particular site from many different angles and with the ability to measure volumes and distances, 3D models allow for a more informed decision when planning future developments. The image shown is made from a number of vertical images taken from a UAV, which are then stitched together to form the basis of the 3D image.

Orbital
Expertise. Above & Beyond.