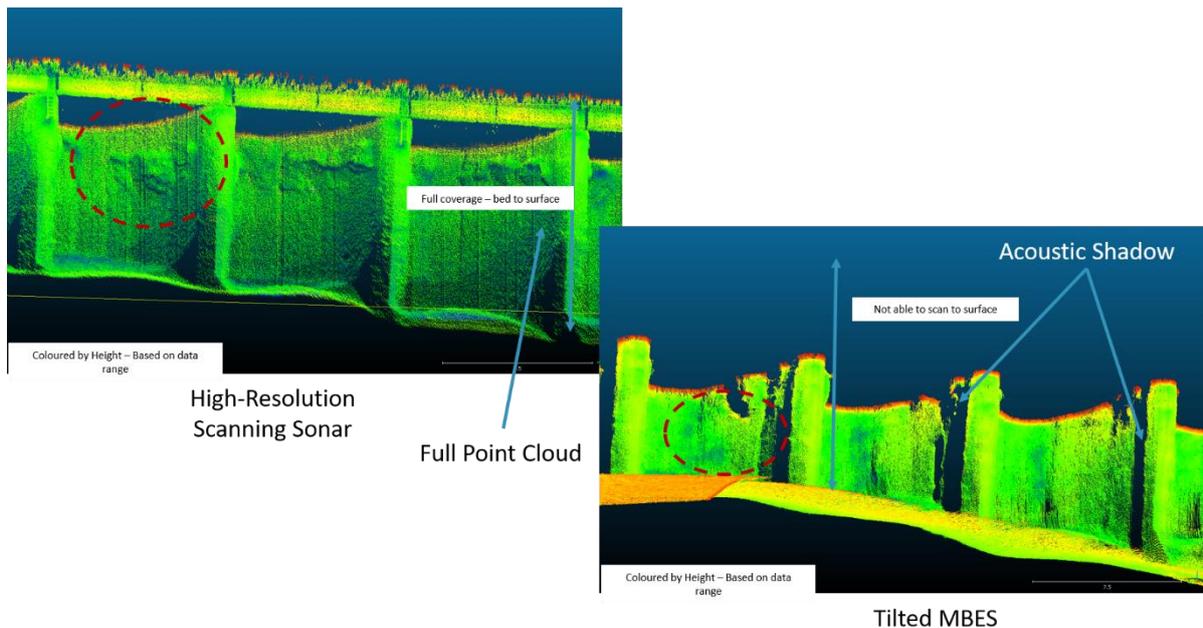


## Achieving Enhanced Survey Validation for Marine Asset Integrity Through BIM

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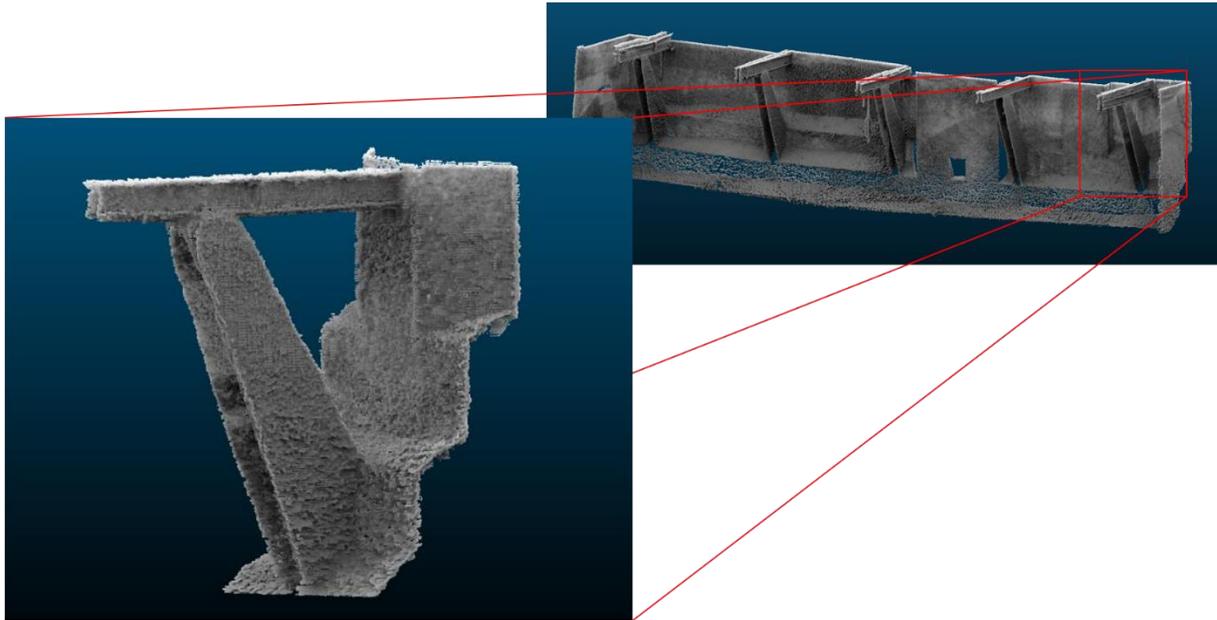
Utilising advanced survey techniques developed over 20 years' in the hydrographic and geophysical survey industry, Bibby HydroMap are able to demonstrate a step change above traditional methods of marine asset integrity surveys which can no longer satisfy modern requirements for high resolution, repeatable, BIM compatible datasets, if indeed they were ever able to do so.

In the past and which persists today, owners of marine infrastructure are reliant on visual inspections by divers or tilted multibeam surveys to image submerged sections of assets, a function for which the multibeam echo sounder was never intended for and does not provide the required resolution to make structural assessments from. As BIM requirements are increasing throughout the engineering world, these traditional methods can no longer meet dataset requirements, nor provide the repeatability required over time.

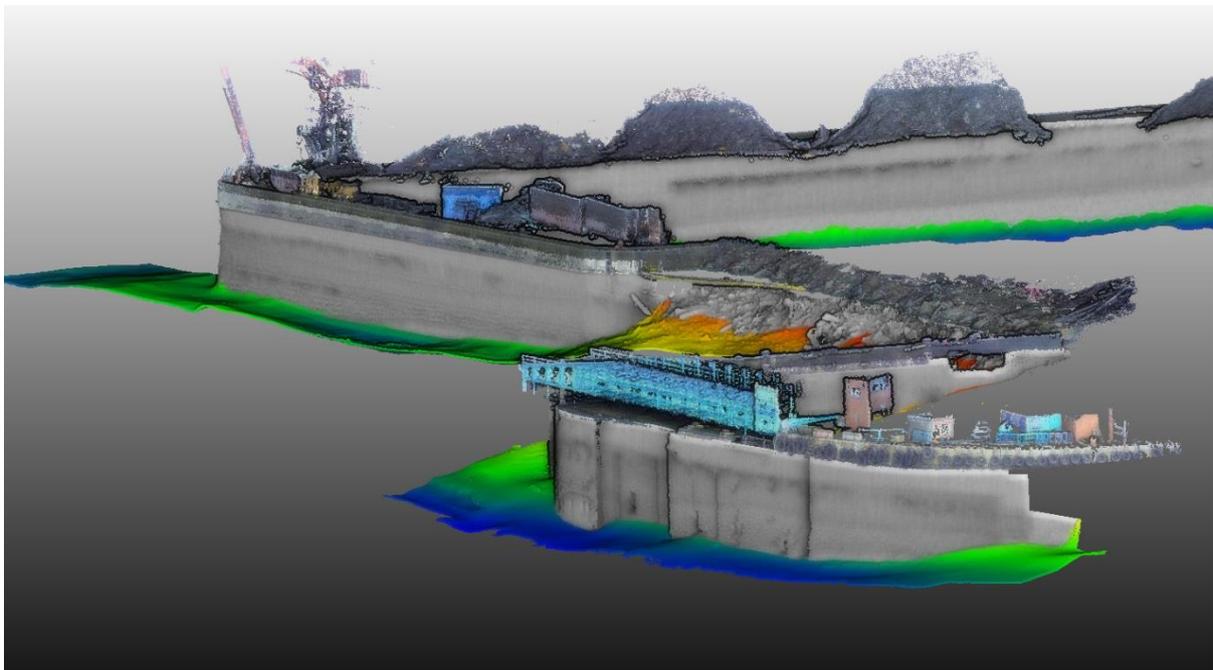


Bibby HydroMap have drawn on our extensive experience and inhouse knowledge to develop our Asset Integrity surveys, combining advanced acoustic and laser survey techniques to provide a full 3D BIM compliant point cloud of assets both above and below the water line. Utilising multibeam echo sounders to provide bathymetric data of the sea/river bed, tripod/vessel mounted high-resolution scanning sonar to image the submerged sections of the bridge or marine asset up to the waterline and terrestrial/vessel mounted laser scanner for above water sections of the asset, Bibby HydroMap are able to provide turnkey survey solutions for a range of projects and provide support to organisations managing assets in a range of settings producing a true 3D BIM to be produced with repeatability over the lifespan of the asset at resolutions far exceeding those of traditional methods.

Complimentary UAV LiDAR and terrestrial/vessel/UAV mounted photogrammetry can be acquired to maximise the BIM product enabling a full 3D point cloud of a marine asset from seabed to topside.



Can we achieve enhanced survey validation for marine assets? Yes, Bibby HydroMap has a long track record of providing high-resolution asset integrity surveys in a variety of marine environments from bridges and canals to ports and harbours utilising the latest in marine, aerial and terrestrial survey techniques.



The results of a high resolution marine asset integrity survey can be utilised in a variety of methods and provide both scour monitoring, debris identification and measurable structural integrity. The repeatability and resolution of the surveys significantly increases the acquisition rate, produces vast amounts of quantitative data and also reduces the HSE implications of placing divers in the water by either completely replacing the need for divers or substantially decreasing a dive teams remit by focusing future campaigns through BIM informed pre-assessment.