CEDA

Ultra HD Mobile Mapping.

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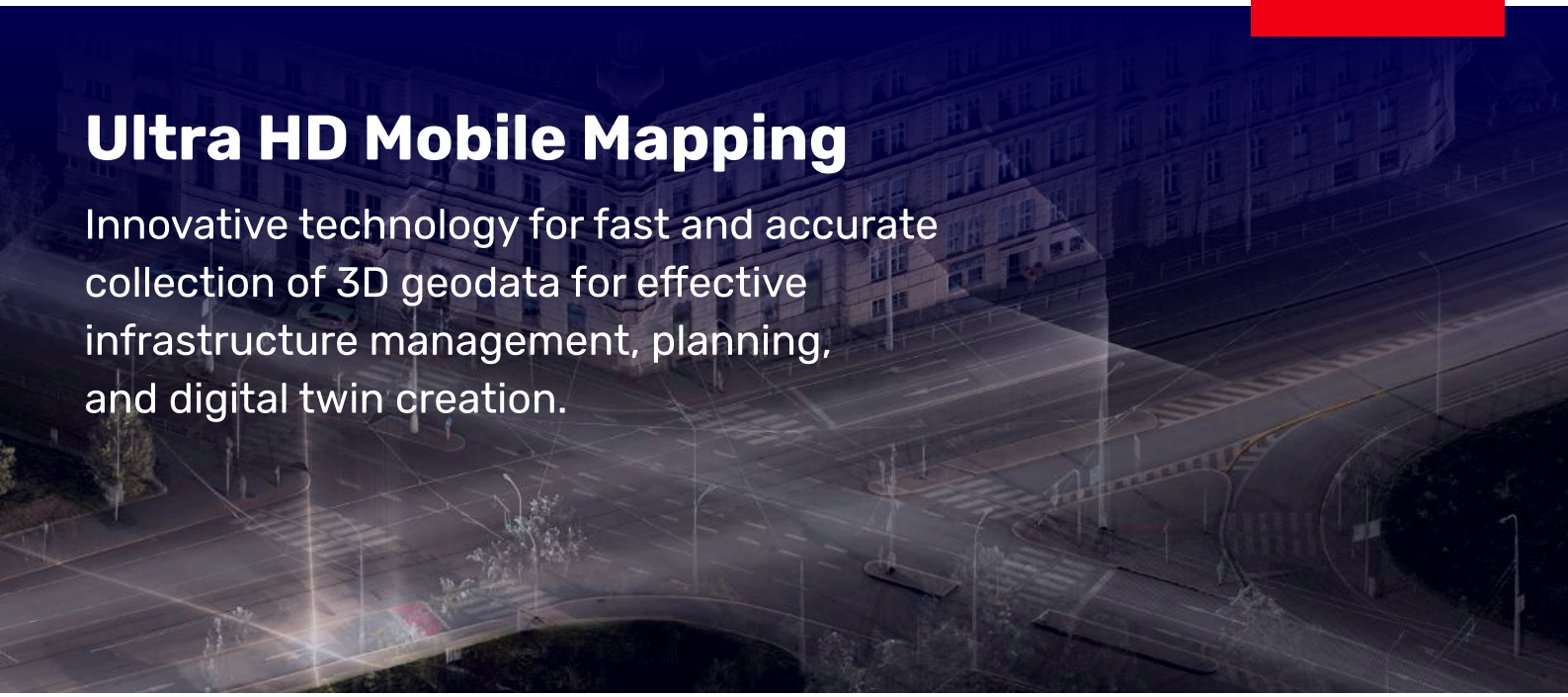
Innovative technology for fast and accurate collection of 3D geodata for effective infrastructure management, planning, and digital twin creation.



Why use mobile mapping?

Traditional geodetic data collection methods are not **efficient** for large areas because they prolong project implementation time and significantly increase overall costs.

Static laser scanning methods are unsuitable for **dynamic environments** such as roads, railways, and waterways, which increases safety risks during data acquisition.

Traditional laser scanning methods do not allow the acquisition of **comprehensive and consistent** data, which often leads to the need for additional field measurements.

Ultra HD mobile mapping

Thanks to **Ultra HD** mobile mapping technology, it is possible to quickly capture reality and obtain highly accurate and detailed 3D spatial data for efficient infrastructure management, planning, and digital twin creation.

The multi-sensor system, in addition to laser scanners, includes not only a panoramic camera but also freely adjustable **HD cameras** that enable detailed photorealistic documentation of the surroundings.

The combination of advanced GNSS, IMU and odometer technologies allows the **Riegl VMX-2HA** system to achieve absolute spatial accuracy within a few centimeters.

Infrastructure

Consistent and comprehensive data for precise planning and efficient management of infrastructure projects.

Reliable data

3D data are processed with centimeter-level absolute accuracy using advanced algorithms.

Measurement speed

Fast, efficient 3D data collection even in dynamic environments without repeated measurements.

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Precise 3D Data

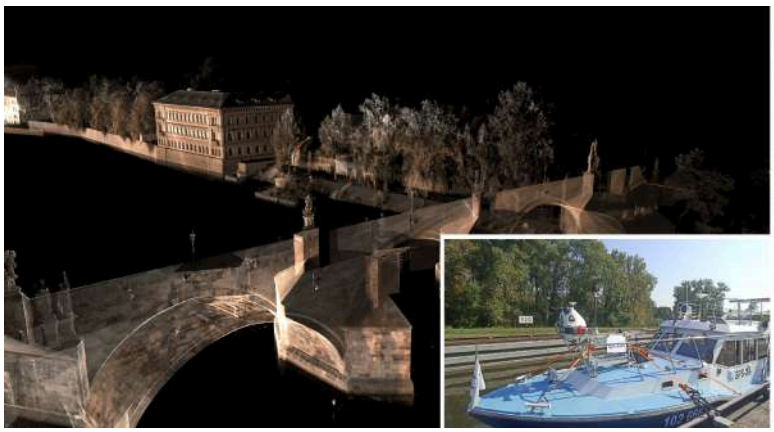
Do you struggle with a lack of accurate and up-to-date spatial data for your projects?

Using Ultra HD mobile technology, you can obtain detailed and **consistent 3D data** of the entire infrastructure — roads, bridges, guardrails, and traffic signs. Thanks to advanced processing, moving objects are filtered out, and elements are automatically segmented and classified, ensuring clean, structured, and immediately usable data outputs.

Management using Ultra HD data

Through automated algorithms and advanced segmentation, **objects are extracted** in high 3D quality, enabling their use for infrastructure management and maintenance, traffic analysis, or BIM modeling.

The resulting data are integrated into **GIS** systems, **CAD/BIM** platforms, or **digital twins**, supporting precise planning, simulations, and infrastructure optimization.



Increased competitiveness

By implementing **mobile mapping** technology in the spatial data collection process, you can significantly save time and costs while obtaining high-quality and precise data for your projects.

Reference

"CEDA Maps helped us map sections of the Elbe–Vltava waterway using a mobile mapping system. Thanks to panoramic 360° high-resolution images, it enabled efficient digitization of waterways and the improvement of geodata on navigation structures."

Tomáš Stanovský, GIS Methodologist, State Navigation Authority

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MAPS.DATA.MOBILITY.

We create a digital image of the world. We help people and cargo get to their destination the best way every time. Build the safe, sustainable and efficient mobility of tomorrow with us.

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