

# COWI Selects ZEB1 Handheld Mapper

International consulting group COWI has added the mobile, handheld, rapid laser mapping system ZEB1 to its surveying equipment portfolio. COWI purchased the ZEB1 system from 3D Laser Mapping. With more than 6,000 employees worldwide, COWI is a Danish company involved in more than 17,000 projects at any given point in time. ZEB1 will be deployed both on shore and off shore for a wide range of infrastructure projects and building consultancy services.

Where time is a limiting factor and speed of data capture is important ZEB1 is a powerful solution, commented Morten Thoft, surveyor and senior specialist in the survey department of COWI. He sees particularly opportunities for the ZEB1 providing building maps and floor plans for applications such as space management and due diligence. ZEB1 will also be useful when larger, more cumbersome devices are simply not practical such as in tunnels and other hard to reach areas. The system is very easy to operate and collecting 3D data at normal walking speeds gives the ability to cover large areas in short periods of time, continued Thoft.

Developed by CSIRO and commercialised by UK based 3D Laser Mapping, ZEB1 uses robotic technology called Simultaneous Localisation and Mapping (SLAM). The ZEB1 system includes a lightweight laser scanner mounted on a simple spring mechanism, which continuously scans as the operator walks through the environment. As the scanner loosely oscillates about the spring it produces a rotation that converts 2D laser measurements into 3D fields of view. Its ability to self-localise makes ZEB1 ideally suited for use indoors, underground and in other covered environments, where traditional solutions that utilise GPS do not function well

## COWI

COWI is an international consulting group, specialising in engineering, environmental science and economics, with headquarters based in Lyngby, Denmark. COWI's Survey and Mapping Department provides a range of services including aerial mapping, airborne LiDAR and terrestrial laser scanning with specialists in Geographical Information System (GIS), Land Administration and Land Surveying. Having used traditional terrestrial laser scanners for more than ten years COWI has considerable experience in selecting and implementing best fit surveying solutions for a wide variety of projects around the globe.

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