The use of 3D laser scanning and survey is an integrated part of Ramboll’s services. It provides detailed and valid data of high accuracy. It is an especially effective tool for construction and renovation of bridges, roads and buildings. There are significant cost savings related to better project execution, based on valid scanning data and fewer errors in the construction phase.

Highly specialised experts
At Ramboll, 3D scanning and surveying are carried out in close cooperation between specialised and professional surveyors, and the engineers and specialists who need data for their projects. This ensures high quality of survey data, and at the same time, the surveying is targeted to each individual project. We conduct all forms of 3D laser scanning and surveying and have extensive expertise in projects for bridges, roads and buildings.

How we use 3D scanning
The point cloud is dimensionally stable and can be used for generating 3D CAD/BIM models for building/transport projects. 3D model integration is often used for documentation purposes, for early registrations or as built documentation. The point cloud is the basis for measurement, calculating sections, terrain models and for finding volumes and deformations. Point clouds and 3D models can be used as basis for further planning, design or analysis.

At Ramboll, we use 3D laser scanning to enhance communication and common understanding for both engineers and clients. Ramboll also provides measureable photorealistic solutions for online access at the project site.

Advantages of 3D scanning
3D laser scanning provides a range of advantages compared to traditional surveying.

After the first visit to a site, a full data set is collected as the scanner collects data of everything in view. This eliminates the need for additional surveys and extra costs.

The surveys have very high levels of accuracy and detail which makes them reliable and easy to work with. Finally there are economic advantages. A precise project basis helps to reduce errors and matters of dispute in the planning and design phase, and the certainty of a design that fits the actual conditions is increased significantly.

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